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Economic overview

Economic overview

Matthew Howden, Kirk Zammit and Rohan Nelson

- World economic growth is assumed to be 3.5 per cent in 2017 and 3.6 per cent in 2018.
- Global economic conditions are continuing to improve and growth in some regional economies is better than expected.
- In 2017–18 the Australian dollar is assumed to average US77 cents, up from US75 cents in 2016–17.

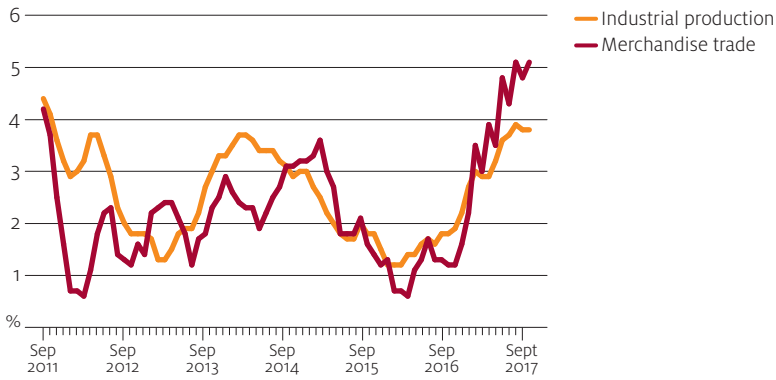
Global economic outlook

World economic growth is assumed to be 3.5 per cent in 2017 and 3.6 per cent in 2018. Assumptions for both years are up 0.1 percentage points from those made in *Agricultural commodities: September quarter 2017*.

The recovery in global economic growth that began in mid 2016 has continued well into 2017. Since *Agricultural commodities: September quarter 2017* economic conditions have strengthened further and some regional economies have performed better than expected. Global import demand has stimulated international trade and industrial production activity. The tradable sectors in Japan and the Republic of Korea improved over the first three quarters of 2017 due to increased export demand for high-value goods, particularly electronics. This also lifted the economic outlook for South-East Asia because of the integrated nature of manufacturing supply chains in the region.

The real value of global merchandise trade increased by 5 per cent in the three months to September 2017 compared with a year earlier. This was the fastest rate of growth since 2011. Industrial production increased by 4 per cent over the same period, after slowing substantially in 2014 and 2015.

World trade and industrial production, real values, year-on-year change, September 2011 to September 2017



Note: Three-month moving average.
Source: CPB Netherlands Bureau for Economic Policy Analysis

Over 2017 domestic demand has been improving in several countries. Private sector spending is driving growth in economies where labour markets continue to tighten and business and consumer confidence remain high. In October 2017 the unemployment rates in Japan and the United States were at their lowest in decades and the unemployment rate in the eurozone continued to decline. Public infrastructure investment and relatively expansionary fiscal policies have supported economic growth in developing economies, particularly China and South-East Asia.

Monetary policy remains supportive of global growth. Interest rates increased modestly in Canada in September and the United Kingdom in November. Market expectations for the pace of interest rate increases in the United States have also strengthened. However, the global inflationary environment remains weak and could hamper central bank plans to lift interest rates gradually.

Downside risks to global growth have lessened somewhat in recent months. Nevertheless, heightened tensions on the Korean peninsula, uncertainty around the direction of US fiscal policy, political events in the eurozone and ongoing Brexit negotiations still pose challenges to global economic growth.

Key macroeconomic assumptions, 2015 to 2018

Category	unit	2015	2016	2017 a	2018 a
World					
Economic growth					
OECD	%	2.2	1.7	2.1	2.0
United States	%	2.9	1.5	2.2	2.2
Japan	%	1.1	1.0	1.4	1.0
Eurozone	%	2.0	1.8	2.0	1.9
Germany	%	1.5	1.9	1.7	1.6
France	%	1.1	1.2	1.5	1.6
Italy	%	0.8	0.9	1.5	1.1
United Kingdom	%	2.2	1.8	1.5	1.4
Korea, Rep. of	%	2.8	2.8	2.7	2.8
New Zealand	%	3.2	3.6	3.3	3.3
non-OECD	%	4.3	4.3	4.5	4.7
non-OECD Asia	%	6.8	6.4	6.2	6.3
South-East Asia **b**	%	4.9	4.9	5.1	5.3
China **c**	%	6.9	6.7	6.7	6.4
Taiwan	%	0.7	1.5	2.0	1.9
Singapore	%	1.9	2.0	2.5	2.6
India	%	7.5	7.9	6.5	7.5
Latin America	%	0.1	– 0.9	1.2	1.9
Russian Federation	%	– 2.8	– 0.2	1.8	1.6
Ukraine	%	– 9.8	2.3	2.0	3.2
Eastern Europe	%	4.7	3.1	4.5	3.5
World **d**	%	3.4	3.2	3.5	3.6
Inflation					
United States	%	0.1	1.3	2.1	2.0
Interest rates					
US prime rate **e**	%	3.3	3.5	4.1	4.7
Australia	**unit**	**2014–15**	**2015–16**	**2016–17**	**2017–18 a**
Economic growth	%	2.4	2.8	2.0	2.8
Inflation	%	1.7	1.4	1.7	2.0
Interest rates **g**	%	4.4	4.0	3.7	3.9
Australian exchange rates					
A$/US$	’000	0.84	0.73	0.75	0.77
TWI for A$ **h**	’000	67	62	65	65

a ABARES assumption. **b** Indonesia, Malaysia, the Philippines, Thailand and Vietnam. **c** Excludes Hong Kong. **d** Weighted using 2016 purchasing-power-parity valuation of country gross domestic product by the International Monetary Fund. **e** Commercial bank prime lending rates in the United States. **g** Large business weighted-average variable rate on credit outstanding. **h** Base: May 1970 = 100.

Sources: ABARES; Australian Bureau of Statistics; Indian Ministry of Statistics and Programme Implementation; International Monetary Fund; Reserve Bank of Australia; US Bureau of Labor Statistics; US Federal Reserve

Outlook for advanced economies improves

Economic growth in the OECD is assumed to be 2.1 per cent in 2017 and 2.0 per cent in 2018. Assumptions for both years are up 0.1 percentage points from those made in *Agricultural commodities: September quarter 2017*, driven by stronger than expected economic activity in the eurozone.

Economic growth in the eurozone is assumed to be 2.0 per cent in 2017 and 1.9 per cent in 2018. These assumptions are up 0.2 percentage points for 2017 and 0.3 percentage points for 2018 from *Agricultural commodities: September quarter 2017*. The revision follows an acceleration in economic growth due to gross domestic product expanding by 2.5 per cent year-on-year in the September quarter 2017. This was the fastest rate of year-on-year growth since 2011. Despite the substantial improvement in the short-term outlook, the pace of economic growth continues to be constrained by high debt levels, excess capacity in labour markets and low productivity.

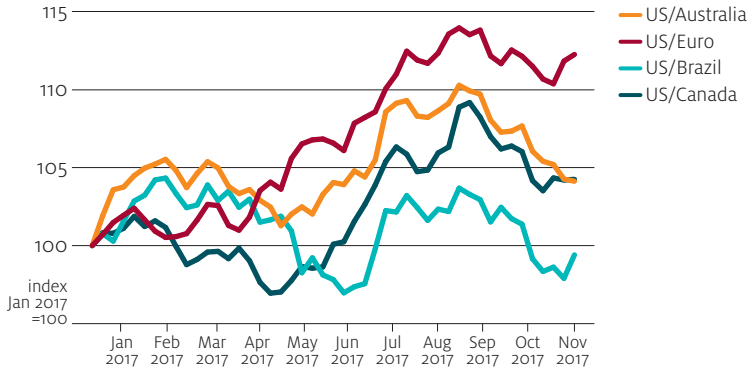
Developed countries in Asia continue to grow solidly despite geopolitical tensions on the Korean peninsula. Japan and the Republic of Korea are benefiting from a lift in global import demand and fiscal initiatives being pursued by both governments. In Japan, economic growth is assumed to be above trend at 1.4 per cent in 2017 and 1.0 per cent in 2018. In Korea it is assumed to be 2.7 per cent in 2017 and 2.8 per cent in 2018.

Economic activity in the United States remains on track to increase by 2.2 per cent in 2017 and 2018. In the September quarter 2017 the economy grew by 2.3 per cent year-on-year, led by an increase in private consumption. Economic indicators point to conditions remaining supportive of growth. Consumer confidence is at its highest since early 2004 and in October 2017 the unemployment rate fell to 4.1 per cent, the lowest since 2000.

US dollar strengthens

The US dollar appreciated against the currencies of major agricultural exporters through October and November 2017. This followed several months of broad-based weakness in the US dollar. The reversal is largely due to improved confidence in the US economy and a reassessment by financial market participants of the pace of future interest rate increases.

Selected currencies against the US dollar, January to November 2017



Source: ABARES; US Federal Reserve

Pick-up in global trade and investment supports growth in non-OECD Asia

In the September quarter 2017 the Chinese economy grew by 6.8 per cent year-on-year. Economic growth continues to be supported by government-led infrastructure investment and strong housing construction activity. However, leading indicators are pointing to a modest slowdown in activity. The Chinese economy is assumed to grow by 6.7 per cent in 2017 before slowing to 6.4 per cent in 2018.

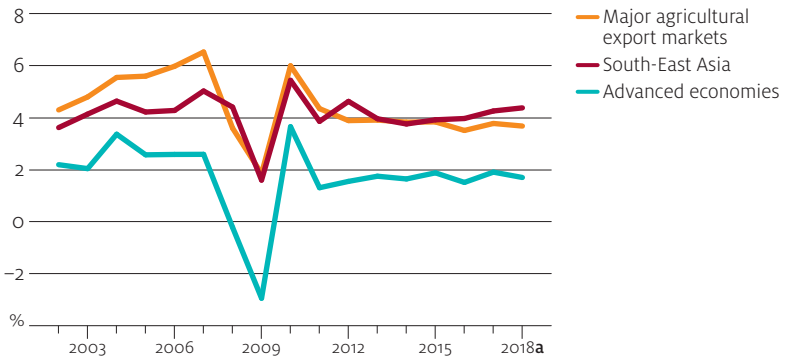
Economic growth assumptions for South-East Asia have been revised up to 5.1 per cent in 2017 and 5.3 per cent in 2018—increases of 0.1 percentage points for both years. The revision is largely due to stronger than expected demand for high-value goods from advanced economies. Domestic conditions are also improving across the region as a result of stronger revenue growth allowing governments to improve public welfare policies and increase infrastructure investment programs.

In 2017 the Indian economy is assumed to grow by 6.5 per cent. This is down 0.5 percentage points from the *Agricultural commodities: September quarter 2017* assumption. In 2018 economic growth in India is assumed to rebound to 7.5 per cent due to the weakening effects of the November 2016 banknote demonetisation and the July 2017 introduction of a goods and services tax.

Income per person increases in South-East Asia

Australia's most important agricultural export markets are benefiting from the recovery in global growth and trade. Favourable economic prospects are reflected in the pace of growth in gross domestic product (GDP) per person—an approximate measure of welfare and an indication of potential consumption growth. Since 2015 growth in South-East Asian GDP per person has accelerated in line with overall GDP growth in the region. GDP per person growth is assumed to rise further in 2017 and 2018.

Gross domestic product per person, Australia's major agricultural export markets, annual growth, 2002 to 2018



a ABARES assumption.
Note: South-East Asia includes Indonesia, Malaysia, the Philippines, Thailand and Vietnam. Major agricultural export markets include China, Hong Kong, India, Indonesia, Japan, Malaysia, New Zealand, the Republic of Korea, the United States and Vietnam. Advanced economies include Hong Kong, Japan, New Zealand, the Republic of Korea and the United States.
Source: ABARES, International Monetary Fund, United Nations

Australian economy

In 2017–18 economic growth in Australia is assumed to rebound to 2.8 per cent after growing by 2.0 per cent in 2016–17.

Private consumption in 2017–18 is assumed to accelerate due to low interest rates and further tightening in labour market conditions. The unemployment rate continued to decline over the three months to November 2017 and is now at its lowest since September 2014. Private consumption growth is a significant uncertainty due to persistent low wage growth and high household debt.

Public sector investment is also assumed to contribute strongly to Australian economic growth as state governments continue with significant infrastructure programs. Non-mining business investment is assumed to recover, assisted by state government-led construction activity and favourable business conditions.

Inflation

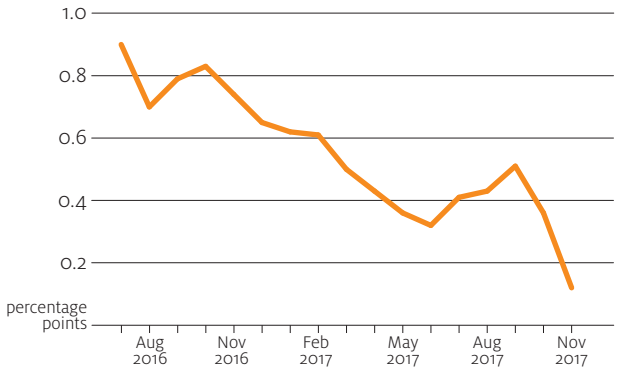
In the September quarter 2017 inflation was 1.8 per cent year-on-year, down from 1.9 per cent in the June quarter. Despite rising energy and tobacco prices, this moderation reflected a decline in prices of fresh vegetables and automotive fuel. In 2017–18 inflation is assumed to average 2.0 per cent.

Australian dollar

In 2017–18 the Australian dollar is assumed to average US77 cents, an increase from the 2016–17 average of US75 cents.

Between July and September 2017 the Australian dollar appreciated rapidly against the US dollar, increasing from US76 cents to US80 cents. This appreciation was largely due to financial markets factoring in a weaker economic outlook for the United States and consequent slower paced interest rate increases by the Federal Reserve. However, the appreciation unwound over October and November 2017 as US economic data confirmed solid growth. Over the first three months of 2017–18 the spread between Australian and US two-year government bond yields widened by 0.2 percentage points. This has since returned to its downward trend.

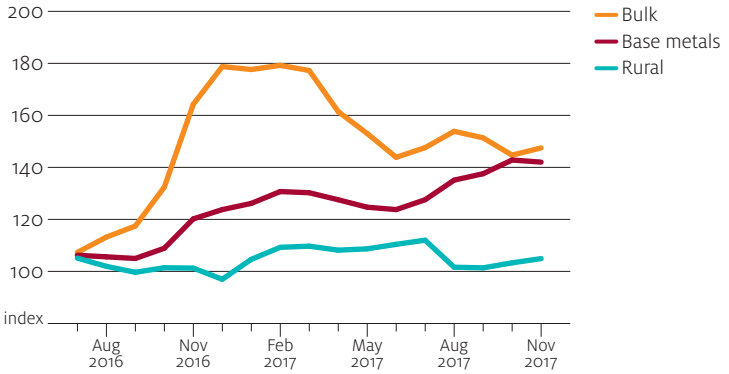
Two-year government bond yield spread, Australia and the United States, July 2016 to November 2017



Source: ABARES, Reserve Bank of Australia; US Federal Reserve

In 2017–18 the Australian dollar is expected to continue to face downward pressure as interest rate differentials between Australia and the United States and other developed economies narrow further. The Australian terms of trade index is also expected to decline. However, stronger than expected global growth could result in higher prices for Australian commodity exports. This possibility presents an upside risk to the assumption for the exchange rate. In late 2016 prices for bulk commodities spiked sharply but have generally declined since. However, over the same period prices for base metals have risen due to strengthening demand.

Reserve Bank of Australia commodity price indexes, July 2016 to November 2017



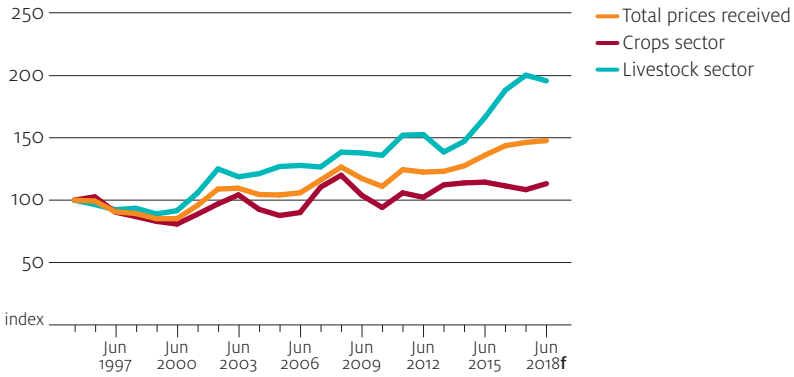
Note: Indexes are expressed in special drawing rights (SDR) currency value.
Source: Reserve Bank of Australia

Australian agriculture overview

Commodity prices

Grain prices are expected to remain low during 2017–18 due to a build-up of abundant exportable supplies in most exporting nations over recent years. In contrast, prices for livestock and livestock products are expected to be more favourable, with strong demand for sheep meat and dairy. Demand for livestock products is growing steadily in high-income countries, and the price of meat and other livestock products remains high in historical terms as the natural cycles of herd and flock rebuilding limit the rate of supply response. Wool prices have been reported widely in the media as the highest on record but in real dollar terms are still 15 per cent lower, on average, than the prices received in the 1980s.

Index of nominal prices received by farmers, Australia, June 1995 to June 2018



f ABARES forecast.
Note: The indexes are calculated on a chain-weighted basis using Fisher's index with a reference year of 1994–95=100. Source: ABARES; Australian Bureau of Statistics

Low grain prices are providing an incentive for farmers in Australia and around the world to switch production to more profitable alternatives. As a result, global oilseed production is expected to remain at record levels in 2017–18 and cotton plantings are forecast to increase. However, low grain prices are providing a buffer against poor seasonal conditions for pasture-based livestock production in countries like Australia. They are also adding impetus to a resurgent feed-based US cattle market, resulting in increased competition in Australia's beef export markets.

Mixed seasonal conditions globally during 2017 have been causing some grain prices that normally move together, such as maize and barley, to diverge and this is expected to continue into 2017–18. While record production is keeping maize prices low, barley prices are rising as supply is constrained by successive years of low production and declining stocks. Additionally, unfavourable seasonal conditions in the United States during the 2017 northern growing season reduced production of high-quality milling wheat and led to an increase in prices relative to other wheat grades.

Seasonal conditions

High rainfall and favourable growing conditions in Australia during 2016–17 gave way to dry conditions during winter and early spring 2017 that were much less favourable for agriculture. This was compounded in parts of south-eastern Australia by severe frosts during crop flowering in August, and record high temperatures affecting grain filling and spring pasture growth across eastern Australia in September. Many of Australia's most important cropping regions and southern pastures received only 40 per cent to 60 per cent of their average rainfall between April and November.

Particularly dry conditions across much of south-eastern Australia in September affected crop and pasture production. Average to above average rainfall during October and November assisted pasture growth and improved prospects for summer crops in northern New South Wales and southern Queensland. The seasonal outlook for summer 2017–18 indicates roughly equal chances of above and below average rainfall for most of Australia. The rainfall event in early December across the south-east of Australia is likely to result in a downgrade of grain quality and will improve pasture availability for livestock producers.

Global seasonal conditions during 2017 were also generally much less favourable for agriculture than 2016—with dry and hot conditions in parts of Canada, the European Union and the United States, and spring storm damage to crops across the United States. In contrast, seasonal conditions were much improved in China, and the return of a regular monsoon season boosted Indian agricultural production. The Black Sea region and parts of the Russian Federation also experienced exceptional growing seasons, which are expected to boost production in 2017–18.

Farm production

The return to less favourable climate conditions means that the gross value of farm production is forecast to be $59 billion in 2017–18, down 7 per cent from a record of $63 billion in 2016–17. Total crop production is expected to return to just below the 10-year median after record production in 2016–17. The real value of wheat production is expected to be the lowest since 2006–07. The seasonal conditions this year have not been severe or persistent enough to reverse a general pattern of herd rebuilding, triggered by the favourable seasonal conditions and prices of 2016.

In 2017–18 total Australian winter crop production is forecast to be 34.9 million tonnes, 41 per cent lower than the record production in 2016–17. Spring rainfall came too late to help winter crops in northern New South Wales and Queensland, resulting in lower yields. However, it did assist the recovery of delayed crops in parts of South Australia and moisture-stressed crops in the northern grains belt of Western Australia.

The 2017–18 outlook for summer crops has improved slightly since *Agricultural commodities: September quarter 2017*. Late spring rainfall has resulted in an improvement in soil moisture profiles, and a failure of winter crops is expected to increase area available for planting by 13 per cent to 1.5 million hectares compared with 2016–17. As a result, sorghum production is expected to be around 2 million tonnes, which is around the 10-year median.

Although dry conditions slowed herd rebuilding at times during winter, low feed and grain prices provided a buffer against reduced pasture growth. Restocker demand supported saleyard prices for young cattle and lambs over the first half of 2017–18. As livestock numbers build, meat, wool and dairy production is expected to increase in 2017–18. Beef and veal production is expected to increase by 12 per cent, wool production by 3 per cent and lamb production by 2 per cent. Milk production is expected to increase by almost 3 per cent following a decline in 2016–17.

Farm incomes

In 2017–18 the real net value of farm production is forecast to be $19 billion, down 21 per cent from the record of 2016–17 but still greater than the 10-year median of $12 billion in real terms. The forecast reduction is mainly due to lower crop production and prices. However, in 2017–18 the cost of some farm inputs, including electricity and fuel, is expected to rise. In the September quarter 2017 retail electricity prices increased by 11 per cent year-on-year, reflecting large increases in wholesale energy prices. Retail prices for diesel and unleaded petrol have increased since June 2017 in line with international crude oil prices, which are expected to average higher in 2017–18. Higher oil prices are expected to flow through to the cost of fertilisers.

Farm exports

In 2017–18 the value of Australian farm exports is forecast to fall by 3 per cent to $47 billion, mainly because of lower grain production. Despite falling volumes, the Australian farm export unit returns index is forecast to increase by 1.6 per cent, reflecting higher prices for some commodities including barley, dairy products, lamb, wheat and wool. Export earnings for crops are forecast to decline by almost 15 per cent to $24 billion. For livestock and livestock products export earnings are forecast to rise by 11 per cent to $23 billion as the forecast increase in production flows through to export volumes.

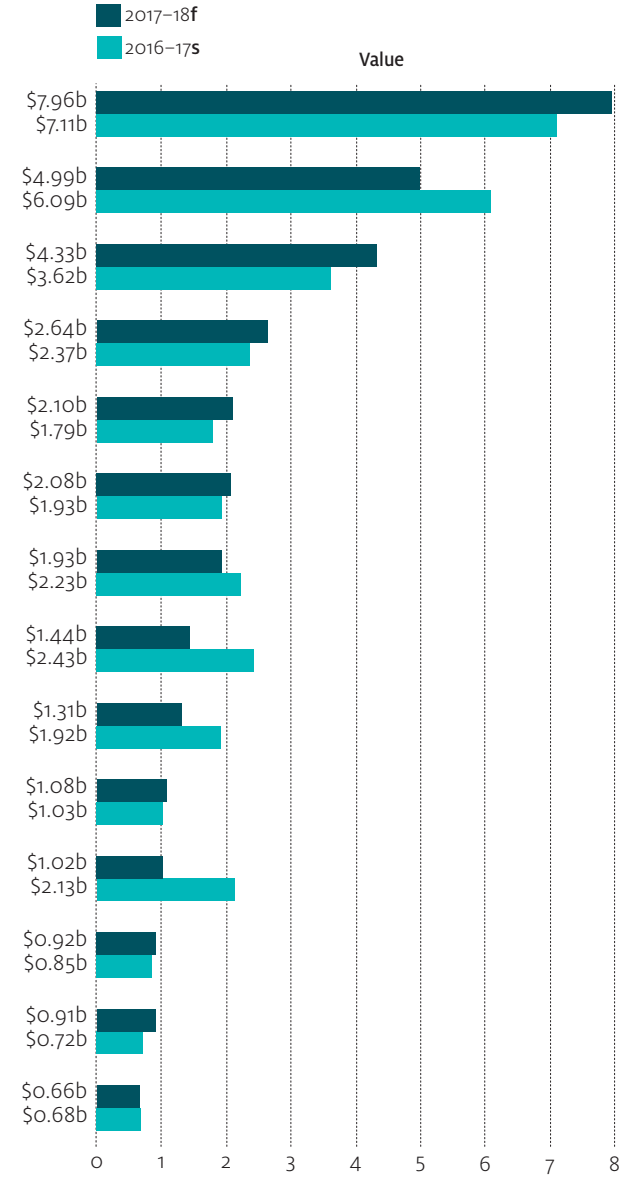
Export earnings for fisheries products are forecast to fall by 1 per cent to around $1.4 billion in 2017–18, driven by a decline in the value of prawn and rock lobster exports. Export earnings are forecast to fall for prawns due to lower production, and for rock lobster as a result of a forecast decline in unit export prices. An increase in tuna exports is expected to partially offset these declines. Export earnings from tuna are forecast to increase by 8 per cent as a higher total allowable catch lifts domestic production.

Major indicators of Australia's agriculture and natural resources based sector

Category		2012–13	2013–14	2014–15	2015–16	2016–17 s	2017–18 f	*% change*
Exchange rate	A$/US$	1.03	0.92	0.84	0.73	0.75	0.77	*2.7*
Australian export unit returns a								
Farm	index	100.0	107.7	114.9	120.6	120.0	122.0	*1.6*
Value of exports								
Farm	A$m	38,270	41,364	44,200	44,794	48,695	47,052	*– 3.4*
crops	A$m	22,558	22,318	21,574	22,529	27,690	23,662	*– 14.5*
livestock	A$m	15,712	19,046	22,625	22,265	21,005	23,390	*11.4*
Fisheries products	A$m	1,175	1,304	1,440	1,542	1,435	1,423	*– 0.8*
Gross value of production b								
Farm	A$m	48,660	51,479	54,389	56,643	63,416	59,134	*– 6.8*
crops	A$m	28,572	28,699	27,422	27,880	35,080	29,426	*– 16.1*
livestock	A$m	20,088	22,781	26,967	28,763	28,337	29,708	*4.8*
Forestry and fisheries	A$m	3,902	4,314	4,794	5,296	5,399	5,267	*– 2.4*
forestry	A$m	1,516	1,840	2,025	2,270	2,539	2,405	*– 5.3*
fisheries	A$m	2,386	2,473	2,769	3,026	2,861	2,863	*0.1*
Volume of farm production **c**	index	119.7	122.2	122.3	120.8	132.6	122.2	*– 7.8*
crops	index	133.2	131.9	125.0	130.2	167.1	133.4	*– 20.2*
livestock	index	104.9	111.3	118.1	111.1	103.7	110.9	*6.9*
Production area and livestock numbers								
Crop area (grains and oilseeds)	'000 ha	23,856	22,583	22,934	21,362	23,880	23,731	*– 0.6*
Sheep	million	75.5	72.6	70.9	67.5	70.4	72.6	*3.1*
Cattle	million	29.3	29.1	27.4	25.0	25.7	26.6	*3.5*
Costs and returns								
Farm costs	A$m	37,194	37,957	38,441	38,516	40,145	40,473	*0.8*
Net farm cash income **d**	A$m	16,663	18,867	21,392	23,653	28,894	24,396	*– 15.6*
Net value of farm production **e**	A$m	11,466	13,522	15,948	18,127	23,272	18,661	*– 19.8*
Farmers' terms of trade **g**	index	95.0	98.2	103.9	109.2	111.3	109.5	*– 1.6*
Employment								
Agriculture, forestry and fishing	'000	311	304	325	312	310	na	*na*
Australia	'000	11,361	11,435	11,599	11,832	11,980	na	*na*

a Base: 2012–13 = 100. **b** For a definition of the gross value of farm production see Table 13. **c** Chain-weighted basis using Fisher's ideal index with a reference year of 1997–98 = 100. **d** Gross value of farm cash income less total cash costs. **e** Gross value of farm production less total farm costs. **f** ABARES forecast. **g** Ratio of index of prices received by farmers and index of prices paid by farmers; base: 1997–98 = 100. **s** ABARES estimate (excluding the exchange rate and employment figures).
Sources: ABARES; Australian Bureau of Statistics; Reserve Bank of Australia

Major Australian agricultural commodity exports



	2017–18f		
	Volume	Price **a**	Value
Beef and veal	16%	–3%	12%
Wheat	–24%	8%	–18%
Wool	4%	15%	20%
Wine	5%	6%	12%
Cotton	24%	–5%	18%
Lamb	2%	6%	7%
Sugar	–1%	–13%	–13%
Barley	–45%	9%	–41%
Chickpeas	–27%	–7%	–32%
Live feeder/ slaughter cattle	7%	–2%	5%
Canola	–47%	–8%	–52%
Cheese	2%	7%	9%
Mutton	19%	6%	26%
Rock lobster	0%	–2%	–2%

a All commodities are export unit returns in A$. **f** ABARES forecast. **s** ABARES estimate.

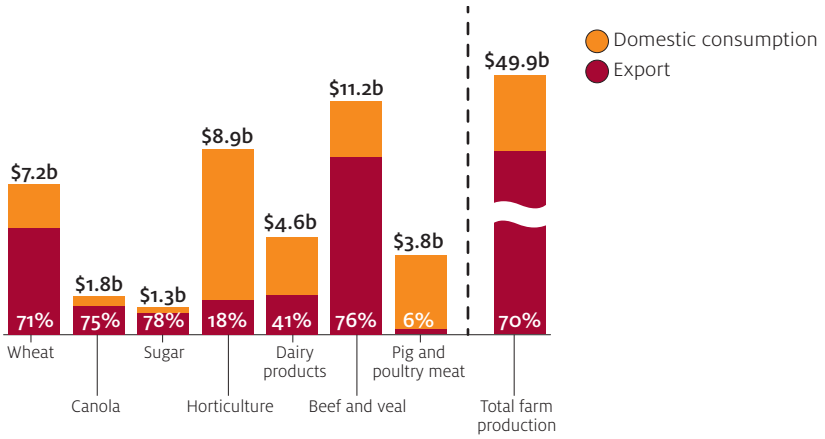
Share of agricultural production exported

Andrew Cameron

Australia exports a significant proportion of its agricultural production to overseas markets. ABARES estimates that in the three years to 2015–16 Australia exported 70 per cent of production. This is higher than the 10-year average to 2015–16 of 65 per cent, due to higher beef production and exports resulting from record high turn-off during dry conditions across Australia. The level of trade exposure varies considerably between different agricultural industries (Figure 1).

Agricultural businesses are highly reliant on transport, processing and port infrastructure downstream in supply chains to achieve these high export levels. The ABS (2017) estimates that the agricultural sector exports only around 20 per cent of output directly (by value), while over 50 per cent is used by other domestic industries as inputs before it reaches markets. Therefore, policies and investments that result in more efficient supply chains are highly beneficial to Australian agricultural businesses and help to ensure continued export competitiveness.

FIGURE 1 Percentage of agricultural production exported, average for 2013–14 to 2015–16



Note: All values are in 2015–16 dollars. Values shown are gross value of production.
Source: ABARES; Australian Bureau of Statistics

Several methods can be used to estimate the share of agricultural production exported across multiple sectors (see ABS 2000). ABARES uses data on the volume and value of farm production and exports. It applies a number of transformations to the export data to make them comparable with the production data. For example, ABARES converts sugar exports to the equivalent volume of sugar cane. Table 1 shows the conversion factors ABARES uses to produce these estimates. See ABARE (2000) for a full explanation of the methodology.

continued ...

Share of agricultural production exported continued

TABLE 1 Assumptions used to prepare export share estimates

Conversions	Unit	Factor/discount
Volume conversions		
Sugar to cane conversion	tonnes	7.05
Wine to wine grapes conversion	ML/tonnes	0.70
Boneless beef sw to cw	tonnes	1.50
Boneless sheep meat sw to cw	tonnes	2.00
Boneless pig meat sw to cw **a**	tonnes	1.36–2.72
Boneless poultry meat sw to cw	tonnes	1.20
Dressing percentage for live export animals	tonnes	0.50
Casein to milk equivalent **b**	kt/ML	0.03
Cheddar to milk equivalent **b**	kt/ML	0.1033
Non-cheddar cheese to milk equivalent **b**	kt/ML	0.1225
Skim milk powder to milk equivalent **b**	kt/ML	0.089
Whole milk powder to milk equivalent **b**	kt/ML	0.127
Discount for exports value-add and transport costs		
Fruit and vegetables	export $	0.75
Nursery products	export $	0.80
Other livestock products **a**	export $	0.5–0.8
Other crop products **a**	export $	0.5–0.8

Notes: **a** Where ranges for volume conversion factors are shown, different factors are applied to different tariff lines. Where ranges for export values are shown, different discounts are applied to products with differing levels of transformation from primary produce to final good. **b** Butter is treated as a manufacturing by-product for all dairy products. **cw** carcase weight. **sw** shipped weight.

References

ABARE 2000, *Australian commodities: December quarter 2000*, Australian Bureau of Agricultural and Resource Economics, Canberra.

