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ABARES

Australian beef

Financial performance of beef farms: 2017–18 to 2019–20

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Average farm cash income of Australian beef farms decreased by 37% in 2018–19 to around $119,400 per farm (Table 1, Figure 1). Total cash receipts fell as a result of decreased cattle sales and lower prices per head, combined with reduced receipts from crops, wool, sheep and lambs. Decreased receipts were partly offset by lower total cash costs, mainly due to a fall in beef cattle purchases.

In 2019–20, average farm cash income is projected to have remained relatively unchanged as both total cash receipts and total cash costs decreased. Receipts declined despite higher cattle prices because of falls in the number of cattle sold due to reductions in herd sizes in the previous year. Total cash costs are projected to have declined because of reduced expenditure on purchased fodder as a result of the reduction in beef cattle numbers during 2018–19 and 2019–20, and improved seasonal conditions in some regions.

Table 1 Farm financial performance, beef farms, Australia, 2017–18 to 2019–20

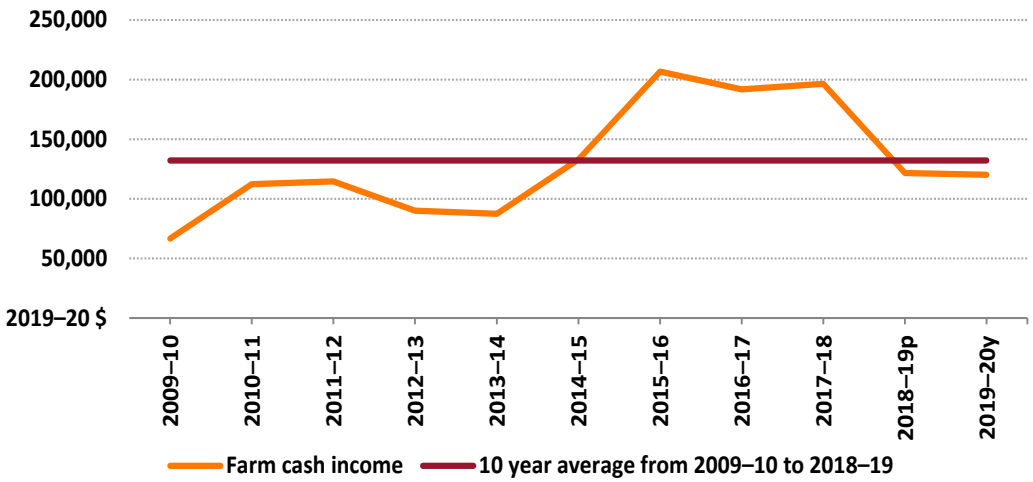
average per farm

Performance measure	Unit	2017–18	2018–19p	RSE	2019–20y
Total cash receipts	$	552,220	477,200	(4)	455,000
less total cash costs	$	362,240	357,800	(4)	335,000
Farm cash income	$	189,990	119,400	(8)	120,000
plus change in trading stocks	$	–13,120	50,000	(19)	–39,000
less depreciation	$	42,730	41,200	(4)	41,000
less operator and family labour	$	66,520	69,400	(2)	73,000
Farm business profit	$	67,620	–41,200	(26)	–33,000
plus interest and lease payments	$	35,790	34,800	(7)	35,000
Profit at full equity	$	103,410	–6,400	(166)	2,000
Rate of return **a**	%	2.7	–0.1	(167)	0.0

p Preliminary estimate. **y** Provisional estimate. **a** Excluding capital appreciation. **RSE** Relative standard error.
Note: Estimates may not sum due to rounding. Definitions and description of data are provided in Box 1.
Source: ABARES Australian Agricultural and Grazing Industries Survey

Figure 1 Farm cash income, beef farms, Australia, 2009–10 to 2019–20

average per farm



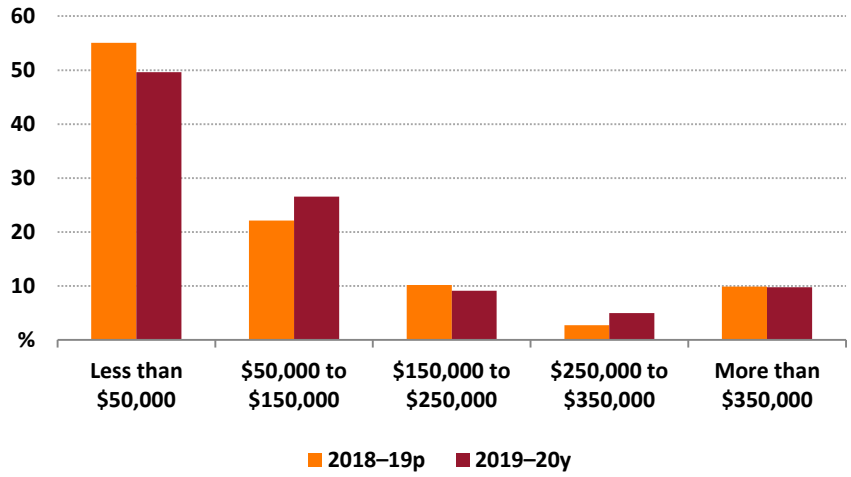
p Preliminary estimate. **y** Provisional estimate.
Note: Farm cash income varies over time because of short-term changes in factors such as commodity prices, seasonal conditions and management decisions, as well as longer-term changes in the farm sector, such as growth in average farm size, shifts in enterprise mix and technological progress. Appropriate consideration of the long-term factors is essential when interpreting changes in farm cash income over periods longer than 3 to 5 years.
Source: ABARES Australian Agricultural and Grazing Industries Survey

While ongoing destocking because of drought has supported livestock receipts somewhat in 2019–20, farm cash income is projected to have been considerably lower than the peaks experienced from 2015–16 to 2017–18, mainly because of lower prices and turn-off compared with these years. In addition, the reduction in inventories associated with destocking continues to have a negative effect on farm profits. Farm cash income in 2019–20 is projected to have been 9% below the 10 year average to 2018–19 in real terms.

At the national level, around one-half of beef farms are expected to have cash incomes below $50,000 in 2019–20 (Figure 2). Around 70% of these low income farms are in the Southern region. The proportion of farms with incomes above $350,000 is projected to have remained relatively stable at around 10% in 2018–19 and 2019–20. The majority of these farms are in the Northern region.

Figure 2 Distribution of beef farms by farm cash income, Australia, 2018–19 and 2019–20

percentage of farms



p Preliminary estimate. **y** Provisional estimate.

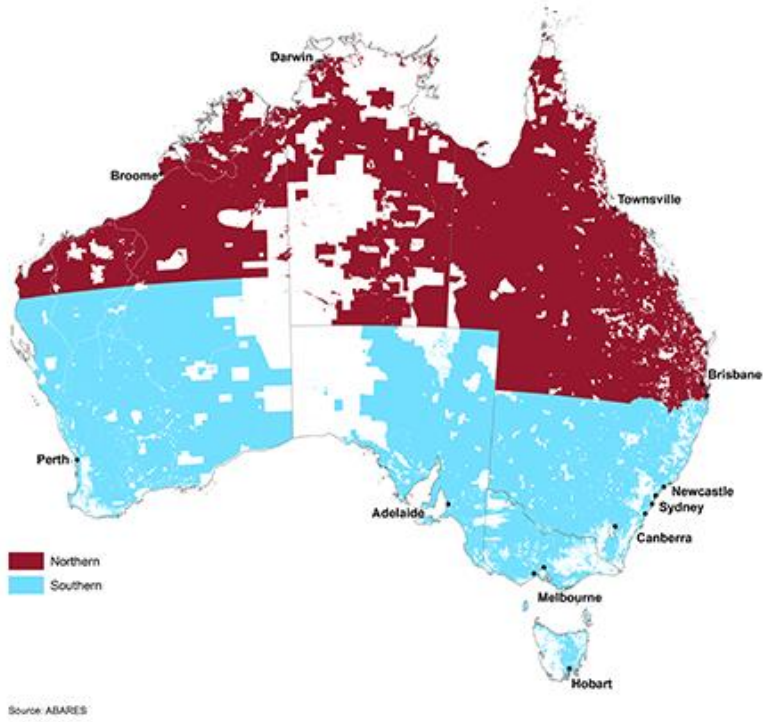
Source: ABARES Australian Agricultural and Grazing Industries Survey

Box 1 About this report

The data presented in this report is collected by ABARES through the Australian Agricultural and Grazing Industries Survey (AAGIS), which is funded by the Department of Agriculture, Water and the Environment, Meat & Livestock Australia (MLA) and the Grains Research and Development Corporation.

The results included in this report are for farms included in AAGIS that had at least 100 head of beef cattle on hand at 30 June. These farm businesses represent 98% of the national beef herd and contribute around 96% to the total value of beef cattle sales. MLA commissioned and funded this analysis of beef industry farm performance. Data are provided at national and regional scales, with regions based on those used by MLA—the Northern and Southern regions (Map 1).

Map 1 – MLA regions



Note: Northern Australia is defined as the Northern Territory, Queensland and Western Australia north of the Tropic of Capricorn.
The map excludes areas of Nature conservation, Managed resource protection, Production native forests and Plantation forests based on the Land use of Australia 2010-11.

Definitions of major financial performance indicators:

Total cash receipts: total revenues received by the business during the financial year

Total cash costs: payments made by the business for materials and services and for permanent and casual hired labour (excluding owner–manager, partner and family labour)

Farm cash income: total cash receipts – total cash costs

Farm business profit: farm cash income + change in trading stocks – depreciation – imputed labour costs

Profit at full equity: return produced by all the resources used in the business: farm business profit + rent + interest + finance lease payments – depreciation on leased items

Rate of return excluding capital appreciation: efficiency of businesses in generating returns from all resources used (profit at full equity/total opening capital) x 100

Farm household income

Farm cash income is a comprehensive measure of the income generated by the business for use by the farm household for consumption and investment. However, activities other than farming are also an important source of income for many farm households. This diversification is an important risk management strategy for many Australian farmers. On average over the 3 years to 2018–19, around 71% of beef farms earned off-farm income, at an average value of $78,600 per farm, equivalent to 37% of total household income (for farms with off-farm income) (Table 2).

The importance of off-farm income varies with farm size (Figure 3). For small beef farms (100 to 400 head) off-farm income accounted for 50% of overall household income. Around 75% of small beef farms received off-farm income, the highest proportion across the size groups. Off-farm income is less significant for larger beef farms: 39% of very large beef farms (more than 5,400 head) earned some off-farm income, with an average value of $26,600 (around 3% of household income).

Table 2 Off-farm income, beef farms, by herd size, Australia, 3 year average to 2018–19

Measure	Unit	Small (100 to 400 head)	Medium (400 to 1,600 head)	Large (1,600 to 5,400 head)	Very large (more than 5,400 head)	All beef farms
Proportion of farms with off-farm income **a**	%	75	66	63	39	71
Average off-farm income **b**	$	80,800	84,400	42,800	26,600	78,600
Off-farm income as a proportion of farm household income **b**	%	50	36	9	3	37
Average off-farm income **a**	$	61,200	55,300	26,600	10,400	56,200

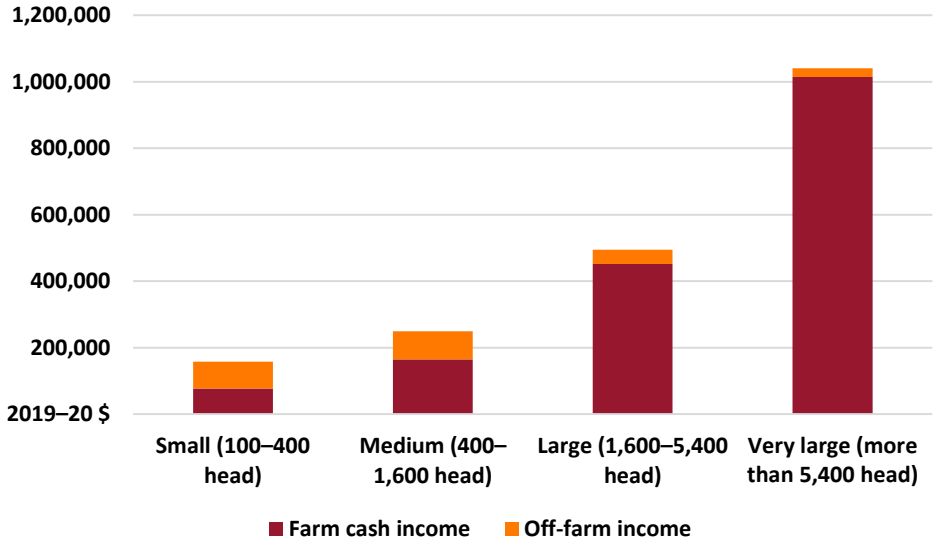
a All responding farms. **b** Farms with off-farm income greater than zero.

Note: Financial data in 2019–20 dollars.