ABS 2000, 'Understanding agricultural exports data', in *Agriculture, Australia, 1998–99*, cat. no. 7113.0, Australian Bureau of Statistics, Canberra.

ABS 2017, *Australian National Accounts: Input–Output Tables, 2014–15*, cat. no. 5209.0.55.001, Australian Bureau of Statistics, Canberra, accessed 20 October 2017.

Seasonal conditions and climate influences

Matthew Miller

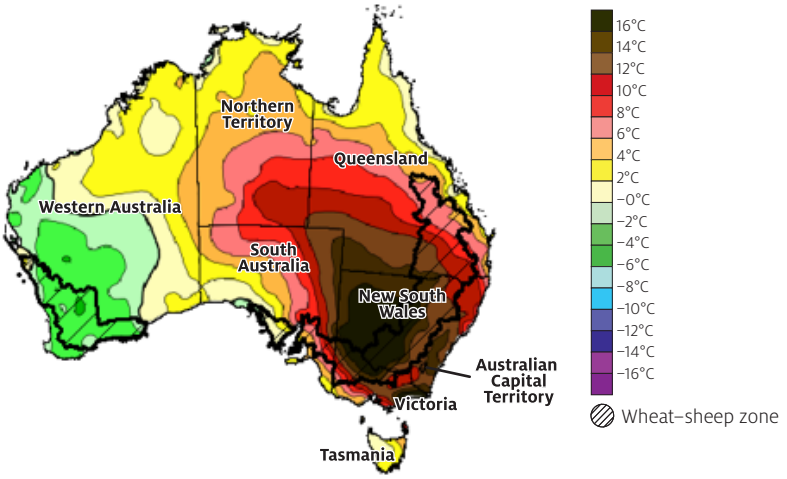
Rainfall in the start of spring 2017 was well below average, but late season rainfall increased soil moisture levels—improving prospects for summer crops and benefiting pasture growth in central, eastern and northern Australia. Extreme maximum and minimum temperatures during September and late frost events in southern New South Wales and parts of Victoria and South Australia adversely affected crop production. Late season rainfall benefited pasture production but is likely to have arrived too late to benefit winter crop production across much of south-eastern Australia.

Spring 2017—a season of extremes

During spring 2017 Australian climatic conditions were largely driven by local factors. The influence of large-scale oceanic drivers such as the El Niño–Southern Oscillation and the Indian Ocean Dipole was limited.

September 2017 saw numerous lowest daily minimum temperature and highest daily maximum temperature records set across eastern Australia. The Bureau of Meteorology reported in its *Special climate statement 62—exceptional September heat in eastern Australia* (BOM 2017b) that 22 September 2017 was Australia's warmest September day on record. New South Wales recorded its warmest September day on 23 September 2017 (Map 1) and for Queensland it was 27 September 2017.

MAP 1 Maximum temperature anomalies, 23 September 2017



Note: Maximum temperature on 23 September 2017 compared with temperatures recorded for 23 September during the 1961 to 1990 reference period.
Source: Bureau of Meteorology

continued ...

Seasonal conditions and climate influences continued

Minimum temperatures in September were slightly above average for Australia as a whole (+0.46 °C) but below average across parts of the south-east. During the first and third week of the month several stations recorded the lowest September temperature on record (BOM 2017a).

In addition to these temperature extremes, September rainfall was the lowest on record for New South Wales and the Murray–Darling Basin as a whole. In contrast, total September rainfall was above average for parts of Western Australia and central Australia. September was also wetter than average in coastal Victoria, far south-eastern South Australia, western Tasmania and on parts of Queensland's north tropical coast.

Following below average rainfall over much of Australia in September 2017, October 2017 was wetter than average in central Western Australia and across much of eastern Australia. For Australia as a whole, rainfall was about one-and-a-half times the October average—largely influenced by above average rainfall in Queensland. Record rainfall was recorded in south-eastern Queensland around Bundaberg and Baralaba, and northern Queensland around Palmerville. Parts of Queensland's east coast received more than 400 per cent of average October rainfall and daily rainfall records were set at numerous locations.

Above average rainfall was also recorded in northern New South Wales, parts of the Northern Territory, parts of the north and west of South Australia and across much of Western Australia including the Kimberly and the eastern Pilbara. These falls have benefited soil moisture and water storage levels and increased pasture production.

During the first week of November 2017 extreme climatic conditions continued. Large areas of western Victoria and south-eastern South Australia had record low minimum temperatures, leading to production losses for pulse and cereal crops.

Recent rainfall and pasture growth

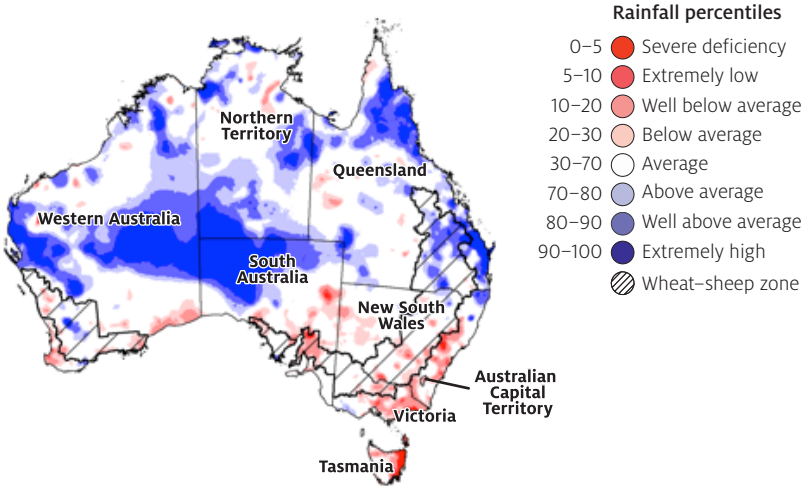
Spring 2017 rainfall was generally average to above average for the season as a whole (Map 2). However, its distribution throughout the season was highly variable. September 2017 was particularly dry across much of south-eastern Australia, affecting crop and pasture production. In contrast, October rainfall was well above average across much of eastern and central Australia, benefiting pasture growth and raising soil moisture levels. November 2017 rainfall (Map 3) was close to average in eastern and western Australia but well above average in a broad band across central Australia.

Spring rainfall in cropping regions was generally average in New South Wales, Victoria, South Australia and Western Australia and above average in Queensland.

continued ...

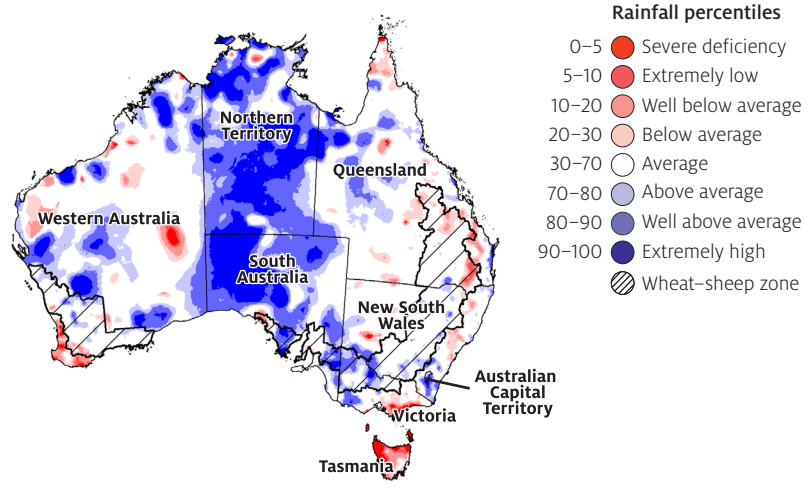
Seasonal conditions and climate influences continued

MAP 2 Rainfall percentiles, Australia, 1 September to 30 November 2017



Note: Rainfall for September to November 2017 compared with rainfall recorded for that period during the historical record (1900 to present).
Source: Bureau of Meteorology

MAP 3 Rainfall percentiles, Australia, 1 to 30 November 2017



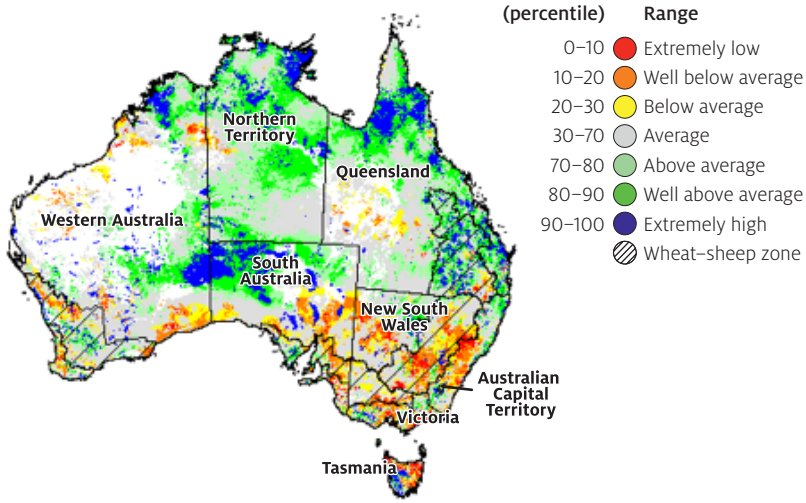
Note: Rainfall for November 2017 compared with rainfall recorded for that period during the historical record (1900 to present).
Source: Bureau of Meteorology

continued ...

Seasonal conditions and climate influences continued

For the three months ending November 2017 modelled pasture growth was below average across large areas of New South Wales, parts of central Queensland, southern South Australia and parts of Western Australia. Above average pasture growth was confined to eastern Queensland, large areas of central Australia and isolated areas across southern Australia. It was close to average for the remainder of the country (Map 4).

MAP 4 Relative pasture growth, Australia, 1 September to 30 November 2017



Note: AussieGRASS pasture growth estimates are relative to the long-term record and shown in percentiles. Percentiles rank data on a scale of zero to 100. This analysis ranks the pasture growth for the selected period against the average pasture growth for the long-term record (1957 to 2016). Pasture growth is modelled at 5 km² grid cells.
Source: Queensland Department of Science, Information Technology and Innovation

Recent soil moisture levels

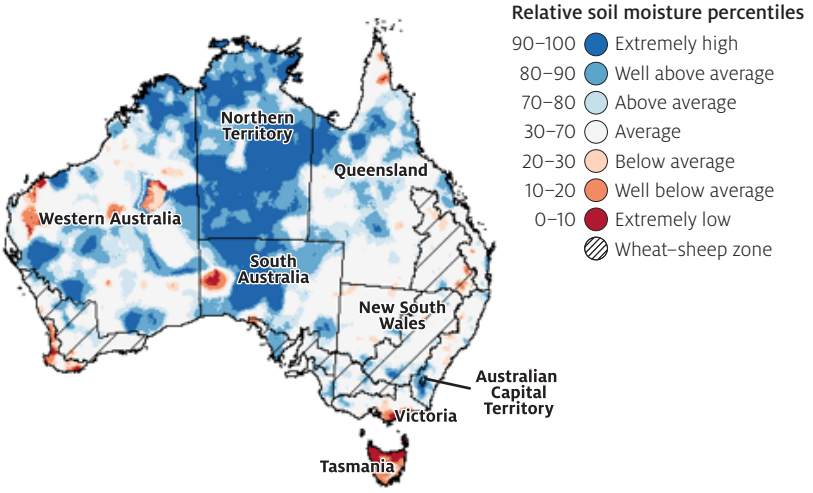
Map 5 and Map 6 show relative levels of modelled soil moisture for Australia in the upper layer (surface to 0.1 metres) and lower layer (0.1 to 1.0 metres) for November 2017.

For November 2017 relative upper layer soil moisture was generally above average for large areas of northern and central Australia and parts of Western Australia, and close to average for the rest of the country (Map 5). However, upper layer soil moisture was below average for most of Tasmania. The pattern of relative upper layer soil moisture reflects November 2017 rainfall.

continued ...

Seasonal conditions and climate influences continued

MAP 5 Modelled upper layer soil moisture, Australia, 1 to 30 November 2017



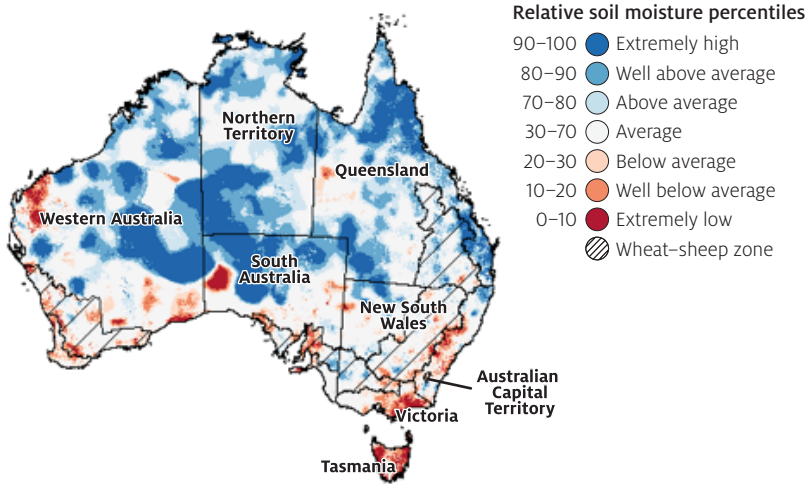
Note: Soil moisture estimates are relative to the long-term record and ranked in percentiles. Estimates are used to compare root zone soil moisture from November 2017 and ranked by percentiles for each November in the 1911–2015 historical reference period. The extremely high band indicates where the estimated soil moisture level for November 2017 was in the wettest 10 per cent of estimated soil moisture levels for August during the reference period. The extremely low band indicates where the estimated soil moisture level for November 2017 was in the driest 10 per cent of estimated soil moisture levels for November during the reference period.
Source: Bureau of Meteorology (Australian Water Resources Assessment Landscape model)

Relative lower layer soil moisture for November 2017 was well below average in parts of eastern New South Wales, eastern Victoria, parts of southern South Australia, and scattered areas of Western Australia and Tasmania (Map 6). It was well above average across much of Queensland, northern South Australia, parts of northern and central Western Australia and much of the Northern Territory. It was close to average in the remainder of New South Wales, Victoria, South Australia and Western Australia.

continued ...

Seasonal conditions and climate influences continued

MAP 6 Modelled lower layer soil moisture, Australia, 1 to 30 November 2017



Note: Soil moisture estimates are relative to the long-term record and ranked in percentiles. Estimates are used to compare lower layer soil moisture from November 2017 and ranked according to percentiles for each November in the 1911–2015 historical reference period. The extremely high band indicates where the estimated soil moisture level for November 2017 was in the wettest 10 per cent of estimated soil moisture levels for November during the reference period. The extremely low band indicates where the estimated soil moisture level for November 2017 was in the driest 10 per cent of estimated soil moisture levels for November during the reference period.
Source: Bureau of Meteorology (Australian Water Resources Assessment Landscape model)

Climate outlook

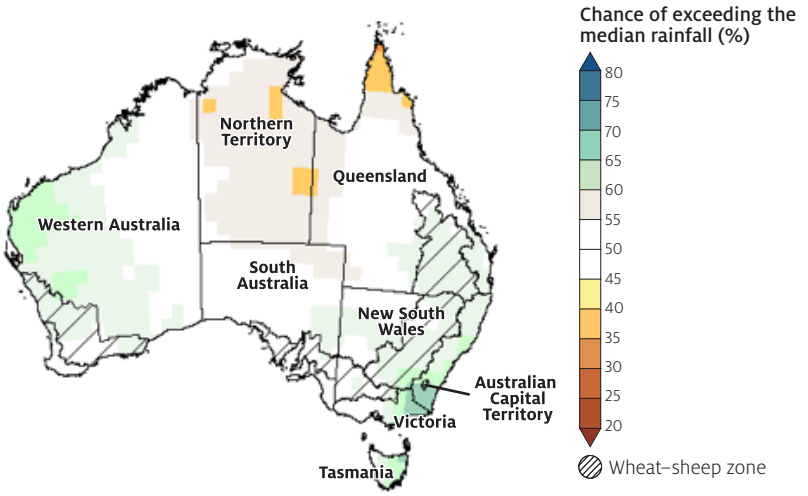
The climate outlook for summer 2017–18 (December 2017 to February 2018) indicates that the chances of the three months being wetter or drier are roughly equal for most of Australia (Map 7). The Bureau of Meteorology has raised its ENSO Outlook to LA NIÑA, indicating that sea surface temperatures in the tropical Pacific have reached La Niña levels. Climate models suggest this La Niña will be weak and short-lived, persisting until early autumn 2018.

While La Niña typically brings above average rainfall to eastern Australia during late spring and summer, sea surface temperature patterns in the Indian Ocean and closer to Australia are not typical of a La Niña event, reducing the likelihood of widespread above average summer rainfall. This indicates that during the next three months, climatic conditions in Australia are expected to be largely driven by localised influences such as sea surface temperatures around the Australian coastline, rather than large-scale oceanic drivers such as the El Niño–Southern Oscillation and the Indian Ocean Dipole.

continued ...

Seasonal conditions and climate influences continued

MAP 7 Rainfall outlook, Australia, December 2017 to February 2018



Note: Rainfall climate outlook maps show the likelihood, as a percentage, of exceeding the 1981–2010 median rainfall for the upcoming three months. Median rainfall is defined as the 50th percentile calculated from the 1981–2010 reference period.
Source: Bureau of Meteorology

References

BOM 2017a, *New South Wales in September 2017: driest on record with record-breaking heat*, Bureau of Meteorology, Canberra, accessed 27 November 2017.

BOM 2017b, *Special climate statement 62—exceptional September heat in eastern Australia*, Bureau of Meteorology, Canberra.

Agriculture

Crops

CROPS

↑11%
to **US$218/t**[a]
in 2017–18

Wheat

Wheat price to increase but remain low, reflecting a fall in high-quality wheat supply

↑14%
to **US$180/t**[b]
in 2017–18

Coarse grains

World barley prices to increase due to lower supplies in major exporting countries.

~0%
at **US$425/t**[c]
in 2017–18

Oilseeds

World canola prices to remain unchanged due to mixed growing conditions in major exporting countries.

↓19%
to **USc 14/lb**[d]
in 2017–18

Sugar

World sugar prices to fall as a result of increased world supply.

↓6%
to **USc 78/lb**[e]
in 2017–18

Cotton

World cotton prices to fall due to supply growing faster than demand.

a US no. 2 hard red winter, fob Gulf. **b** France feed barley, fob Rouen. **c** Europe rapeseed, fob Hamburg. **d** Intercontinental Exchange, nearby futures, no. 11 contract (October to September). **e** Cotlook 'A' index.

Wheat

Sarah Smith

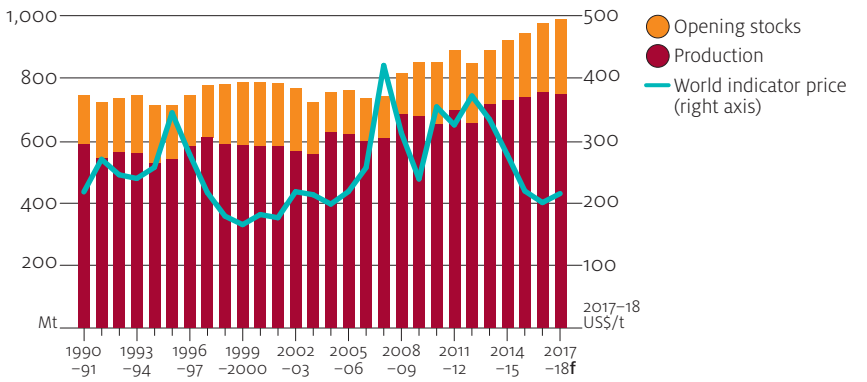
- The world wheat indicator price is forecast to increase by 11 per cent, reflecting reduced high-quality milling wheat supplies.
- Wheat production contracted for all major exporters except the European Union and the Russian Federation.
- Spring weather was unfavourable for Australian eastern state wheat crops. Australian production is forecast to be 20 million tonnes in 2017–18.

Prices to rise but remain historically low

In 2017–18 the world wheat indicator price (US no. 2 hard red winter, fob Gulf) is forecast to average US$218 per tonne. World wheat production is forecast to be only slightly lower than the record achieved in 2016–17. However, high-quality hard wheat supplies are expected to decline because of smaller harvests in Australia, Canada and the United States. High-quality hard wheat prices (including the world indicator price) are expected to remain historically low but average higher than in 2016–17.

In early December 2017 northern hemisphere producers had completed harvest and southern hemisphere producers were well into harvest. Therefore, 2017–18 production is relatively certain. However, for the remainder of 2017–18 wheat prices will vary depending on production prospects for the 2018–19 season. Major northern hemisphere producers have begun sowing the 2018–19 winter wheat crop. Planting and establishment conditions have been mixed. Conditions have been unfavourably cool in China and dry in the southern parts of the Black Sea region and Spain. However, conditions at this early stage of development typically have little influence on final yields.

World wheat supply and price, 1990–91 to 2017–18



f ABARES forecast.

World production forecast to be close to 2016–17 record

In 2017–18 world wheat production is forecast to fall by 1 per cent to 747 million tonnes. Production contracted for all major exporters except the European Union and the Russian Federation. See *Agricultural commodities: September quarter 2017* for commentary on wheat production in Canada, the European Union and the United States.

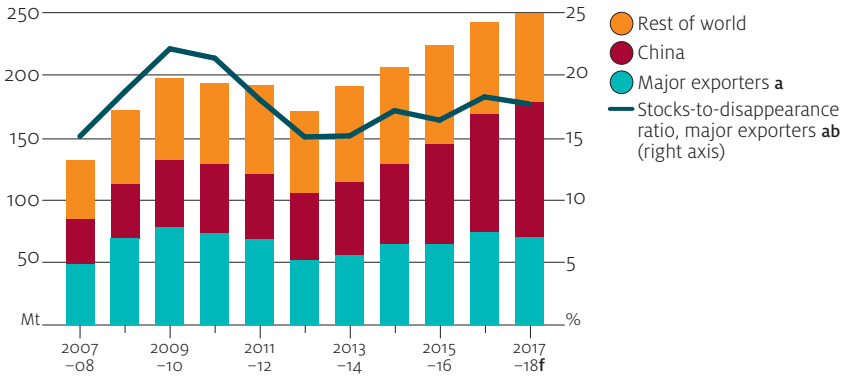
The Russian wheat production estimate for 2017–18 has been revised upwards to 81 million tonnes, 12 per cent higher than the record set in 2016–17. The Russian Federation is expected to be the world's largest exporter of wheat for the first time as a result of substantial supplies and a depreciation of the rouble.

In 2017–18 wheat production in Argentina is forecast to fall by 6 per cent to 17 million tonnes. In Cordoba, the largest wheat-growing region of Argentina, climatic conditions were favourable for crop development and maturity. In contrast, waterlogging, hail and frost damage and intense disease pressure affected wheat crops in other regions. This has reduced the expected average wheat yield for Argentina. Exports are forecast to fall by 10 per cent because of lower production prospects and low stocks.

Stocks in major exporting countries to contract

World closing stocks in 2017–18 are forecast to reach a record 250 million tonnes. However, stocks held in major exporting countries are forecast to decline following reduced harvests in most countries. The stocks-to-disappearance ratio in major exporting countries is forecast to fall slightly. This indicates that major exporters will have reduced supplies to make available for the global market.

World wheat closing stocks, 2007–08 to 2017–18



a Argentina, Australia, Canada, the European Union, Kazakhstan, the Russian Federation, Ukraine and the United States. **b** Disappearance defined as domestic consumption plus exports. **f** ABARES forecast.

Below average Australian wheat crop

In 2017–18 Australian wheat production is forecast to be just over 20 million tonnes. If realised, it will be the lowest since 2007–08. Wheat yields are forecast to be below average for all states except Victoria.

Seasonal conditions in the eastern states were variable but mostly unfavourable for crop development. Wheat crops in Queensland and New South Wales were adversely affected by below average in-crop rainfall, well above average daytime temperatures and severe frost events. October rainfall aided crops in south-eastern New South Wales, Victoria and South Australia but came too late to benefit most crops in Queensland and New South Wales.

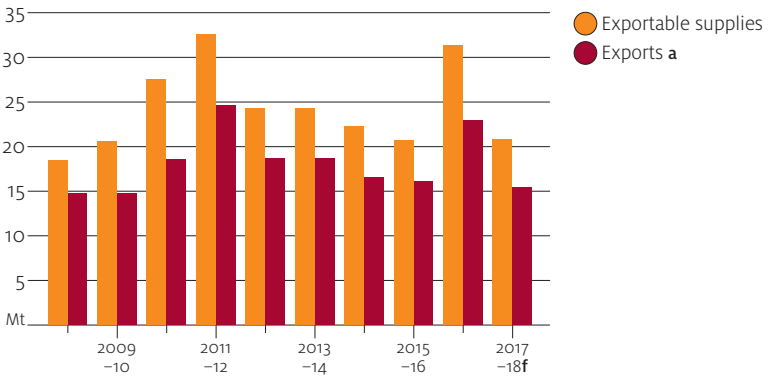
In Western Australia, a mild finish to the season aided grain filling. As a result, yield prospects for WA wheat crops have improved significantly from the *Australian crop report: September 2017* forecast.

Harvest is underway in all states and largely complete in Queensland. Wheat in Queensland is reported to have high levels of protein but some wheat has been downgraded as a result of low test weights and low falling number values. November and early December rainfall has hindered harvest in other states and may affect grain quality.

Reduced supplies to constrain Australian wheat exports

Australian wheat exports in 2017–18 are forecast to fall by 24 per cent to 17 million tonnes. Exportable supplies (production, opening stocks and imports minus domestic consumption) are expected to decline as a result of the smaller harvest, despite this being partially offset by large opening stocks.

Wheat exportable supplies and exports, Australia, 2008–09 to 2017–18



a October–September years. **f** ABARES forecast.

In 2017–18 the value of Australian wheat exports is forecast to fall by 18 per cent to $5.0 billion. Demand for imported wheat has fallen slightly from the previous year. However, world supplies of high-quality hard milling wheat (produced by several countries including Australia) have reduced substantially. As a result, the average export unit value of Australian wheat is forecast to rise and partially offset the decline in export volume.

Outlook for wheat

Category	unit	2015–16	2016–17 s	2017–18 f	% change
World					
Production	Mt	736	754	747	*– 0.9*
Black Sea region **a**	Mt	102	114	121	*6.2*
China	Mt	130	129	130	*0.6*
European Union	Mt	160	144	151	*4.4*
India	Mt	86.5	86.0	98.4	*14.4*
United States	Mt	56.1	62.8	47.4	*– 24.5*
Consumption	Mt	718	736	740	*0.5*
human	Mt	489	498	507	*1.7*
feed	Mt	142	150	146	*– 2.8*
Closing stocks	Mt	224	242	250	*3.1*
Stocks-to-use ratio	%	31.2	32.9	33.7	–
Trade	Mt	166	176	174	*– 1.1*
Exports **b**					
Argentina	Mt	9.5	12.0	10.8	*– 10.0*
Australia **c**	Mt	15.8	22.1	16.8	*– 24.0*
Black Sea region **a**	Mt	50.2	53.2	56.0	*5.3*
Kazakhstan	Mt	7.4	7.4	7.5	*1.4*
Russian Federation	Mt	25.4	27.8	32.3	*16.2*
Ukraine	Mt	17.4	18.0	16.2	*– 10.0*
Canada	Mt	21.7	20.3	20.9	*3.0*
European Union	Mt	35.1	27.8	28.7	*3.2*
United States	Mt	21.2	28.7	26.5	*– 7.7*
Price **d**	US$/t	211	197	218	*10.5*
Australia					
Area	’000 ha	11,282	12,832	12,437	*– 3.1*
Production	kt	22,275	35,009	20,270	*– 42.1*
Exports **c**	kt	15,777	22,057	16,797	*– 23.8*
value	A$m	5,120	6,094	4,992	*– 18.1*
APW pool return	A$/t	303	268	301	*12.5*

a Kazakhstan, Russian Federation and Ukraine. **b** Local marketing years. **c** July–June years. **d** US no. 2 hard red winter wheat, fob Gulf, July–June. **f** ABARES forecast. **s** ABARES estimate.

Sources: ABARES; Australian Bureau of Statistics; International Grains Council; US Department of Agriculture

Coarse grains

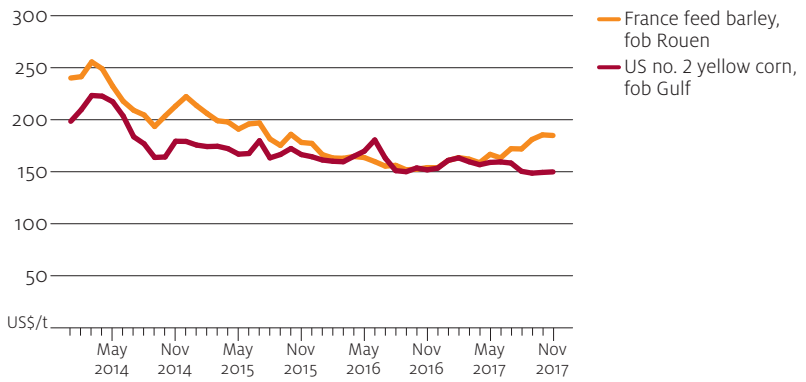
Amelia Brown

- In 2017–18 world corn prices are forecast to remain historically low, reflecting plentiful world stocks. World consumption is forecast to reach a new record in response to low prices.
- World barley prices are forecast to increase, reflecting decreased supply.
- World coarse grain production is forecast to fall by 3 per cent.
- Australian production and exports to fall in 2017–18.

Corn price to remain historically low as barley prices move higher

In 2017–18 the world coarse grain indicator price (US no. 2 yellow corn, fob Gulf) is forecast to average US$159 per tonne, a 1 per cent increase from 2016–17. The world indicator price for barley (France feed barley, fob Rouen) is forecast to average US$180 per tonne, a 14 per cent increase from 2016–17. This reflects a reduction in supply in major exporting countries.

World coarse grain indicator prices, January 2014 to November 2017



Global production to fall in 2017–18

In 2017–18 global coarse grain production is forecast to fall to just over 1.3 billion tonnes. This reflects a fall in area planted and a decline in yields in most major producing countries.

Global corn production in 2017–18 is forecast to fall to just over 1 billion tonnes, 3 per cent lower than the record of 2016–17. This reflects a decrease in area planted and lower yields in most major producing countries—including Argentina, Brazil and China. In the United States, production is estimated at around 370 million tonnes—the second highest on record after 2016–17—despite a decrease in area planted and below average seasonal conditions.

In 2017–18 world barley production is forecast to fall by 4 per cent to 142 million tonnes, reflecting smaller area planted and lower yields than the record achieved in 2016–17. Lower production is forecast for all major exporters (Argentina, Australia, Canada, the European Union and Ukraine) with the exception of the Russian Federation. Russian production is forecast to increase by 17 per cent to around 21 million tonnes, reflecting favourable growing conditions.

Total EU barley production has fallen in 2017–18 but production of malting barley has been good, particularly in France.

Consumption to reach new record in 2017–18

In 2017–18 global coarse grain consumption is forecast to rise to a new record of 1.3 billion tonnes. Global feed consumption of corn is forecast to rise by 3 per cent to a new record of 650 million tonnes as meat and dairy production continues to grow globally. Ample competitively priced global supplies of corn are expected to lead to its continued use as a major component of compound feed rations.

World industrial use of corn in 2017–18 is forecast to reach a new record of around 409 million tonnes, reflecting continued growth in starch and ethanol production in China, the European Union and the United States. Industrial use in China is forecast to increase by 6 per cent to around 74 million tonnes. The Chinese Government's removal of the corn price support scheme has resulted in lower corn prices. This combined with other policy initiatives aimed at reducing corn stocks has resulted in industrial processors being more competitive and increased production of corn-based products like fructose, glucose and starch. The government also plans to mandate the use of ethanol in transport fuels by 2020. This would further increase industrial demand for corn.

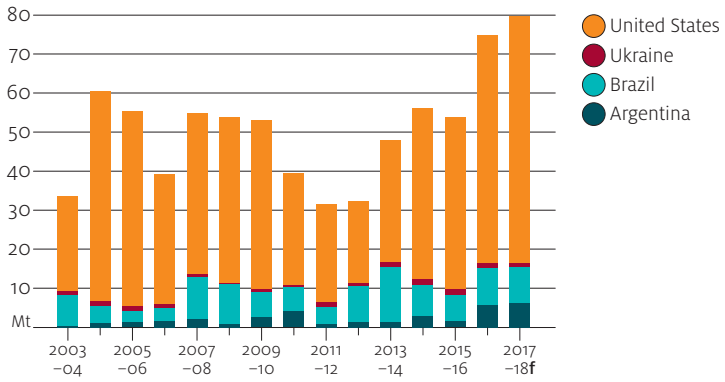
In 2017–18 world barley consumption is forecast to fall by 5 per cent to around 143 million tonnes due to reduced supply, higher prices and ample supplies of feed grain substitutes (such as corn and wheat) making feed barley less competitive. Industrial demand for malting barley is forecast to increase as demand for brewing continues to increase, particularly in Asian and African countries.

World stocks lower in 2017–18

In 2017–18 world coarse grain closing stocks are forecast to fall to around 264 million tonnes as forecast consumption exceeds production. Despite this, stocks are expected to be the second highest on record.

World closing stocks of corn in 2017–18 are forecast at around 233 million tonnes. If realised, closing stocks will be the second highest on record after 2016–17 and 35 per cent above the five-year average. Closing stocks in the major exporting countries of Argentina, Brazil, Ukraine and the United States are at their highest level since the late 1980s.

Corn ending stocks, major exporters, 2003–04 to 2017–18



f ABARES forecast.

In 2017–18 world closing stocks of barley are forecast to fall to just under 23 million tonnes. If realised, this will be the lowest level in five years. Closing stocks in the major exporting countries of Argentina, Australia, Canada, the European Union, the Russian Federation and Ukraine are forecast to fall by 19 per cent to just over 9.3 million tonnes.

Australian coarse grain production to fall in 2017–18

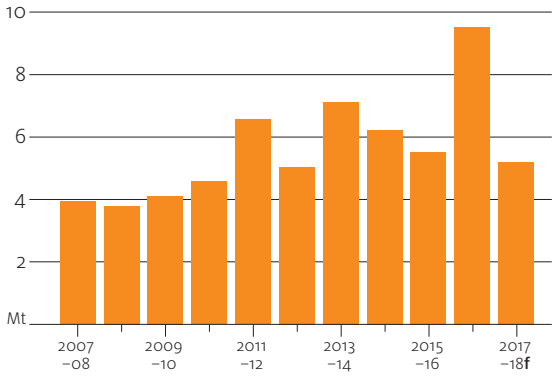
In 2017–18 Australian coarse grain production is forecast to fall by 33 per cent to around 12 million tonnes. A forecast increase in grain sorghum production will not be enough to offset significant falls in winter crop production. Barley production is forecast to fall by 40 per cent to 8 million tonnes and oats by 45 per cent to just over 1 million tonnes. Poor seasonal conditions for winter crops in many regions (including in southern Queensland; north-west, central and south-west New South Wales; South Australia; and Western Australia) have resulted in much lower yields than the records achieved in 2016–17.

Grain sorghum production in 2017–18 is forecast to increase by 95 per cent to just below 2 million tonnes. An increase in fallow land following a poor winter cropping season has led to more area being available for summer crops. Timely spring rainfall across the summer cropping regions of Queensland and northern New South Wales is forecast to result in a 61 per cent increase in area planted to grain sorghum compared with 2016–17, when dry seasonal conditions resulted in a small area planted.

Exports to fall in 2017–18

In 2017–18 Australian coarse grain exports are forecast to be around 42 per cent below the record of 2016–17. Significantly lower barley and oat production combined with increased domestic feed demand is expected to reduce the volume available for export. Grain sorghum exports are forecast to increase due to increased production following dry seasonal conditions in 2016–17.

Australian barley exports, 2007–08 to 2017–18



f ABARES forecast.

Outlook for coarse grains

Category	unit	2015–16	2016–17 s	2017–18 f	% change
World					
Production	Mt	1,260	1,366	1,319	*– 3.4*
barley	Mt	150	148	142	*– 4.1*
corn	Mt	972	1,075	1,039	*– 3.4*
Consumption	Mt	1,273	1,330	1,342	*0.9*
Trade	Mt	163	203	188	*– 7.7*
Closing stocks	Mt	250	287	264	*– 8.1*
Stocks-to-use ratio	%	19.6	21.6	19.7	–
Corn price **a**	US$/t	168	157	159	*1.4*
Barley price **b**	US$/t	173	158	180	*14.1*
Australia					
Area	’000 ha	5,581	5,508	5,433	*– 1.4*
barley	’000 ha	4,108	4,035	3,920	*– 2.8*
grain sorghum	’000 ha	521	396	636	*60.5*
Production	kt	12,610	17,076	11,510	*– 32.6*
barley	kt	8,992	13,414	7,990	*– 40.4*
grain sorghum	kt	1,791	1,017	1,978	*94.6*
Exports	kt	6,845	10,708	6,260	*– 41.5*
value	A$m	2,280	2,797	2,165	*– 22.6*
Feed barley price **c**	A$/t	237	174	232	*33.9*
Malting barley price **d**	A$/t	274	188	254	*35.4*

a US no. 2 yellow corn, fob Gulf, July–June. **b** France feed barley, fob Rouen, July–June. **c** Feed 1, delivered Geelong. **d** Gairdner Malt 1, delivered Geelong. **f** ABARES forecast. **s** ABARES estimate.
Sources: ABARES; Australian Bureau of Statistics; International Grains Council; UN Commodity Trade Statistics Database (UN Comtrade); US Department of Agriculture

Oilseeds

Nathan Pitts

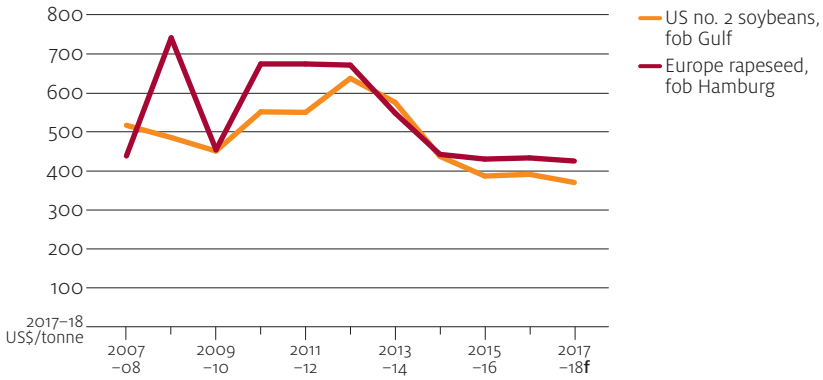
- Canola prices to stabilise at current levels and soybean prices to fall.
- World oilseed production to remain at record highs driven by increased plantings.
- Reduced Australian production to constrain growth in global canola exports.

Canola prices to stabilise despite downward pressure from record soybean production

In 2017–18 the world canola indicator price (Europe rapeseed, fob Hamburg) is forecast to remain unchanged at $425 per tonne. Relatively high prices for palm oil, a substitute for canola oil, are expected to largely offset downward pressure on canola prices resulting from abundant soybean supplies. Exportable supplies of canola are forecast to remain steady year-on-year, due to mixed growing conditions in the major exporters—Australia, Canada and Ukraine.

In 2017–18 the oilseed indicator price (US no. 2 soybeans, fob Gulf) is forecast to decrease by 4 per cent to average $370 per tonne. This reflects record high soybean opening stocks and continued high global soybean production.

World oilseed indicator prices, 2007–08 to 2017–18

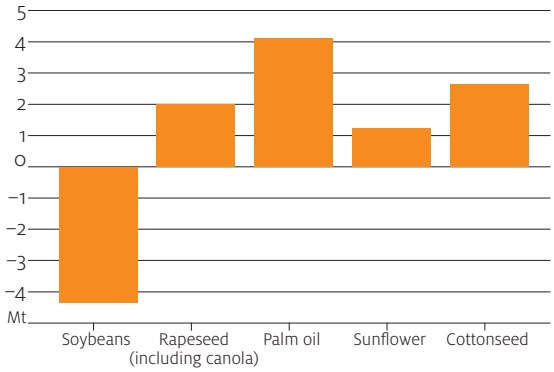


f ABARES forecast.

Supplies of oilseeds to reach record volumes

Global oilseed production in 2017–18 is forecast to reach 571 million tonnes, a marginal increase from the record high in 2016–17. Average oilseed yields are expected to fall year-on-year following record soybean yields in 2016–17 in the two largest-producing countries, Brazil and the United States. In 2016–17 Brazil and the United States together accounted for 41 per cent of world oilseed production. However, the fall in yields is expected to be more than offset by a forecast increase in area harvested because returns to oilseeds are expected to exceed those of cropping alternatives including corn and wheat. Harvested area is expected to increase by 5 per cent to a record 244 million hectares. Production is expected to increase for all major oilseeds (except soybeans) and palm oil.

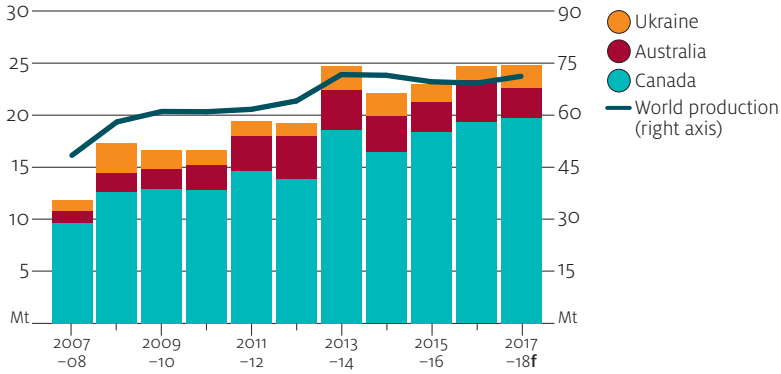
Forecast change in volume of world oilseed and palm oil production, 2016–17 to 2017–18



World soybean production in 2017–18 is forecast to decrease slightly to around 347 million tonnes. US soybean production is expected to increase by 3 per cent to 121 million tonnes due to an 8 per cent increase in harvested area. Despite US soybean yields being forecast to fall by 5 per cent, average yields are expected to be the second highest on record—reflecting favourable seasonal conditions. Soybean production in Brazil is forecast to fall by 9 per cent as a result of decreased yields following the records achieved in 2016–17. Soybean production in Argentina is forecast to increase marginally to 57 million tonnes. Dry conditions affecting plantings present a downside risk to Argentinian production.

In 2017–18 global production of rapeseed (including canola) is forecast to increase by 3 per cent to reach 72 million tonnes. Despite this, production of rapeseed (including canola) in the major exporting countries is forecast to remain steady at 2016–17 volumes. Falls in Australian production are expected to be offset by production increases in other major exporting countries. Canadian canola production is expected to increase by 2 per cent to almost 20 million tonnes. Record plantings are expected to be partially negated by lower yields associated with a hot and dry summer. EU rapeseed (including canola) production is forecast to increase by 8 per cent to 22 million tonnes, following the lowest yields in five years in 2016–17.

Rapeseed (including canola) production, major exporters and world, 2007–08 to 2017–18



f ABARES forecast.

Production of palm oil in 2017–18 is expected to increase to 67 million tonnes due to a return to more favourable seasonal conditions and assumed average yields. This is an increase of 7 per cent from 2016–17, when seasonal conditions resulted in weather-stressed plantations and reduced yields in Indonesia and Malaysia—the two largest palm oil-producing countries. Constrained palm oil production in 2016–17 combined with continued strong global demand for vegetable oils has led to low palm oil stocks and high prices relative to oilseeds.

In 2016–17 world oilseed closing stocks increased by 22 per cent to a record 108 million tonnes due to record soybean production. In 2017–18 closing stocks are forecast to increase further to 110 million tonnes.

Readily available supplies to drive global consumption

Global oilseed consumption in 2017–18 is forecast to increase by 3 per cent to 569 million tonnes, reflecting increased demand for oilseed meal (from livestock industries) and vegetable oil (for human consumption and biodiesel production). World soybean consumption is forecast to increase by 4 per cent to 348 million tonnes primarily due to growth in Chinese soybean consumption. Increased feed use in pig and poultry industries in China is expected to drive Chinese soybean consumption up by 7 per cent to 109 million tonnes. World rapeseed (including canola) consumption is expected to increase by 2 per cent to 71 million tonnes, with steady consumption growth expected globally.

Soybeans to drive growth in trade

World oilseed exports in 2017–18 are forecast to increase by 2 per cent to 170 million tonnes. Global soybean exports are expected to increase by 4 per cent to 151 million tonnes, reflecting expected increased exportable supplies due to back-to-back years of high Brazil and US production.

In 2017–18 global rapeseed (including canola) exports are forecast to increase marginally to 16 million tonnes. Lower forecast production in Australia is expected to lead to relatively steady year-on-year exportable supplies from the major canola exporters.

In 2017–18 EU imports of rapeseed (including canola) are forecast to decrease by 16 per cent to 3.4 million tonnes, reflecting a recovery in domestic production. EU import demand for rapeseed (including canola) is primarily driven by biofuel production levels mandated by the Renewable Energy Directive. Chinese rapeseed (including canola) imports are expected to increase by 15 per cent to reach 4.5 million tonnes, driven by strong domestic demand and a forecast fall in domestic production.

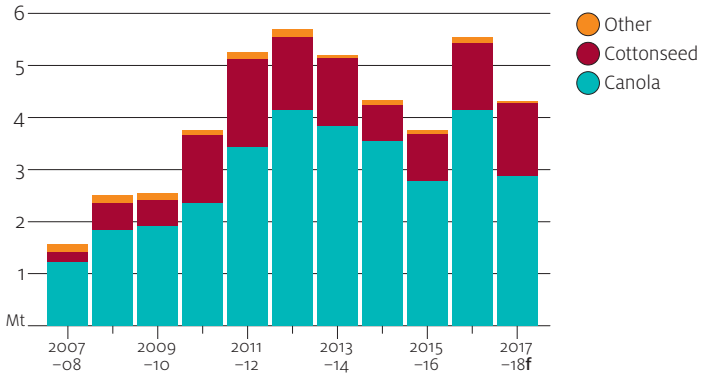
Low canola yields to decrease Australian oilseed production

In 2017–18 Australian oilseed production is forecast to decrease by 22 per cent to around 4.3 million tonnes, driven by an expected significant decrease in canola production relative to the previous year.

Australian canola production in 2017–18 is forecast to decrease by 31 per cent to 2.9 million tonnes from the record levels of 2016–17. Unfavourable conditions early in the season in Western Australia, and frost damage and poor September rainfall in New South Wales have resulted in low canola yields. Average canola yields across Australia are expected to fall by 38 per cent year-on-year to 1.1 tonnes per hectare. If realised, yields in 2017–18 will be the lowest since 2008–09. A 10 per cent increase in planted area as a result of expected favourable returns relative to grain crops is forecast to partially offset the reduction in yields.

In 2017–18 Australian cottonseed production is forecast to increase by 4 per cent to around 1.4 million tonnes. This is expected to be largely driven by an increase in yields in irrigated plantings following the poor yields achieved the previous season. Area planted to cotton is expected to decrease by 10 per cent to 500,000 hectares due to a decrease in the availability of irrigation water and dry seasonal conditions at the opening of the planting window.

Oilseed production, Australia, 2007–08 to 2017–18



f ABARES forecast.

Australian exports to fall due to lower EU demand

Australian canola exports in 2017–18 are forecast to decrease by 47 per cent to 1.9 million tonnes, reflecting lower import demand from the European Union. In 2016–17, 88 per cent of Australian canola exports went to the European Union—down from 91 per cent in 2015–16. A forecast recovery in EU rapeseed (including canola) production in 2017–18 is expected to decrease import demand for Australian canola. In September 2017 the European Union removed anti-dumping tariffs on Argentinian biodiesel which is also expected to decrease import demand for biodiesel feedstocks, such as canola, from other nations including Australia.

Outlook for oilseeds

Category	unit	2015–16	2016–17 s	2017–18 f	*% change*
World					
Production	Mt	521	570	571	*0.2*
Consumption	Mt	526	551	569	*3.3*
oilseed meal	Mt	305	321	330	*2.8*
vegetable oil	Mt	178	185	191	*3.2*
Exports	Mt	153	167	170	*1.8*
Closing stocks	Mt	88.6	108	110	*1.9*
Stocks-to-use ratio	%	16.9	19.6	19.3	–
Soybean indicator price **a**	US$/t	373	384	370	*– 3.6*
Canola indicator price **b**	US$/t	415	425	425	*0*
Australia					
Total production	kt	3,750	5,567	4,343	*– 22.0*
winter	kt	2,780	4,146	2,858	*– 31.1*
summer	kt	970	1,421	1,485	*4.5*
Canola					
Production	kt	2,775	4,136	2,852	*– 31.0*
Exports **c**	kt	1,946	3,598	1,891	*– 47.4*
value	A$m	1,097	2,128	1,024	*– 51.9*
Price **d**	A$/t	542	530	521	*– 1.7*

a US no. 2 soybeans, fob Gulf. **b** Rapeseed, Europe, fob Hamburg, July–June. **c** July–June years. **d** Delivered Melbourne. **f** ABARES forecast. **s** ABARES estimate.

Sources: ABARES; Australian Bureau of Statistics; US Department of Agriculture

Sugar

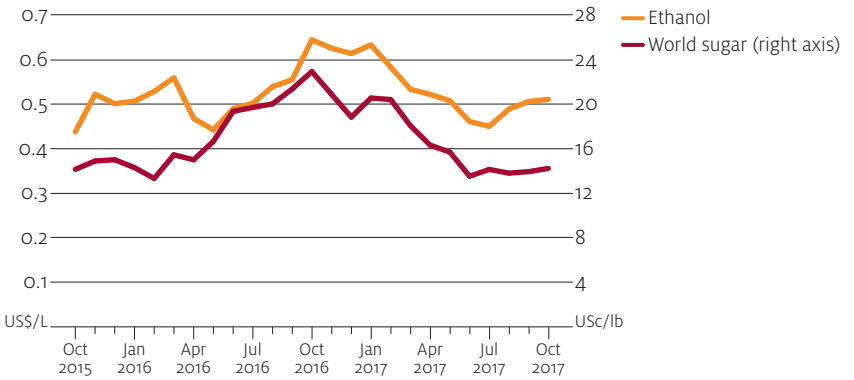
Benjamin K Agbenyegah

- In 2017–18 world raw sugar prices are forecast to decline by 19 per cent as world supply grows faster than demand.
- World sugar stocks are forecast to increase by 6 per cent.
- Returns to Australian cane growers are forecast to average around $46 a tonne for cane cut for crushing.
- Australian sugar export volumes are forecast to be stable despite an expected fall in sugar production, but lower prices are forecast to reduce the value of exports by 13 per cent.

Record world sugar supply to put pressure on prices in 2017–18

The world indicator price for raw sugar (Intercontinental Exchange, nearby futures, no. 11 contract) in 2017–18 (October to September) is forecast to decline by 19 per cent to average US14 cents a pound. This is a smaller decline than forecast in *Agricultural commodities: September quarter 2017* due to an unexpected slowdown in Brazilian sugar production. The slowdown was driven by a shift in cane allocation from sugar to ethanol production in response to an increase in the relative price of ethanol.

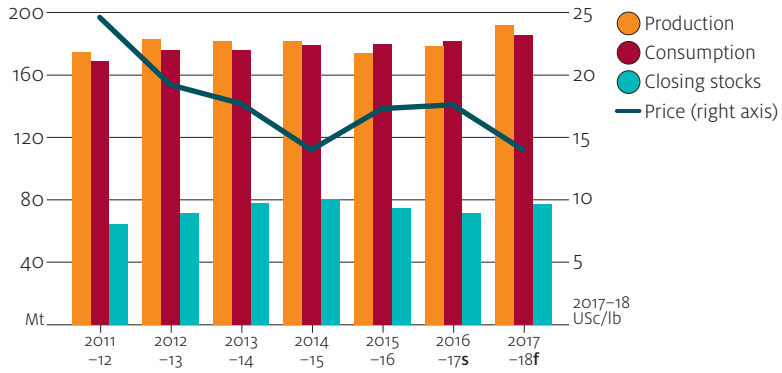
World sugar and Brazilian ethanol prices, October 2015 to October 2017



Sources: Center for Advanced Studies on Applied Economics; Nearby futures price, Intercontinental Exchange, New York no. 11 contract

In 2017–18 world sugar production is forecast to reach a record 192 million tonnes, an increase of 8 per cent year-on-year. Production is expected to increase in China, the European Union, India and Thailand.

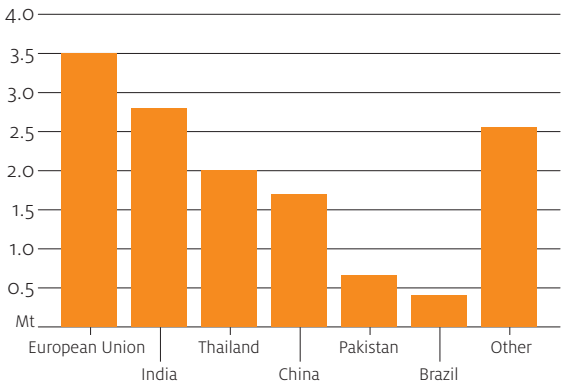
World sugar production, consumption, stocks and price, 2011–12 to 2017–18 a



a Production, consumption and stocks are raw value equivalent and years are from October to September.
f ABARES forecast. **s** ABARES estimate.

Sugar production in Brazil in 2017–18 (April to March) is forecast to be 40 million tonnes, slightly higher than the previous season. Cane allocation to sugar production is expected to rise by 2 percentage points to 48 per cent year-on-year. This increase is despite a November 2017 fall in cane allocation to sugar after Brazilian millers responded to relatively high sugar prices early in the 2016–17 season by allocating a larger volume of cane crush to sugar production.

Forecast change in volume of world sugar production, by country, 2017–18



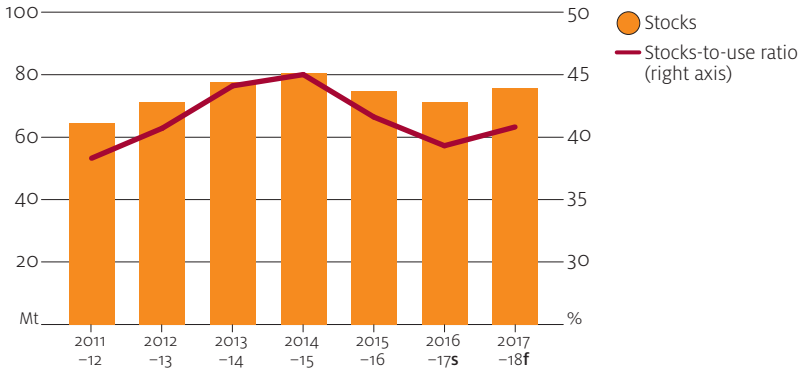
In 2017–18 record world sugar production is forecast to lead to a 3 per cent rise in world exports to 71 million tonnes. Strong import demand from Algeria, Bangladesh, Indonesia, the United Arab Emirates and the United States is expected to support higher exports from Brazil and Thailand.

World sugar consumption and stocks to grow in 2017–18

World sugar consumption in 2017–18 is forecast to be around 186 million tonnes, up by 2 per cent from 2016–17. Rising consumer incomes and populations are estimated to lead to an increase in sugar consumption in Brazil, China, India, Indonesia, Pakistan and the Russian Federation. Relatively low sugar prices compared with those for alternative sweeteners such as high-fructose corn syrup and isoglucose are expected to encourage sugar consumption.

In 2017–18 world sugar stocks are expected to increase by 6.3 per cent to 76 million tonnes due to faster growth in production than consumption. The world stocks-to-use ratio is expected to be around 41 per cent, up almost two percentage points from the previous year.

World sugar stocks, 2011–12 to 2017–18 **a**



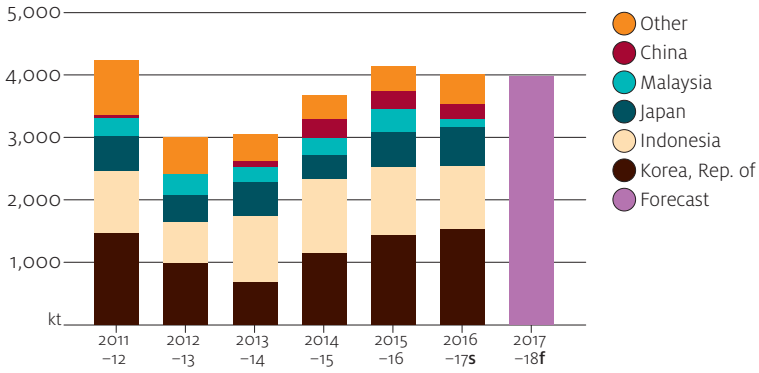
a Stocks are raw value equivalent and years are from October to September.
f ABARES forecast. **s** ABARES estimate.

Australian sugar production to be slightly lower in 2017–18

In 2017–18 Australian sugar production is forecast to fall by 2 per cent to 4.7 million tonnes. This is expected to be driven by a 10 per cent fall in cane production partially offset by a 6 per cent increase in commercial cane sugar content. Lower cane production is due to a combination of dry conditions in southern Queensland (July 2016 to March 2017) and damage caused by Tropical Cyclone Debbie (March 2017) to cane producing regions in Queensland.

Australian sugar export volumes in 2017–18 are forecast to remain largely unchanged at around 4 million tonnes. This forecast is expected to be supported by strong import demand from China, Indonesia, Japan, Malaysia and the Republic of Korea. The value of Australian sugar exports is forecast to fall by 13 per cent year-on-year to around $2 billion because of lower world prices.

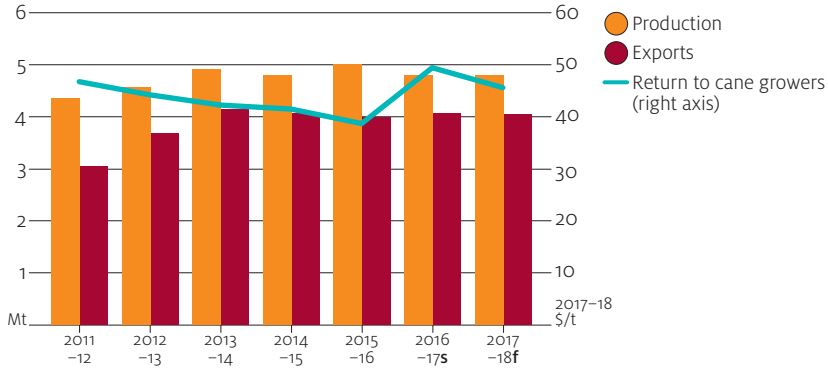
Australian sugar exports, by destination, 2011–12 to 2017–18



Exports are raw value equivalent and years are from July to June. **f** ABARES forecast. **s** ABARES estimate.
Source: Australian Bureau of Statistics

In 2017–18 returns to Australian cane growers are forecast to average around $46 a tonne, down from $48 a tonne year-on-year. This reflects lower world prices.

Sugar production, exports and returns to cane growers, Australia, 2011–12 to 2017–18 a



a Production and exports are raw value equivalent. **f** ABARES forecast. **s** ABARES estimate.

Outlook for sugar [a]

Category	unit	2015–16	2016–17 s	2017–18 f	% change
World [b]					
Production	Mt	174	178	192	*7.5*
Brazil	Mt	38.1	39.6	40.0	*1.0*
Consumption	Mt	180	181	186	*2.3*
Exports	Mt	58.5	68.8	71.0	*3.2*
Closing stocks	Mt	74.8	71.2	75.7	*6.3*
Stocks-to-use ratio	%	41.6	39.3	40.8	–
Price	USc/lb	16.7	17.3	14.0	*– 19.1*
Australia [c]					
Area	’000 ha	381	372	380	*2.2*
Production	kt	4,920	4,804	4,700	*– 2.2*
Exports	kt	4,140	4,009	3,985	*– 0.6*
value	A$m	1,823	2,232	1,933	*– 13.4*
Return to cane growers	A$/t	37.3	48.2	45.6	*– 4.2*

a Volumes are raw value equivalent. **b** October–September years. **c** July–June years. **f** ABARES forecast. **s** ABARES estimate.

Sources: ABARES; Australian Bureau of Statistics; Australian Sugar Milling Council, Annual Review, Brisbane; F.O. Licht, International Sugar and Sweetener Report, World Sugar Balances, Ratzeburg, Germany; International Sugar, London; US Department of Agriculture, Washington.

Cotton

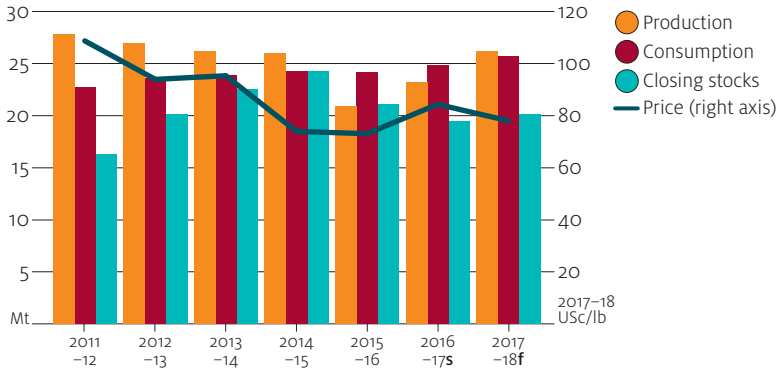
Benjamin K Agbenyegah

- World cotton prices are forecast to decline by 6 per cent as supply increases more quickly than demand.
- World cotton stocks are expected to increase for the first time in three years.
- Australian cotton production is forecast to rise by 4 per cent despite a fall in cotton plantings.
- Returns to Australian cotton growers are forecast to fall due to falling world prices.

Higher supply to put downward pressure on world cotton prices

The world indicator price for cotton (Cotlook 'A' index) is forecast to decline in 2017–18 (August to July) by 6 per cent to average US78 cents a pound. This is a greater fall than the *Agricultural commodities: September quarter 2017* forecast because of a larger than anticipated increase in production from Australia, Brazil, China and India.

World cotton production, consumption, stocks and indicator price, 2011–12 to 2017–18



f ABARES forecast. **s** ABARES estimate.

World cotton production to rise in 2017–18

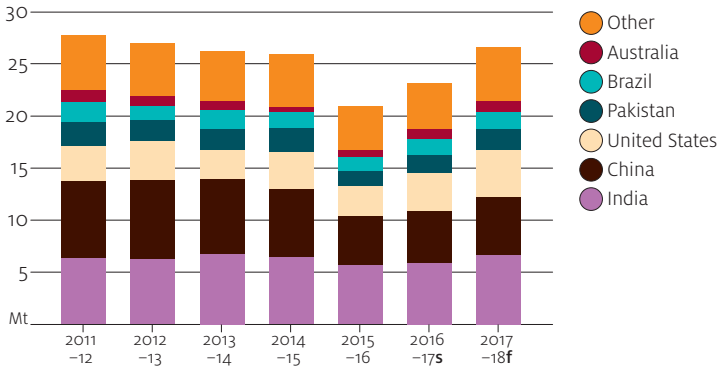
In 2017–18 world cotton production is forecast to be around 27 million tonnes, up from 23 million tonnes in 2016–17. This is up 6 per cent from the *Agricultural commodities: September quarter 2017* forecast and is mainly the result of larger than anticipated plantings in Australia, Brazil, China and India. Area planted to cotton globally is forecast to increase by around 4 million hectares to 33 million hectares.

Cotton production in India in 2017–18 is forecast to rise by 13 per cent to a record 6.6 million tonnes, largely due to a 12 per cent increase in area planted. The increase was driven by well-distributed monsoon rains and relatively high domestic cotton prices during planting. In June 2017 the Indian Government increased the minimum support price by around 5 per cent to 3,980 rupees per quintal of seed cotton (US28 cents per pound).

Chinese cotton production in 2017–18 is forecast to be around 5.5 million tonnes, 11 per cent higher than in 2016–17. This increase is based on an estimated 8 per cent rise in area planted to cotton and an estimated 3 per cent rise in average lint yield. Area has increased because of higher prices offered by the Chinese Government to cotton growers in Xinjiang region. Lint yields are estimated to have averaged a record 1.8 tonnes per hectare as a result of well-distributed rains.

In 2017–18 a fall in average yields and an increase in crop abandonment in the United States is expected as a result of damage caused to crops by hurricanes Harvey and Irma. Despite this, US production is forecast to increase to around 4.5 million tonnes due to increased cotton plantings offsetting the fall in average yields.

World cotton production, by country, 2011–12 to 2017–18



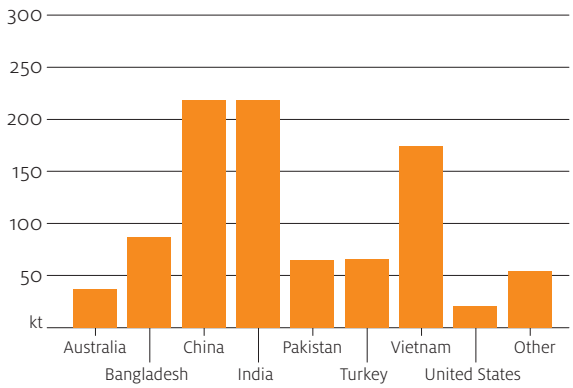
f ABARES forecast. **s** ABARES estimate.