Source: ABARES Australian Agricultural and Grazing Industries Survey

Figure 3 Farm household income, beef farms, by herd size, Australia, 2016–17 to 2018–19

average per farm



Note: Farms with off-farm income greater than zero.
Source: ABARES Australian Agricultural and Grazing Industries Survey

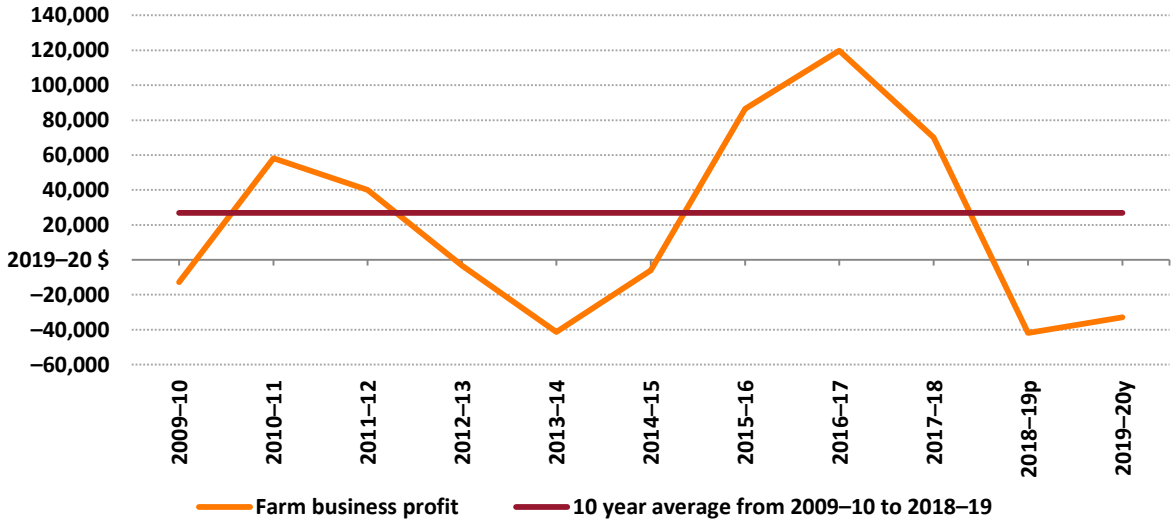
Farm business profit

Farm business profit is a comprehensive measure of the long-term economic performance of farm businesses. In addition to the receipts and costs included in farm cash income, farm business profit also accounts for non-cash costs incurred by farm businesses, namely capital depreciation, payments for family labour and changes in inventories of livestock, fodder and grain held on farms.

In 2018–19, the decline in farm business profit for beef farms was much larger than the fall in farm cash income because of a rundown in trading stocks (mainly beef cattle). In 2019–20, farm business profit is projected to have improved slightly as a result of higher livestock prices and increased value of trading stocks, despite a lower number of cattle on hand (Figure 4). In 2019–20, farm business profit was around $60,000 below the 10 year average.

Figure 4 Farm business profit, beef farms, Australia, 2009–10 to 2019–20

average per farm

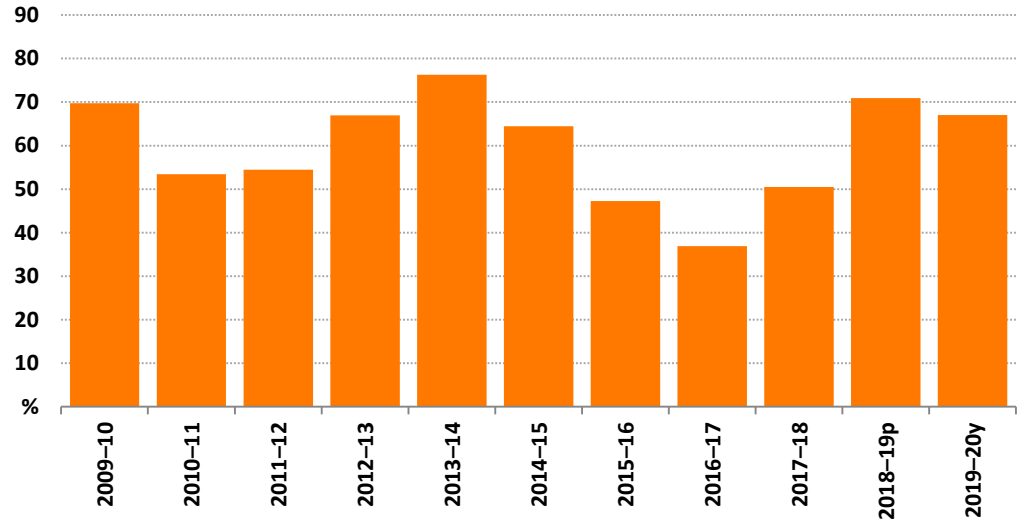


p Preliminary estimate. **y** Provisional estimate.
Note: farm business profit varies over time because of short-term changes in factors such as commodity prices, seasonal conditions and management decisions, as well as longer-term changes in the farm sector, such as growth in average farm size, shifts in enterprise mix and technological progress. Appropriate consideration of the long-term factors is essential when interpreting changes in farm business profit over periods longer than 3 to 5 years.
Source: ABARES Australian Agricultural and Grazing Industries Survey

Over the 10 years to 2018–19, the proportion of beef farms recording negative farm business profit averaged around 59% a year (Figure 5). In 2019–20, around 67% of beef farms are projected to have recorded negative farm business profit.

Figure 5 Proportion of beef farms with negative farm business profit, Australia, 2009–10 to 2019–20

percentage of farms



p Preliminary estimate. **y** Provisional estimate.
Source: ABARES Australian Agricultural and Grazing Industries Survey

Negative farm business profit in a particular year typically means a farm has not covered the costs of family labour or set aside sufficient funds to replace depreciating farm assets (and has also possibly not covered all cash costs). Many farms occasionally record negative farm business profit when their income fluctuates. However, ongoing low or negative profit affects long-term viability because farms have reduced capacity to invest in newer and more efficient technologies.

In some cases, negative farm business profit reflects short-term factors such as fluctuations in seasonal conditions and prices, and one-off events such as injury or illness. On average, 14% of beef farms recording negative farm business profit in any given year from 2009–10 to 2018–19 recorded a positive profit in the following year. In other cases, farm business profit is consistently low or negative over time, reflecting the fact that many farm households are supported by off-farm income and derive other benefits from owning farms such as amenity and long-term growth in asset values.

Rate of return

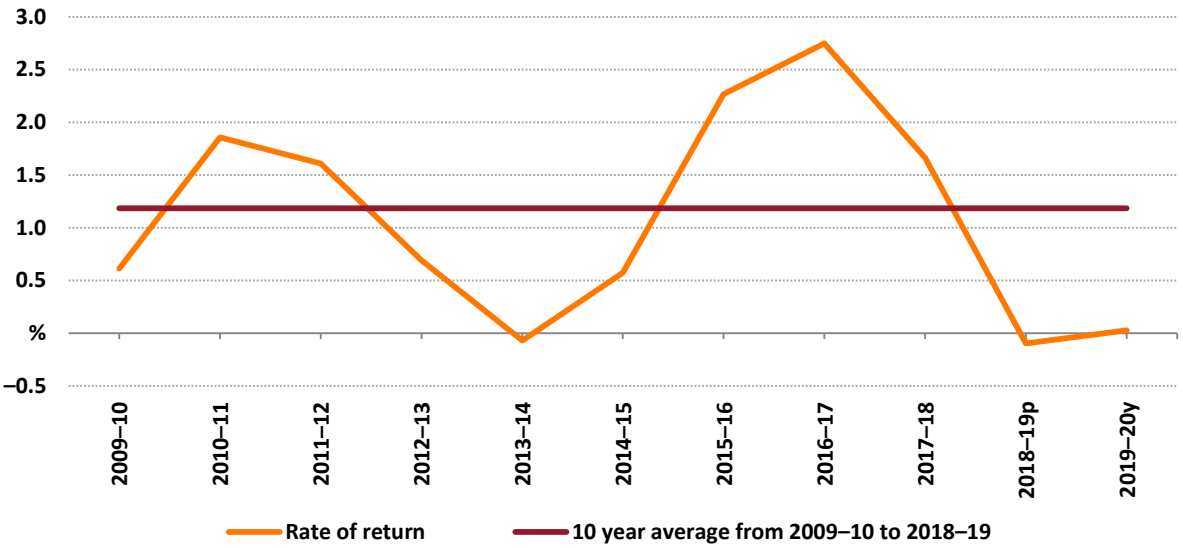
The most complete measure of farm business performance is the rate of return. This variable is calculated by dividing profit generated in a particular year by the value of assets used in that year. By capturing the value of the assets used by the business, rate of return effectively measures the efficiency with which the funds invested in a farm (for example in land, machinery and livestock) have been used to generate profit. With appropriate consideration of risk, farm rates of return can be compared to those generated by other potential uses of capital, such as debt and equity investments.

ABARES calculates rate of return to capital by expressing profit at full equity – that is, farm business profit plus rent, interest and finance lease payments – as a percentage of total opening capital. Rate of return represents the ability of businesses to generate a return to all capital used by the business, including that which is borrowed or leased. Finance costs are added back in to farm business profit so that rates of return can be compared across farms regardless of their debt arrangements.

The average rate of return (excluding capital appreciation) of Australian beef farms fell from 2.7% in 2017–18 to negative 0.1% in 2018–19 (Figure 6). The average rate of return is projected to have been around 0.0% in 2019–20. In comparison, the average rate of return for all broadacre farms in 2019–20 is estimated to have been 0.3%.

Figure 6 Rate of return, beef farms, Australia, 2009–10 to 2019–20

average per farm



p Preliminary estimate. **y** Provisional estimate.
Note: Rate of return excluding capital appreciation.
Source: ABARES Australian Agricultural and Grazing Industries Survey

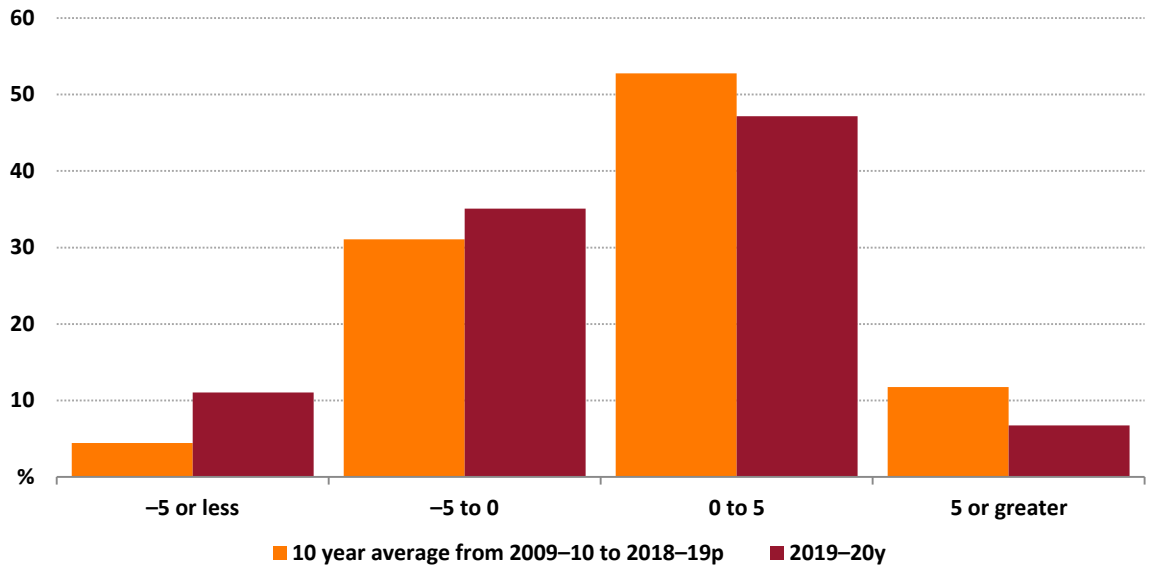
Similar to other measures of performance, rates of return vary widely across beef farms (Figure 7). From 2009–10 to 2018–19, 65% of farms recorded a positive rate of return (excluding capital appreciation) and an estimated 12% of farms earned rates of return greater than 5% (Figure 7). In 2019–20, just over one-half of farms recorded a positive rate of return (excluding capital appreciation) and an estimated 7% of farms earned rates of return greater than 5%. On average, larger beef farms have higher rates of return than smaller beef farms.

Ongoing increases in farm land prices in Australia over recent decades mean that farm rates of return are typically higher when changes in the value of capital items are included as a source of returns. However, these 'real estate' returns are ideally kept separate when seeking to understand the performance of farm enterprises such as livestock and crop production. When changes in the value of capital items are included, the average rate of return for beef farms over the 10 years to 2018–19 increases from 1.2% to 3.1% and 68% of farms earned a positive rate of return.

Variation in returns across farms reflects differences in seasonal conditions, prices and other factors between farms in any particular year. This variation is quite distinct from measures of farm business 'risk' – which is defined as the variation in returns or profits over time for individual farm businesses. This latter type of variation reflects changes over time in seasonal conditions, commodity prices and the cost of farm inputs, as well as farm-specific factors such as enterprise mix and the skills and experience of the farm manager. The focus of this report is presenting industry-level estimates, rather than farm-level.

Figure 7 Distribution of farms by rate of return, beef farms, Australia, 2009–10 to 2019–20

percentage of farms



p Preliminary estimate. **y** Provisional estimate.
Note: Rate of return excluding capital appreciation.
Source: ABARES Australian Agricultural and Grazing Industries Survey

Performance by region

The financial performance of beef farms in 2019–20 varies between and within regions (Map 1) reflecting differences in seasonal conditions, markets and underlying industry structure, including the larger average size of beef farm businesses in the Northern region.

For both the Northern and Southern regions, the majority of beef farms reported below average or drought seasonal conditions in 2018–19 and 2019–20 (Figure 8). In 2019–20, 84% of beef farms in the Northern region and 70% in the Southern region reported below average or drought conditions.

In New South Wales, all beef farms surveyed reported below average or drought seasonal conditions in 2018–19 and 2019–20, and in Queensland the proportions were 88% and 86% respectively. An estimated 71% of beef farms in South Australia, and 55% of farms in Victoria and Tasmania, reported above average or average seasonal conditions in 2019–20.