Higher global production in 2017–18 is forecast to lead to a 1 per cent increase in raw cotton exports. This forecast is supported by strong import demand from Bangladesh, China, Turkey and Vietnam. Higher exports are forecast from Australia, Brazil, India and Uzbekistan. Cotton exports from the United States—the world's largest exporter of cotton—are forecast to fall by 3 per cent to 3.2 million tonnes, following near-record exports in 2016–17.

World cotton consumption to grow in 2017–18

In 2017–18 world cotton consumption is forecast to increase by 4 per cent to around 26 million tonnes. This forecast is driven by strong demand for raw cotton in Bangladesh, China, India and Vietnam—driven by a significant increase in domestic demand for cotton yarn resulting from a rapid expansion in textile and garment industries.

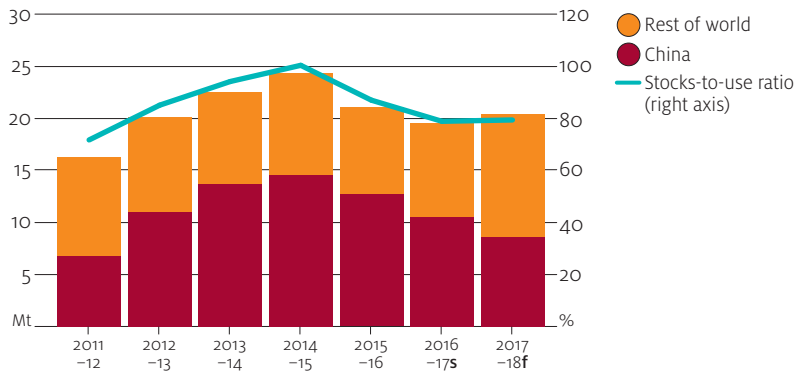
Forecast change in volume of world cotton consumption, by country, 2016–17 to 2017–18



World cotton stocks to recover in 2017–18

In 2017–18 world closing stocks for raw cotton are forecast to be 20 million tonnes, representing a 5 per cent recovery year-on-year and a significant increase on the *Agricultural commodities: June quarter 2017* forecast. This rise is due to forecast growth in world cotton production exceeding growth in consumption for the first time in three years. World stocks (excluding China) are forecast to increase by 31 per cent to around 12 million tonnes. This increase is expected to more than offset a forecast 18 per cent fall in Chinese stocks to around 9 million tonnes due to consumption in China outpacing production.

World cotton stocks, 2011–12 to 2017–18



f ABARES forecast. **s** ABARES estimate.

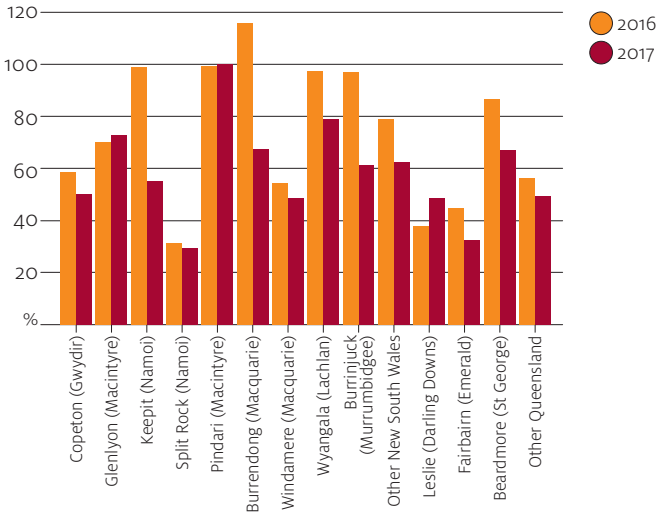
Australian cotton production to grow in 2017–18

In 2017–18 Australian cotton production is forecast to rise by 4 per cent to 968,000 tonnes. This is expected to be largely driven by an increase in yields in irrigated plantings following the poor yields achieved the previous season.

Total area planted to cotton is forecast to decline by 10 per cent to 500,000 hectares due to a decrease in the availability of irrigation water and dry seasonal conditions at the opening of the planting window. This forecast is a smaller decline than forecast in *Agricultural commodities: September quarter 2017*. Favourable returns from growing cotton compared with alternative crops (grain sorghum, maize and rice) combined with above average rains in October 2017 have provided the incentive and opportunity for Australian producers to increase dryland plantings by more than previously expected. This was further facilitated by an extended planting window following the introduction of Bollgard 3 cotton varieties which increased the planting window to four months (August to December).

Reduced planting in 2017–18 is due to less stored irrigation water and lower soil moisture at the time of planting. On 23 November 2017 the average storage level of public irrigation dams serving cotton-growing regions was around 59 per cent of capacity, compared with 73 per cent at the same date in 2016.

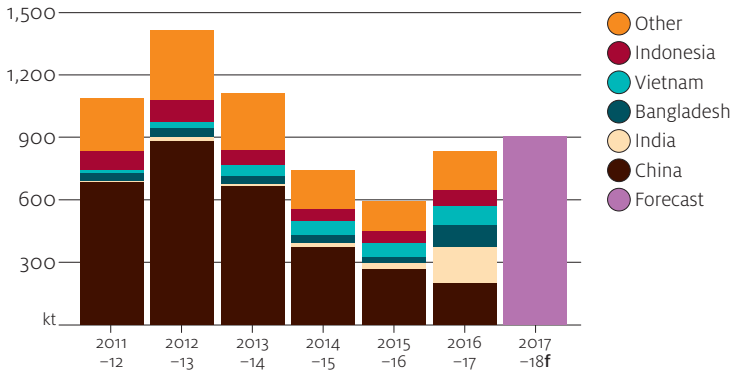
Storage levels of main irrigation dams, at 23 November



Source: Bureau of Meteorology

In 2017–18 Australian cotton exports are forecast to increase by 24 per cent to 944,000 tonnes. This forecast is supported by production growth in 2016–17 and 2017–18 and strong import demand for quality cotton from Bangladesh, China, India and Vietnam. The value of Australian cotton exports is forecast to increase by 18 per cent to around $2.1 billion, reflecting an increase in export volumes.

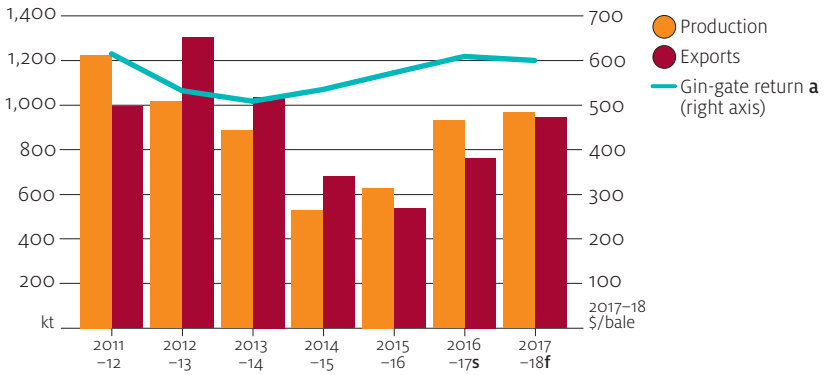
Australian cotton exports, by destination, 2011–12 to 2017–18



f ABARES forecast.
Source: Australian Bureau of Statistics

In 2017–18 average returns to Australian cotton growers are forecast to be $600 per bale (227 kilograms) of lint (including the value of cottonseed and net of ginning costs), down from $609 per bale in 2016–17. This forecast fall is due to lower world cotton prices.

Cotton production, exports and gin-gate returns, Australia, 2011–12 to 2017–18



a Value of lint and cottonseed less ginning costs. **f** ABARES forecast. **s** ABARES estimate.

Outlook for cotton

Category	unit	2015–16	2016–17 s	2017–18 f	*% change*
World a					
Production	Mt	20.9	23.2	26.6	*14.7*
Consumption	Mt	24.2	24.8	25.7	*3.6*
Exports	Mt	7.6	8.2	8.3	*1.2*
Closing stocks	Mt	21.1	19.5	20.4	*4.6*
Stocks-to-use ratio	%	86.9	78.8	79.2	–
Cotlook 'A' index	USc/lb	70.4	82.8	78.0	*– 5.8*
Australia b					
Area harvested	'000 ha	270	557	500	*– 10.2*
Lint production	kt	629	931	968	*4.0*
Exports	kt	536	763	944	*23.8*
value	A$m	1,269	1,787	2,100	*17.5*
Gin-gate return c	A$/bale	552	609	600	*– 1.6*

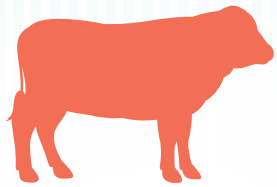
a August–July years. **b** July–June years. **c** Value of lint and cottonseed less ginning costs.
f ABARES forecast. **s** ABARES estimate.
Sources: ABARES; Australian Bureau of Statistics; Cotton Australia Statistics; Cotton Outlook; Merseyside, United Kingdom; US Department of Agriculture, Washington

Agriculture

Livestock

LIVESTOCK

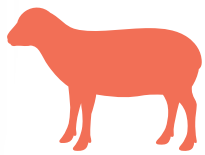
↓13%
to **465 Ac/kg**[a]
in 2017–18



Beef and veal

Saleyard prices to fall due to weaker export returns and increased turn-off.

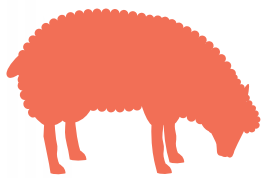
↑6%
to **625 Ac/kg**[b]
in 2017–18



Sheep meat

Firm export demand and restocker demand to support lamb prices.

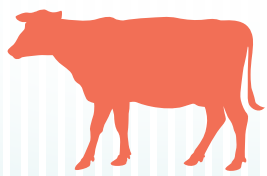
↑15%
to **1,630 Ac/kg**[c]
in 2017–18



Wool

Wool prices to rise due to strong growth in export demand and slow supply growth.

↑15%
to **47 Ac/L**[d]
in 2017–18



Dairy

Milk prices to rise, reflecting firmer global demand and competition for milk supply.

a Australian weighted average saleyard price of beef cattle. **b** Australian weighted average saleyard price of lamb. **c** Eastern Market Indicator price, clean equivalent. **d** Australian average farmgate milk price.

Beef and veal

Jack Mullumby

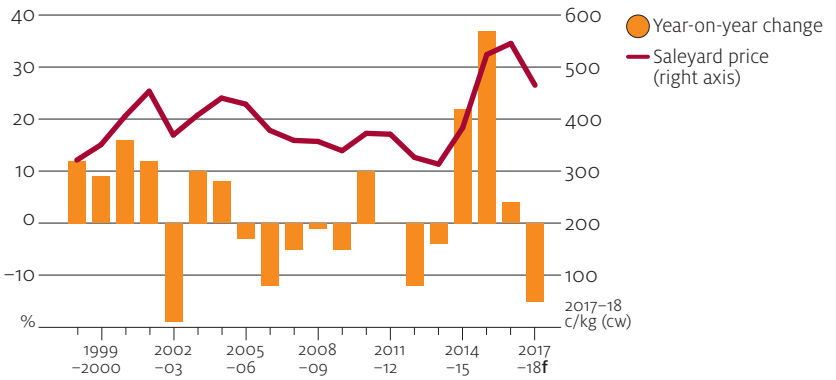
- In 2017–18 the weighted average saleyard price of beef cattle is forecast to average 465 cents per kilogram (carcase weight), 13 per cent lower than the previous year but 23 per cent above the 20-year average.
- Rising slaughter and average weights are expected to increase production and export volumes.
- Export volumes to the United States and Japan are forecast to rise by 27 per cent and 10 per cent respectively, while prices are expected to fall by 2 per cent (United States) and 4 per cent (Japan) as a result of increased competition.

Average saleyard prices to fall but remain high

In 2017–18 the weighted average saleyard price of beef cattle is forecast to fall by 13 per cent to 465 cents a kilogram (carcase weight). This is forecast to be the largest annual decline in real terms since 2002–03, when the weighted average saleyard price fell by 19 per cent. Despite this forecast decline, cattle prices are expected to remain historically high. If realised, saleyard prices will be 23 per cent higher than the 20-year average.

The forecast fall in saleyard prices mainly reflects lower prices in export markets due to increased competition from other beef producers, particularly in the Japanese and US markets. Increased turn-off in major cattle-producing regions of Australia, principally Queensland and New South Wales, is also expected to put downward pressure on domestic prices.

Beef cattle, weighted average saleyard price and year-on-year change, Australia, 1998–99 to 2017–18



f ABARES forecast.

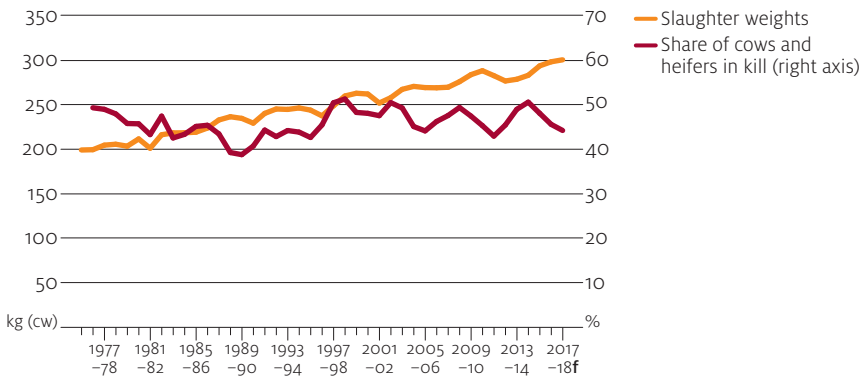
Cattle herd to expand despite higher slaughter

In 2017–18 Australian cattle and calf slaughter is forecast to increase by 9 per cent to 8.1 million head, partly as a result of a larger opening cattle inventory. The increase in cattle slaughter is expected to mainly consist of bullocks and steers due to relatively high cattle prices and favourable seasonal conditions, giving producers an incentive to retain female cattle for herd expansion. As a result, the national beef cattle herd is forecast to expand by a further 4 per cent to 24 million head.

Higher weights to add to production

The forecast increase in cattle slaughter is expected to drive Australian beef production 12 per cent higher to 2.3 million tonnes (carcase weight). Adult slaughter weights are also forecast higher at a record average of 298 kilograms and expected to contribute to the increase in beef production. Since 2014–15 slaughter weights have continued to increase as a result of improved seasonal conditions and a relatively high number of cattle on feed. Slaughter weights have also been supported during this period by a declining share in the national kill of cows and heifers (they are relatively lighter than bulls, bullocks and steers). The share of cows and heifers in the national kill is forecast to contract for the third consecutive year to 44 per cent, from a high of 51 per cent in 2014–15.

Adult cattle slaughter weights and share of female cattle in national kill, Australia, 1975–76 to 2017–18



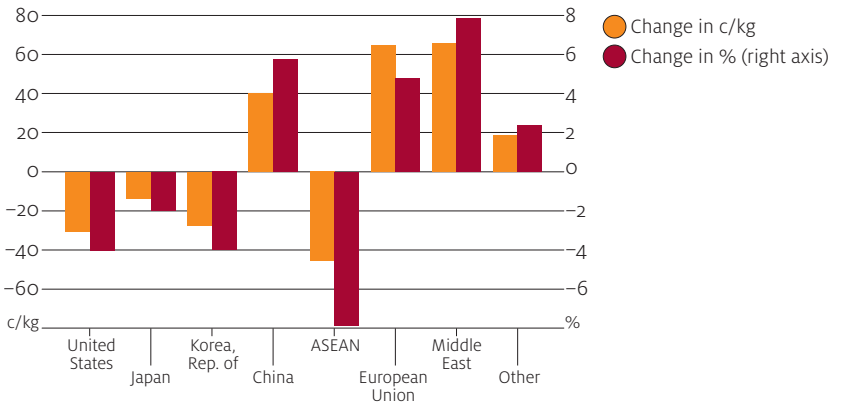
f ABARES forecast.

Lower forecast export prices

In 2017–18 the value of Australian beef exports is forecast to increase by 12 per cent to $8.0 billion, driven by a 16 per cent rise in export volumes and partially offset by a 3 per cent fall in average export unit values. Export prices are forecast to average lower year-on-year across all major markets as a result of increased competition, particularly from the United States. The United States is Australia's largest market for frozen beef and its biggest competitor for chilled beef exports to Japan and the Republic of Korea.

The largest decline in beef export prices is forecast to be to the ASEAN region, resulting in a strong increase in consumption. In the September quarter 2017 export unit values to Indonesia averaged $4.82 a kilogram, 12 per cent lower than the previous year. Over the same period beef exports to Indonesia were 48 per cent higher. This large increase fell outside the typical build-up to Ramadan (May to June 2017) and increased competition for Australian live cattle exports to Indonesia.

Average quarterly export unit values, year-on-year change, Australia, September 2017



US exports increase as import demand falls

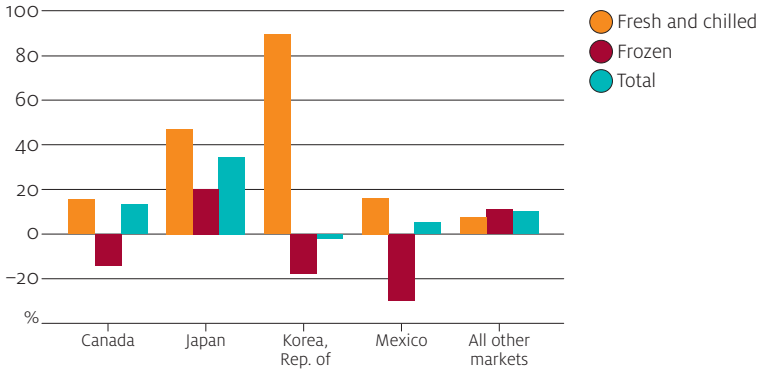
In July 2017 the US cow herd was recorded at 41.9 million head, 5 per cent higher than in 2015 (Data was not collected in 2016). This was the largest opening inventory since 2008 (42 million head). In 2017–18 the US cow inventory is expected to rise further as favourable seasonal conditions in US cow–calf producing regions and strong cattle prices relative to feed costs continue to provide US producers with an incentive to expand herds.

The US cow herd has steadily expanded since 2014, leading to higher cow slaughter and manufacturing beef production. This has resulted in reduced US demand for imported frozen beef and continues to place downward pressure on the frozen manufacturing beef indicator price (cow 90 CL US cif). This indicator is forecast to fall by around 2 per cent to US438 cents per kilogram in 2017–18.

In 2017–18 US beef imports are forecast to fall, reflecting weak demand. However, supplies are expected to be limited for other exporters of frozen lean manufacturing beef (especially New Zealand). As a result, Australian exports to the United States are forecast to increase by 27 per cent to 260,000 tonnes but remain 12 per cent below the five-year average to 2016–17 (296,000 tonnes).

The recent increase in US beef production has also resulted in higher US exports, particularly of chilled beef. This has led to increased competition with Australian exports in markets such as Japan and the Republic of Korea. In the September quarter 2017 total US beef exports were 13 per cent higher than the previous year, driven by a 35 per cent increase in chilled beef exports. Chilled beef exports to Korea increased by 89 per cent and to Japan by 47 per cent on the same period the previous year.

US beef exports, by destination, year-on-year change, September quarter 2017



Exports to Japan to rise as prices fall

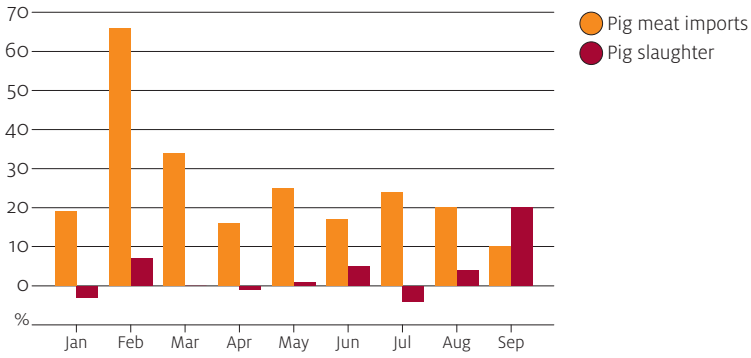
In 2017–18 Australian beef exports to Japan are forecast to increase by 9 per cent to 300,000 tonnes. Japanese demand for Australian beef remains relatively strong despite increased competition from the United States, particularly in the chilled beef market. The forecast increase in Australian exports to Japan mainly reflects strong consumption growth in Japan. This is expected to be supported by forecast lower average import prices. Increased US exports continue to place downward pressure on Japanese beef prices. The chilled beef indicator price (chilled grassfed fullset Japan cf) is forecast to fall by 4 per cent to US634 cents per kilogram.

Korean beef consumption forecast to fall

In 2017–18 Australian beef exports to the Republic of Korea are forecast to decline by 5 per cent to 170,000 tonnes. This reflects increased competition from the United States in the chilled beef market and reduced demand for imported beef as a result of strong competition from pig meat.

Imported beef prices in Korea are forecast to be lower in 2017–18. Despite this, pig meat is expected to become more price competitive as a result of expanding local production and increased pig meat imports. This is expected to result in lower Korean beef consumption as consumers substitute to pig meat. In the September quarter 2017 Korean pig meat imports increased by 18 per cent and beef imports fell by 3 per cent on the same period the previous year.

Pig slaughter and pig meat imports, Republic of Korea, year-on-year change, January to September 2017



Chinese import demand continues to be strong

Chinese demand for imported beef continues to grow strongly—supported by higher incomes, increased urbanisation and limited growth in local beef production. In 2017–18 Australian beef exports to China are forecast to increase by 15 per cent to 120,000 tonnes.

Export unit values are forecast to average lower and support an increase in the volume of Australian beef exported to China. In the September quarter 2017 Chinese import prices for Australian beef averaged US$5.95 a kilogram, 35 per cent higher than the average of US$4.40 a kilogram for all other markets. Prices for Australian beef in China are forecast to decline throughout the year as a result of lower world prices for frozen beef and increased competition from South American beef-exporting countries—principally Argentina, Brazil and Uruguay.

Live export prices to face downward pressure

In 2017–18 Australian live feeder slaughter cattle exports are forecast to increase by around 7 per cent to 875,000 head. This reflects strong demand for live cattle in Indonesia and Vietnam—driven by rising incomes, urbanisation and population growth. In the second half of 2017–18 increasing cattle supplies in northern Australia and forecast lower imported beef prices in Indonesia are expected to place downward pressure on prices for Australian live cattle. Average live export unit values are forecast to fall by 2 per cent, offsetting the forecast increase in live export numbers. The value of Australian live feeder–slaughter exports is forecast to rise by 5 per cent to $1.1 billion.

Outlook for beef and veal

Category	unit	2015–16	2016–17 s	2017–18 f	% change
Cattle numbers **ab**	million	25.0	25.7	26.6	*3.5*
beef cattle **a**	million	22.3	23.1	24.0	*3.9*
Slaughterings	’000	8,796	7,423	8,125	*9.5*
Production	kt (cw)	2,344	2,069	2,320	*12.1*
Exports					
Japan	kt (sw)	265	274	300	*9.5*
United States	kt (sw)	336	204	260	*27.5*
China	kt (sw)	129	104	120	*15.4*
Korea, Rep. of	kt (sw)	189	179	170	*– 5.0*
World	kt (sw)	1,196	991	1,145	*15.5*
value	A$m	8,495	7,115	7,960	*11.9*
Live feeder/slaughter cattle exports **c**	’000	1,114	817	875	*7.1*
value	A$m	1,280	1,031	1,080	*4.8*
Prices					
Saleyard cattle	Ac/kg (cw)	505	535	465	*– 13.1*
United States import **d**	USc/kg	451	447	438	*– 2.0*
Japan import **e**	USc/kg	650	661	634	*– 4.1*

a At 30 June. **b** Includes dairy cattle. **c** Includes buffalo. **d** Cow 90CL US cif price. **e** Chilled grassfed fullset Japan cf price. **f** ABARES forecast. **s** ABARES estimate.

Sources: ABARES; Australian Bureau of Statistics; Meat & Livestock Australia

Sheep meat and wool

Peter Berry

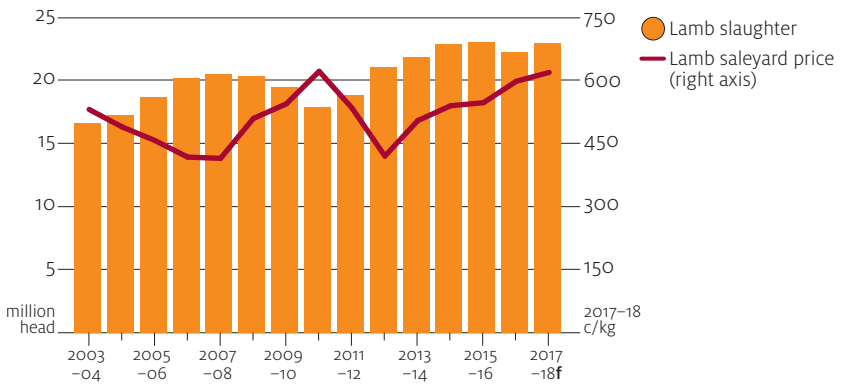
- In 2017–18 saleyard lamb prices are forecast to rise, reflecting firm export demand and continued flock rebuilding.
- Wool prices are forecast to rise as a result of growth in global demand continuing to exceed growth in supply.
- The national sheep flock is forecast to grow despite dry seasonal conditions in winter and early spring.

Lamb prices to rise

In 2017–18 Australian saleyard prices of lambs are forecast to rise by around 6 per cent to average 625 cents per kilogram. This reflects continued (though reduced) restocker demand and firm demand for lamb in Australia's key export markets.

Dry conditions through winter and early spring 2017 reduced pasture availability in some of the main sheep-producing regions of southern Australia and drove higher rates of turn-off. Despite this, restocker demand for flock rebuilding outweighed the effect of increased supply and drove saleyard lamb prices higher. In the first four months of 2017–18 price premiums for restocker lambs over trade lambs reflected continued flock rebuilding, particularly in south-eastern Australia.

Weighted average saleyard prices of lamb and slaughter, Australia, 2003–04 to 2017–18



f ABARES forecast.

Sheep prices to increase

In 2017–18 sheep prices are forecast to increase by 6 per cent to average 440 cents per kilogram in response to firm export demand and continued flock rebuilding.

Dry conditions in winter and early spring 2017 drove a sharp increase in turn-off (particularly of older ewes) compared with the same period in 2016. Despite the strong increase in supply, saleyard prices for sheep increased strongly. This suggests continuing flock rebuilding and restocker demand in most regions.

Wool prices to rise

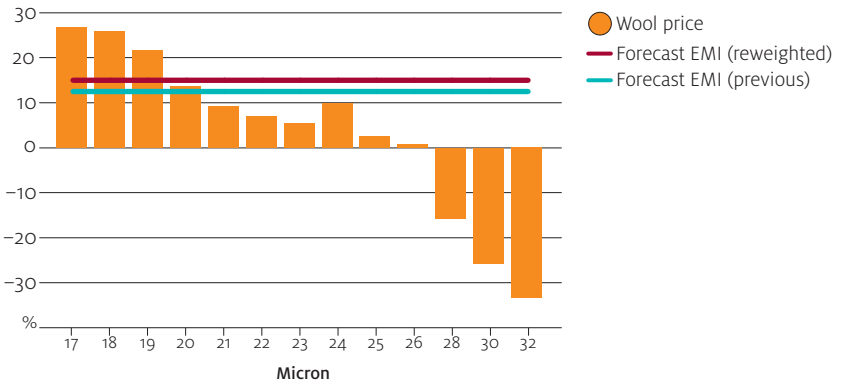
In 2017–18 the Australian Eastern Market Indicator (EMI) wool price is forecast to rise by 15 per cent to average 1,630 cents per kilogram.

A higher EMI is expected to be supported by higher prices for fine and superfine wools. This reflects strong growth in global demand for woollen textiles and apparel relative to growth in the supply of fine wool used in the manufacture of these items. These factors drove the EMI to a record high of 1,683 cents per kilogram in November.

In mid 2017 the Australian Wool Exchange reweighted the EMI to better reflect the trend towards finer wool production in recent years. As a result, fine wool prices will have a greater effect on the EMI than in the past and are expected to support a higher EMI in 2017–18.

In 2017–18 prices for coarser wools are forecast to fall, reflecting growth in global supply exceeding growth in demand for wool carpets and interior textiles (the main end-uses for coarse wool).

Percentage change in EMI and wool price by micron, Australia, 2015–16 to 2016–17



Dry conditions have slowed flock rebuilding

A return to widespread dry conditions through winter and early spring 2017 slowed flock rebuilding and drove higher rates of turn-off and slaughter. In the first three months of 2017–18 turn-off through saleyards increased by 17 per cent for lambs and 29 per cent for sheep compared with the same period in 2016. However, lamb slaughter (up 7 per cent) and sheep slaughter (up 26 per cent) did not keep pace with turn-off over the same period. This suggests that significant numbers of sheep and lambs have been purchased for flock expansion rather than meat production. Relatively buoyant saleyard prices, particularly for restocker lambs, also indicate that producers are continuing to rebuild flocks.

Over the remainder of 2017–18 average seasonal conditions are assumed. As a result, pasture growth is forecast to improve but remain less favourable than in 2016–17. This is expected to slow the rate of turn-off and slaughter, and drive continued (though slower) flock rebuilding. The national flock is forecast to increase by 3 per cent to around 73 million head by the end of June 2018.

Lamb and mutton production to increase

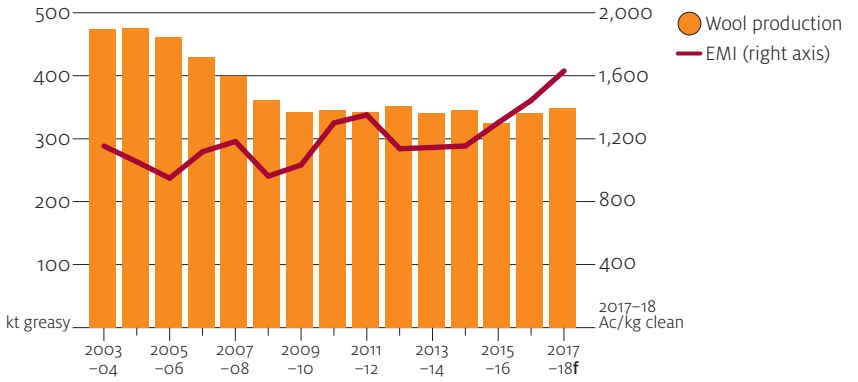
In 2017–18 lamb slaughter is forecast to increase by 3 per cent to 23 million head, reflecting increased lamb markings and higher turn-off. Lamb production is forecast to increase by 2 per cent to 518,000 tonnes for the year. The forecast increase in slaughter is expected to be partially offset by an expected fall in carcase weights.

Sheep slaughter in 2017–18 is forecast to increase by 19 per cent to 7.8 million head and mutton production by 19 per cent to 194,000 tonnes.

Shorn wool production continues to grow

In 2017–18 shorn wool production is forecast to increase by 3 per cent to 349,000 tonnes. Increased production is expected to be driven by flock expansion and producers increasing the proportion of higher-yielding wethers in response to higher wool prices. Despite this, wool yields in most regions are expected to fall following a return to less favourable pasture conditions after the excellent conditions of 2016–17. The number of sheep shorn is forecast to increase by 4 per cent to 77 million head.

Wool production and price, Australia, 2003–04 to 2017–18



f ABARES forecast.

Lamb and mutton exports to increase

In 2017–18 lamb export volumes are forecast to increase by around 2 per cent to 259,000 tonnes and the value of exports is forecast to increase by 7 per cent to $2.1 billion. Australian lamb exports to the United States, China and Middle Eastern countries are forecast to grow. Increased Australian exports to these destinations will be aided by a forecast continuation of lower exports from New Zealand, Australia's main competitor in global markets.

Mutton exports in 2017–18 are forecast to increase by 19 per cent to around 161,000 tonnes, reflecting increased Australian mutton production. The Middle East is expected to remain Australia's key destination for mutton exports and assumed stronger economic growth is expected to drive increased demand in the region.

Live sheep export demand firm

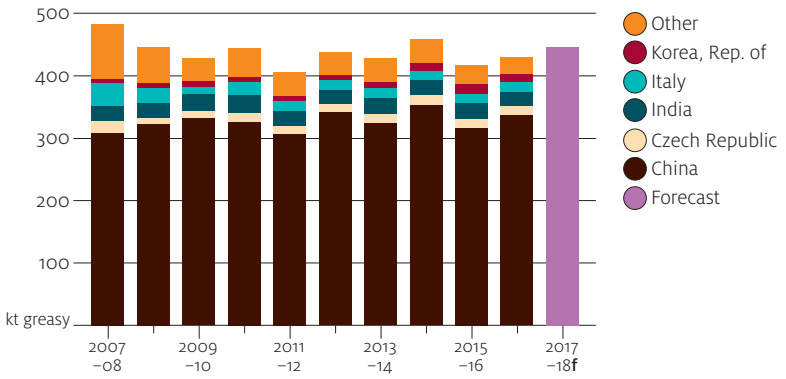
In 2017–18 live sheep exports are forecast to grow slightly to around 1.9 million head. Growth in live sheep exports is expected to be constrained by continued flock rebuilding, limiting the availability of suitable sheep. The Middle East accounts for around 97 per cent of Australia's live exports and assumed higher oil prices is likely to support demand.