Figure 8 Seasonal conditions, beef farms, by state, 2013–14 to 2019–20

proportion of farms

p Preliminary estimate. **y** Provisional estimate. **a** 5 year average from 2013–14 to 2017–18.
Note: Farmers were asked to report prevailing seasonal conditions during the financial year to indicate the combined effects of rainfall, temperature and evapotranspiration.
Source: ABARES Australian Agricultural and Grazing Industries Survey

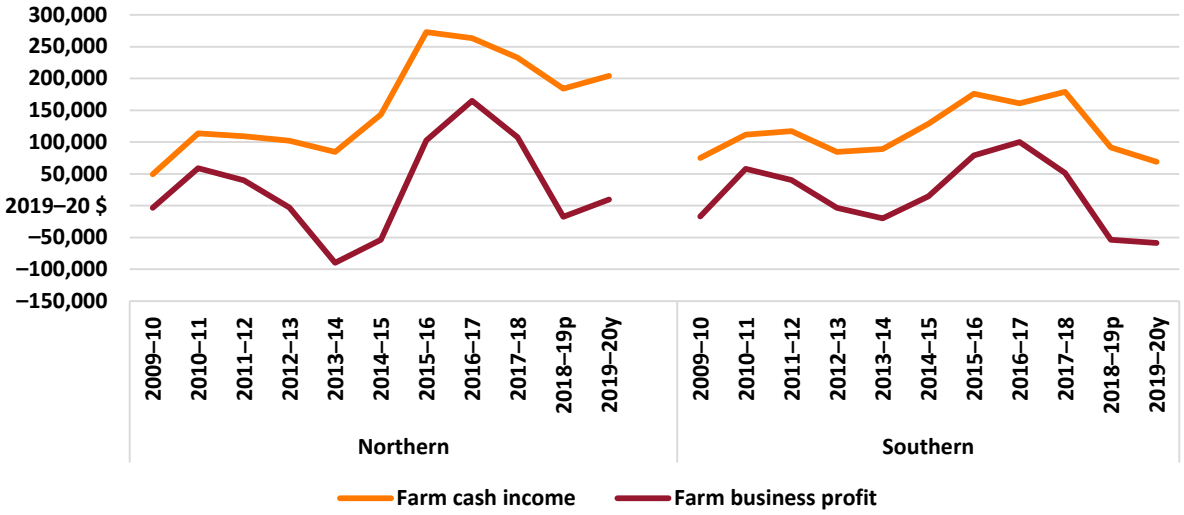
Average farm cash income varies significantly between the Northern and Southern regions and by scale of operations. In 2018–19, average farm cash income decreased by 20% in the Northern region to $180,800 per farm and by 48% in the Southern region to $89,900 per farm (Figure 9 and Table 3).

In the Northern region, farm cash income is projected to have increased by 13% to $204,000 per farm in 2019–20. In real terms, farm cash income in the Northern region is estimated to have averaged around $155,000 per farm from 2009–10 to 2018–19. In 2019–20, farm business profit in the Northern region is projected to have improved slightly, however remains around $21,000 below the 10 year average.

In the Southern region, farm cash income is projected to have fallen by 23% in 2019–20 to an average of $69,000 per farm. In real terms, average farm cash income in the Southern region is estimated to have been around $121,000 per farm from 2009–10 to 2018–19. In 2019–20, farm business profit in the Southern region is projected to have remained relatively unchanged, around $83,000 below the 10 year average.

Figure 9 Financial performance, beef farms, by region, 2009–10 to 2019–20

average per farm



p Preliminary estimate. **y** Provisional estimate.

Note: Farm cash income and farm business profit varies over time because of short-term changes in factors such as commodity prices, seasonal conditions and management decisions, as well as longer-term changes in the farm sector, such as growth in average farm size, shifts in enterprise mix and technological progress. Appropriate consideration of the long-term factors is essential when interpreting changes in farm business profit over periods longer than 3 to 5 years.

Source: ABARES Australian Agricultural and Grazing Industries Survey

Table 3 Farm financial performance, beef farms, by region, 2017–18 to 2019–20

average per farm

Northern region	Unit	2017–18	2018–19p	RSE	2019–20y
Total cash receipts	$	672,280	602,300	(5)	632,000
less total cash costs	$	447,350	421,600	(8)	428,000
Farm cash income	$	224,930	180,800	(14)	204,000
plus change in trading stocks	$	4,450	–71,500	(34)	-61,000
less depreciation	$	52,990	51,200	(7)	53,000
less operator and family labour	$	72,450	75,200	(3)	82,000
Farm business profit	$	103,940	–17,100	(226)	10,000
plus interest and lease payments	$	45,710	41,900	(17)	44,000
Profit at full equity	$	149,650	24,700	(139)	54,000
Rate of return **a**	%	1.9	0.3	(142)	0.7
Southern region					
Total cash receipts	$	492,880	416,900	(5)	347,000
less total cash costs	$	320,160	327,000	(5)	278,000
Farm cash income	$	172,720	89,900	(12)	69,000
plus change in trading stocks	$	–21,800	–39,700	(24)	–26,000
less depreciation	$	37,660	36,300	(5)	34,000
less operator and family labour	$	63,590	66,700	(3)	67,000
Farm business profit	$	49,670	–52,800	(19)	–59,000
plus interest and lease payments	$	30,890	31,400	(10)	29,000
Profit at full equity	$	80,560	–21,400	(50)	–30,000
Rate of return **a**	%	1.5	–0.4	(51)	–0.5

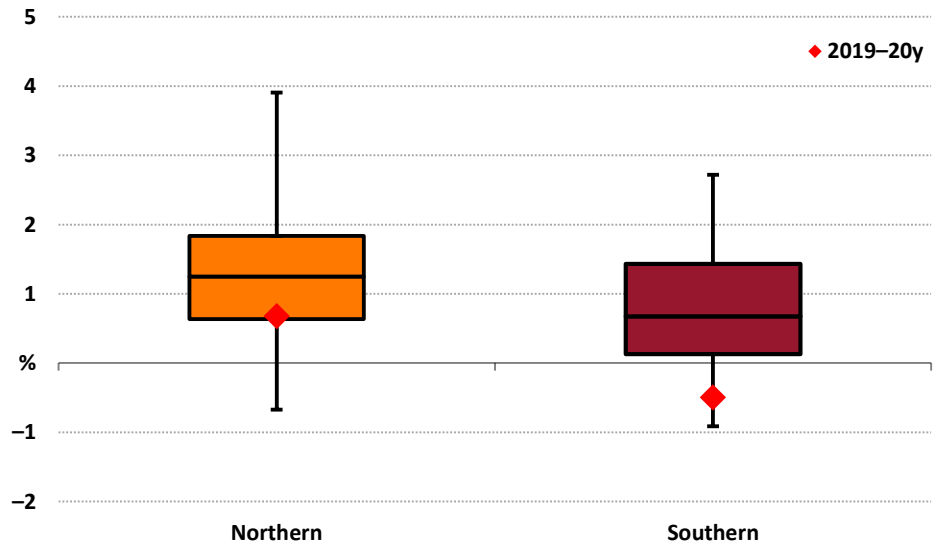
p Preliminary estimate. **y** Provisional estimate. **a** Excluding capital appreciation. **RSE** Relative standard error.
Note: Estimates may not sum due to rounding.
Source: ABARES Australian Agricultural and Grazing Industries Survey

Regional variation in rate of return

Beef producers in the Northern region (Map 1) have generally performed slightly better than their counterparts in the Southern region, recording higher average rates of return with similar volatility in the averages (Figure 10).

The projected rate of return in 2019–20 for the Northern region improved from 0.3% to 0.7%, however it was still below the long run average, towards the bottom of the middle 50% of years since 1989–90. For the Southern region, the projected rate of return fell slightly from negative 0.4% to negative 0.5% and was within the worst 25% of years.

Figure 10 Variability in average annual rate of return, beef farms, by region, 1989–90 to 2019–20



y Provisional estimate.
Note: Rate of return excluding capital appreciation. Boxes represent 50% of years. Horizontal line in each box is the median. Vertical lines end in the maximum and minimum average rates of return recorded. The red diamonds are the projected rate of return for 2019–20.
Source: ABARES Australian Agricultural and Grazing Industries Survey

Performance by herd size

The economic performance of beef farms varies greatly with farm size, with small farms tending to generate substantially lower profits than larger businesses in most years on average. In 2018–19, farm cash income and farm business profit of beef farms decreased across all size groups (Table 4).

Small beef farms are located mostly in the high rainfall coastal and tablelands areas and around the fringes of the wheat-sheep zone. Farm cash income of small beef farms decreased by 34% in 2018–19, as a result of decreased receipts from crops, wool and beef and an increase in purchased fodder costs. Farm cash income is projected to have fallen by around 16% in 2019–20 mainly because of lower beef, wool and sheep receipts. Projected increases in crop receipts partly offset this decline in other cash receipts.

Most of the medium beef farms (400 to 1,600 head) are located in the wheat-sheep and high rainfall zones. Farm cash income of medium beef farms decreased by 50% in 2018–19 as a result of lower receipts from sales of beef cattle and crops and a significant increase in expenditure on purchased fodder. In the Northern region (Map 1), lower beef receipts mainly contributed to the decline in farm cash income of medium beef farms. In the Southern region, lower crop receipts contributed mainly to the decline in farm cash income of medium beef farms. Farm cash income of medium beef farms at the national level is projected to have increased by around 22% in 2019–20 (Table 4 and Figure 12), with a projected decline in farm cash income of medium beef farms in the Southern region more than offset by a 124% increase in the Northern region.

Large beef farms (1,600 to 5,400 head) are distributed across Australia. Incomes of large beef farms fell by around 21% in 2018–19, mainly as a result of lower crop and wool receipts and a

significant increase in expenditure on fodder due to drought. Average farm cash income of large beef farms is projected to have increased by around 28% in 2019–20. Projected increases in beef receipts contributed most to this and offset a projected decline in crop receipts.

Very large beef farms are located mostly in the Northern region. On average, farm cash income of very large beef farms decreased by around 18% in 2018–19, mainly as a result of decreased cash receipts from sales of beef cattle. Total cash costs declined because of reduced expenditure on beef cattle purchases and fodder, only partially offsetting the decrease in cash receipts. As a consequence, farm cash income of very large beef farms is projected to have decreased by 13% per farm in 2019–20 (Figure 11).

Table 4 Farm financial performance, beef farms, by herd size, 2017–18 to 2019–20

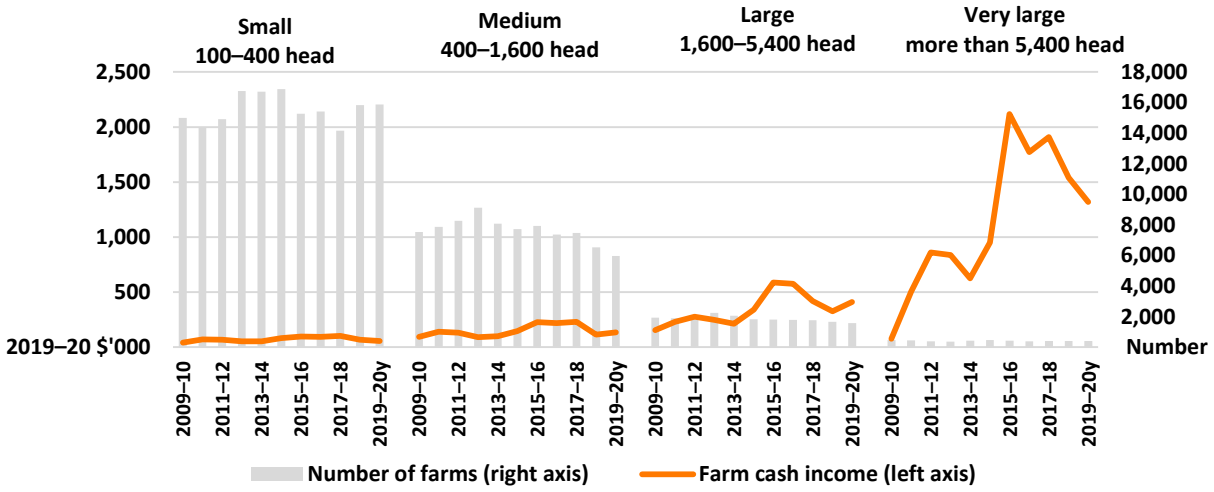
average per farm

Small (100 to 400 head)	**Unit**	**2017–18**	**2018–19p**	**2019–20y**
Farm cash income	$	100,330	66,600	56,000
Farm business profit	$	–8,760	–62,800	–59,000
Rate of return **a**	%	0.3	–1.1	–1.0
Medium (400 to 1,600 head)				
Farm cash income	$	221,530	110,800	135,000
Farm business profit	$	74,400	–65,600	–50,000
Rate of return **a**	%	1.7	–0.3	–0.1
Large (1,600 to 5,400 head)				
Farm cash income	$	404,210	319,200	410,000
Farm business profit	$	320,480	81,900	86,000
Rate of return **a**	%	2.8	1.2	1.1
Very large (more than 5,400 head)				
Farm cash income	$	1,844,080	1,511,400	1,320,000
Farm business profit	$	1,540,840	697,300	791,000
Rate of return **a**	%	4.0	2.1	2.3

p Preliminary estimate. **y** Provisional estimate. **a** Excluding capital appreciation.
Source: ABARES Australian Agricultural and Grazing Industries Survey

Figure 11 Farm cash income and number of farms, beef farms, by herd size, 2009–10 to 2019–20

average per farm



p Preliminary estimate. **y** Provisional estimate.

Note: Farm cash income varies over time because of short-term changes in factors such as commodity prices, seasonal conditions and management decisions, as well as longer-term changes in the farm sector, such as growth in average farm size, shifts in enterprise mix and technological progress. Appropriate consideration of the long-term factors is essential when interpreting changes in farm cash income over periods longer than 3 to 5 years.

Source: ABARES Australian Agricultural and Grazing Industries Survey

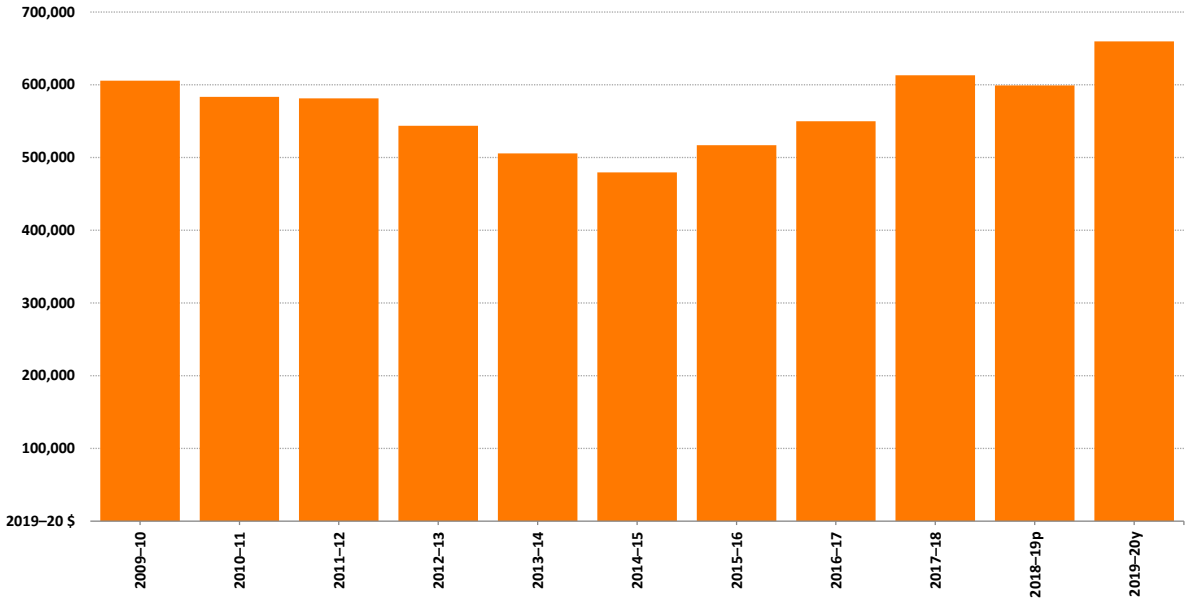
Farm debt and equity

Trends in average debt per farm

Debt is an important source of funds for farm investment and ongoing working capital for many beef farms. At the national level from 2009–10, average debt of beef farms at 30 June fell in real terms in the years to 2014–15, before rising to 2017–18 (Figure 12). Average debt of beef farms is projected to have increased in 2019–20 to an estimated $660,000 per farm.

Figure 12 Total farm debt at 30 June, beef farms, Australia, 2009–10 to 2019–20

average per farm



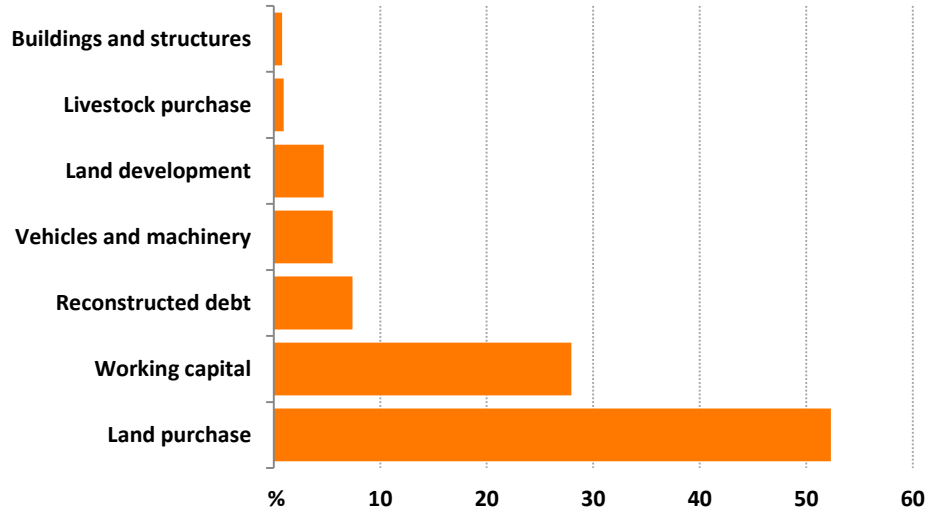
p Preliminary estimate. **y** Provisional estimate.
Note: Average per responding farm.
Source: ABARES Australian Agricultural and Grazing Industries Survey

In ABARES farm surveys, debt is recorded by its main purpose. However, because some loans cover a range of purposes, estimates of debt by main purpose provide a guide only.

Over the 3 years to 2018–19, land purchases accounted for the largest proportion of total farm debt, at 52% on average (Figure 13). A further 28% of debt was for working capital. The remaining debt was for a range of purposes such as vehicles, machinery, buildings and structures. Additional detail is contained in the 'farm capital and investment' section of this report.

Figure 13 Main purpose of farm debt, beef farms, Australia, 2016–17 to 2018–19

average percentage per farm



Note: Average per responding farm.
Source: ABARES Australian Agricultural and Grazing Industries Survey

Equity ratio

Changes in average debt per farm over the medium to longer term have largely been matched by changes in the total value of farm capital. As a consequence, the average equity ratio of beef farms at the national level remained steady from 2009–10 to 2018–19 at around 90%.

An estimated 75% of beef farms had an equity ratio greater than 90% in 2018–19 (Table 5). On average, these farms were relatively small and most were in the Southern region (Map 1). They focused primarily on beef cattle production, receiving a relatively high proportion of total cash receipts from sales of beef cattle. Farms with an equity ratio of less than 70% make up 5% of all beef farms. These farms tend to be relatively large and more diversified than farms with an equity ratio greater than 90%.

Table 5 Farm performance, by equity ratio, beef farms, Australia, 2018–19

average per farm

Measure	Unit	Equity ratio		
		More than 90%	70% to 90%	Less than 70%
Proportion of farms	%	75	19	5
Total area operated	ha	4,014	8,430	16,851
Total cash receipts	$	291,400	661,500	863,900
Beef receipts as a proportion of total receipts	%	66	54	55
Total cash costs	$	191,300	534,900	835,600
Farm cash income	$	100,100	126,600	28,300
Northern region proportion of farms	%	69	23	8
Southern region proportion of farms	%	78	18	4

Note: Average per responding farm. Based on preliminary estimates. Row and column totals may not sum to 100 due to rounding.
Source: ABARES Australian Agricultural and Grazing Industries Survey

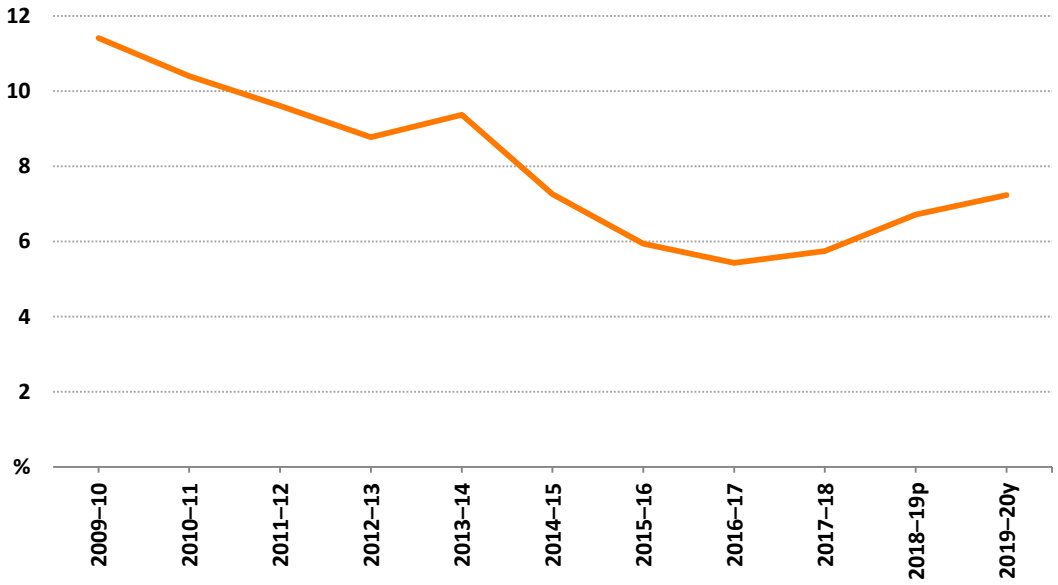
Debt servicing capacity

The long-term viability of a farm is affected by its capacity to service debt, among many other factors. The servicing of debt consists of making interest payments and paying down the principal. The proportion of farm receipts spent on interest payments is a useful indicator of short-term capacity to service debt.

The proportion of farm receipts needed to fund interest payments was around 6.7% in 2018–19, below the 10 year average to 2017–18 of 8.6% (Figure 14). In 2019–20, interest paid is projected to have been around 7.2% of total cash receipts.

Figure 14 Ratio of interest paid to total cash receipts, beef farms, Australia, 2009–10 to 2019–20

average per farm



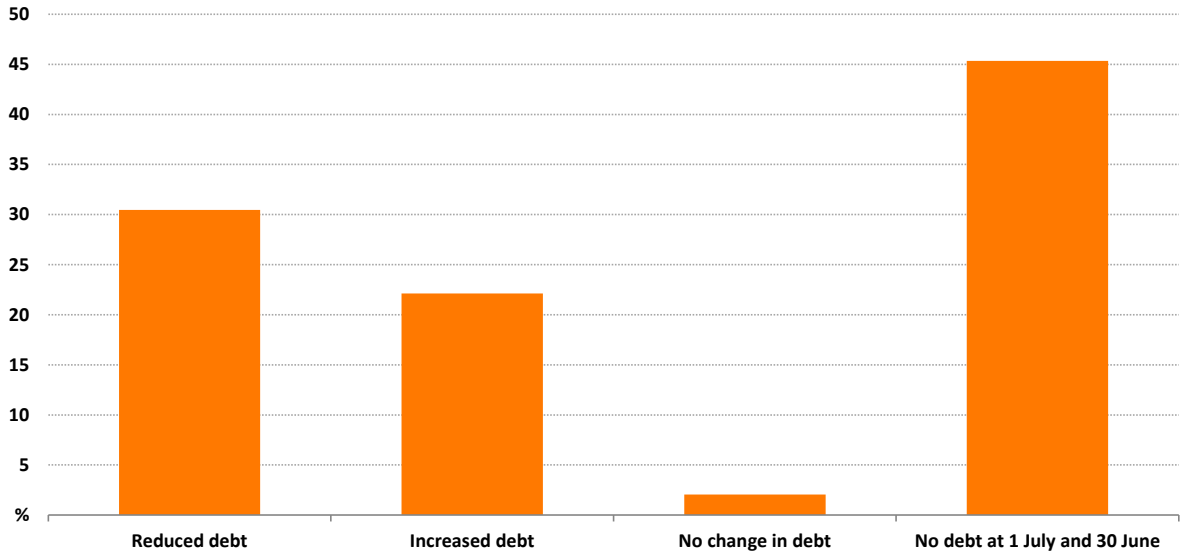
p Preliminary estimate. **y** Provisional estimate.
Note: Average per responding farm.
Source: ABARES Australian Agricultural and Grazing Industries Survey

At the national level, around 31% of beef farms reduced their total debt in 2018–19 (Figure 15). An estimated 22% of beef farms increased debt, and around 2% of beef farms had no change in debt. The remaining 45% of beef farms had no debt at 1 July 2018 and 30 June 2019.

Around 35% of beef farms in the Northern region (Map 1) reduced their total debt in 2018–19, while 22% increased debt. In the Southern region, 28% of farms reduced debt and around 22% of farms increased their total debt in 2018–19.

Figure 15 Distribution of farms, by change in debt, beef farms, Australia, 2018–19

percentage of farms



Note: Change in debt from 1 July 2018 to 30 June 2019. Percentage of responding farms. Based on preliminary estimates.
Source: ABARES Australian Agricultural and Grazing Industries Survey

Nationally, farms that increased debt tended to operate a larger area and earn a lower proportion of their receipts from the sale of beef cattle compared with those that decreased debt (Table 6). Farm cash incomes were around 80% higher for those reducing debt.

Table 6 Farm performance, by change in debt, beef farms, Australia, 2018–19

average per farm

Measure	Unit	Reducing debt	Increasing debt
Proportion of farms	%	30	22
Total area operated	ha	6,340	9,699
Beef receipts as a proportion of total receipts	%	61	52
Total cash receipts	$	507,500	609,400
Total cash costs	$	360,300	527,600
Farm cash income	$	147,300	81,800
Equity ratio	%	89	83

Note: Average per responding farm. Based on preliminary estimates.
Source: ABARES Australian Agricultural and Grazing Industries Survey

From 2009–10 to 2018–19, small and medium beef farms accounted for most of the change in national beef farm debt. Combined, these farms accounted for an estimated 69% of total beef farm debt in 2018–19. They account for 92% of total beef farms, 46% of total beef cattle and 32% of the area operated by beef farms.

Table 7 shows the distribution of beef farms by debt and equity ratio at 30 June 2019. An estimated 47% of beef farms held no debt at 30 June 2019. A further 13% of farms held less than $100,000 in debt. An estimated 16% of farms had debt in excess of $1 million.