Australian wool exports to grow

In 2017–18 Australian wool exports are forecast to increase by 4 per cent to 446,000 tonnes. The value of Australian wool exports is forecast to increase by 20 per cent to $4.3 billion, reflecting higher wool prices.

Australian wool exports to China in 2017–18 are forecast to increase by 3 per cent to 347,000 tonnes. China is Australia's key export destination for raw wool, accounting for around 78 per cent of Australia's wool exports over the past three years. The forecast increase in wool exports to China reflects firm demand for finished woollen apparel in major consuming countries and particularly strong growth in Chinese domestic demand in response to rising consumer incomes.

Australian wool exports, by destination, 2007–08 to 2017–18



f ABARES forecast.

Outlook for sheep meat and wool

Category	unit	2015–16	2016–17 s	2017–18 f	% change
Sheep numbers **a**	million	67.5	70.4	72.6	*3.1*
Sheep shorn	million	73.4	74.3	77.1	*3.8*
Slaughterings					
Lambs	’000	23,131	22,344	23,030	*3.1*
Sheep	’000	8,127	6,553	7,800	*19.0*
Production					
Lamb	kt (cw)	516	506	518	*2.4*
Mutton	kt (cw)	196	163	194	*19.0*
Wool production (greasy)					
shorn	kt	325	340	349	*2.6*
other **b**	kt	79.2	73.4	78.2	*6.8*
total	kt	404	414	427	*3.1*
Exports					
Lamb	kt (sw)	261	255	259	*1.6*
value	$m	1,771	1,934	2,079	*7.5*
Mutton	kt (sw)	156	135	161	*19.3*
value	$m	699	719	909	*26.4*
Live sheep	’000	1,859	1,851	1,875	*1.3*
value	$m	228	233	250	*7.3*
Wool					
volume	kt (gr. eq.)	417	429	446	*4.0*
to China	kt (gr. eq.)	316	336	347	*3.3*
value **c**	$m	3,283	3,617	4,339	*20.0*
Prices					
Lambs **d**	c/kg (cw)	533	592	625	*5.6*
Sheep **d**	c/kg (cw)	316	415	440	*6.0*
Eastern Market Indicator **e**	c/kg	1,256	1,415	1,630	*15.2*

a At 30 June. **b** Includes wool on sheepskins, fellmongered and slipe wool. **c** Balance of payments basis. **d** Saleyard prices. **e** Clean equivalent. **f** ABARES forecast. **s** ABARES estimate.

Sources: ABARES; Australian Bureau of Statistics; Australian Wool Exchange; Meat & Livestock Australia

Dairy

Tim Whitnall

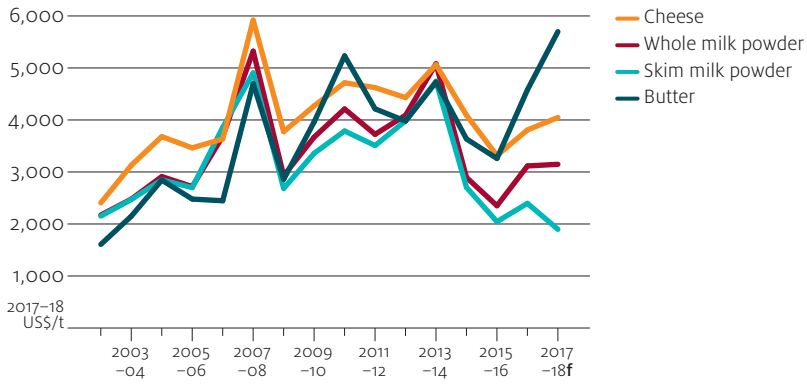
- World butter prices to average higher, reflecting strong growth in global demand and lower than expected production.
- Changes to EU stocks policy to put downward pressure on skim milk prices.
- Value of Australian dairy exports to rise, reflecting higher infant milk formula exports to China.

World butter prices to rise and skim milk powder prices to fall

In 2017–18 world prices are forecast to rise for most dairy commodities in response to higher global demand. World prices are forecast to increase for butter by 27 per cent, cheese by 8 per cent and whole milk powder by 3 per cent. The world price of skim milk powder is forecast to fall by 19 per cent.

The world price of butter in 2017–18 is forecast to average US$5,700 per tonne. This is up 6 per cent from the *Agricultural commodities: September quarter 2017* forecast, reflecting strong growth in global demand for milk fat and lower than expected spring production in New Zealand. The world price of skim milk powder is forecast to average US$1,900 per tonne, down 17 per cent from the September forecast. This reflects continued growth in global supply of skim milk powder outpacing growth in demand, and changes to the EU stocks policy.

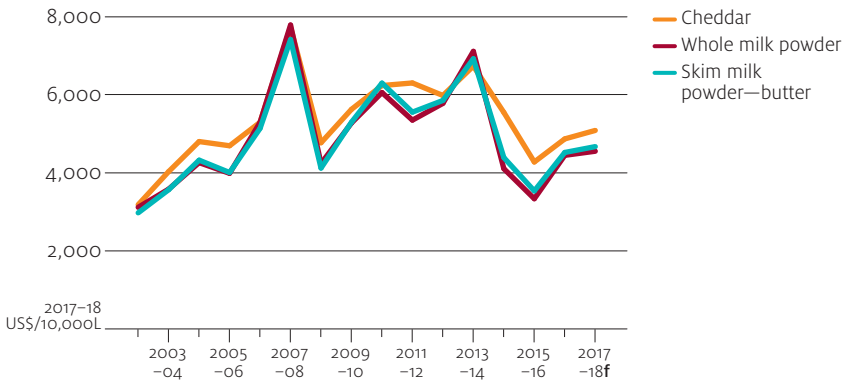
World dairy prices, 2002–03 to 2017–18



f ABARES forecast.

Butter and skim milk powder are products of the same manufacturing process. The relatively high world price of butter and relatively low world price of skim milk powder have led to processors receiving similar returns from the manufacturing process for these products to that for other major dairy commodities such as whole milk powder and cheddar cheese. As a result, processor production decisions are expected to remain relatively unchanged and butter and skim milk powder production is expected to continue to grow at a similar rate to that of milk. In 2017–18 this is expected to cause supply of these products to grow faster than demand for skim milk powder and slower than demand for butter.

Indicative returns to processors, by manufacturing stream, 2002–03 to 2017–18

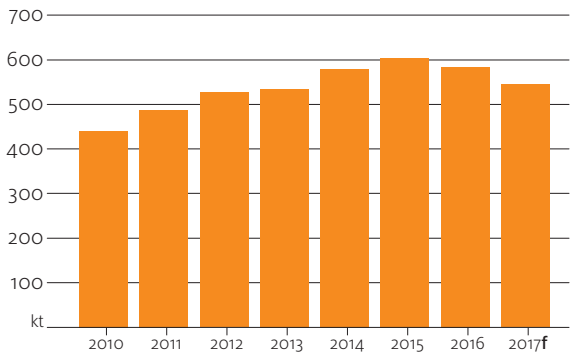


f ABARES forecast.
Note: Returns are calculated on average dairy product yielded from 10,000 litres of milk valued at world prices.

NZ production low during spring but increasing

In the three months to September 2017 production in New Zealand was 1 per cent lower year-on-year, reflecting cold and wet conditions across most of the country. July to September NZ milk production was the lowest in five years. Butter production was particularly affected by the lower milk supply because milk fat in New Zealand is prioritised into the production of higher valued products, such as UHT milk and cream. The fall in NZ butter production markedly affected monthly world butter spot prices because New Zealand is the world's largest butter exporter. In 2016 New Zealand accounted for around 50 per cent of global butter exports.

Butter production, New Zealand, 2010 to 2017



f USDA forecast.

NZ milk production is expected to improve because relatively high farmgate milk prices are expected to encourage the use of supplementary feed. As a result, NZ milk production in 2017–18 is forecast to grow by 2 per cent. This is expected to reduce spot prices of butter in the second half of 2017–18.

Changes to EU stocks policy to constrain world skim milk powder prices

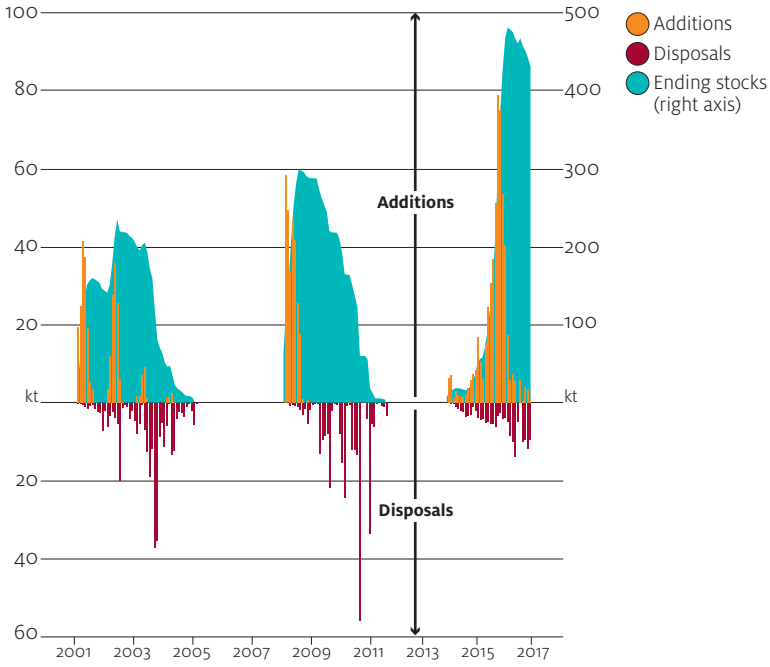
In October 2017 the European Commission issued new regulations allowing the sale of skim milk powder stocks out of the public intervention scheme at a minimum price of €1,445 per tonne (around US$1,700). This is expected to put downward pressure on the world price of skim milk powder (average US$1,850 per tonne in October).

As at June 2017 around 380,000 tonnes of skim milk powder were stored in EU intervention schemes. Around 90 per cent of stocks were sold into the public intervention scheme in 2016 and a portion would have deteriorated in quality since then. It is unclear how much of the intervention stocks will be purchased at the newly announced minimum price. The large volume of stocks available presents a downside risk for the world price forecast for skim milk powder.

The European Union has previously been able to dispose of skim milk powder stocks when world supply declined or demand increased after purchasing stocks under intervention schemes. For example, in 2004 milk production fell or remained relatively unchanged in each of the four largest dairy exporters and skim milk powder production fell by 13 per cent in that year. As a result, in 2004 and 2005 combined the European Union was able to sell around 200,000 tonnes of stock. Increased demand for skim milk powder in Asia and the Russian Federation caused world exports of skim milk powder to rise by 13 per cent in 2010 and 15 per cent in 2011. This allowed the European Union to sell around 250,000 tonnes of stock during this period.

In 2017–18, by contrast, milk production is forecast to grow in each of the four major exporting countries and world demand for skim milk powder is expected to remain relatively weak. Therefore, a sell-off of EU stocks is likely to affect world prices more substantially than previous sales.

Skim milk powder stocks, European Union, June 2001 to June 2017



In October 2017 the European Commission also announced its intention to make further changes to its skim milk powder intervention scheme. EU processors can currently sell up to 109,000 tonnes of skim milk powder per year into the EU stockpile for €1,698 per tonne (around US$2,000). Following the proposed changes, the European Commission would no longer guarantee a price for processors and would expect them to participate in a competitive tender process to sell into the stockpile. This would make selling into the intervention scheme more difficult for processors and result in more skim milk powder being sold on world markets, putting further downward pressure on world prices. This is another downside risk to the world skim milk powder price forecast.

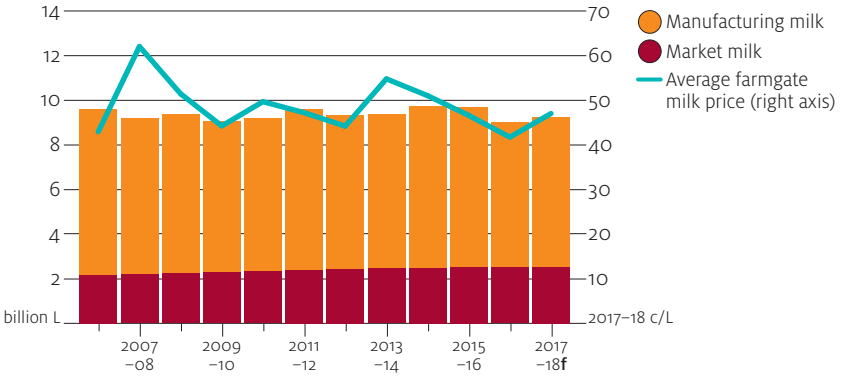
Australian farmgate milk prices to rise following Murray Goulburn sale

In 2017–18 the average Australian farmgate milk price is forecast to rise by 15 per cent to 47c per litre. This is a small upward revision to the September forecast and assumes the sale of Murray Goulburn to Canadian company Saputo proceeds as proposed.

In October 2017 Murray Goulburn announced it had entered into a binding agreement to sell its operating assets and liabilities to Saputo for $1.3 billion. In the short term, the sale is expected to increase competition for milk supply in Victoria because it will alleviate the debt constraints that prevented Murray Goulburn from paying a competitive farmgate price to its suppliers. As part of the agreement, existing Murray Goulburn suppliers will receive a farmgate milk price of $6.00 per kilogram of milk solids and new suppliers $5.60 per kilogram. This compares to the October 2017 price Murray Goulburn paid of $5.20 per kilogram. The sale is still to be approved by shareholders, the Australian Competition and Consumer Commission and the Foreign Investment Review Board.

Australian milk production in 2017–18 is forecast to rise by 3 per cent to 9.3 million litres due to rising yields and some herd rebuilding. Higher farmgate milk prices and relatively low input prices are expected to increase supplementary feed use and reduce cow turn-off.

Milk production and farmgate milk prices, Australia, 2006–07 to 2017–18

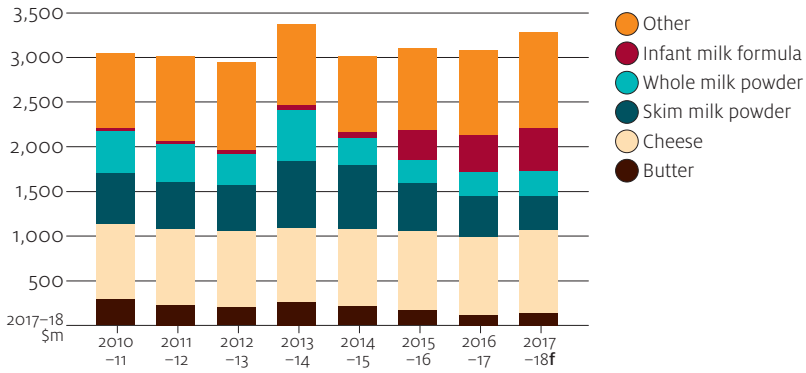


f ABARES forecast.

Value of Australian dairy exports to rise

In 2017–18 the value of Australian dairy exports is expected to rise by 7 per cent to $3.2 billion. Increased infant milk formula exports and higher cheese prices are expected to more than offset a forecast fall in the value of skim milk powder exports due to low skim milk powder prices. In the three months to September 2017 infant milk formula exports to China totalled 6,100 tonnes, up 44 per cent year-on-year. These exports are expected to continue to grow given that some major Australian processors have recently successfully registered their infant formulas under new Chinese Government regulations.

Australian dairy product exports, value, 2010–11 to 2017–18



f ABARES forecast.

Outlook for dairy

Category	unit	2015–16	2016–17 s	2017–18 f	*% change*
Australia					
Cow numbers **a**	’000	1,562	1,512	1,525	*0.9*
Milk yields	L/cow	6,198	5,963	6,066	*1.7*
Production					
Total milk	ML	9,679	9,015	9,250	*2.6*
market sales	ML	2,520	2,505	2,530	*1.0*
manufacturing	ML	7,160	6,510	6,720	*3.2*
Butter **b**	kt	119	100	106	*6.0*
Cheese **c**	kt	344	337	348	*3.3*
Whole milk powder	kt	66.1	60.0	61.0	*1.7*
Skim milk powder	kt	256	222	227	*2.3*
Farmgate milk price	Ac/L	44.9	40.9	47.0	*14.9*
Value of exports	A$m	3,001	3,029	3,236	*6.8*
World prices					
Butter	US$/t	3,146	4,500	5,700	*26.7*
Cheese	US$/t	3,200	3,742	4,050	*8.2*
Skim milk powder	US$/t	1,975	2,356	1,900	*– 19.4*
Whole milk powder	US$/t	2,269	3,063	3,150	*2.8*

a At 30 June. **b** Includes the butter equivalent of butter oil, butter concentrate, ghee and dry butterfat. **c** Excludes processed cheese. **f** ABARES forecast. **s** ABARES estimate.
Sources: ABARES; Australian Bureau of Statistics; Dairy Australia

Statistical tables

Figures

Tables

FIGURE 1 Contribution to GDP Australia, chain volume measures, reference year 2015–16

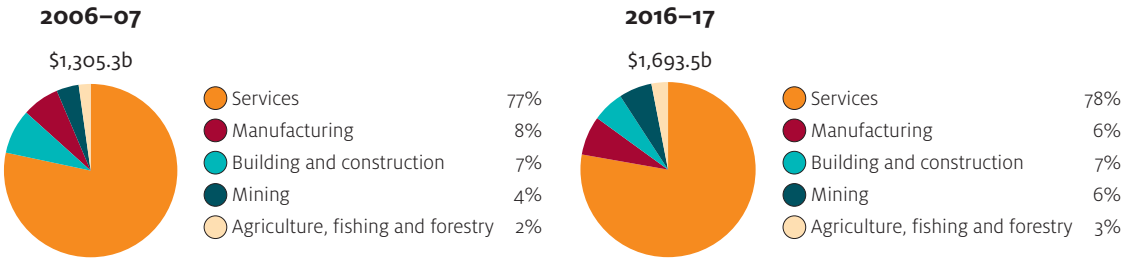


FIGURE 2 Markets for Australian merchandise exports in 2016–17 dollars

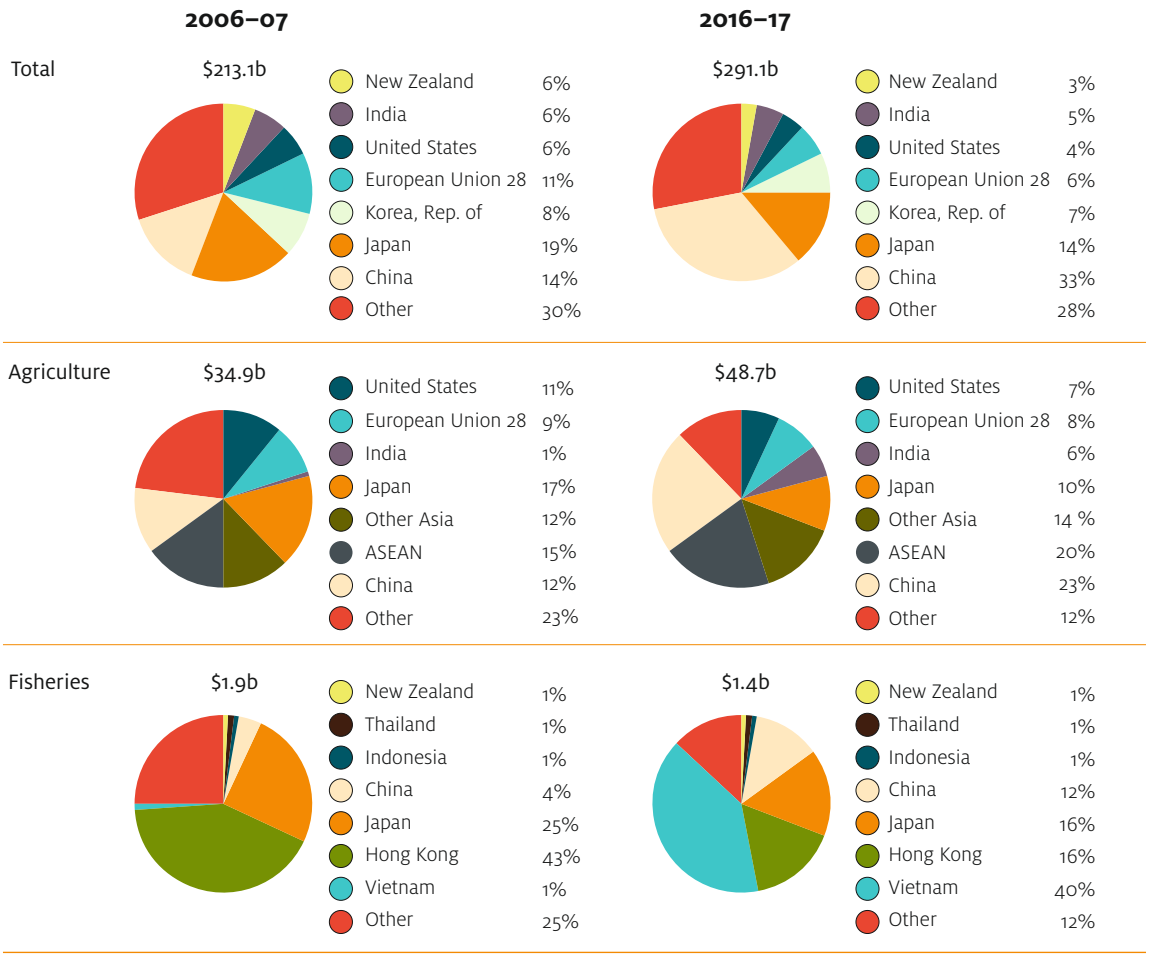


FIGURE 3 Sources of Australian merchandise imports in 2016–17 dollars

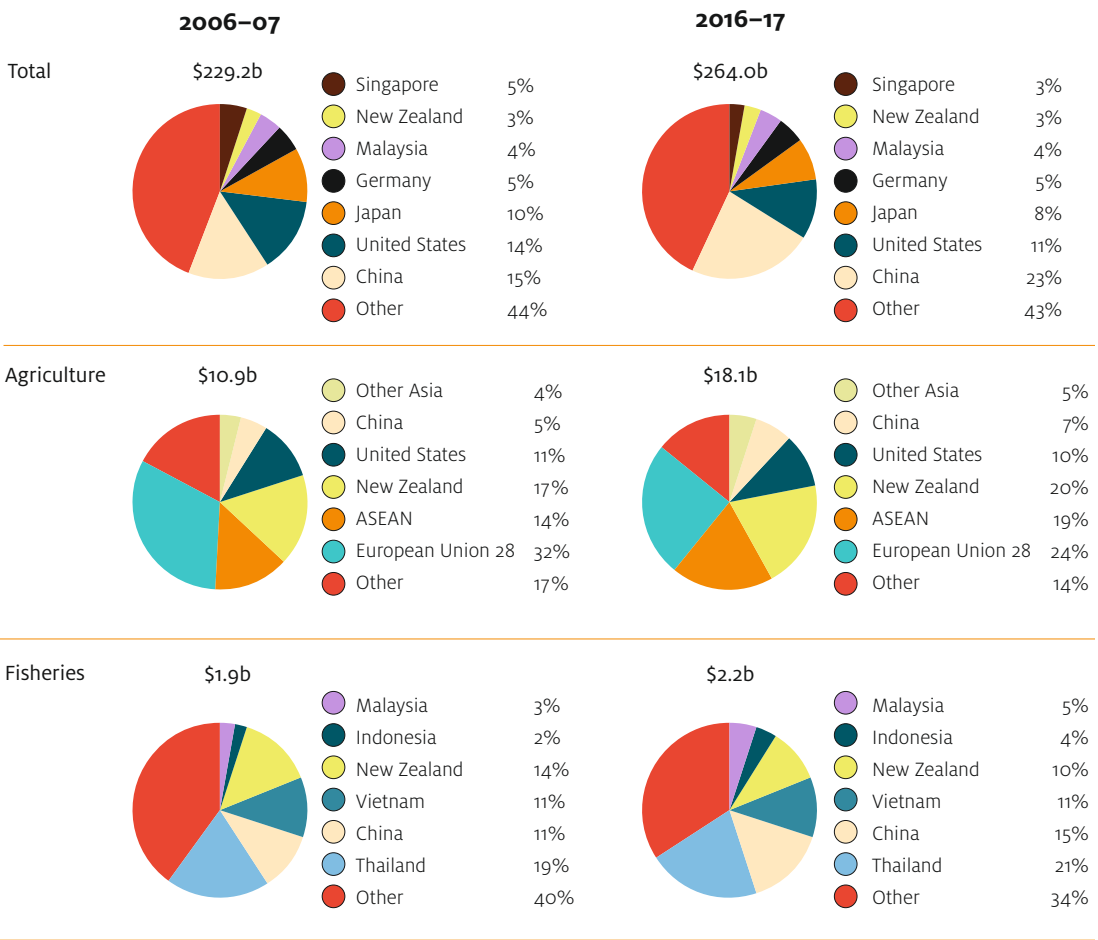


FIGURE 4 Principal markets for Australian agricultural, forestry and fisheries exports in 2016–17 dollars

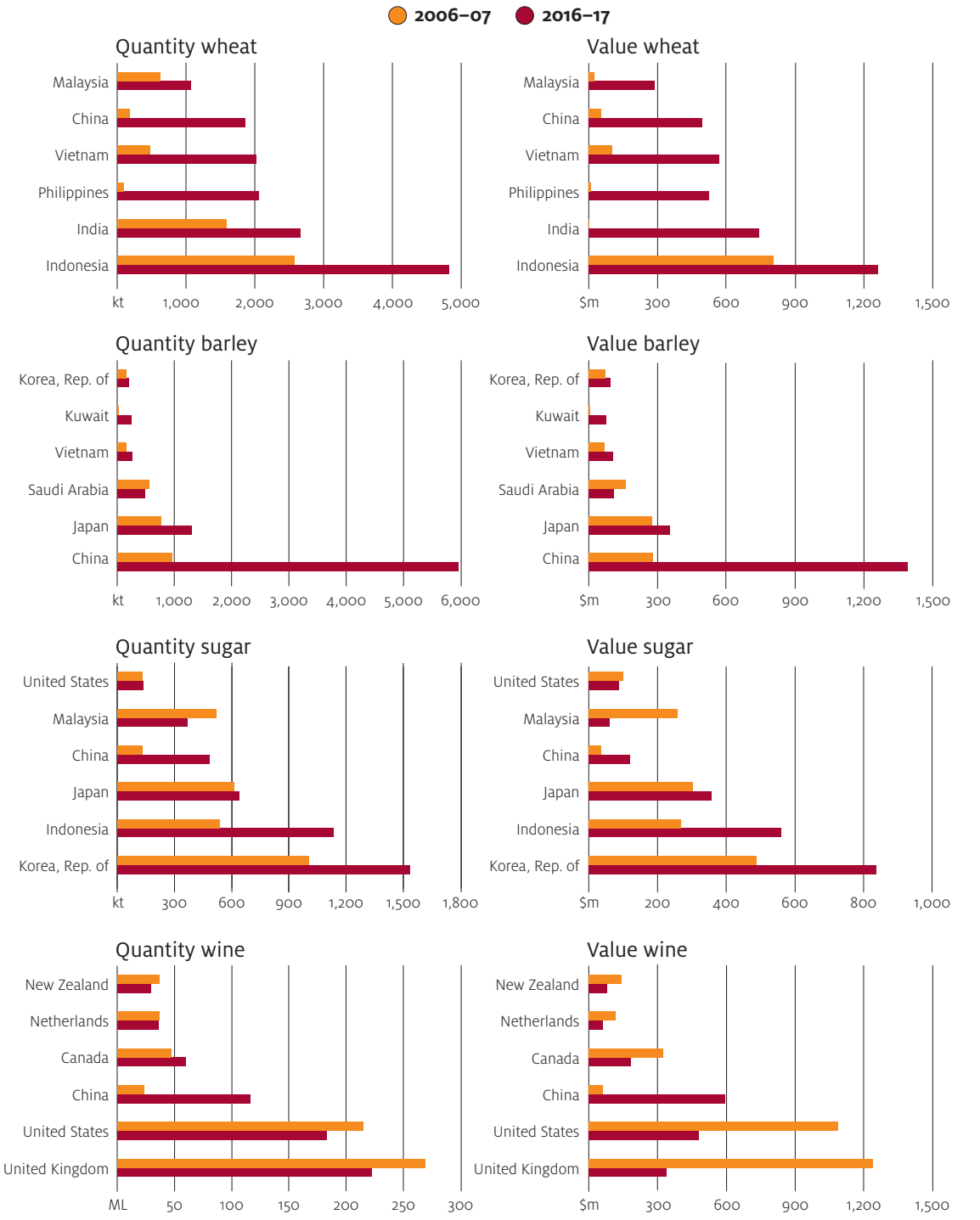


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FIGURE 4 Principal markets for Australian agricultural, forestry and fisheries exports in 2016–17 dollars continued

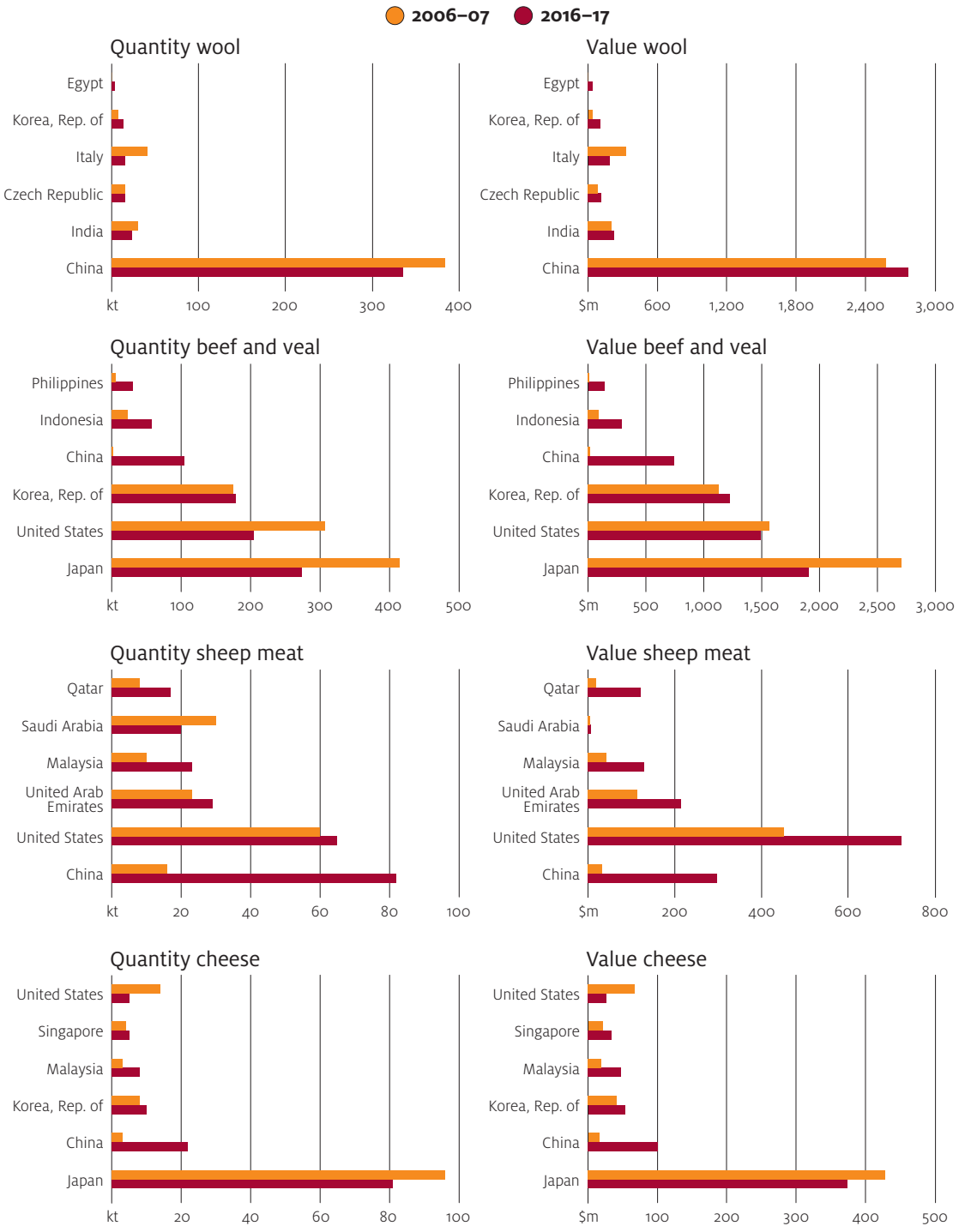

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FIGURE 4 Principal markets for Australian agricultural, forestry and fisheries exports in 2016–17 dollars continued