Table 7 Distribution of farms, by farm business debt and equity ratio, beef farms, Australia, 30 June 2019

percentage of farms

Equity ratio	No debt	Less than $100,000	$100,000 to less than $250,000	$250,000 to less than $500,000	$500,000 to less than $1m	$1m to less than $2m	More than $2m	Total
Greater than or equal to 90%	47	13	6	4	3	2	0	75
80% to less than 90%	0	0	0	4	4	3	2	12
70% to less than 80%	0	0	0	1	1	2	3	7
60% to less than 70%	0	0	0	1	0	1	2	3
Less than 60%	0	0	0	0	0	1	1	2
Total	47	13	6	10	8	8	8	100

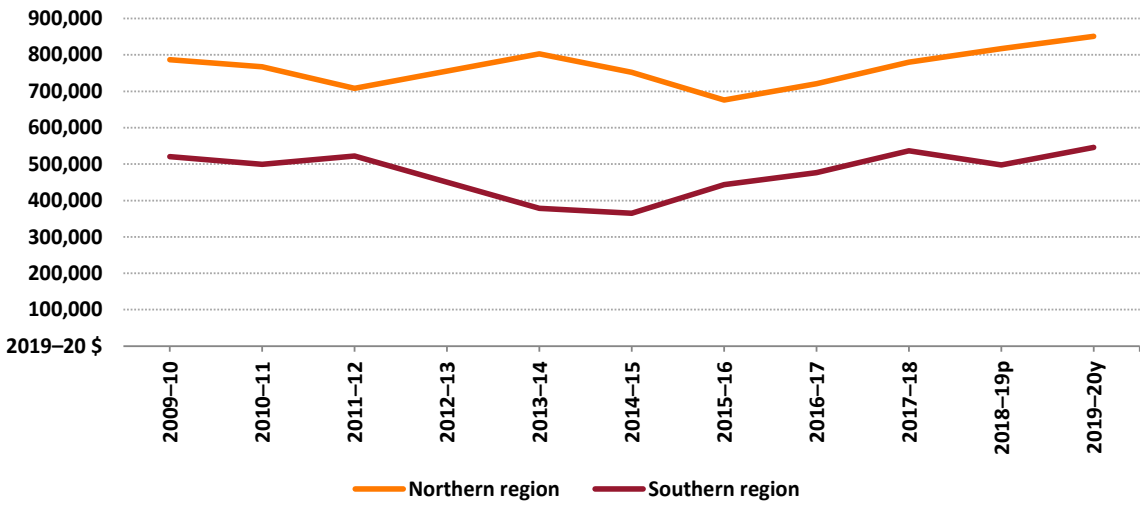
Note: Percentage of responding farms. Based on preliminary estimates. Row and column totals may not sum to 100 due to rounding.
Source: ABARES Australian Agricultural and Grazing Industries Survey

Farm debt and equity, by region

Debt and equity of beef farms varied significantly by region and scale of cattle production. Beef farms in the Northern region had higher average debt than those in the Southern region (Map 1), mainly because the Northern region had a higher proportion of large farms. Despite differences in average debt per farm, from 2009–10 to 2019–20 trends in farm debt were similar in both regions (Figure 16). From 2009–10 to 2018–19, the average equity ratio of beef farms was similar in both regions at around 90%.

Figure 16 Total farm debt at 30 June, beef farms, by region, 2009–10 to 2019–20

average per farm



p Preliminary estimate. **y** Provisional estimate.
Note: Average per responding farm.

Source: ABARES Australian Agricultural and Grazing Industries Survey

Debt and equity, by herd size

Large farms tend to have lower equity ratios than smaller farms. This is because larger farms usually have higher turnover and are better able to service debt and can therefore carry larger debt relative to total capital. Larger beef farms also often have access to non-farm equity, whereas smaller farms are mostly family-owned businesses that rely heavily on the farmer's own capital.

From 2009–10 to 2018–19, the average debt of all size groups (defined by herd size) generally trended upwards. In 2018–19, the average debt of medium (400 to 1,600 head), large (1,600 to 5,400 head) and very large (more than 5,400 head) beef farms increased (Table 8). The average debt of small (100 to 400 head) and beef farms decreased by 8% in 2018–19.

Table 8 Equity ratio and total farm debt, beef farms, by farm size, 2016–17 to 2018–19

average per farm

Size	Equity ratio (%)			Farm debt at 30 June ($)		
	2016–17	2017–18	2018–19p	2016–17	2017–18	2018–19p
Small (100 to 400 head)	92	92	93	241,920	310,420	284,900
Medium (400 to 1,600 head)	89	89	89	658,690	738,330	828,600
Large (1,600 to 5,400 head)	86	88	87	1,919,960	1,863,480	2,036,000
Very large (more than 5,400 head)	81	87	84	5,462,850	5,064,770	6,435,300

p Preliminary estimate.
Note: Average per responding farm.
Source: ABARES Australian Agricultural and Grazing Industries Survey

Farm capital and investment

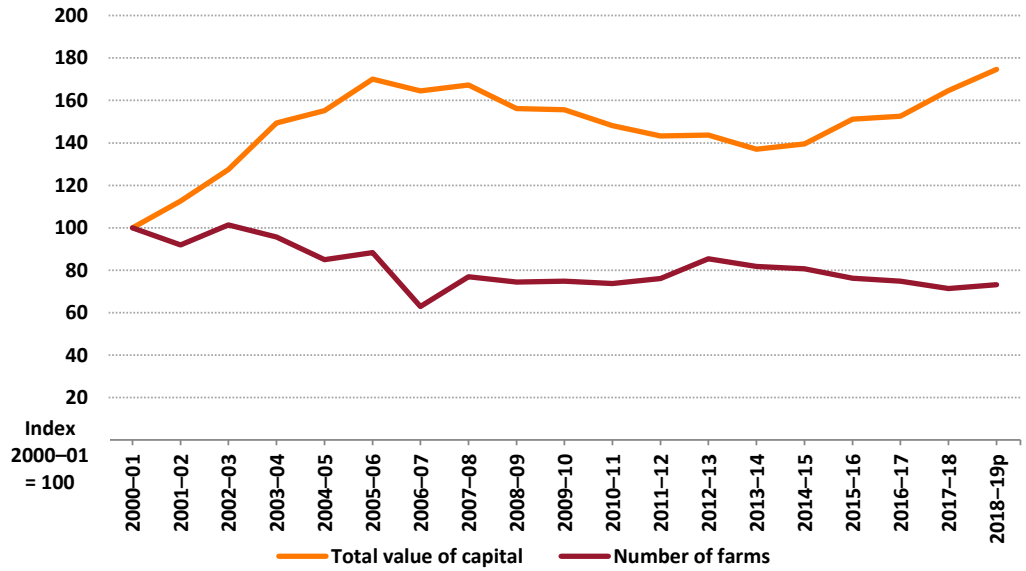
Total farm capital

Investment in farm capital is important for the ongoing development of the Australian beef industry. Investments in land, fixed improvements, and plant and equipment are key drivers of beef farmers' capacity to generate farm outputs.

The total value of capital of Australian beef farms was around 75% higher in 2018–19 than in 2000–01 in real terms (Figure 17). This growth in capital values mainly reflects increases in farm land prices over time. The accumulation of additional productive assets has been less significant, as it has been largely offset by depreciation. The Northern region (Map 1) accounted for 42% of total beef farm capital in 2018–19, with the Southern region accounting for the remaining 58% of capital. The Northern region has larger area operated and higher capital per farm than the Southern region, but the Southern region has more farms with higher land values and therefore greater aggregate capital.

On a per farm basis, total capital increased by 139% since 2000–01 to an estimated $7 million per farm in 2018–19, largely because of appreciation in land values. The per farm increase in total capital is greater than the aggregate increase because the number of farms has fallen by 27% since 2000–01.

Figure 17 Total value of capital and number of farms, beef farms, Australia, 2000–01 to 2018–19

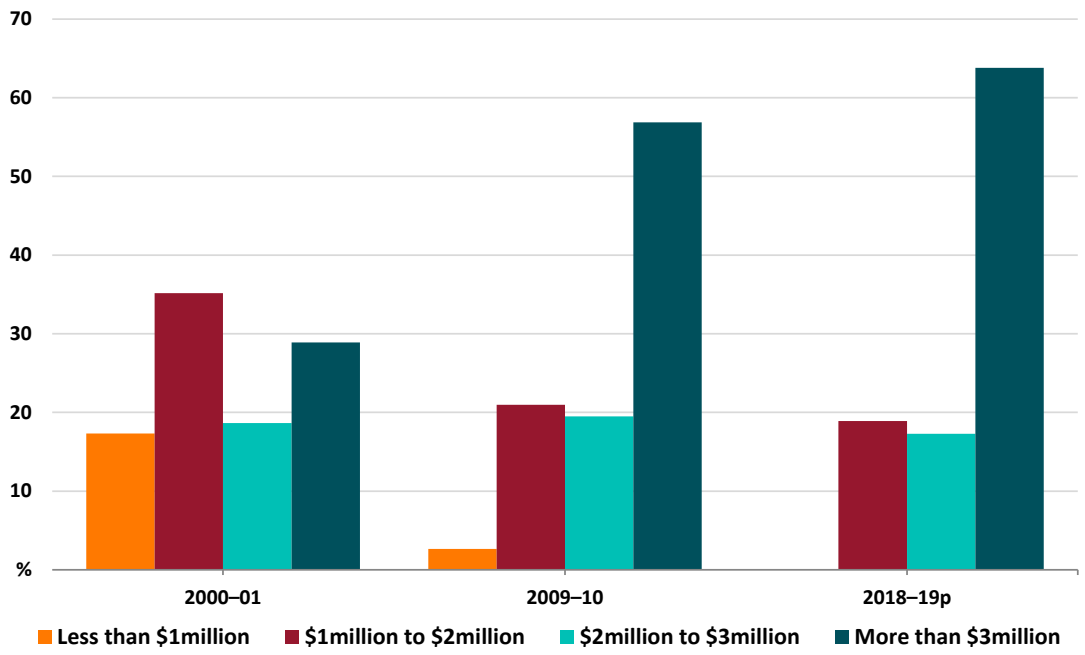


p Preliminary estimate.
Source: ABARES Australian Agricultural and Grazing Industries Survey

The distribution of farms by asset value has changed substantially over time. From 2000–01 to 2018–19, the proportion of beef farms with a capital value of less than $2 million fell substantially (Figure 18).

Figure 18 Distribution of farms by total capital value, beef farms, 2000–01 to 2018–19

percentage of farms

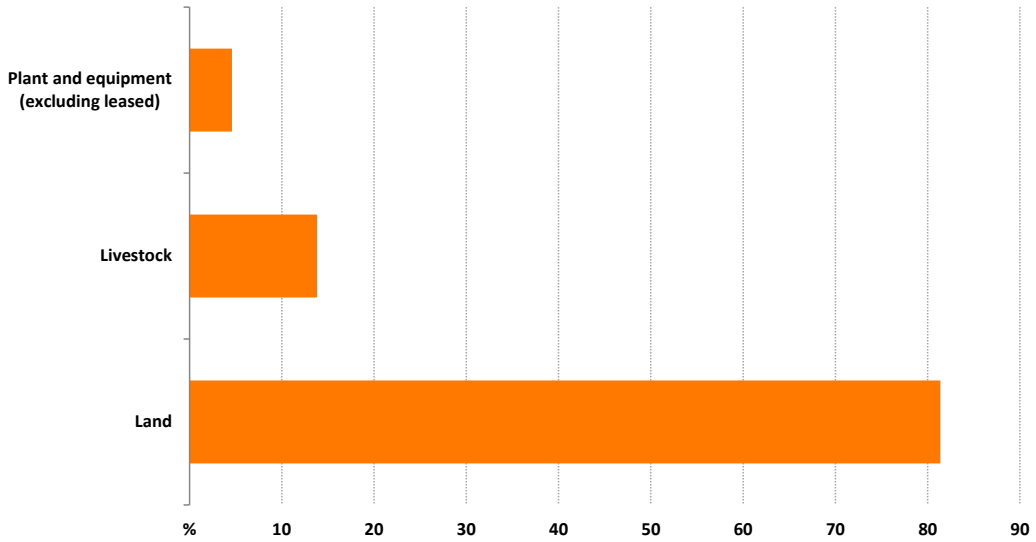


p Preliminary estimate.
Note: Total capital value is in 2019–20 dollars.
Source: ABARES Australian Agricultural and Grazing Industries Survey

Land accounted for an average of 81% of total capital per farm in 2018–19 (Figure 19). Livestock accounted for a further 14% of total capital, and plant and equipment accounted for 5%.

Figure 19 Components of capital, beef farms, Australia, 2018–19

average per farm



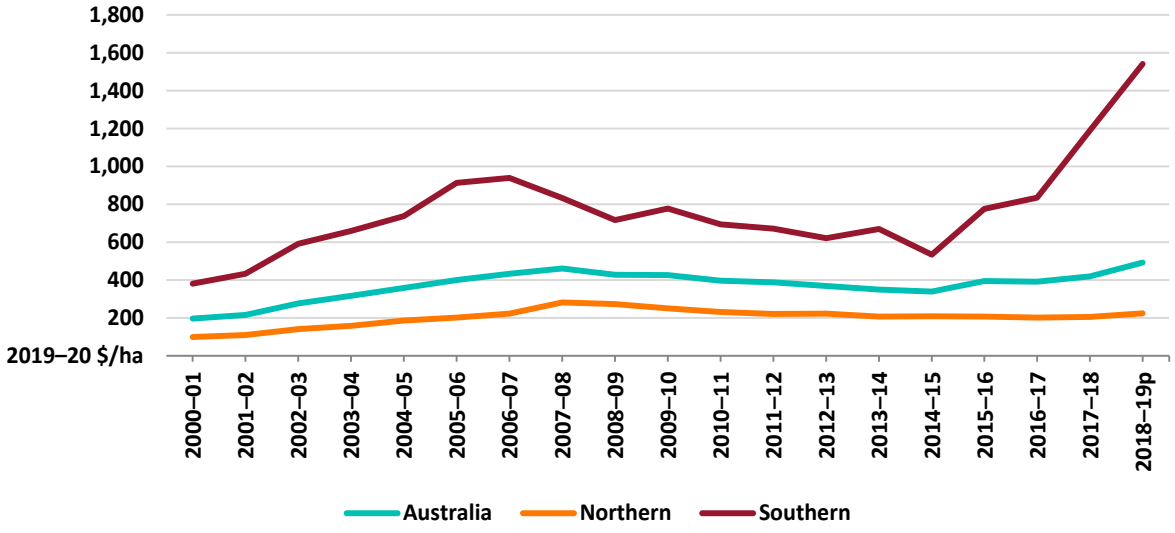
Note: Based on preliminary estimates.
Source: ABARES Australian Agricultural and Grazing Industries Survey

Return on land

ABARES uses two rates of return to farm capital—rate of return excluding capital appreciation and rate of return including capital appreciation. Rate of return is defined as farm profit at full equity expressed as a percentage of total capital. Because land is the largest component of total farm capital, it plays a key role in determining total farm returns.