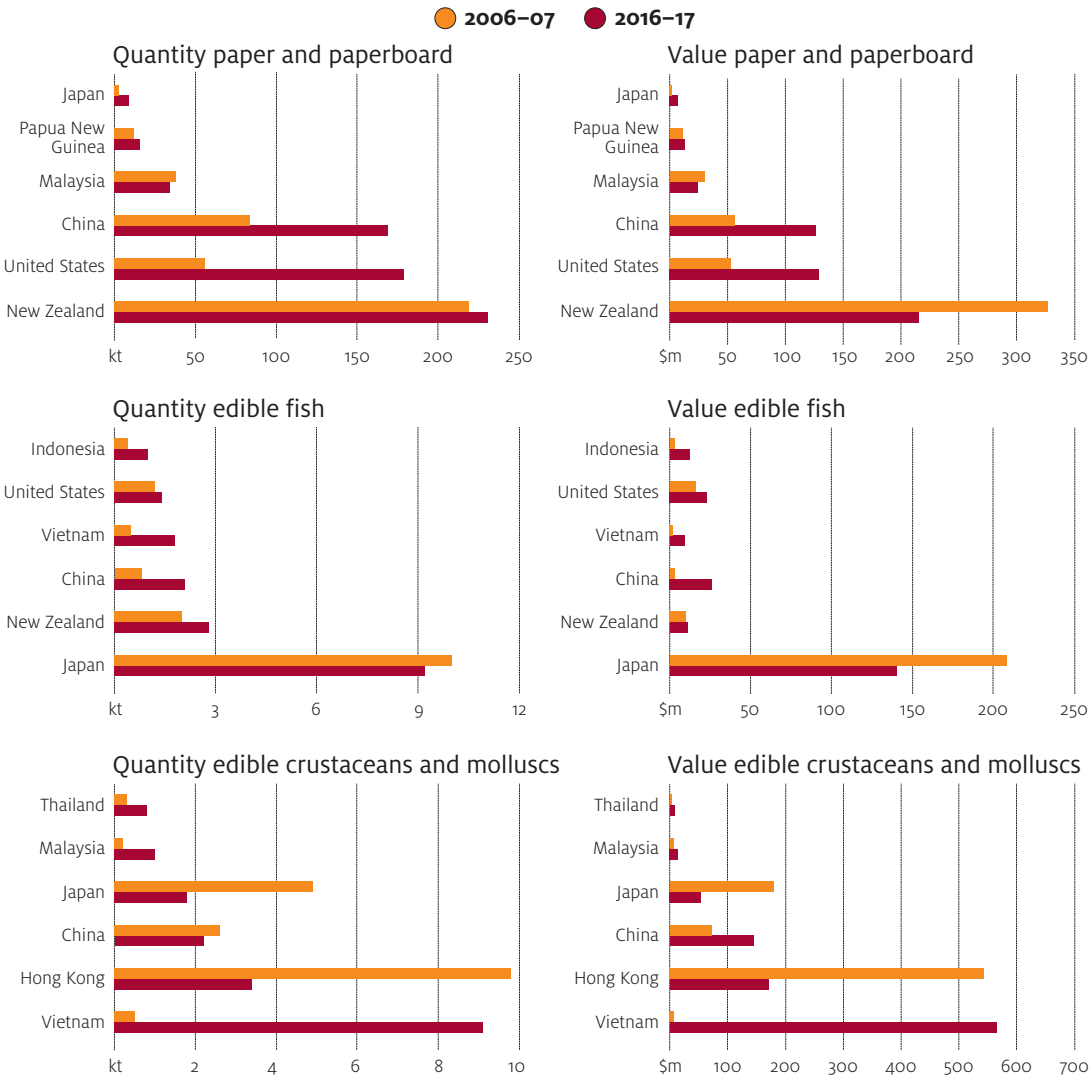


TABLE 1 Indexes of prices received by farmers Australia

Commodity	2012–13	2013–14	2014–15	2015–16	2016–17 s	2017–18 f
Crops						
Grains						
Barley	173.4	167.9	175.6	159.0	119.8	154.4
Canola	142.1	144.1	130.6	137.9	147.8	145.3
Grain sorghum	148.9	177.2	178.1	162.3	141.0	131.3
Lupins	173.5	176.4	149.3	185.0	141.4	154.6
Oats	172.9	156.0	183.1	224.0	174.0	186.2
Wheat	158.3	159.8	151.7	140.1	125.0	137.7
Total grains a	147.9	149.9	147.0	141.9	126.1	139.5
Cotton	98.2	103.9	104.4	111.7	123.4	121.5
Hay	144.9	160.9	169.6	176.4	180.4	184.0
Fruit	156.5	158.8	170.4	162.0	164.8	168.1
Sugar	117.5	125.4	127.2	117.8	163.5	145.3
Vegetables	172.8	174.1	179.1	172.9	175.9	179.4
Total crops	129.3	131.1	131.8	128.4	124.9	130.4
Livestock						
Livestock for slaughter						
Cattle	164.2	156.3	196.4	252.9	267.8	235.0
Lambs	182.8	201.8	233.4	236.2	291.6	307.8
Sheep	200.0	250.8	337.8	304.1	462.5	400.6
Live sheep for export	247.6	233.4	286.6	312.3	321.3	340.5
Pigs	132.5	151.7	156.4	181.0	169.2	138.4
Poultry	114.4	116.9	126.2	126.8	125.9	125.6
Total livestock for slaughter	158.6	161.2	192.4	227.5	244.8	226.0
Livestock products						
Wool	147.3	153.5	159.1	186.5	208.7	240.4
Milk	134.7	169.1	162.6	148.2	137.1	157.5
Eggs	107.4	112.7	114.6	112.7	113.7	114.8
Total livestock products	136.1	157.2	155.8	156.1	157.1	178.1
Store and breeding stock	173.8	169.2	209.7	260.1	295.5	273.3
Total livestock	149.0	157.4	177.8	201.5	214.2	209.3
Total prices received	137.9	142.9	152.4	161.0	163.9	165.4

a Total for the group includes commodities not separately listed. **f** ABARES forecast. **s** ABARES estimate.
Notes: The indexes for commodity groups are calculated on a chain-weighted basis using Fisher's ideal index with a reference year of 1997–98 = 100. Indexes for most individual commodities are based on annual gross unit value of production. Prices used in these calculations exclude GST. Series break in 2015–16. Prior to 2015–16 figures are based on establishments with an estimated value of agricultural operations (EVAO) of $5,000. From 2015–16 (inclusive) figures are based on establishments with an EVAO of $40,000.
Source: ABARES

TABLE 2 Terms of trade and indexes of prices paid by farmers Australia

Category	2012–13	2013–14	2014–15	2015–16	2016–17 s	2017–18 f
Farmers' terms of trade a	95.0	98.2	103.9	109.2	111.3	109.5
Materials and services						
Seed, fodder and livestock						
Fodder and feedstuffs	127.1	126.8	134.5	138.5	130.4	139.7
Seed, seedlings and plants	128.0	130.6	130.4	129.9	123.0	130.8
Store and breeding stock	173.8	169.2	209.7	261.1	295.5	273.3
Total seed, fodder and livestock	137.9	136.9	151.2	165.2	165.9	168.6
Chemicals	110.3	113.6	115.0	116.2	117.7	119.5
Electricity	180.8	185.7	176.4	178.9	182.0	200.2
Fertiliser	157.9	153.2	154.7	157.8	134.1	136.8
Fuel and lubricants	216.8	221.1	207.9	167.9	175.7	179.8
Total	149.5	150.8	155.1	159.1	158.8	162.1
Labour	159.2	163.5	166.3	168.6	171.5	174.9
Marketing	153.5	159.3	152.9	144.1	149.6	154.2
Overheads						
Insurance	190.0	195.2	198.5	201.3	204.8	208.8
Interest paid	96.4	85.3	79.5	74.8	68.4	72.8
Rates and taxes	156.4	160.6	163.4	165.6	168.5	171.8
Other overheads	151.7	155.8	158.5	160.7	163.4	166.7
Total	117.6	110.6	107.1	104.1	99.8	104.2
Capital items	157.0	161.5	164.4	166.9	169.8	173.2
Total prices paid	145.1	145.5	146.7	147.4	147.3	151.1
Excluding capital items	143.9	143.9	144.9	145.5	145.1	148.9
Excluding capital and overheads	151.9	154.3	156.8	157.7	159.7	163.3
Excluding seed, fodder and livestock	146.5	147.3	145.5	143.5	143.2	147.3

a Ratio of index of prices received by farmers and index of prices paid by farmers. **f** ABARES forecast. **s** ABARES estimate.
Notes: The indexes for commodity groups are calculated on a chain-weighted basis using Fisher's ideal index with a reference year of 1997–98 = 100. Prices used in these calculations exclude GST. Series break in 2015–16. Prior to 2015–16 figures are based on establishments with an estimated value of agricultural operations (EVAO) of $5,000. From 2015–16 (inclusive) figures are based on establishments with an EVAO of $40,000.
Sources: ABARES (compiled from various market sources); Australian Bureau of Statistics

TABLE 3 Farm costs and returns Australia

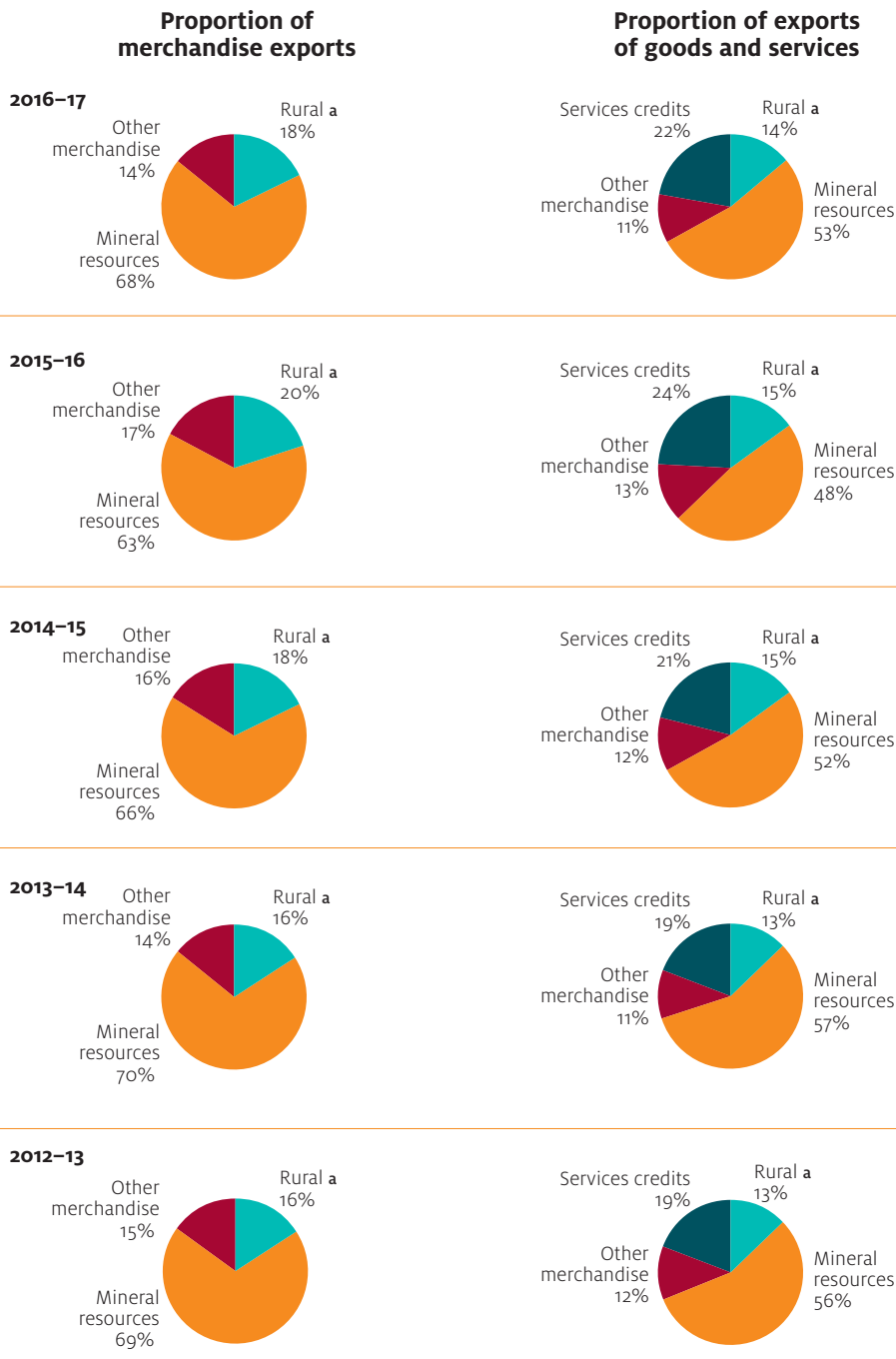
Category	unit	2012–13	2013–14	2014–15	2015–16	2016–17 s	2017–18 f
Costs							
Materials and services							
Chemicals	$m	1,369	1,406	1,455	1,510	1,516	1,528
Fertiliser	$m	2,168	2,091	2,121	2,169	1,845	1,888
Fuel and lubricants	$m	2,232	2,248	1,978	1,659	1,738	1,787
Marketing	$m	3,849	4,108	4,118	4,079	4,979	4,184
Repairs and maintenance	$m	4,121	4,529	4,922	5,267	6,041	5,803
Seed and fodder	$m	4,619	4,650	4,938	5,026	4,871	5,391
Other	$m	4,545	4,711	4,727	4,738	5,044	5,117
Total materials and services	$m	22,903	23,741	24,259	24,448	26,034	25,697
Labour	$m	4,298	4,364	4,303	4,145	4,304	4,494
Overheads							
Interest paid	$m	4,259	3,956	3,874	3,828	3,606	3,958
Rent and third-party insurance	$m	537	551	561	569	578	590
Total overheads	$m	9,094	8,871	8,738	8,542	8,488	9,041
Total cash costs	$m	31,997	32,612	32,997	32,990	34,522	34,739
Depreciation **a**	$m	5,197	5,345	5,444	5,526	5,622	5,735
Total farm costs	$m	37,194	37,957	38,441	38,516	40,145	40,473
Returns							
Gross value of farm production	$m	48,660	51,479	54,389	56,643	63,416	59,134
Net returns and production							
Net value of farm production **b**	$m	11,466	13,522	15,948	18,127	23,272	18,661
Real net value of farm production **c**	$m	12,594	14,460	16,767	18,797	23,727	18,661
Net farm cash income **d**	$m	16,663	18,867	21,392	23,653	28,894	24,396
Real net farm cash income **c**	$m	18,302	20,175	22,490	24,528	29,460	24,396

a Based on estimated movements in capital expenditure and prices of capital inputs. **b** Gross value of farm production less total farm costs. **c** In 2017–18 Australian dollars. **d** Gross farm cash income less total cash costs. **f** ABARES forecast. **s** ABARES estimate.

Notes: Prices used in these calculations exclude GST. Series break in 2015–16. Prior to 2015–16 figures are based on establishments with an estimated value of agricultural operations (EVAO) of $5,000. From 2015–16 (inclusive) figures are based on establishments with an EVAO of $40,000.

Sources: ABARES (compiled from various market sources); Australian Bureau of Statistics

FIGURE 5 Contribution to exports by sector, balance of payments basis Australia



a ABARES rural balance of payments adjusted to include farm, fisheries and forestry products classified as other merchandise by Australian Bureau of Statistics.
Sources: ABARES; Australian Bureau of Statistics

TABLE 4 Volume of production indexes Australia

Commodity	unit	2012–13	2013–14	2014–15	2015–16	2016–17 s	2017–18 f
Farm							
Grains and oilseeds	index	138.4	144.9	138.8	130.2	203.1	125.4
Total crops	index	133.2	131.9	125.0	130.2	167.1	133.4
Livestock slaughterings	index	116.1	127.7	137.0	127.3	116.6	126.7
Total livestock	index	104.9	111.3	118.1	111.1	103.7	110.9
Total farm sector	index	119.7	122.2	122.3	120.8	132.6	122.2
Forestry a							
Hardwood	index	89.0	107.5	121.9	135.4	152.5	138.4
Softwood	index	123.0	130.4	135.5	148.4	157.5	154.0
Total forestry	index	106.7	119.4	129.0	142.2	155.1	146.5

a Volume of logs harvested excluding firewood. **f** ABARES forecast. **s** ABARES estimate.

Notes: ABARE revised the method for calculating production indexes in October 1999. The indexes for the different groups of commodities are calculated on a chained weight basis using Fisher's ideal index with a reference year of 1997–98 = 100. Series break in 2015–16. Prior to 2015–16 figures are based on establishments with an estimated value of agricultural operations (EVAO) of $5,000. From 2015–16 (inclusive) figures are based on establishments with an EVAO of $40,000.

Sources: ABARES; Australian Bureau of Statistics

TABLE 5 Industry gross value added ab Australia

Industry	unit	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Agriculture, forestry and fishing							
Agriculture	$m	36,306	35,970	36,382	36,889	33,972	40,251
Forestry and fishing	$m	6,052	6,082	6,148	6,215	6,365	6,826
Total agriculture, forestry and fishing	$m	42,347	42,039	42,520	43,091	40,338	47,077
Mining	$m	70,739	77,449	85,599	91,960	97,655	100,078
Manufacturing							
Food, beverage and alcohol	$m	26,137	26,734	26,632	25,936	25,390	26,391
Petroleum, coal, chemical products, rubber	$m	21,649	20,435	20,251	19,710	19,197	18,944
Metal products	$m	17,921	16,465	16,790	16,244	15,449	15,213
Machinery and equipment	$m	22,457	21,367	20,134	19,855	19,318	18,018
Total manufacturing	$m	109,268	105,748	104,613	103,132	100,696	98,991
Building and construction	$m	124,253	128,921	134,607	131,099	129,902	124,943
Electricity, gas and water supply	$m	23,224	22,845	22,452	22,458	22,742	22,730
Taxes less subsidies on products	$m	108,831	110,498	110,839	112,443	116,832	118,000
Statistical discrepancy	$m	0.0	0.0	0.0	0.0	1.0	-4,212
Gross domestic product	$m	1,498,021	1,537,561	1,576,898	1,613,972	1,659,604	1,693,452

a Chain volume measures, reference year is 2015–16. **b** ANZSIC 2006.

Sources: Australian Bureau of Statistics (ABS), *Australian national accounts: national income, expenditure and product,* cat. no. 5206.0, Canberra; ABS, *Balance of payments, Australia* , cat. no. 5302.0, Canberra

TABLE 6 Employment **ab** Australia

Industry	unit	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Agriculture, forestry and fishing							
Horticulture **c**	’000	57.0	58.0	62.6	51.8	63.6	62.3
Sheep, beef cattle and grain	’000	125	116	101	123	92	93
Other crop growing	’000	8.5	13.0	9.4	4.0	4.0	4.2
Dairy cattle	’000	23.5	20.9	25.9	21.4	26.1	27.0
Poultry	’000	9.6	10.4	4.6	5.4	11.5	10.3
Other livestock **d**	’000	9.9	11.0	9.6	15.3	14.0	9.3
Other agriculture **nfd**	’000	39.3	41.5	50.4	60.8	62.2	54.7
Total agriculture	’000	273	271	263	282	273	262
Forestry and logging	’000	6.9	7.5	5.6	6.0	5.5	7.4
Forestry support services	’000	3.7	3.0	3.1	2.9	2.6	4.9
Aquaculture	’000	4.0	2.5	4.6	7.5	5.0	7.9
Fishing	’000	5.1	5.2	3.8	5.1	5.2	6.3
Hunting and trapping	’000	0.4	0.3	0.2	1.0	0.2	0.3
Fishing, hunting and trapping **nfd**	’000	1.0	0.9	0.1	0.4	0.3	0.7
Agriculture and fishing support services **e**	’000	19.3	19.2	21.4	18.0	17.8	19.2
Total agriculture, forestry and fishing	’000	316	311	304	325	312	310
Manufacturing							
Food product	’000	185	191	185	193	197	201
Beverage and tobacco	’000	32.8	25.2	35.1	29.8	34.5	33.8
Wood product	’000	37.7	38.1	43.4	44.3	43.7	38.0
Pulp, paper and converted paper product	’000	15.8	15.6	12.7	13.7	12.9	16.8
Total manufacturing	’000	942	940	926	915	883	901
Total employment	’000	11,201	11,361	11,435	11,599	11,832	11,980

a Average employment over four quarters. **b** ANZSIC 2006. **c** Includes nursery, floriculture, vegetable, fruit and tree nut growing. **d** Includes deer farming. **e** Includes agriculture, forestry and fishing support services not further defined.
Notes: Australian Bureau of Statistics advises caution using employment statistics at the ANZSIC subdivision and group levels because estimates may be subject to sampling variability and standard errors too high for most practical purposes.
Source: Australian Bureau of Statistics, *Labour force, Australia,* cat. no. 6291.0.55.003, Canberra

TABLE 7 All banks lending to business **a** Australia

Industry	unit	Mar–16	Jun–16	Sep–16	Dec–16	Mar–17	Jun–17
Agriculture, forestry and fishing	$b	64.3	66.9	67.9	67.2	67.2	68.6
Mining	$b	34.6	34.6	32.5	31.9	29.4	27.4
Manufacturing	$b	45.5	44.8	45.3	47.7	45.7	47.1
Construction	$b	31.7	32.0	32.8	31.9	33.3	31.8
Wholesale and retail trade, transport and storage	$b	114	115	117	123	120	116
Finance and insurance	$b	164	172	179	185	187	286
Other	$b	427	432	438	453	457	465
Total	$b	881	897	912	939	939	1,042

a Includes variable and fixed interest rate loans outstanding plus bank bills outstanding.
Source: Reserve Bank of Australia, *Bank lending to business-selected statistics,* Bulletin Statistical Table D8

TABLE 8 Rural indebtedness to financial institutions Australia

Institution	unit	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Rural debt							
All banks **a**	$m	59,749	61,778	62,461	64,966	66,912	68,557
Other government agencies **b**	$m	2,076	2,236	2,451	878	977	1,142
Pastoral and other finance companies	$m	1,801	1,569	1,486	1,463	1,622	1,987
Large finance institutional debt **c**	$m	63,626	65,583	66,397	67,307	69,511	71,686
Deposits							
Farm management deposits	$m	3,532	3,721	4,139	4,604	5,068	6,095

a Derived from all banks lending to agriculture, fishing and forestry. **b** Includes the government agency business of state banks and advances made under War Service Land Settlement. **c** Sum of rural debt.
Sources: Department of Agriculture and Water Resources; Reserve Bank of Australia, *Estimated rural debt to specified lenders,* Bulletin Statistical Table D9

TABLE 9 Annual world indicator prices of selected commodities

Commodity	unit	2012–13	2013–14	2014–15	2015–16	2016–17 s	2017–18 f
Crops							
Wheat **a**	US$/t	348	317	266	211	197	218
Corn **b**	US$/t	312	219	174	168	157	159
Rice **c**	US$/t	565	429	420	386	394	400
Soybeans **d**	US$/t	597	547	418	373	384	370
Cotton **e**	USc/lb	87.9	90.6	70.8	70.4	82.8	78.0
Sugar **g**	USc/lb	18.0	16.8	13.4	16.7	17.3	14.0
Livestock products							
Beef **h**	USc/kg	440	440	551	451	447	438
Wool **i**	Ac/kg	1,035	1,070	1,098	1,256	1,415	1,630
Butter **j**	US$/t	3,727	4,498	3,483	3,146	4,500	5,700
Cheese **j**	US$/t	4,150	4,817	3,921	3,200	3,742	4,050
Skim milk powder **j**	US$/t	3,731	4,513	2,592	1,975	2,356	1,900

a US no. 2 hard red winter wheat, fob Gulf. **b** US no. 2 yellow corn, fob Gulf. **c** USDA nominal quote for Thai white rice, 100 per cent, Grade B, fob, Bangkok (August–July basis). **d** US no. 2 soybeans, fob Gulf. **e** Cotlook 'A' index. **f** ABARES forecast. **g** Nearby futures price (October–September basis), Intercontinental Exchange, New York no. 11 contract. **h** Cow 90CL US cif price. **i** Australian Wool Exchange eastern market indicator. **j** Average of traded prices (excluding subsidised sales). **s** ABARES estimate.
Sources: ABARES; Australian Bureau of Statistics; Australian Wool Exchange; Cotlook Ltd; Dairy Australia; Intercontinental Exchange; International Grains Council; Meat & Livestock Australia; New York Board of Trade; US Department of Agriculture

TABLE 10 Gross unit values of farm products [a]

Commodity	unit	2012–13	2013–14	2014–15	2015–16	2016–17 s	2017–18 f
Crops [b]							
Grains							
Barley	$/t	276	267	280	253	191	246
Corn (maize)	$/t	238	297	330	326	242	316
Grain sorghum	$/t	252	300	301	275	239	222
Oats	$/t	236	213	250	306	238	255
Rice	$/t	260	340	395	419	350	365
Triticale	$/t	249	258	256	248	126	161
Wheat	$/t	313	316	300	277	247	272
Oilseeds							
Canola	$/t	548	555	503	532	570	560
Soybeans [c]	$/t	468	538	588	560	557	528
Sunflower seed [c]	$/t	570	660	756	652	590	650
Pulses							
Chickpeas	$/t	394	352	567	784	833	939
Field peas	$/t	406	419	413	449	328	315
Lupins	$/t	340	345	292	362	277	303
Industrial crops							
Cotton lint [d]	c/kg	199	229	199	226	243	267
Sugar cane (cut for crushing)	$/t	37.3	40.2	40.3	37.3	48.2	45.6
Wine grapes	$/t	499	441	476	544	565	539
Livestock							
Beef cattle	c/kg	318	304	382	492	521	457
Lambs	c/kg	371	410	474	480	592	625
Pigs	c/kg	262	300	310	358	335	274
Poultry	c/kg	205	209	226	223	226	225
Livestock products							
Wool	c/kg	579	604	626	734	821	946
Milk	c/L	39.6	50.5	48.5	44.2	40.9	47.0
Eggs	c/dozen	195	221	229	238	242	245

a Average gross unit value across all grades in principal markets, unless otherwise indicated. Includes the cost of containers, commission and other expenses incurred in getting the commodities to their principal markets. These expenses are significant. **b** Average unit gross value relates to returns received from crops harvested in that year, regardless of when sales take place, unless otherwise indicated. **c** Price paid by crusher. **d** Australian base price for sales in the financial year indicated. **f** ABARES forecast. **s** ABARES estimate.

Notes: Prices used in these calculations exclude GST. Series break in 2015–16. Prior to 2015–16 figures are based on establishments with an estimated value of agricultural operations (EVAO) of $5,000. From 2015–16 (inclusive) figures are based on establishments with an EVAO of $40,000.

Sources: ABARES; Australian Bureau of Statistics

TABLE 11 World production, consumption, stocks and trade for selected commodities [a]

Commodity	unit	2012–13	2013–14	2014–15	2015–16	2016–17 s	2017–18 f
Grains							
Wheat							
Production	Mt	655	717	730	736	754	747
Consumption	Mt	676	697	715	718	736	740
Closing stocks	Mt	171	191	206	224	242	250
Exports **bc**	Mt	141	157	153	166	176	174
Coarse grains							
Production	Mt	1,135	1,283	1,312	1,260	1,366	1,319
Consumption	Mt	1,138	1,229	1,260	1,273	1,330	1,342
Closing stocks	Mt	164	211	247	250	287	264
Exports **b**	Mt	123	165	186	163	203	188
Rice d							
Production	Mt	474	479	480	473	486	482
Consumption	Mt	467	479	475	473	483	485
Closing stocks	Mt	117	116	121	121	123	120
Exports **be**	Mt	42.5	41.3	39.3	43.7	42.9	43.2
Oilseeds and vegetable oils							
Oilseeds							
Production	Mt	475	504	537	521	570	571
Consumption	Mt	469	493	517	526	551	569
Closing stocks	Mt	67.8	77.7	93.4	88.6	108	110
Exports **b**	Mt	119	134	147	153	167	170
Vegetable oils							
Production	Mt	162	170	176	176	186	194
Consumption	Mt	159	170	173	178	185	191
Closing stocks	Mt	20.6	21.5	20.5	18.7	19.3	22.2
Exports **b**	Mt	68.4	70.1	76.6	74.8	76.6	79.2
Vegetable protein meals							
Production	Mt	268	282	299	306	321	332
Consumption	Mt	265	279	294	305	321	330
Closing stocks	Mt	12.6	13.8	15.4	16.7	16.8	18.7
Exports **b**	Mt	78.6	82.4	85.5	87.3	90.4	92.9
Industrial crops							
Cotton							
Production	Mt	27.0	26.2	26.0	20.9	23.2	26.6
Consumption	Mt	23.6	23.9	24.3	24.2	24.8	25.7
Closing stocks	Mt	20.1	22.5	24.3	21.1	19.5	20.4
Exports	Mt	10.1	8.9	7.7	7.6	8.2	8.3
Sugar							
Production	Mt	183	182	182	174	178	192
Consumption	Mt	176	176	179	180	181	186
Closing stocks	Mt	71.4	77.6	80.5	74.8	71.2	75.7
Exports	Mt	60.6	58.0	55.6	58.5	68.8	71.0

continued ...

TABLE 11 World production, consumption, stocks and trade for selected commodities **a** continued

Commodity	unit	2012–13	2013–14	2014–15	2015–16	2016–17 **s**	2017–18 **f**
Livestock products							
Meat egh							
Production	Mt	268	273	274	274	277	285
Consumption	Mt	264	267	269	269	272	283
Closing stocks	Mt	2.5	2.8	2.6	2.5	2.6	2.6
Exports **b**	Mt	27.5	28.8	28.3	29.6	30.8	30.4
Wool i							
Production	kt	1,163	1,155	1,160	1,155	1,154	1,156
Consumption **ej**	kt	1,156	1,147	1,164	1,155	1,154	1,156
Closing stocks **k**	kt	34.5	35.0	30.0	33.0	35.0	37.0
Exports **l**	kt	576	553	551	549	547	548
Butter eh							
Production	kt	9,249	9,636	9,893	10,020	10,266	10,471
Consumption	kt	8,716	9,023	9,183	9,443	9,733	9,928
Closing stocks	kt	231	250	342	319	288	256
Exports	kt	868	924	907	948	926	945
Skim milk powder ehm							
Production	kt	4,051	4,512	4,773	4,827	4,793	4,889
Consumption	kt	3,488	3,592	3,784	3,722	4,026	4,107
Closing stocks	kt	383	513	606	968	941	837
Exports	kt	1,759	1,968	2,083	1,996	2,114	2,156

a Figures sourced from external organisations may not based on precise or complete analyses. **b** Excludes intra-EU trade. **c** Includes the grain equivalent of wheat flour. **d** Milled equivalent. **e** On a calendar year basis, e.g. 2011–12 = 2012. **f** ABARES forecast. **g** Beef and veal, mutton, lamb, goat, pig and chicken meat. **h** Selected countries. **i** Clean equivalent. **j** Virgin wool at the spinning stage in 65 countries. **k** Held by marketing bodies and on-farm in five major exporting countries. **l** Five major exporting countries. **m** Non-fat dry milk. **s** ABARES estimate.
Sources: ABARES; Argentine Wool Federation; Australian Bureau of Statistics; Capewools South Africa; Commonwealth Secretariat; Economic Commission for Europe; Fearnleys; International Grains Council; International Sugar Organization; International Wool Textile Organisation; Ministry of Agriculture, Forestry and Fisheries (Japan); New Zealand Wool Board; Poimena Analysis, Melbourne; UN Food and Agriculture Organization; US Department of Agriculture; Uruguayan Association of Wool Exporters

TABLE 12 Agricultural, fisheries and forestry commodity production Australia

Commodity	unit	2012–13	2013–14	2014–15	2015–16	2016–17 s	2017–18 f
Crops							
Grains							
Barley	kt	7,472	9,174	8,646	8,992	13,414	7,990
Corn (maize)	kt	506	390	495	400	516	383
Grain sorghum	kt	2,229	1,282	2,209	1,791	1,017	1,978
Oats	kt	1,121	1,255	1,198	1,300	1,873	1,052
Rice	kt	1,161	819	690	274	809	800
Triticale	kt	171	126	143	127	255	107
Wheat	kt	22,855	25,303	23,743	22,275	35,009	20,270
Oilseeds							
Canola	kt	4,142	3,832	3,540	2,775	4,136	2,852
Cottonseed	kt	1,439	1,252	746	890	1,317	1,369
Soybeans	kt	69.5	31.6	37.4	40.2	48.5	62.8
Sunflower seed	kt	37.9	17.9	30.4	25.1	36.4	30.9
Other oilseeds **a**	kt	41.5	26.5	21.5	19.9	30.4	28.6
Pulses							
Chickpeas	kt	813	629	555	875	2,004	1,045
Field peas	kt	320	342	290	205	415	273
Lupins	kt	459	626	549	652	1,031	546
Total grains, oilseeds and pulses b	kt	42,836	45,105	42,895	40,640	61,912	38,787
Industrial crops							
Cotton lint	kt	1,017	885	528	629	931	968
Sugar cane (cut for crushing)	kt	30,001	30,521	32,360	34,828	36,507	33,600
Sugar (tonnes actual)	kt	4,248	4,364	4,572	4,920	4,804	4,700
Wine grapes	kt	1,642	1,438	1,608	1,752	1,835	1,590
Horticulture							
Fruit							
Apples	kt	289	267	295	308	307	305
Bananas	kt	330	254	252	354	335	363
Oranges	kt	401	350	338	399	395	418
Vegetables							
Carrots	kt	272	243	261	300	317	313
Onions	kt	302	256	315	265	300	322
Potatoes	kt	1,273	1,171	1,155	1,130	1,295	1,385
Tomatoes	kt	456	326	389	405	334	345
Livestock							
Slaughterings							
Cattle and calves	’000	8,457	9,473	10,103	8,796	7,423	8,125
Lambs	’000	21,122	21,899	22,867	23,131	22,344	23,030
Sheep	’000	8,192	10,066	9,022	8,127	6,553	7,800
Pigs	’000	4,745	4,778	4,924	5,000	5,160	5,300
Chickens	million	563	580	591	623	653	680
Live exports							
Cattle **c**	’000	634	1,133	1,379	1,258	917	975
Sheep **d**	’000	2,000	2,020	2,180	1,859	1,851	1,875
Goats	’000	61.3	81.2	91.0	80.7	29.6	22.1
Meat produced e							
Beef and veal	kt (cw)	2,245	2,464	2,662	2,344	2,069	2,320
Lamb	kt (cw)	457	474	507	516	506	518
Mutton	kt (cw)	183	228	214	196	163	194
Goat meat	kt (cw)	31.2	33.6	32.3	33.3	33.0	32.6
Pig meat	kt (cw)	356	360	371	378	397	411
Chicken meat	kt (cw)	1,046	1,084	1,116	1,191	1,230	1,284
Total meat produced	kt (cw)	4,318	4,644	4,902	4,658	4,398	4,760

continued ...