Figure 20 shows the average value of land and fixed improvements per hectare. Stronger demand for farm land led to sharp increases in beef land values from 2000–01 to 2006–07, with an average annual return from land appreciation of 12.6% per year nationally. Land values declined from 2006–07 to 2014–15, before continuing to increase. Increases in farmland values have been underpinned by strong demand, low interest rates, rising beef prices and reduced supply as fewer properties have come on the market (Rural Bank 2020). This has been particularly the case in the wheat-sheep and high rainfall zones that dominate the Southern region. Growth in land values in the Northern region – which is dominated by the pastoral zone – has been at a much more modest rate.

Figure 20 Value of land and fixed improvements per hectare, beef farms, by region, 2000–01 to 2018–19



p Preliminary estimate.
Source: ABARES Australian Agricultural and Grazing Industries Survey

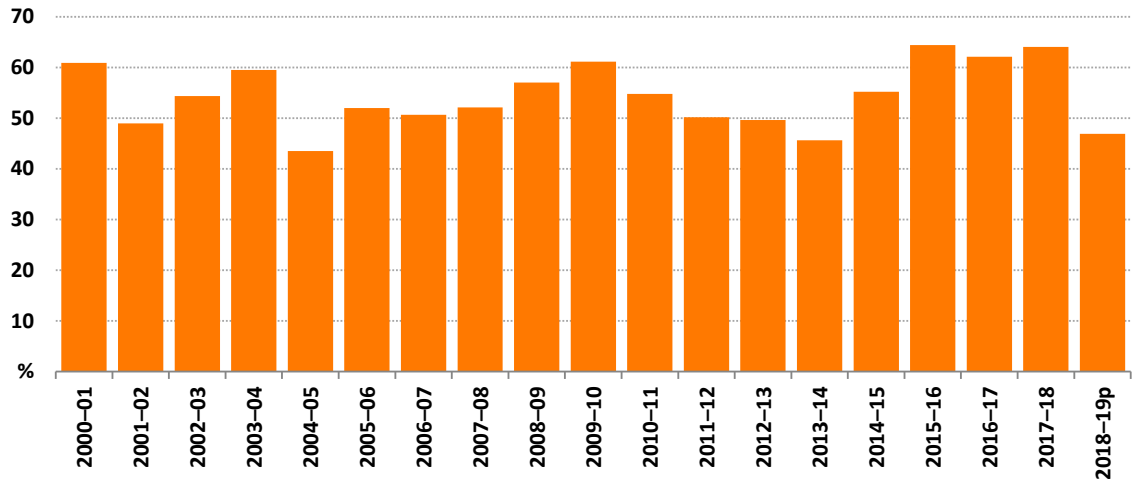
New farm investment

Most farmers make new investments each year to add to the existing capital stock or to replace capital items that have reached the end of their useful life. Farm investments are usually made with longer-term outcomes in mind and are based on expected returns over the life of the investment.

On average, 52% of beef farms each year made additions to their total capital over the 10 years to 2018–19 (Figure 21). The amount invested each year by those making capital additions fluctuated broadly in line with movements in farm cash incomes. In 2018–19, an estimated 43% of beef farms made capital additions.

Figure 21 Proportion of farms making capital additions, beef farms, Australia, 2000–01 to 2018–19

percentage of farms



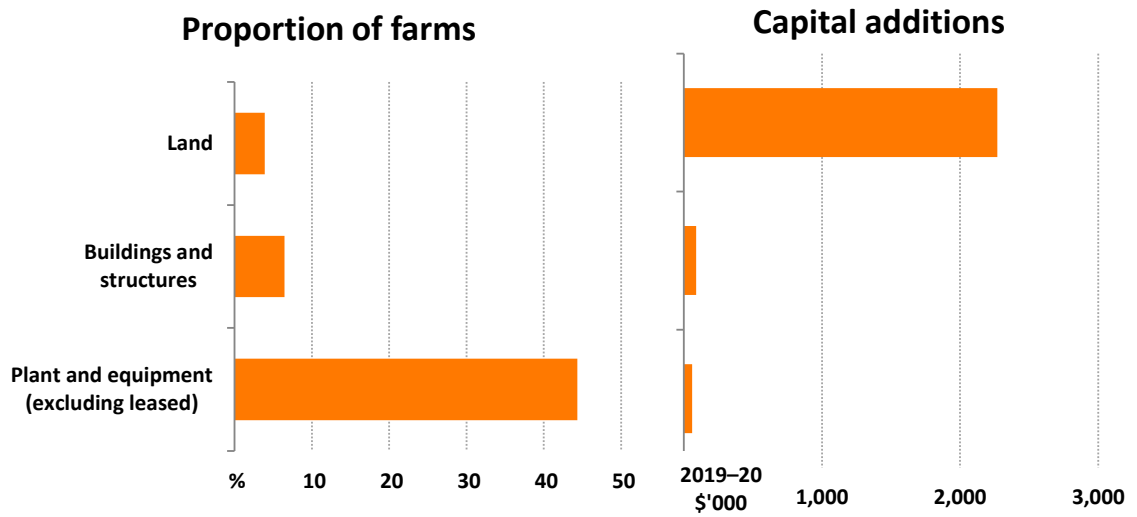
p Preliminary estimate.
Source: ABARES Australian Agricultural and Grazing Industries Survey

Figure 22 shows the proportion of beef farms that made capital additions in 2018–19 and the average capital addition in three categories—land purchases, plant and equipment, and buildings and structures. Land is the biggest component of capital additions, although only 4% of beef farms bought land in 2018–19. Average expenditure on land for those making purchases was around $2.3 million per farm.

Around 44% of all beef farms made additions to plant and equipment in 2018–19, at an average of around $60,000 per farm. Around 6% of beef farms made additions to buildings and structures, at an average of around $89,000 per farm.

Figure 22 Components of capital additions, beef farms, Australia, 2018–19

proportion of farms and average per farm in each category



Note: Capital additions is the average of those farms making capital additions. Based on preliminary estimates.
Source: ABARES Australian Agricultural and Grazing Industries Survey

Farm characteristics

Beef industry

The beef cattle industry makes an important contribution to the Australian economy. In 2018–19, it accounted for around 21% ($12.8 billion) of the total gross value of farm production (ABS 2020b) and around 22% of the total value of farm export income.

Around 50% of all Australian farms carry beef cattle (ABS 2020a), making this the most common and widely dispersed agricultural activity in Australia. Beef cattle farms are an important part of the rural economy in almost all regions of Australia. Farms running beef cattle manage more than 77% of the total area of agricultural land in Australia.

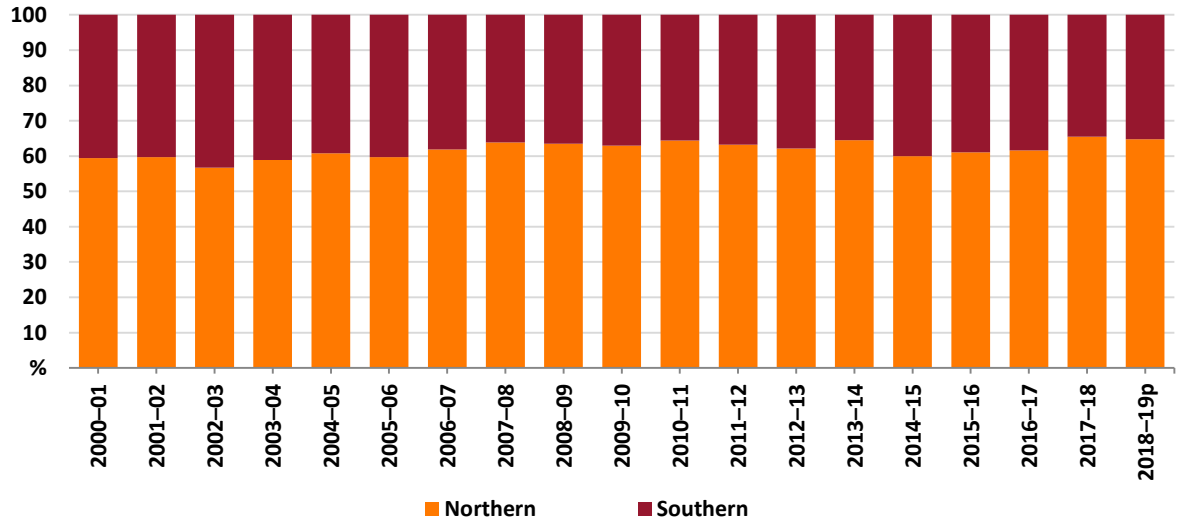
Total farms and beef herd

In 2018–19, an estimated 24,400 Australian farms had at least 100 head of beef cattle at 30 June. Around 67% of these farms were in the Southern region and the remaining 33% were in the Northern region (Map 1). From 2000–01 to 2018–19 the total number of beef farms fell by around 15%. The Southern region accounted for 90% of the decline, and most exiting farms were relatively small, carrying less than 400 head of cattle.

Climate, pastures, industry infrastructure and proximity to markets differ markedly between the Northern and Southern regions and within each region. These factors have affected the development and nature of the beef industry and associated farm businesses in each region.

From 2000–01 to 2018–19, the total size of the Australian beef herd (excluding feedlots and dairy farms) fluctuated from 19 million to 23 million head. The Northern region's share trended upwards slightly and the Southern region's share trended downwards (Figure 23). In 2018–19, the Northern region's share of the Australian beef herd was 65%, with the Southern region accounting for 35%.

Figure 23 Proportion of the Australian beef herd, by region, beef farms, 2000–01 to 2018–19



p Preliminary estimate.

Source: ABARES Australian Agricultural and Grazing Industries Survey

Farm size

There a large disparities in farm size across the beef industry, reflecting the wide geographic spread of beef production across Australia. In 2018–19, small farms (100 to 400 head) accounted for 65% of beef farms, but only 18% of total beef cattle. Most of these small farms are located in the Southern region, particularly in the high rainfall and coastal regions of Victoria and New South Wales. In contrast, large (1,600 to 5,400 head) and very large farms (more than 5,400 head) accounted for only 9% of farms but 54% of Australia's beef herd (Table 9).

Table 9 Proportions of farms and cattle, by herd size, Australia, 2018–19

Farm size	Number of farms (no.)	Share of farms (%)	Share of beef cattle (%)	Share of area operated (%)
Small (100 to 400 head)	15,800	65	18	12
Medium (400 to 1,600 head)	6,500	27	28	20
Large (1,600 to 5,400 head)	1,600	7	24	21
Very large (More than 5,400 head)	400	2	30	47
Total	24,400	100	100	100

Note: Based on preliminary estimates.
Source: ABARES Australian Agricultural and Grazing Industries Survey

Cost of beef production

In 2018–19, the average cost of beef production (measured per kilogram of live weight – see Box 2 for description of method) increased by a similar rate in the Northern and Southern regions (Table 10, Map1). In the Northern region, expenditure on all major cost items increased in 2018–19, with the largest increases being fodder (8 cents per kilogram live weight) and cattle purchases (8 cents per kilogram live weight) (Figure 24).

In the Southern region expenditure on fodder in 2018–19 increased by 21 cents per kilogram live weight, mainly as a result of the continuing dry seasonal conditions in some areas and higher fodder prices. Expenditure on all other cost items increased in 2018–19 with the exception of cattle purchases, which declined by 5 cents per kilogram live weight (Figure 25).

Table 10 Per kilogram live weight cost of beef production and operating margins, beef farms, 2016–17 to 2018–19