TABLE 12 Agricultural, fisheries and forestry commodity production Australia continued

Commodity	unit	2012–13	2013–14	2014–15	2015–16	2016–17 s	2017–18 f
Livestock products							
Wool **g**	kt (gr. eq.)	427	419	427	404	414	427
Milk **h**	ML	9,317	9,372	9,732	9,679	9,015	9,250
Eggs	million dozen	335	322	318	329	339	349
Butter **i**	kt	118	116	119	119	100	106
Cheese **j**	kt	338	311	344	344	337	348
Skim milk powder	kt	224	211	242	256	222	227
Whole milk powder	kt	109	126	96.8	66.1	60.0	61.0
Buttermilk powder	kt	10.5	11.1	11.6	10.7	8.7	11.3
Forestry products k							
Hardwood	'000 m^3	9,029	10,899	12,361	13,737	15,469	14,035
Softwood	'000 m^3	13,551	14,367	14,929	16,346	17,347	16,965
Total forestry products	'000 m^3	22,580	25,266	27,290	30,083	32,816	31,000
Fisheries l							
Tuna	kt	10.6	10.7	12.4	14.2	11.7	13.0
Salmonids **m**	kt	43.0	41.8	48.6	56.3	52.7	54.3
Other fish	kt	107	102	102	123	114	106
Prawns	kt	21.3	25.0	25.5	24.6	23.2	22.4
Rock lobster **n**	kt	10.3	10.5	10.3	10.1	10.4	10.4
Abalone	kt	5.0	4.7	4.6	4.2	4.1	4.2
Scallops	kt	6.8	4.4	4.3	5.0	4.8	4.9
Oysters	kt	12.4	11.6	11.0	11.3	10.3	10.2
Other molluscs	kt	8.0	5.9	7.2	7.6	7.3	7.1
Other crustaceans	kt	5.3	5.5	5.6	5.2	4.8	4.8

a Linseed, safflower seed and peanuts. **b** Total includes components not listed separately. **c** Includes all bovine for feeder/slaughter, breeding and dairy purposes. **d** Includes animals for breeding. **e** Includes carcase equivalent of canned meats. **f** ABARES forecast. **g** Includes shorn wool (includes crutching), dead and fellmongered wool, and wool exported on skins. **h** Includes the whole milk equivalent of farm cream intake. **i** Includes the butter equivalent of butter oil, butter concentrate, ghee and dry butterfat. **j** Excludes processed cheese. **k** Excludes logs harvested for firewood. **l** Liveweight. **m** Includes salmon and trout production. **n** Includes Queensland bugs. **s** ABARES estimate.

Note: Series break in 2015–16. Prior to 2015–16 figures are based on establishments with an estimated value of agricultural operations (EVAO) of $5,000. From 2015–16 (inclusive) figures are based on establishments with an EVAO of $40,000.

Sources: ABARES; Australian Bureau of Statistics; Australian Fisheries Management Authority; Dairy Australia; Department of Fisheries, Western Australia; Department of Primary Industries, Parks, Water and Environment, Tasmania; Fisheries Queensland, Department of Agriculture, Fisheries and Forestry; Fisheries Victoria, Department of Primary Industries; Industry & Investment New South Wales; Northern Territory Department of Regional Development, Primary Industry, Fisheries and Resources; Primary Industries and Regions, Fisheries, South Australia; Pulse Australia; Raw Cotton Marketing Advisory Committee; South Australian Research and Development Institute; state and territory forest services; various Australian forestry industries

TABLE 13 Gross value of farm, fisheries and forestry production Australia

Commodity	unit	2012–13	2013–14	2014–15	2015–16	2016–17 s	2017–18 f
Crops							
Grains							
Barley	$m	2,063	2,453	2,417	2,277	2,559	1,964
Corn (maize)	$m	120	116	163	130	125	121
Grain sorghum	$m	562	384	666	492	243	439
Oats	$m	265	268	300	398	445	268
Rice	$m	302	279	273	115	283	292
Triticale	$m	42.7	32.4	36.7	31.6	32.2	17.3
Wheat	$m	7,154	7,998	7,124	6,170	8,653	5,518
Other cereals	$m	110	115	90.0	14.5	105	110
Oilseeds							
Canola	$m	2,270	2,129	1,782	1,476	2,357	1,598
Soybeans	$m	32.5	17.0	22.0	22.5	27.0	33.1
Sunflower seed	$m	21.6	11.8	23.0	16.4	21.4	20.1
Other oilseeds **a**	$m	32.8	25.6	26.3	19.3	27.6	17.7
Pulses							
Chickpeas	$m	320	222	315	685	1,669	982
Field peas	$m	130	143	120	91.8	136	86.1
Lupins	$m	156	216	160	236	285	165
Other pulses	$m	347	391	425	522	1,154	828
Total grains, oilseeds and pulses	$m	13,927	14,800	13,943	12,697	18,123	12,459
Industrial crops							
Cotton lint and cottonseed **b**	$m	2,154	2,004	1,184	1,530	2,502	2,560
Sugar cane (cut for crushing)	$m	1,118	1,226	1,304	1,299	1,760	1,531
Wine grapes	$m	858	672	765	953	1,037	857
Total industrial crops	$m	4,130	3,902	3,252	3,783	5,298	4,948
Horticulture							
Table and dried grapes	$m	303	331	343	453	364	374
Fruit and nuts (excl. grapes)	$m	3,662	3,187	3,512	4,225	4,013	4,160
Vegetables	$m	3,770	3,510	3,350	3,585	4,020	4,159
Nursery, cut flowers and turf	$m	1,285	1,247	1,252	1,296	1,349	1,343
Other horticulture **nei c**	$m	251	233	232	241	252	263
Total horticulture	$m	9,271	8,507	8,689	9,801	9,998	10,299
Other crops **nei d**	$m	1,245	1,490	1,538	1,600	1,660	1,720
Total crops	$m	28,572	28,699	27,422	27,880	35,080	29,426

continued ...

TABLE 13 Gross value of farm, fisheries and forestry production Australia continued

Commodity	unit	2012–13	2013–14	2014–15	2015–16	2016–17 s	2017–18 f
Livestock							
Slaughterings							
Cattle and calves **eg**	$m	7,136	7,495	10,175	11,536	10,783	10,610
Sheep **g**	$m	329	513	650	535	678	698
Lambs **g**	$m	1,696	1,943	2,401	2,477	2,998	3,236
Pigs **g**	$m	934	1,081	1,149	1,353	1,330	1,127
Poultry	$m	2,214	2,344	2,610	2,748	2,857	2,975
Goats	$m	61.8	80.5	120.2	166.7	203.2	167.8
Other slaughterings	$m	27.0	22.7	24.4	17.7	30.7	12.0
Live exports							
Cattle exported live **h**	$m	589	1,049	1,356	1,551	1,199	1,249
Sheep exported live **i**	$m	194	185	245	228	233	250
Goats exported live	$m	7.2	9.9	9.6	10.3	4.7	5.1
Total livestock j	$m	13,188	14,723	18,740	20,622	20,317	20,331
Livestock products							
Wool **k**	$m	2,472	2,530	2,676	2,965	3,397	4,043
Milk **l**	$m	3,687	4,729	4,722	4,282	3,687	4,348
Eggs	$m	653	710	729	783	821	857
Honey and beeswax	$m	88.4	88.0	101	110	116	130
Total livestock products	$m	6,900	8,057	8,227	8,140	8,020	9,377
Total farm	$m	48,660	51,479	54,389	56,643	63,416	59,134
Forestry products m							
Hardwood	$m	680	822	961	1,076	1,197	1,084
Softwood	$m	836	1,018	1,064	1,194	1,341	1,321
Total forestry products	$m	1,516	1,840	2,025	2,270	2,539	2,405
Fisheries products n							
Tuna	$m	176	147	161	171	153	174
Salmonids **o**	$m	518	543	631	718	745	765
Other fish **p**	$m	446	405	435	523	477	440
Prawns	$m	278	339	365	388	350	342
Rock lobster **q**	$m	439	588	668	695	645	642
Other crustaceans	$m	64.5	63.9	65.1	63.6	58.8	60.0
Abalone	$m	178	164	164	160	159	166
Scallops	$m	14.7	11.3	11.3	14.0	13.6	14.0
Oysters	$m	93.5	91.3	93.0	97.0	95.8	96.1
Pearls	$m	79.2	60.7	67.9	78.4	69.0	71.7
Other molluscs	$m	40.1	33.5	40.8	41.5	47.9	44.1
Other **nei**	$m	58.6	27.1	67.7	77.3	45.7	48.6
Total fisheries products	$m	2,386	2,473	2,769	3,026	2,861	2,863

a Linseed, safflower seed and peanuts. **b** Value delivered to gin. **c** Other horticulture includes mainly coffee, tea, spices, essential oils, vegetables for seed and other miscellaneous horticultural products. **d** Mainly fodder crops. **e** Includes dairy cattle slaughtered. **f** ABARES forecast. **g** Excludes skin and hide values. **h** Includes all bovine for feeder/slaughter, breeding and dairy purposes. **i** Includes animals exported for breeding purposes. **j** Total livestock slaughterings includes livestock disposals. **k** Shorn, dead and fellmongered wool, and wool exported on skins. **l** Milk intake by factories and valued at the farm gate. **m** Excludes logs harvested for firewood. **n** Value to fishers of product landed in Australia. **o** Includes salmon and trout production. **p** Includes an estimated value of aquaculture. **q** Includes Queensland bugs. **s** ABARES estimate.

Notes: The gross value of production is the value placed on recorded production at the wholesale prices realised in the marketplace. The point of measurement can vary between commodities. Generally the marketplace is the metropolitan market in each state and territory. However, where commodities are consumed locally or where they become raw material for a secondary industry, these points are presumed to be the marketplace. Prices used in these calculations exclude GST. Series break in 2015–16. Prior to 2015–16 figures are based on establishments with an estimated value of agricultural operations (EVAO) of $5,000. From 2015–16 (inclusive) figures are based on establishments with an EVAO of $40,000.

Sources: ABARES; Australian Bureau of Statistics

TABLE 14 Crop and forestry areas and livestock numbers Australia

Commodity	unit	2012–13	2013–14	2014–15	2015–16	2016–17 s	2017–18 f
Crop areas							
Grains							
Barley	’000 ha	3,644	3,814	4,078	4,108	4,035	3,920
Corn (maize)	’000 ha	78.0	52.3	59.6	53.3	63.5	56.7
Grain sorghum	’000 ha	647	532	732	521	396	636
Oats	’000 ha	729	715	854	821	914	742
Rice	’000 ha	113	74.9	69.7	26.6	81.4	79.8
Triticale	’000 ha	99.2	79.9	81.5	78.4	99.4	77.4
Wheat	’000 ha	12,979	12,613	12,384	11,282	12,832	12,437
Oilseeds							
Canola	’000 ha	3,272	2,721	2,897	2,091	2,318	2,612
Soybeans	’000 ha	47.7	24.9	20.2	20.8	29.4	33.4
Sunflower seed	’000 ha	32.7	17.1	25.4	22.8	27.3	26.0
Other oilseeds **a**	’000 ha	32.9	21.3	12.7	12.7	16.1	16.3
Pulses							
Chickpeas	’000 ha	574	508	425	677	1,069	1,144
Field peas	’000 ha	281	245	237	238	230	222
Lupins	’000 ha	450	387	443	534	515	520
Total grains, oilseeds and pulses b	’000 ha	23,856	22,583	22,934	21,362	23,880	23,731
Industrial crops							
Cotton	’000 ha	443	392	197	270	557	500
Sugar cane **c**	’000 ha	349	356	378	381	372	380
Wine grapes **d**	’000 ha	133	127	132	130	134	140
Livestock numbers e							
Beef cattle	million	26.5	26.3	24.6	22.3	23.1	24.0
Dairy cattle	million	2.8	2.8	2.8	2.7	2.6	2.7
Milking herd **g**	million	1.7	1.6	1.7	1.6	1.5	1.5
Total cattle	million	29.3	29.1	27.4	25.0	25.7	26.6
Sheep	million	75.5	72.6	70.9	67.5	70.4	72.6
Pigs	million	2.1	2.3	2.3	2.3	2.4	2.5
Sows	’000	260	266	271	240	242	244
Forestry plantation area							
Hardwood	’000 ha	976	963	928	928	na	na
Softwood	’000 ha	1,024	1,024	1,035	1,037	na	na
Total plantation area h	’000 ha	2,013	2,000	1,973	1,975	na	na

a Linseed, safflower seed and peanuts. **b** Total includes components not listed separately. **c** Cut for crushing. **d** This figure is for grapes for wine only. **e** At 30 June. **f** ABARES forecast. **g** Cows in milk and dry. **h** Includes areas where plantation type is unknown. **s** ABARES estimate.

Note: Series break in 2015–16. Prior to 2015–16 figures are based on establishments with an estimated value of agricultural operations (EVAO) of $5,000. From 2015–16 (inclusive) figures are based on establishments with an EVAO of $40,000.

Sources: ABARES; Australian Bureau of Statistics; Pulse Australia; Cotton Australia, Australian cotton industry statistics - Cotton Annual, Sydney; Australian Sugar Milling Council, Annual Review, Brisbane.

TABLE 15 Average farm yields Australia

Commodity	unit	2012–13	2013–14	2014–15	2015–16	2016–17 s	2017–18 f
Crops							
Grains							
Barley	t/ha	2.1	2.4	2.1	2.2	3.3	2.0
Corn (maize)	t/ha	6.5	7.5	8.3	7.5	8.1	6.8
Grain sorghum	t/ha	3.4	2.4	3.0	3.4	2.6	3.1
Oats	t/ha	1.5	1.8	1.4	1.6	2.0	1.4
Rice	t/ha	10.3	10.9	9.9	10.3	9.9	10.0
Triticale	t/ha	1.7	1.6	1.8	1.6	2.6	1.4
Wheat	t/ha	1.8	2.0	1.9	2.0	2.7	1.6
Oilseeds							
Canola	t/ha	1.3	1.4	1.2	1.3	1.8	1.1
Soybeans	t/ha	1.5	1.3	1.9	1.9	1.7	1.9
Sunflower seed	t/ha	1.2	1.0	1.2	1.1	1.3	1.2
Pulses							
Chickpeas	t/ha	1.4	1.2	1.3	1.3	1.9	0.9
Field peas	t/ha	1.1	1.4	1.2	0.9	1.8	1.2
Lupins	t/ha	1.0	1.6	1.2	1.2	2.0	1.1
Industrial crops							
Cotton (lint)	t/ha	2.3	2.3	2.7	2.3	1.7	1.9
Sugar cane (for crushing)	t/ha	86.1	85.7	85.7	91.4	98.3	88.4
Wine grapes	t/ha	12.3	11.3	12.1	13.5	13.7	11.4
Livestock products							
Wool **a**	kg/sheep	4.5	4.4	4.5	4.4	4.6	4.5
Whole milk	L/cow	5,518	5,692	5,761	6,198	5,963	6,066

a Shorn (including lambs). **f** ABARES forecast. **s** ABARES estimate.

Note: Series break in 2015–16. Prior to 2015–16 figures are based on establishments with an estimated value of agricultural operations (EVAO) of $5,000. From 2015–16 (inclusive) figures are based on establishments with an EVAO of $40,000.

Sources: ABARES; Australian Bureau of Statistics; Dairy Australia; Pulse Australia

TABLE 16 Volume of agricultural and fisheries exports Australia

Commodity	unit	2012–13	2013–14	2014–15	2015–16	2016–17 s	2017–18 f
Farm							
Crops							
Grains							
Barley **a**	kt	5,165	7,124	6,208	5,498	9,537	5,209
Corn (maize)	kt	134	83.3	58.1	41.3	73.3	63.2
Grain sorghum	kt	1,291	701	1,205	1,075	729	781
Oats	kt	241	213	284	230	369	207
Rice	kt	584	544	461	314	199	401
Wheat **b**	kt	21,265	18,336	16,571	15,777	22,057	16,797
Oilseeds							
Canola	kt	3,488	3,194	2,445	1,946	3,598	1,891
Cottonseed	kt	754	464	167	147	184	254
Other oilseeds **c**	kt	9.9	13.6	5.8	10.0	10.0	13.7
Pulses							
Chickpeas	kt	852	562	674	1,140	1,970	1,444
Peas	kt	208	155	179	143	225	200
Lupins	kt	416	298	270	220	414	305
Other pulses	kt	691	771	597	588	1,089	987
Total grains, oilseeds and pulses	kt	35,100	32,458	29,124	27,130	40,455	28,554
Industrial crops							
Raw cotton **d**	kt	1,305	1,036	681	536	763	944
Sugar	kt	3,016	3,052	3,675	4,140	4,009	3,985
Wine	ML	717	717	745	727	789	832
Meat and live animals							
Beef and veal	kt (sw)	1,052	1,214	1,376	1,196	991	1,145
Live feeder/slaughter cattle **e**	’000	513	1,006	1,295	1,114	817	875
Live breeder cattle **g**	’000	121	127	83.4	144	99.2	100
Lamb	kt (sw)	208	236	254	261	255	259
Live sheep **h**	’000	2,000	2,020	2,180	1,859	1,851	1,875
Mutton	kt (sw)	153	186	180	156	135	161
Pig meat **h**	kt (sw)	27.2	27.7	28.5	27.9	30.7	34.0
Chicken meat	kt (sw)	31.7	38.2	36.0	27.3	35.4	40.0
Goat meat	kt (sw)	34.4	38.3	36.5	29.6	29.3	30.8
Live goats	’000	61.3	81.2	91.0	80.7	29.6	22.1
Wool							
Greasy **is**	kt	316	295	325	296	313	326
Semi-processed	kt (gr. eq.)	34.4	35.2	41.4	34.8	30.9	31.6
Skins	kt (gr. eq.)	86.4	97.1	92.5	86.0	85.3	88.9
Total wool **is**	kt (gr. eq.)	437	428	459	417	429	446
Dairy products							
Butter **j**	kt	53.7	49.3	43.6	33.6	21.4	21.0
Cheese	kt	174	151	159	172	167	170
Casein	kt	4.2	2.9	0.2	0.4	0.4	0.4
Skim milk powder	kt	147	143	186	181	153	154
Whole milk powder	kt	87.0	94.4	69.3	57.0	59.9	59.3

continued ...

TABLE 16 Volume of agricultural and fisheries exports Australia continued

Commodity	unit	2012–13	2013–14	2014–15	2015–16	2016–17 s	2017–18 f
Fisheries products							
Tuna	kt	8.9	11.0	12.1	13.8	10.7	11.9
Salmonids	kt	2.6	1.8	5.0	8.0	5.0	6.2
Other fish	kt	6.3	5.8	6.5	20.6	15.5	7.7
Abalone	kt	2.8	2.7	2.6	2.6	2.6	2.5
Prawns	kt	3.9	7.1	6.5	6.7	7.0	6.3
Rock lobster	kt	7.8	8.0	8.2	8.0	8.6	8.6
Other crustaceans and molluscs	kt	2.9	2.5	2.4	2.4	2.0	1.7
Total edible k	kt	35.3	38.9	43.3	62.1	51.4	44.9

a Includes the grain equivalent of malt. **b** Includes the grain equivalent of wheat flour. **c** Includes soybeans, linseed, sunflower seed, safflower seed and peanuts. Excludes meals and oils. **d** Excludes cotton waste and linters. **e** Includes buffalo. **f** ABARES forecast. **g** Includes dairy cattle and buffalo. **h** Includes breeding stock. **i** Australian Bureau of Statistics recorded trade data adjusted for changes in stock levels held overseas. **j** Includes ghee, dry butterfat, butter concentrate and butter oil, and dairy spreads, all expressed as butter. **k** total non-edible export volume not avaliable. **s** ABARES estimates.

Sources: ABARES; Australian Bureau of Statistics; Department of Foreign Affairs and Trade; UN Commodity Trade Statistics Database (UN Comtrade)

TABLE 17 Value of agricultural and fisheries exports (fob) Australia

Commodity	unit	2012–13	2013–14	2014–15	2015–16	2016–17 s	2017–18 f
Farm							
Crops							
Grains							
Barley **a**	$m	1,626	2,199	2,137	1,790	2,427	1,438
Corn (maize)	$m	49.7	36.5	30.0	21.7	31.8	32.2
Grain sorghum	$m	364	253	424	364	212	250
Oats	$m	83.0	80.0	106	104	126	74.9
Rice **b**	$m	459	490	506	408	245	527
Wheat **c**	$m	6,776	6,103	5,547	5,120	6,094	4,992
Oilseeds							
Canola	$m	2,094	1,929	1,349	1,097	2,128	1,024
Cottonseed	$m	219	168	74.7	68.9	86.1	112
Other oilseeds **d**	$m	13.3	18.3	13.6	19.0	20.4	21.1
Pulses							
Chickpeas	$m	533	297	414	1,013	1,920	1,315
Peas	$m	89.1	67.2	90.5	85.5	109	86.2
Lupins	$m	143	125	119	96.8	147	97.5
Other pulses	$m	418	530	541	584	910	638
Total grains, oilseeds and pulses	$m	12,869	12,296	11,352	10,772	14,455	10,608
Industrial crops							
Raw cotton **e**	$m	2,695	2,355	1,546	1,269	1,787	2,100
Sugar	$m	1,438	1,385	1,643	1,823	2,232	1,933
Wine	$m	1,867	1,847	1,983	2,184	2,366	2,639
Total industrial crops	$m	5,999	5,587	5,172	5,277	6,385	6,671
Horticulture							
Fruit	$m	634	724	755	1,072	1,087	1,365
Tree nuts	$m	348	610	734	930	820	1,130
Vegetables	$m	257	268	289	340	354	364
Nursery	$m	11.9	11.3	11.9	14.8	19.2	16.4
Other horticulture **g**	$m	201	220	230	252	281	291
Total horticulture	$m	1,452	1,833	2,019	2,609	2,561	3,166
Other crops and crop products	$m	2,239	2,601	3,031	3,872	4,289	3,218
Total crops	$m	22,558	22,318	21,574	22,529	27,690	23,662
Meat and live animals							
Beef and veal	$m	5,052	6,422	9,040	8,495	7,115	7,960
Live feeder/slaughter cattle **h**	$m	339	795	1,163	1,280	1,031	1,080
Live breeder cattle **i**	$m	251	255	192	271	168	169
Lamb	$m	1,128	1,534	1,779	1,771	1,934	2,079
Live sheep **j**	$m	194	185	245	228	233	250
Mutton	$m	510	772	824	699	719	909
Pig meat	$m	89.5	93.9	110	128	124	119
Chicken meat	$m	44.1	53.7	58.1	49.8	54.1	58.0
Goat meat	$m	146	199	258	226	250	270
Live goats	$m	7.2	9.9	9.6	10.3	4.7	5.1
Total meat and live animals	$m	7,759	10,318	13,680	13,157	11,633	12,901
Wool							
Greasy **k**	$m	2,261	2,212	2,497	2,590	3,014	3,620
Semi-processed	$m	209	238	282	281	248	293
Skins	$m	398	426	375	412	355	426
Total wool k	$m	2,869	2,877	3,154	3,283	3,617	4,339

continued ...

TABLE 17 Value of agricultural and fisheries exports (fob) Australia continued

Commodity	unit	2012–13	2013–14	2014–15	2015–16	2016–17 s	2017–18 f
Dairy products							
Butter **l**	$m	180	243	198	156	111	136
Cheese	$m	784	765	823	859	848	924
Casein	$m	46.2	42.3	10.5	10.4	11.0	9.0
Skim milk powder	$m	467	708	682	516	454	382
Whole milk powder	$m	312	532	294	257	268	269
Other dairy products **m**	$m	942	904	868	1,202	1,336	1,516
Total dairy products	$m	2,731	3,194	2,876	3,001	3,029	3,236
Other livestock and livestock products	$m	2,352	2,657	2,916	2,824	2,727	2,915
Total livestock exports	$m	15,712	19,046	22,625	22,265	21,005	23,390
Total farm exports	$m	38,270	41,364	44,200	44,794	48,695	47,052
Fisheries products							
Tuna	$m	163	136	151	163	144	155
Salmonids	$m	25.4	17.4	48.1	79.9	58.9	70.1
Other fish	$m	70.1	72.5	72.1	111	103	94.1
Abalone	$m	186	170	174	182	187	188
Prawns	$m	51.8	101	94.2	114	114	100
Rock lobster	$m	447	590	691	693	676	663
Other crustaceans and molluscs	$m	59.1	51.6	62.3	74.1	48.5	47.6
Pearls	$m	152	144	111	95.9	75.4	74.6
Other fisheries products	$m	21.3	21.5	36.2	27.5	27.2	30.3
Total fisheries products	$m	1,175	1,304	1,440	1,542	1,435	1,423

a Includes malt. **b** Includes the milled equivalent of rice flour. **c** Includes wheat flour. **d** Includes soybeans, linseed, sunflower seed, safflower seed and peanuts. Excludes meals and oils. **e** Excludes cotton waste and linters. **f** ABARES forecast. **g** Other horticulture includes mainly coffee, tea, spices, essential oils, vegetables for seed and other miscellaneous horticultural products. **h** Includes buffalo. **i** Includes dairy cattle and buffalo. **j** Includes breeding stock. **k** On a balance of payments basis. Australian Bureau of Statistics recorded trade data adjusted for changes in stock levels held overseas. **l** Includes ghee, dry butterfat, butter concentrate and butter oil, and dairy spreads, all expressed as butter. **m** Other dairy products include food preparations identified by industry as containing a high proportion of dairy products. **s** ABARES estimate.

Sources: ABARES; Australian Bureau of Statistics; Department of Agriculture and Water Resources, Canberra; UN Commodity Trade Statistics Database (UN Comtrade)

TABLE 18 Agricultural exports to China (fob) Australia

Commodity	unit	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17 s
Farm							
Crops							
Grains							
Barley **a**	$m	454	494	1,080	1,464	834	1,393
Grain sorghum	$m	3.9	98.0	215	410	350	179
Wheat **b**	$m	457	357	484	323	426	493
Other grains **c**	$m	0.1	5.7	0.2	0.4	0.7	0.3
Oilseeds	$m	116	344	627	317	13.6	148
Pulses	$m	4.3	1.3	0.6	16.9	20.0	7.3
Total grains, oilseeds and pulses	$m	1,035	1,300	2,407	2,531	1,645	2,220
Industrial crops							
Raw cotton **d**	$m	1,812	1,849	1,520	851	636	464
Sugar	$m	20.8	2.0	42.0	126	120	121
Wine	$m	209	241	202	269	416	595
Total industrial crops	$m	2,041	2,093	1,764	1,246	1,172	1,180
Horticulture							
Fruit	$m	10.0	27.6	37.4	64.2	187	258
Tree nuts	$m	11.5	36.4	37.1	38.6	62.7	73.6
Vegetables	$m	2.5	2.6	3.3	3.9	3.8	2.9
Nursery	$m	0.5	0.3	0.3	0.8	1.1	1.0
Other horticulture **e**	$m	3.0	3.0	2.9	4.5	4.9	5.0
Total horticulture	$m	27.5	69.9	81.0	112	260	341
Other crops and crop products	$m	66.0	65.3	119	361	802	1,078
Total crops	$m	3,170	3,528	4,370	4,250	3,878	4,818
Meat and live animals							
Beef and veal	$m	59	408	787	758	867	747
Live breeder cattle **g**	$m	133	125	180	149	221	126
Lamb	$m	85.1	120	217	191	144	208
Mutton	$m	30.3	123	229	168	86.0	89.5
Other meat and live animals	$m	0.5	1.3	19.4	36.7	29.8	8.9
Total meat and live animals h	$m	308	778	1,433	1,303	1,347	1,179
Wool							
Greasy	$m	1,925	1,844	1,713	1,986	2,017	2,423
Semi-processed	$m	24.5	18.3	17.6	32.2	14.5	16.7
Skins	$m	369	337	378	336	385	329
Total wool	$m	2,319	2,200	2,109	2,354	2,417	2,769
Dairy products							
Butter **i**	$m	7.2	5.9	7.5	11.4	11.1	11.5
Cheese	$m	36.7	44.0	74.0	72.3	85.0	101
Casein	$m	1.3	1.0	0.9	0.2	0.3	0.0
Skim milk powder	$m	49.6	35.5	108	58.6	70.3	75.9
Whole milk powder	$m	11.2	55.7	159	19.9	82.4	78.0
Other dairy products	$m	185	208	151	173	427	552
Total dairy product exports	$m	291	350	501	335	676	818
Other livestock exports	$m	613	629	756	828	648	535
Total livestock and livestock products	$m	3,530	3,956	4,798	4,820	5,088	5,301
Total agricultural exports	$m	6,700	7,483	9,168	9,071	8,966	10,120

a Includes malt. **b** Includes wheat flour. **c** Includes grains not separately listed (excluding rice). **d** Excludes cotton waste and linters. **e** Other horticulture includes mainly coffee, tea, spices, essential oils, vegetables for seed and other miscellaneous horticultural products. **g** Includes dairy cattle and buffalo. **h** Excludes value of live feeder slaughter for October 2015. **i** Includes ghee, dry butterfat, butter concentrate and butter oil, and dairy spreads, all expressed as butter. **s** ABARES estimate.
Sources: ABARES; Australian Bureau of Statistics

TABLE 19 Agricultural exports to Indonesia (fob) Australia

Commodity	unit	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17 s
Farm							
Crops							
Grains							
Barley **a**	$m	10.4	7.1	6.4	5.4	4.7	3.2
Wheat **b**	$m	1,156	1,395	1,194	1,403	1,127	1,263
Other grains, oilseeds and pulses	$m	13.7	11.8	27.6	14.4	17.9	20.4
Total grains, oilseeds and pulses	$m	1,180	1,414	1,228	1,423	1,150	1,287
Industrial crops							
Raw cotton **c**	$m	282	220	174	136	130	183
Sugar	$m	302	316	467	519	476	559
Wine	$m	4.3	4.5	2.6	3.9	4.0	5.9
Total industrial crops	**$m**	588	540	644	659	610	748
Horticulture							
Fruit	$m	33.2	48.9	53.0	62.2	90.7	76.8
Tree nuts	$m	1.5	1.4	1.2	2.4	5.1	5.8
Vegetables	$m	10.9	12.4	11.1	6.0	10.0	9.4
Nursery	$m	0.1	0.0	0	0.0	0	0.1
Other horticulture **d**	$m	2.7	2.3	2.9	3.8	1.5	1.8
Total horticulture	$m	48.5	64.9	68.2	74.4	107	93.9
Other crops and crop products	$m	24.7	33.8	39.3	43.4	47.8	50.2
Total crops	$m	1,842	2,053	1,980	2,200	1,915	2,179
Meat and live animals							
Beef and veal	$m	168	137	258	247	315	292
Live feeder/slaughter cattle **e**	$m	252	165	452	595	578	620
Live breeder cattle **e**	$m	2.4	9.4	8.8	5.0	7.2	15.9
Lamb	$m	8.8	7.8	4.5	7.1	7.6	8.7
Mutton	$m	1.3	1.6	1.2	4.1	6.2	5.8
Other meat and live animals **g**	$m	0.6	0.5	0	0.0	0	0.0
Total meat and live animals	$m	433	321	724	858	914	942
Wool	$m	0.4	0.3	0.9	0.6	0.5	0.4
Dairy products							
Butter **h**	$m	3.9	5.5	6.6	4.6	3.2	3.5
Cheese	$m	18.6	18.3	18.4	18.1	17.7	24.7
Casein	$m	7.2	9.4	9.7	0.0	0.0	0.4
Skim milk powder	$m	71.6	68.1	126	164	120	107
Whole milk powder	$m	34.0	18.0	37.3	8.0	2.9	3.0
Other dairy products	$m	39.1	28.4	38.8	56.5	51.2	61.0
Total dairy product exports	$m	174	148	237	251	195	200
Other livestock products	$m	113	146	143	140	121	150
Total livestock and livestock products	$m	721	615	1,106	1,250	1,231	1,293
Total agricultural exports	$m	2,562	2,668	3,086	3,450	3,146	3,472

a Includes malt. **b** Includes wheat flour. **c** Excludes cotton waste and linters. **d** Other horticulture includes mainly coffee, tea, spices, essential oils, vegetables for seed and other miscellaneous horticultural products. **e** Includes buffalo. **g** Includes dairy cattle and buffalo. **h** Includes ghee, dry butterfat, butter concentrate and butter oil, and dairy spreads, all expressed as butter. **s** ABARES estimate.

Sources: ABARES; Australian Bureau of Statistics

TABLE 20 Agricultural exports to Japan (fob) Australia

Commodity	unit	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17 s
Farm							
Grains							
Barley **a**	$m	316	292	251	177	223	355
Grain sorghum	$m	219	202	16.2	2.3	0.6	2.1
Wheat **b**	$m	395	392	322	305	326	304
Oilseeds							
Canola	$m	47.4	71.7	113	175	62.7	83.8
Cottonseed	$m	30.9	36.1	30.9	23.3	27.3	18.8
Other grains and oilseeds **c**	$m	9.4	16.9	9.9	6.4	5.2	7.0
Pulses	$m	11.5	10.4	10.6	8.5	14.5	4.3
Total grains, oilseeds and pulses	$m	1,030	1,021	754	697	659	774
Industrial crops							
Raw cotton **d**	$m	62.6	27.6	31.9	25.4	26.6	30.8
Sugar	$m	211	198	244	164	233	358
Wine	$m	45.3	42.2	41.5	43.8	45.6	47.0
Total industrial crops	$m	318	268	318	233	306	436
Horticulture							
Fruit	$m	59.0	62.6	60.6	59.2	89.0	105
Tree nuts	$m	20.3	22.5	19.3	22.7	35.4	45.0
Vegetables	$m	40.8	41.1	39.1	37.6	44.1	50.7
Nursery	$m	2.9	2.6	1.8	1.7	2.0	5.0
Other horticulture **e**	$m	4.6	2.3	7.0	7.1	7.1	6.9
Total horticulture	$m	128	131	128	128	178	212
Other crops and crop products	$m	355	337	370	375	364	374
Total crops	$m	1,830	1,757	1,570	1,433	1,506	1,796
Meat and live animals							
Beef and veal	$m	1,580	1,466	1,439	1,858	1,813	1,910
Live feeder/slaughter cattle **gh**	$m	19.7	14.6	15.1	14.4	14.7	22.1
Lamb	$m	62.7	56.3	75.5	86.0	72.0	83.1
Mutton	$m	25.0	16.9	28.8	27.3	35.1	32.2
Other meat and live animals	$m	2.9	3.5	3.7	4.7	10.8	10.1
Total meat and live animals	$m	1,690	1,558	1,562	1,990	1,946	2,058
Wool							
Greasy	$m	11.6	8.0	0.6	0.2	0.0	0.1
Semi-processed	$m	26.1	21.5	10.3	14.2	20.5	11.1
Skins	$m	1.6	1.0	1.6	1.8	1.7	1.5
Total wool	$m	39.3	30.4	12.5	16.2	22.2	12.7
Dairy products							
Butter **i**	$m	8.7	3.9	2.2	3.9	3.3	2.7
Cheese	$m	423	415	343	407	410	374
Casein	$m	21.5	16.8	20.4	5.4	4.9	3.1
Skim milk powder	$m	2.0	5.0	16.5	30.5	5.2	9.8
Whole milk powder	$m	0.7	0.4	0.0	0.1	0.0	0.0
Other dairy products	$m	45.9	68.0	38.6	33.4	38.8	39.4
Total dairy product exports	$m	502	509	421	481	462	429
Other livestock products	$m	301	293	276	291	361	365
Total livestock and livestock products	$m	2,531	2,390	2,271	2,778	2,792	2,865
Total agricultural exports	$m	4,362	4,147	3,841	4,211	4,298	4,661

a Includes malt. **b** Includes the grain equivalent of wheat flour. **c** Includes grains and oilseeds not separately listed. **d** Excludes cotton waste and linters. **e** Other horticulture includes mainly coffee, tea, spices, essential oils, vegetables for seed and other miscellaneous horticultural products. **g** Excludes breeding stock and includes buffalo for feeder/slaughter purposes. **h** Excludes value of live feeder slaughter for October 2015. **i** Includes ghee, dry butterfat, butter concentrate and butter oil, and dairy spreads, all expressed as butter. **s** ABARES estimate.

Sources: ABARES; Australian Bureau of Statistics

TABLE 21 Agricultural exports to the Republic of Korea (fob) Australia

Commodity	unit	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17 s
Farm							
Crops							
Grains a							
Barley **b**	$m	94.3	87.2	116	116	95.7	94
Wheat **c**	$m	628	449	310	354	410	300
Corn (maize)	$m	12.3	19.6	22.6	21.6	13.2	23.6
Oilseeds							
Cottonseed	$m	26.5	36.8	30.5	15.4	19.1	12.3
Other grains and oilseeds **d**	$m	0.9	2.3	5.9	1.9	4.0	3.5
Pulses	$m	35.7	74.0	57.0	68.4	25.0	34.4
Total grains, oilseeds and pulses	$m	798	669	541	577	567	467
Industrial crops							
Raw cotton **e**	$m	120	119	130	81.8	24.4	21.7
Sugar	$m	514	467	300	512	631	837
Wine	$m	8.8	10.2	7.6	10.5	13.1	13.5
Total industrial crops	$m	643	596	438	604	668	872
Horticulture							
Fruit	$m	4.9	6.6	6.0	9.6	12.3	9.0
Tree nuts	$m	2.6	2.3	3.9	10.8	17.6	14.5
Vegetables	$m	9.1	7.0	4.7	8.5	16.6	14.9
Other horticulture **g**	$m	1.7	1.9	2.7	1.9	1.9	3.1
Total horticulture	$m	18.2	17.8	17.4	30.7	48.5	41.5
Other crops and crop products	$m	135	141	166	156	174	245
Total crops	$m	1,594	1,424	1,162	1,368	1,458	1,626
Meat and live animals							
Beef and veal	$m	654	703	892	1,068	1,324	1,228
Lamb	$m	14.6	13.6	24.0	32.0	48.9	95.7
Mutton	$m	4.3	3.9	5.7	7.1	8.8	10.1
Other meat and live animals	$m	1.8	1.0	1.3	1.8	3.1	3.4
Total meat and live animals	$m	675	722	923	1,108	1,385	1,337
Wool	$m	43.2	43.5	61.1	81.3	127	108
Dairy products							
Butter **h**	$m	9.2	6.9	6.3	9.6	14.3	9.6
Cheese	$m	31.0	29.8	26.1	32.0	39.2	53.1
Casein	$m	2.4	1.5	1.1	0.1	0.2	0
Skim milk powder	$m	23.3	19.3	26.5	24.6	13.6	19.6
Whole milk powder	$m	7.4	1.9	3.1	2.4	1.9	2.1
Other dairy products	$m	42.2	29.0	29.0	24.3	29.6	30.5
Total dairy products	$m	116	88.4	92.1	92.9	98.7	115
Other livestock products	$m	120	95.7	110	174	160	189
Total livestock and livestock products	$m	954	950	1,187	1,456	1,771	1,749
Total agricultural exports	$m	2,548	2,373	2,349	2,825	3,229	3,375

a Includes commodities subjected to ABS confidentiality restricitions. **b** Includes malt. **c** Includes wheat flour. **d** Includes grains not separately listed. **e** Excludes cotton waste and linters. **g** Other horticulture includes mainly coffee, tea, spices, essential oils, vegetables for seed and other miscellaneous horticultural products. **h** Includes ghee, dry butterfat, butter concentrate and butter oil, and dairy spreads, all expressed as butter. **s** ABARES estimate.

Sources: ABARES; Australian Bureau of Statistics

TABLE 22 Agricultural exports to the United States (fob) Australia

Commodity	unit	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17 s
Farm							
Crops							
Grains **a**	$m	0.2	1.2	1.7	0.3	0.1	0.1
Oilseeds	$m	19.7	49.9	66.2	21.6	1.5	20.4
Pulses	$m	5.0	4.0	4.8	4.4	4.5	7.6
Total grains, oilseeds and pulses	$m	24.8	55.1	72.7	26.3	6.1	28.2
Industrial crops							
Sugar	$m	120	54.2	31.0	52.7	77.9	88.4
Wine	$m	493	483	472	463	477	479
Total industrial crops	$m	613	537	504	515	555	567
Horticulture							
Fruit	$m	33.1	25.4	31.3	23.8	34.0	34.0
Tree nuts	$m	14.6	27.8	48.3	64.9	82.1	43.3
Vegetables	$m	4.9	5.0	6.4	8.0	8.7	9.5
Nursery	$m	1.7	1.5	1.5	1.7	2.1	2.0
Other horticulture **b**	$m	9.7	9.3	17.7	19.9	19.7	29.1
Total horticulture	$m	64.0	69.0	105	118	147	118
Other crops and crop products	$m	207	243	322	323	364	357
Total crops	$m	909	904	1,003	983	1,072	1,070
Meat and live animals							
Beef and veal	$m	894	970	1,360	3,233	2,488	1,494
Lamb	$m	304	303	398	532	617	619
Mutton	$m	24.5	33.8	50.6	77.7	94.3	102
Other meat and live animals	$m	0.0	0.1	0.2	1.3	0.5	0.5
Total meat and live animals	$m	1,223	1,307	1,809	3,844	3,200	2,216
Wool							
Greasy	$m	7.8	6.7	3.9	6.7	7.3	2.8
Semi-processed	$m	2.9	1.7	2.5	2.7	4.2	2.1
Skins	$m	0.0	0.5	0.3	0.1	0.0	0.1
Total wool	$m	10.7	8.9	6.6	9.5	11.6	4.9
Dairy products							
Butter **c**	$m	6.8	12.7	0.5	13.0	9.6	1.4
Cheese	$m	3.4	11.1	8.5	26.7	32.1	25.5
Casein	$m	6.5	8.9	4.2	0.9	1.4	2.9
Whole milk powder	$m	3.8	5.1	0.0	0.9	4.4	1.6
Other dairy products	$m	17.4	22.1	16.4	17.3	19.8	16.0
Total dairy products	$m	37.9	60.0	29.7	58.8	67.3	47.4
Other livestock products	$m	60.2	63.5	95.0	134	146	154
Total livestock and livestock products	$m	1,331	1,439	1,940	4,047	3,424	2,422
Total agricultural exports	$m	2,240	2,343	2,943	5,030	4,496	3,492

a Includes commodities subjected to ABS confidentiality restricitions. **b** Other horticulture includes mainly coffee, tea, spices, essential oils, vegetables for seed and other miscellaneous horticultural products. **c** Includes ghee, dry butterfat, butter concentrate and butter oil, and dairy spreads, all expressed as butter. **s** ABARES estimate.

Sources: ABARES; Australian Bureau of Statistics

TABLE 23 Volume of fisheries products exports Australia

Commodity	unit	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Edible a							
Fish							
Live	kt	0.9	0.8	0.9	0.8	0.8	0.8
Tuna	kt	8.9	8.9	11.0	12.1	13.8	10.7
Salmonids	kt	5.8	2.6	1.8	5.0	8.0	5.0
Swordfish	kt	0.5	0.5	0.4	0.5	0.6	0.5
Whiting	kt	0.9	0.4	0.1	0.0	0.0	0.0
Other fish	kt	5.1	4.7	4.4	5.3	19.2	14.2
Total fish	kt	22.0	17.8	18.6	23.6	42.4	31.2
Crustaceans and molluscs							
Rock lobster	kt	6.9	7.8	8.0	8.2	8.0	8.6
Prawns	kt	5.4	3.9	7.1	6.5	6.7	7.0
Abalone	kt	3.1	2.8	2.7	2.6	2.6	2.6
Scallops	kt	0.4	0.4	0.5	0.3	0.4	0.4
Crabs	kt	0.8	0.4	0.4	0.6	0.6	0.5
Other crustaceans and molluscs	kt	1.7	2.1	1.6	1.6	1.5	1.1
Total crustaceans and molluscs	kt	18.4	17.5	20.3	19.7	19.7	20.1
Total edible fisheries products	kt	40.5	35.3	38.9	43.3	62.1	51.4

a Includes prepared and preserved.

Source: Australian Bureau of Statistics

TABLE 24 Value of fisheries products exports (fob) Australia

Commodity	unit	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Edible							
Fish							
Live	$m	32.0	30.7	34.2	29.9	30.2	31.6
Tuna	$m	163	163	136	151	163	144
Salmonids	$m	41.8	25.4	17.4	48.1	79.9	58.9
Swordfish	$m	4.2	3.9	3.9	4.4	6.9	7.5
Whiting	$m	2.5	1.4	0.2	0.1	0.0	0.1
Other fish	$m	46.2	34.2	34.2	37.7	74.3	63.5
Total fish	$m	289	258	225	271	355	306
Crustaceans and molluscs							
Rock lobster	$m	387	447	590	691	693	676
Prawns	$m	66.7	51.8	101.0	94.2	114.4	114.4
Abalone	$m	197	186	170	174	182	187
Scallops	$m	15.3	10.8	13.6	10.7	11.7	12.0
Crabs	$m	11.0	8.2	5.5	7.9	7.6	7.7
Other crustaceans and molluscs	$m	34.4	40.2	32.5	43.7	54.8	28.8
Total crustaceans and molluscs	$m	711	744	913	1,021	1,064	1,026
Total edible fisheries products	$m	1,001	1,002	1,138	1,293	1,418	1,333
Non-edible							
Marine fats and oils	$m	7.3	10.0	9.1	20.9	11.2	10.0
Fish meal	$m	0.4	1.0	0.7	1.0	0.5	1.1
Pearls **a**	$m	207	152	144	111	96	75
Ornamental fish	$m	2.3	3.8	2.0	1.9	2.1	2.4
Other non-edible	$m	9.4	6.5	9.7	12.3	13.8	13.8
Total non-edible fisheries products	$m	226	173	166	147	123	103
Total fisheries products	$m	1,227	1,175	1,304	1,440	1,542	1,435

a Includes items temporarily exported and re-imported.

Source: Australian Bureau of Statistics

TABLE 25 Volume of fisheries products imports Australia

Commodity	unit	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Edible a							
Fish							
Tuna	kt	41	47	50	49	45	48
Salmonids	kt	10	12	14	16	15	15
Hake	kt	5.3	6.1	4.5	4.9	5.1	5.7
Swordfish	kt	0.2	0.2	0.2	0.2	0.2	0.1
Toothfish	kt	0.1	0.2	0.2	0.1	0.2	0.1
Herrings	kt	0.9	1.8	0.9	1.1	2.2	0.8
Shark	kt	0.5	0.5	0.7	0.6	0.4	0.2
Other fish	kt	87	93	90	88	86	87
Total fish b	kt	144	161	161	160	154	157
Crustaceans and molluscs							
Prawns	kt	38	35	39	32	32	32
Lobster	kt	0.9	0.8	1.0	1.1	0.9	1.2
Crabs	kt	1.5	1.5	2.1	2.0	1.9	1.7
Mussels	kt	2.8	3.7	3.6	3.1	3.3	3.6
Scallops	kt	3.0	3.1	3.5	2.9	2.6	3.0
Squid and octopus	kt	17	20	23	22	23	24
Other crustaceans and molluscs	kt	7.3	4.1	4.8	4.0	4.2	4.3
Total crustaceans and molluscs	kt	70	68	77	68	68	69
Total edible fisheries products abc	kt	214	228	238	228	223	226

a Includes prepared and preserved. **b** Excludes live tonnage. **c** Includes other fisheries products not classified into fish or crustaceans and molluscs.

Source: Australian Bureau of Statistics

TABLE 26 Value of fisheries products imports Australia

Commodity	unit	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Edible a							
Fish							
Tuna	$m	206	258	296	284	275	303
Salmonids	$m	91.8	119	167	191	185	217
Hake	$m	20.9	23.4	19.5	21.8	23.6	23.1
Swordfish	$m	1.2	1.7	1.4	1.7	1.6	1.2
Toothfish	$m	1.3	2.2	3.0	3.5	8.2	4.7
Herrings	$m	4.2	5.1	4.5	3.9	5.7	4.2
Shark	$m	4.0	4.6	5.5	4.9	3.9	2.2
Other fish	$m	460	480	508	544	570	577
Total fish b	$m	789	894	1,005	1,055	1,073	1,132
Crustaceans and molluscs							
Prawns	$m	351	305	495	431	401	402
Lobster	$m	16.0	15.3	22.4	28.3	29.9	33.8
Crabs	$m	15.5	16.8	28.3	31.1	28.7	24.9
Mussels	$m	11.7	17.1	19.1	17.9	20.0	21.7
Scallops	$m	43.6	41.1	52.9	49.6	55.0	68.6
Squid and octopus	$m	90.4	97.7	114	112	135	167
Other crustaceans and molluscs	$m	57.0	40.7	44.0	42.9	50.7	49.8
Total crustaceans and molluscs	$m	585	533	776	712	720	768
Total edible fisheries products abc	$m	1,374	1,428	1,781	1,767	1,793	1,900
Non-edible							
Pearls **d**	$m	138	105	102	97.2	144	132
Fish meal	$m	34.2	43.3	43.2	64.3	61.7	60.8
Ornamental fish	$m	3.7	4.0	4.5	4.4	4.9	4.2
Marine fats and oils	$m	39.5	39.1	40.1	52.7	61.1	56.0
Other marine products	$m	17.1	29.0	30.4	22.2	21.3	22.7
Total non-edible fisheries products	$m	233	221	220	241	293	275
Total fisheries products	$m	1,607	1,648	2,002	2,008	2,086	2,175

a Includes prepared and preserved. **b** Includes live value. **c** Includes other fisheries products not classified into fish or crustaceans and molluscs. **d** Mainly re-imports.

Source: Australian Bureau of Statistics

TABLE 27 Value of Australian fisheries products trade, by selected countries Australia

Trade	unit	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Exports							
Edible (including live)							
Hong Kong	$m	479	317	209	192	224	203
Vietnam	$m	60.5	293	566	716	682	574
Japan	$m	255	236	192	192	205	194
China	$m	58.5	45.2	36.6	48.7	104.6	170.3
Singapore	$m	42.5	31.0	34.2	35.0	35.3	37.7
United States	$m	23.1	17.9	22.1	28.0	44.8	38.2
Taiwan	$m	17.5	9.8	13.7	15.1	20.9	13.4
Thailand	$m	18.1	9.3	8.0	10.0	9.4	11.8
New Zealand	$m	10.1	9.1	14.5	13.9	19.9	17.0
Malaysia	$m	7.7	7.8	9.9	11.2	7.5	17.5
Indonesia	$m	6.1	7.4	9.9	9.3	10.0	12.5
Non-edible							
Hong Kong	$m	96.6	54.3	74.6	55.9	53.2	29.3
Japan	$m	44.4	33.0	26.9	23.4	24.0	29.8
United States	$m	22.2	21.0	19.2	16.6	21.6	14.4
Imports							
Edible (excluding live)							
Thailand	$m	362	400	417	422	416	455
New Zealand	$m	197	206	207	190	200	215
China	$m	231	196	342	285	292	305
Vietnam	$m	174	163	232	233	243	243
Malaysia	$m	73.2	81.0	97.9	94.7	88.9	101
United States	$m	45.1	52.2	56.0	53.0	54.9	51.1
Indonesia	$m	36.3	50.9	73.5	85.6	89.5	78.8
Taiwan	$m	38.9	48.1	44.5	58.3	60.3	55.4
South Africa	$m	31.3	35.1	31.6	27.5	27.7	26.5
Denmark	$m	25.3	32.2	44.8	58.2	47.7	61.8
Norway	$m	27.1	29.9	45.4	68.1	66.8	91.3

Source: Australian Bureau of Statistics

TABLE 28 Volume of forest products exports Australia

Commodity	unit	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Volume							
Roundwood	'000 m^3	1,806	1,516	2,363	2,616	3,685	4,323
Sawnwood **a**							
Softwood roughsawn **b**	'000 m^3	198	207	268	300	247	265
Softwood dressed	'000 m^3	12.9	3.0	4.6	25.5	10.8	8.2
Hardwood roughsawn	'000 m^3	25.9	20.2	73.2	117.2	19.1	27.5
Hardwood dressed	'000 m^3	14.6	6.7	25.4	72.6	23.3	20.7
Total	'000 m^3	252	237	371	515	300	321
Railway sleepers	'000 m^3	8.1	8.3	17.0	13.9	7.4	6.3
Wood-based panels							
Veneers	'000 m^3	105.6	51.6	63.7	50.1	45.2	78.1
Plywood	'000 m^3	18.1	36.4	35.8	13.9	30.5	36.5
Particleboard	'000 m^3	4.5	1.9	5.5	11.3	10.8	4.7
Hardboard **c**	'000 m^3	1.9	2.4	2.7	10.9	21.3	3.9
Medium-density fibreboard	'000 m^3	79.3	52.4	74.9	78.0	85.2	66.2
Softboard and other fibreboards	'000 m^3	4.6	1.1	0.9	21.4	3.9	1.2
Total wood-based panels	'000 m^3	214	146	184	185	197	191
Paper and paperboard							
Newsprint	kt	29.6	71.6	84.5	56.2	49.8	193
Printing and writing	kt	132	139	153	141	139	96
Household and sanitary	kt	26.2	11.5	19.7	23.1	17.0	15.8
Packaging and industrial	kt	933	906	950	948	924	939
Total	kt	1,121	1,127	1,207	1,168	1,130	1,243
Recovered paper	kt	1,403	1,506	1,449	1,397	1,420	1,354
Pulp	kt	1.3	0.2	0.1	0.1	0.2	0.2
Woodchips **deg**	kt	4,150	3,806	4,776	5,707	6,082	6,067

a Excludes railway sleepers. **b** Softwood roughsawn includes softwood dressed from January 2017. **c** Uncoated hardboard not available from January 2007 due to ABS confidentiality requirements. **d** Bone dry tonnes. **e** Includes particles. **g** Softwood woodchips are subject to ABS confidentiality restriction from March 2016 to May 2017 and are not included in these figures.

Note: Components may not add to totals due to rounding.

Sources: ABARES; Australian Bureau of Statistics

TABLE 29 Value of forest products exports (fob) Australia

Commodity	unit	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Value							
Roundwood	$m	175	155	292	313	438	598
Sawnwood							
Softwood roughsawn **a**	$m	54.8	61.4	75.2	74.1	67.6	69.3
Softwood dressed	$m	3.2	2.4	2.9	11.2	7.4	5.4
Hardwood roughsawn	$m	23.3	19.6	22.5	19.9	17.1	29.0
Hardwood dressed	$m	6.9	6.4	7.2	4.5	11.0	6.1
Total sawnwood	$m	88.2	89.9	108	110	103	110
Railway sleepers	$m	2.8	2.9	2.5	1.9	1.7	1.5
Miscellaneous forest products **b**	$m	64.8	76.3	88.6	97.9	141	207
Wood-based panels							
Veneers	$m	50.6	24.5	29.0	26.9	24.1	40.3
Plywood	$m	2.2	4.1	2.9	2.9	4.2	4.4
Particleboard	$m	1.4	1.4	1.4	1.6	2.3	1.9
Hardboard **c**	$m	1.8	2.1	2.0	2.4	7.0	3.4
Medium-density fibreboard	$m	26.3	18.5	25.7	27.3	27.9	22.5
Softboard and other fibreboards	$m	0.7	0.2	0.4	6.3	1.1	0.3
Total wood-based panels	$m	83.0	50.8	61.5	67.3	66.5	72.8
Paper and paperboard							
Newsprint	$m	15.5	36.2	59.1	38.9	33.4	96.9
Printing and writing	$m	120	117	139	146	128	95.8
Household and sanitary	$m	63.7	32.8	48.7	59.6	53.2	37.8
Packaging and industrial	$m	518	526	605	657	683	680
Total paper and paperboard	$m	717	712	853	901	898	910
Paper manufactures **d**	$m	134	132	132	109	102	110
Recovered paper	$m	240	230	241	241	249	260
Pulp	$m	0.7	0.2	0.3	0.3	0.4	0.7
Woodchips **eg**	$m	729	611	768	954	1,096	1,083
Total wood products	$m	2,235	2,059	2,546	2,795	3,094	3,353

a Softwood roughsawn includes softwood dressed from January 2017. **b** Includes such items as wooden doors, mouldings, packing cases, parquetry flooring, builders carpentry, cork, gums, resins, eucalyptus and tea tree oils, and other miscellaneous wood articles. Excludes wooden furniture. **c** Uncoated hardboard not available from January 2007 due to ABS confidentiality requirements. **d** Includes other paper articles that have had some further processing. **e** Includes particles. **g** Softwood woodchips are subject to ABS confidentiality restriction from March 2016 to May 2017 and are not included in these figures.

Note: Components may not add to totals due to rounding.

Sources: ABARES; Australian Bureau of Statistics

TABLE 30 Volume of forest products imports Australia

Commodity	unit	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Volume							
Roundwood	'000 m^3	1.1	1.3	0.6	0.8	1.8	0.5
Sawnwood a							
Softwood roughsawn	'000 m^3	239	247	271	291	241	220
Softwood dressed	'000 m^3	470	443	449	608	540	506
Hardwood roughsawn	'000 m^3	45.9	41.3	41.4	42.7	38.6	28.8
Hardwood dressed	'000 m^3	36.1	28.4	24.7	26.4	22.3	31.9
Total sawnwood	'000 m^3	791	759	786	968	841	787
Wood-based panels							
Veneers	'000 m^3	14.7	12.6	8.6	12.5	14.1	14.5
Plywood	'000 m^3	293	278	287	341	357	405
Particleboard	'000 m^3	67.2	72.2	95.1	94.6	89.2	124
Hardboard	'000 m^3	69.1	59.8	86.2	81.7	91.4	99.2
Medium-density fibreboard	'000 m^3	91.1	76.6	65.3	85.1	88.8	98.3
Softboard and other fibreboards	'000 m^3	7.1	5.6	5.1	6.7	7.4	6.3
Total wood-based panels	'000 m^3	542	505	548	622	648	747
Paper and paperboard							
Newsprint	kt	121	84.7	75.2	76.3	69.3	64.9
Printing and writing	kt	1,174	1,155	1,172	1,040	960	861
Household and sanitary	kt	118	159	123	142	155	164
Packaging and industrial	kt	333	385	357	392	410	427
Total paper and paperboard	kt	1,746	1,783	1,727	1,651	1,595	1,516
Recovered paper	kt	2.6	3.7	4.6	3.9	1.5	1.7
Pulp	kt	256	263	297	302	281	299
Woodchips **bc**	kt	1.2	1.2	1.7	2.3	1.9	2.7

a Excludes railway sleepers. **b** Bone dry tonnes. **c** Includes particles.

Sources: ABARES; Australian Bureau of Statistics

TABLE 31 Value of forest products imports Australia

Commodity	unit	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Value							
Roundwood	$m	0.7	0.9	0.8	0.6	1.7	4.0
Sawnwood							
Softwood roughsawn	$m	105	100	111	128	112	108
Softwood dressed	$m	248	246	281	382	361	345
Hardwood roughsawn	$m	44.3	41.5	45.7	57.2	55.1	43.9
Hardwood dressed	$m	50.8	35.0	30.8	34.3	27.7	37.3
Total sawnwood	$m	448	423	468	601	555	535
Miscellaneous forest products **a**	$m	756	769	946	1,102	1,304	1,204
Wood-based panels							
Veneers	$m	20.8	19.1	15.4	22.4	23.6	21.3
Plywood	$m	183	184	210	264	300	349
Particleboard	$m	26.1	26.9	35.5	37.8	41.0	52.4
Hardboard	$m	53.9	47.5	71.6	67.0	69.2	68.2
Medium-density fibreboard	$m	36.3	32.3	35.2	45.3	51.3	50.7
Softboard and other fibreboards	$m	3.2	2.1	2.7	3.0	4.0	4.0
Total wood-based panels	$m	323	311	370	439	489	545
Paper and paperboard							
Newsprint	$m	90.6	57.9	48.9	48.3	43.6	40.1
Printing and writing	$m	1,217	1,151	1,194	1,123	1,036	877
Household and sanitary	$m	187	244	208	254	305	296
Packaging and industrial	$m	543	590	654	728	845	882
Total paper and paperboard	$m	2,037	2,043	2,105	2,153	2,230	2,096
Paper manufactures **b**	$m	486	446	537	582	662	648
Recovered paper	$m	0.7	0.9	2.0	1.3	0.3	0.5
Pulp	$m	164	154	203	217	222	215
Woodchips **c**	$m	2.0	2.7	3.2	3.2	3.9	4.7
Total wood products	$m	4,217	4,151	4,636	5,099	5,468	5,253

a Includes such items as wooden doors, mouldings, packing cases, parquetry flooring, builders carpentry, cork, gums, resins, eucalyptus oils and other miscellaneous wood articles. Excludes wooden furniture. **b** Includes other paper articles that have had some further processing. **c** Includes particles.

Notes: Components may not add to totals due to rounding.

Sources: ABARES; Australian Bureau of Statistics

TABLE 32 Value of Australian forest products trade, by selected countries a

Trade	unit	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
Exports							
China	$m	535	474	542	817	1,331	1,568
Hong Kong	$m	39.3	16.5	10.3	12.6	11.5	21.5
Japan	$m	579	394	21	316	427	380
Korea, Rep. of	$m	39.8	33.4	44.3	38.1	37.3	42.3
Malaysia	$m	112	72.9	87.6	70.6	71.1	88.6
New Zealand	$m	305	270	292	297	318	328
Taiwan	$m	68.4	68.3	56.8	73.5	110	118
Imports							
China	$m	800	913	1,110	1,321	1,497	1,479
Finland	$m	120	205	221	184	160	143
Germany	$m	148	135	163	150	156	146
Indonesia	$m	342	313	348	427	495	448
Malaysia	$m	236	227	249	270	306	306
New Zealand	$m	634	557	605	646	673	624
United States	$m	298	304	339	361	347	355

a Value of wood products trade to selected countries may exclude data where ABS confidentiality restrictions apply.
Sources: ABARES; Australian Bureau of Statistics

Abbreviations

lb	pound	454 grams
kg	kilogram	2.20462 pounds
t	tonne	1,000 kilograms
kt	kilotonne	1,000 tonnes
Mt	megatonne	1 000 000 tonnes
L	litre	1.761 pints
kL	kilolitre	1,000 litres
ML	megalitre	1,000,000 litres
GL	gigalitre	1,000,000,000 litres
ha	hectare	2.471 acres
m3	cubic metre	1.307 cubic yards
c	cent (Australian)	
A$	dollar (Australian)	
$m	million dollars (Australian)	
DM	deutschmark	
ECU	European currency unit	
€	euro	
£	pound sterling	
USc	cent (United States)	
US$	dollar (United States)	
¥	yen	
cif	cost, insurance and freight	
cw	carcase weight	
fas	free alongside ship	
fob	free on board	
fot	free on truck	
na	not available	
nec	not elsewhere classified	
nei	not elsewhere included	
nfd	not further defined	
ABARE	Australian Bureau of Agricultural and Resource Economics	
ABARES	Australian Bureau of Agricultural and Resource Economics and Sciences	
ABS	Australian Bureau of Statistics	
ANZSIC	Australian and New Zealand Standard Industrial Classification	
BAE	Bureau of Agricultural Economics (now ABARES)	
BRS	Bureau of Rural Sciences (now ABARES)	
CIS	Commonwealth of Independent States	
EVAO	Estimated value of agricultural operations	
FAO	Food and Agriculture Organization of the United Nations	
USDA	United States Department of Agriculture	

All values and prices are in nominal terms unless stated in table footnotes.
Small discrepancies in totals are generally caused by rounding. Zero is used to denote nil or a negligible amount.

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