average per farm

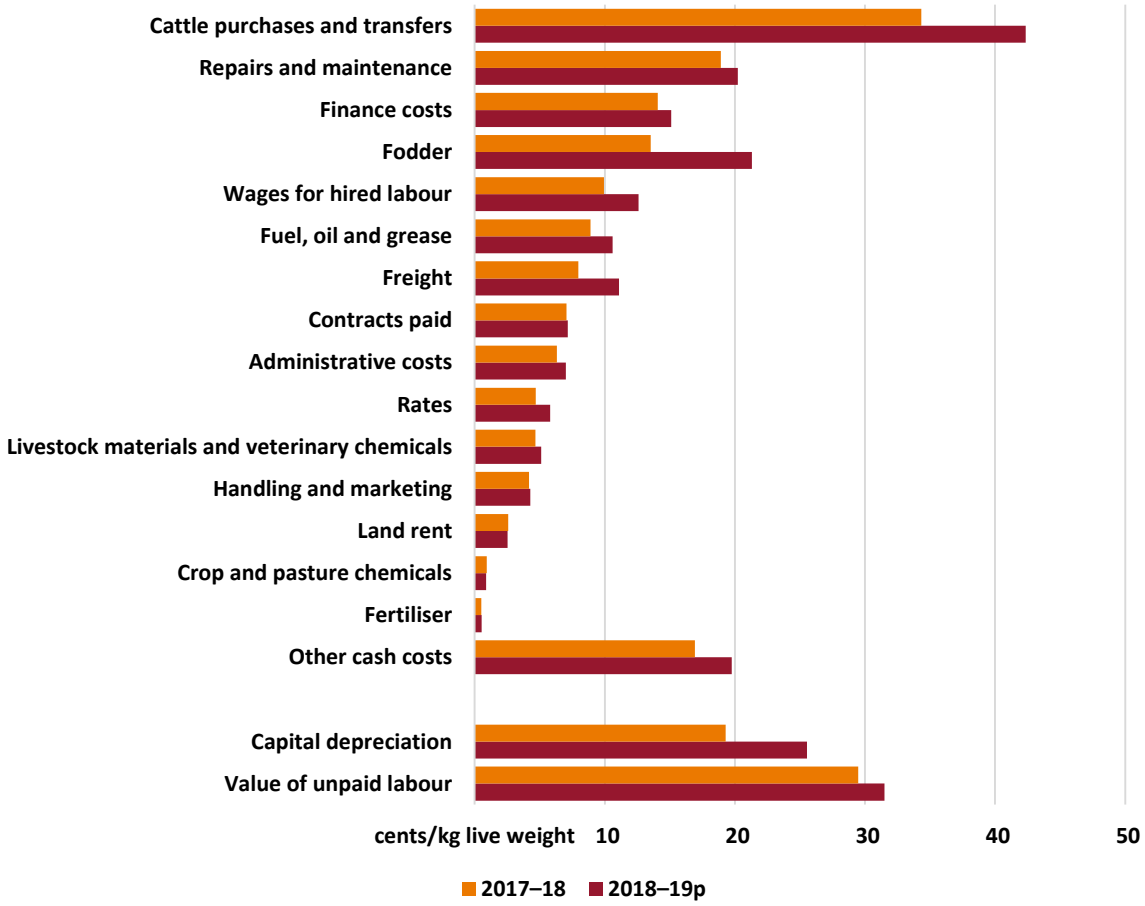
Production and price	Unit	Northern region						Southern region					
		2016–17		2017–18		2018–19p		2016–17		2017–18		2018–19p	
Total live weight of cattle produced	tonnes	211	(6)	213	(10)	214	(6)	79	(7)	82	(6)	70	(5)
Average price received	c/kg	271	(2)	252	(4)	258	(1)	298	(3)	258	(2)	248	(2)
Production costs													
Total cash costs excluding finance costs	c/kg	140	(4)	141	(5)	171	(4)	153	(5)	160	(4)	197	(3)
Total cash costs including finance costs	c/kg	154	(4)	156	(4)	186	(4)	165	(5)	171	(4)	213	(3)
Total cash, finance and depreciation costs	c/kg	173	(4)	175	(4)	212	(5)	186	(5)	193	(3)	238	(3)
Total costs (all cash costs, finance, depreciation and the value of unpaid labour)	c/kg	202	(4)	204	(3)	243	(5)	232	(5)	239	(3)	287	(3)
Operating margin over:													
Cash costs	c/kg	132	(6)	111	(7)	87	(10)	145	(5)	98	(6)	51	(14)
Cash and finance costs	c/kg	117	(6)	97	(8)	72	(12)	133	(6)	87	(8)	35	(22)
Cash, finance and depreciation costs	c/kg	98	(8)	78	(11)	46	(26)	113	(7)	65	(11)	10	(83)
All costs including unpaid labour costs	c/kg	70	(11)	48	(21)	15	(87)	67	(15)	19	(41)	–39	(24)

p Preliminary estimate.

Note: Figures in parentheses are standard errors expressed as a percentage of the estimate. Estimates have been rounded to the nearest whole number and are presented in 2019–20 dollars.

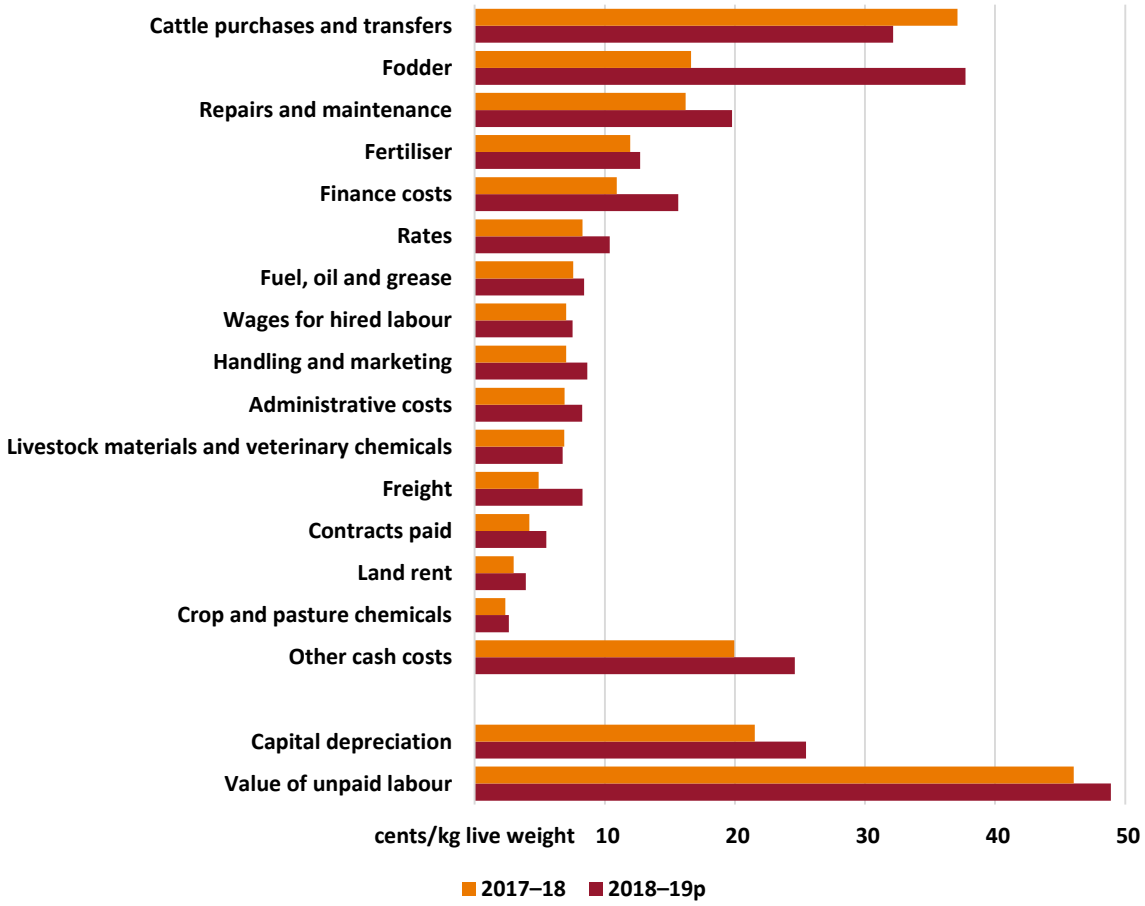
Source: ABARES Australian Agricultural and Grazing Industries Survey

Figure 24 Production costs for beef, beef farms, Northern region, 2017–18 and 2018–19



p Preliminary estimate.
Source: ABARES Australian Agricultural and Grazing Industries Survey

Figure 25 Production costs for beef, beef farms, Southern region, 2017–18 and 2018–19



p Preliminary estimate.
Source: ABARES Australian Agricultural and Grazing Industries Survey

Box 2 Calculation of the per kilogram live weight cost of beef production

The Australian Agricultural and Grazing Industries Survey of Australian broadacre farms collects detailed financial, physical and production data. ABARES included additional questions in the 2007–08, 2008–09 and 2012–13 to 2018–19 surveys so it could calculate the per kilogram live weight cost of beef cattle and sheep production.

These additional questions covered the live weight of cattle, calves, sheep and lambs sold or transferred off-farm and the proportion of key variable costs attributable to beef, sheep and cropping enterprises on mixed enterprise farms. Key variable costs included crop and pasture chemicals, fertiliser, fodder, fuel, repairs and maintenance, contracts paid, veterinary and livestock materials, and hired and family labour.

Fixed (overhead) costs such as accountancy, telephone, insurance and capital depreciation were attributed to enterprises on the basis of their share of total farm cash receipts.

ABARES calculated total live weight of beef production as the total live weight sold and transferred off-farm, adjusting for changes in total live weight of the herd at the beginning and end of each financial year. Total live weight of the herd at the beginning and end of each financial year was calculated by applying average live weights to the categories of cattle on hand (calves, heifers, cows, bulls and steers) at the beginning and end of each financial year.

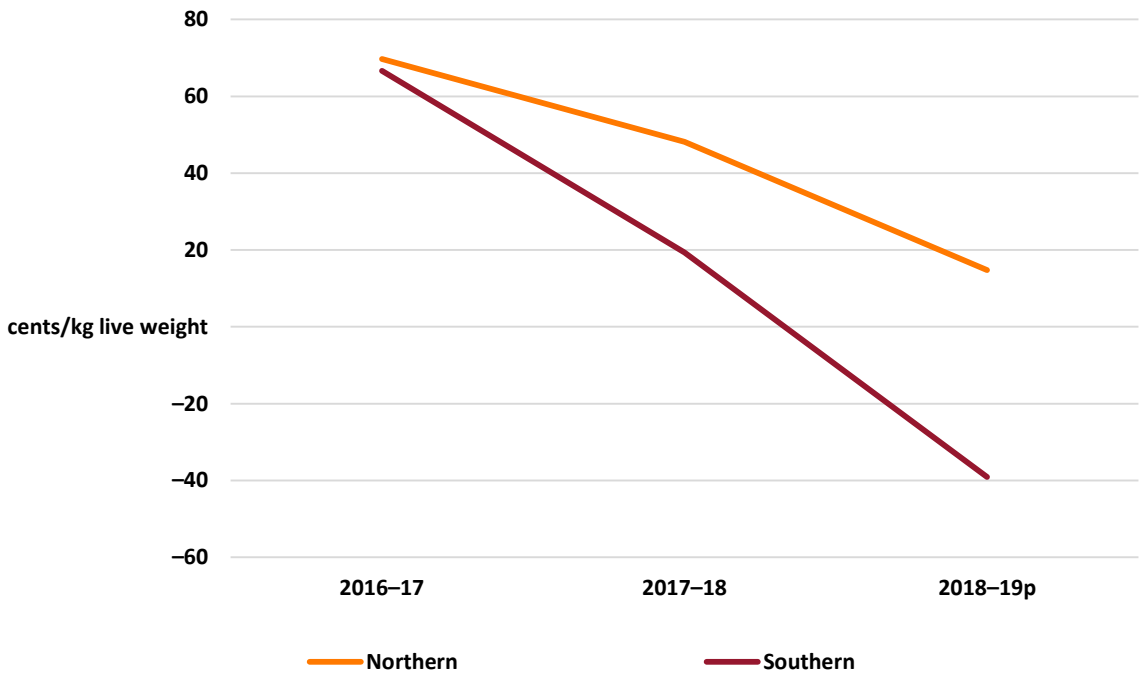
Per kilogram live weight costs of production were calculated by dividing the beef enterprise share of costs by the total live weight of beef produced.

Operating margins

In this context, operating margins are defined as the difference between per-kilogram beef prices and the cost of production. In recent years, operating margins for beef producers have declined significantly, as beef prices have declined from historic highs experienced between 2015 and 2017, and as poor seasonal conditions have increased costs on many farms.

The average operating margin for beef cattle producers in the Northern region (Map 1) declined from 70 cents per kilogram live weight in 2016–17 to 15 cents per kilogram live weight in 2018–19 (Figure 26). In the Southern region, the average operating margin declined from 67 cents per kilogram live weight to negative 39 cents over the period. The decline was greater in the Southern region because of higher fodder costs and a greater reduction in the average price received for beef cattle. More widespread dry seasonal conditions in the Southern region led to greater turn-off of more unfinished cattle and in turn lower prices.

Figure 26 Operating margins for beef, beef farms, 2016–17 to 2018–19



p Preliminary estimate.
Note: Operating margins after accounting for cash, finance, depreciation and unpaid labour costs.
Source: ABARES Australian Agricultural and Grazing Industries Survey

Cost of production by herd size

The on-farm costs of beef production vary across farm businesses depending on herd size, the farm's location, the quality of farm management and climatic and other production conditions during the year.

Over the three years to 2018–19, the smallest beef farms had much higher cash costs of production than farms with larger herd sizes on average (Table 11 and Table 12). On average, these relatively small farms had higher fixed (overhead) cash costs and higher variable costs per kilogram live weight produced. This suggests that beef production in the Northern and Southern regions (Map 1) exhibits economies of size, with the average cost of production declining consistently with increased herd size.

Table 11 Per kilogram live weight cost of beef production and operating margins, beef farms, by herd size, Northern region, 2016–17 to 2018–19

average per farm

Production and price	Unit	100 to 400 head		400 to 1,600 head		1,600 to 5,400 head		More than 5,400 head		Average	
Total live weight of cattle produced	tonnes	36	(6)	121	(3)	373	(3)	2,066	(4)	213	(4)
Average price received	c/kg	262	(3)	263	(2)	286	(2)	242	(2)	260	(2)
Production costs											
Cattle purchases	c/kg	38	(15)	26	(11)	28	(9)	47	(9)	36	(7)

Repairs and maintenance	c/kg	31	(10)	23	(5)	21	(5)	14	(6)	19	(3)
Fodder	c/kg	23	(12)	20	(7)	17	(9)	11	(6)	15	(5)
Hired labour	c/kg	3	(53)	5	(14)	9	(8)	16	(4)	11	(8)
Fuel and lubricants	c/kg	15	(10)	11	(6)	10	(4)	8	(4)	10	(4)
Freight	c/kg	6	(17)	8	(20)	8	(5)	10	(6)	9	(6)
Contracts paid	c/kg	5	(18)	6	(11)	10	(9)	7	(5)	7	(9)
Administration	c/kg	12	(9)	9	(10)	6	(5)	5	(8)	7	(5)
Rates	c/kg	12	(8)	8	(9)	5	(6)	3	(6)	5	(5)
Livestock materials and veterinary chemicals	c/kg	8	(10)	6	(7)	5	(8)	4	(7)	5	(6)
Handling and marketing	c/kg	5	(15)	5	(8)	4	(8)	4	(6)	4	(6)
Land rent	c/kg	2	(27)	4	(14)	3	(20)	2	(11)	3	(9)
Crop and pasture chemicals	c/kg	2	(19)	1	(21)	1	(23)	0	(27)	1	(12)
Fertiliser	c/kg	3	(16)	1	(21)	1	(39)	0	(26)	1	(18)
Other cash costs	c/kg	30	(8)	25	(8)	19	(6)	11	(10)	18	(5)
Finance costs	c/kg	16	(15)	20	(8)	21	(9)	8	(13)	15	(7)
Capital depreciation	c/kg	39	(7)	37	(16)	22	(4)	10	(4)	21	(8)
Value of unpaid owner-manager, partner and family labour	c/kg	126	(7)	55	(4)	26	(4)	4	(6)	30	(4)
Total cash costs excluding finance	c/kg	194	(6)	159	(4)	147	(4)	141	(3)	151	(2)
Total cash costs including finance costs	c/kg	210	(6)	179	(4)	168	(4)	149	(3)	165	(2)
Total cash, finance and depreciation costs	c/kg	249	(6)	216	(6)	190	(3)	159	(3)	186	(3)
Total costs (all cash costs, finance, depreciation and the value of unpaid labour)	c/kg	375	(5)	271	(5)	216	(3)	163	(3)	216	(2)
Operating margin over:											
Cash costs	c/kg	68	(13)	104	(8)	139	(5)	101	(6)	110	(4)
Cash and finance costs	c/kg	52	(18)	84	(10)	118	(7)	93	(6)	95	(5)
Cash, finance and depreciation costs	c/kg	13	(84)	47	(28)	96	(9)	83	(7)	74	(7)
All costs including unpaid labour costs	c/kg	–113	(13)	–8	(176)	70	(12)	79	(8)	44	(14)

Note: Figures in parentheses are standard errors expressed as a percentage of the estimate. Estimates have been rounded to the nearest whole number and are presented in 2019–20 dollars.

Source: ABARES Australian Agricultural and Grazing Industries Survey

Table 12 Per kilogram live weight cost of beef production and operating margins, beef farms, by herd size, Southern region, 2016–17 to 2018–19

average per farm

Production and price	Unit	100 to 200 head		200 to 400 head		400 to 800 head		More than 800 head		Average	
Total live weight of cattle produced	tonnes	26	(3)	56	(3)	122	(3)	324	(4)	77	(3)
Average price received	c/kg	253	(3)	266	(2)	269	(2)	275	(2)	268	(1)
Production costs											
Cattle purchases	c/kg	34	(11)	39	(11)	30	(13)	39	(10)	36	(7)
Fodder	c/kg	24	(9)	21	(11)	22	(12)	18	(12)	21	(8)
Repairs and maintenance	c/kg	25	(9)	20	(7)	15	(7)	15	(6)	18	(4)
Fertiliser	c/kg	11	(12)	14	(9)	13	(8)	13	(6)	13	(6)
Rates	c/kg	16	(7)	11	(7)	8	(6)	6	(7)	9	(4)
Fuel and lubricants	c/kg	11	(9)	9	(7)	7	(6)	6	(6)	8	(4)
Administration	c/kg	12	(7)	8	(6)	7	(7)	5	(6)	7	(4)
Handling and marketing	c/kg	8	(10)	8	(10)	7	(9)	7	(6)	7	(5)
Hired labour	c/kg	3	(16)	3	(16)	6	(17)	11	(10)	7	(7)
Livestock materials and veterinary chemicals	c/kg	9	(7)	7	(9)	6	(8)	6	(6)	7	(4)
Freight	c/kg	5	(8)	5	(9)	6	(10)	7	(7)	6	(5)
Contracts paid	c/kg	5	(19)	5	(13)	4	(14)	6	(9)	5	(8)
Land rent	c/kg	3	(18)	3	(21)	4	(21)	3	(34)	3	(10)
Crop and pasture chemicals	c/kg	3	(17)	3	(15)	2	(14)	2	(11)	3	(8)
Other cash costs	c/kg	34	(10)	21	(6)	20	(6)	18	(5)	21	(4)
Finance costs	c/kg	10	(12)	11	(18)	13	(11)	15	(8)	13	(7)
Capital depreciation	c/kg	34	(6)	31	(6)	21	(4)	14	(4)	22	(3)
Value of unpaid owner-manager, partner and family labour	c/kg	94	(5)	71	(6)	42	(6)	17	(6)	47	(4)
Total cash costs excluding finance costs	c/kg	203	(4)	176	(3)	158	(4)	161	(4)	170	(2)
Total cash costs including finance costs	c/kg	213	(4)	187	(3)	171	(4)	176	(4)	183	(2)
Total cash, finance and depreciation costs	c/kg	247	(4)	218	(3)	191	(4)	190	(4)	205	(2)
Total costs (all cash costs, finance, depreciation and the value of unpaid labour)	c/kg	341	(4)	290	(3)	233	(4)	208	(3)	252	(2)
Operating margin over:											
Cash costs	c/kg	50	(19)	90	(8)	111	(6)	114	(6)	98	(4)
Cash and finance costs	c/kg	41	(24)	78	(10)	98	(8)	99	(7)	85	(5)
Cash, finance and depreciation costs	c/kg	6	(165)	47	(18)	77	(10)	85	(8)	63	(8)

All costs including unpaid labour costs	c/kg	–88	(15)	–24	(40)	35	(23)	67	(10)	16	(35)

Note: Figures in parentheses are standard errors expressed as a percentage of the estimate. Estimates have been rounded to the nearest whole number and are presented in 2019–20 dollars.
Source: ABARES Australian Agricultural and Grazing Industries Survey

In the short term, to continue operating an enterprise, farm businesses need to generate only sufficient receipts to cover cash operating costs. This enables them to avoid drawing on receipts from other enterprises or borrowing or using financial assets to cover cash shortfalls.

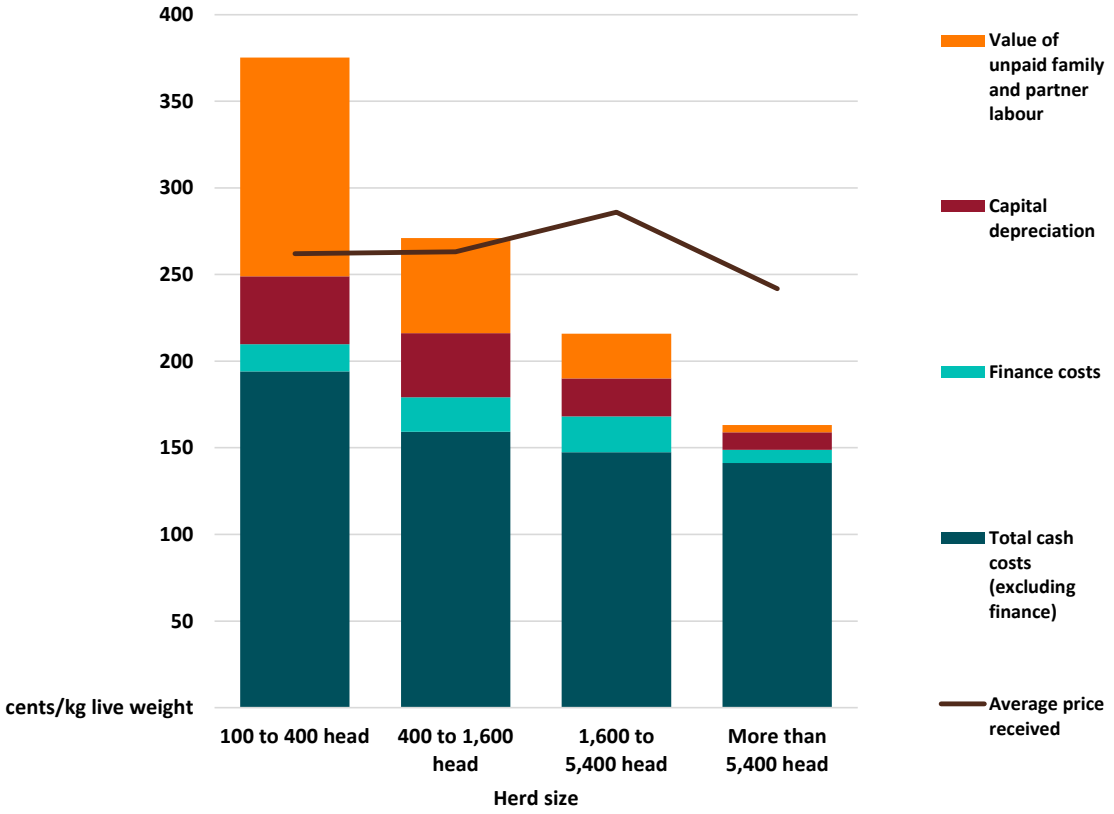
Over a longer period, farm businesses need to replace farm capital (such as vehicles, machinery, plant, sheds and fencing) to maintain production as capital wears out. This cost is mostly captured in capital depreciation, but repairs and maintenance included in cash costs also includes replacement and upgrading of some farm capital. Farms often vary their expenditure on capital items depending on need, available cash flow and access to finance. In some years farms invest more than the calculated depreciation and in other years much less. A farm business that continually invests less than the calculated depreciation will lose production capacity over the medium to long term.

ABARES includes the value of unpaid labour in its measurement of farm financial performance. Valuation of this labour input enables ABARES to compare the performance of all farm businesses equally regardless of the (paid or unpaid) labour arrangements in place. Valuation of unpaid labour also captures the requirement for the farm's operators to receive a fair return for their labour input. ABARES values unpaid labour inputs at standard industry award wage rates.

On average over the three years to 2018–19, producers in all herd size categories in the Northern and Southern regions covered cash costs of production. However, producers in the Northern region with fewer than 1,600 head of cattle and producers in the Southern region with fewer than 400 head did not fully cover all costs including the value of unpaid labour on average (Figure 27 and Figure 28).

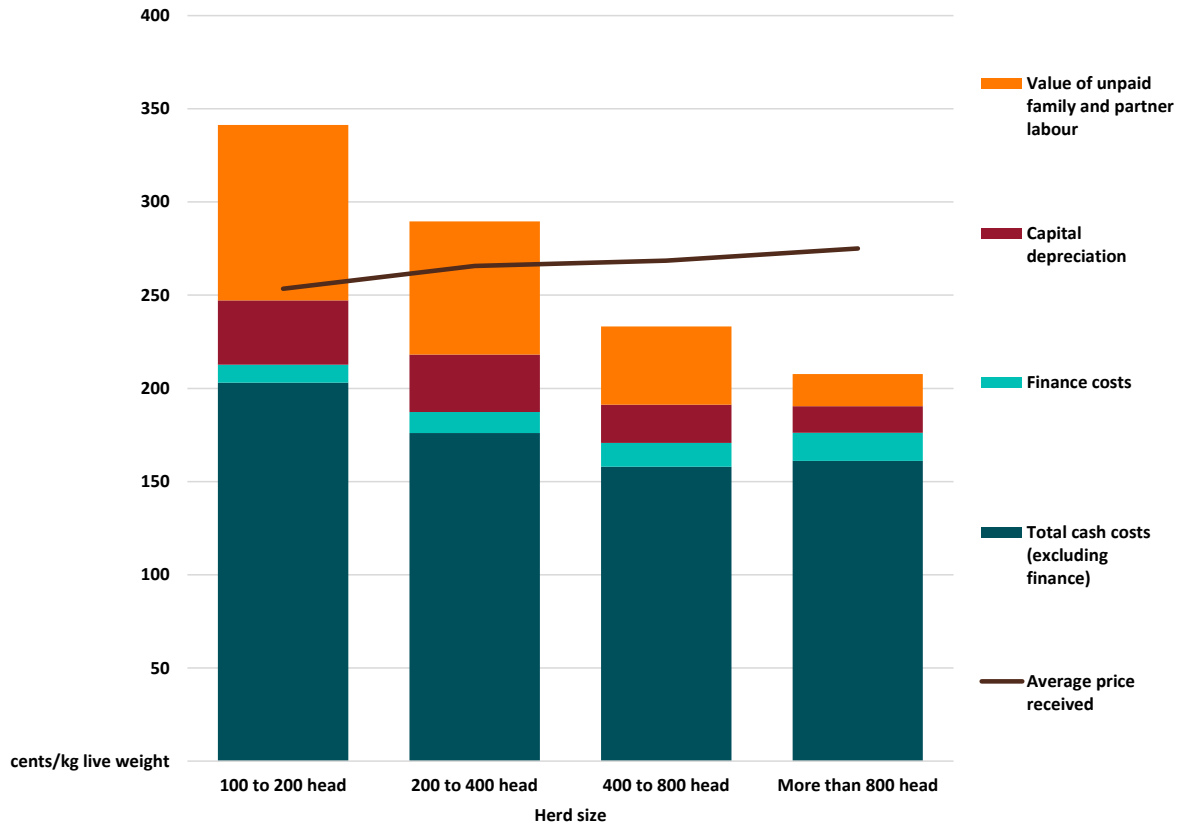
The value of unpaid labour substantially adds to estimated total beef production costs, particularly for small producers. Many small herd size farms use income from other farm enterprises and off-farm sources to help meet operator living expenses.

Figure 27 Production costs for beef, beef farms, by herd size, Northern region, average from 2016–17 to 2018–19



Source: ABARES Australian Agricultural and Grazing Industries Survey

Figure 28 Production costs for beef, beef farms, by herd size, Southern region, average from 2016–17 to 2018–19



Source: ABARES Australian Agricultural and Grazing Industries Survey

The average price received per kilogram of beef was slightly lower for the largest herd size farms in the Northern region. This partly reflects the impact of dry seasonal conditions in parts of the Northern region between 2016–17 and 2018–19, together with a higher proportion of younger cattle turned off for live export or transferred to other farms for finishing.

In the Southern region, the average price received per kilogram of beef produced increased slightly with herd size from 2016–17 to 2018–19. This may indicate that farms with larger herd sizes in the Southern region produced better quality or better finished beef cattle during this period.

Cost of production by state

Regional differences in average costs of beef production partly reflect the distribution of farms by herd size. Victoria has the highest proportion of small farms and the second highest average total cost of production, at 260 cents per kilogram for the three years to 2018–19 (Table 13). New South Wales had the highest average total cost of production at 271 cents per kilogram. In contrast, the Northern Territory has a high proportion of very large herd sizes and the lowest total cost of production, at 158 cents per kilogram. A higher proportion of cattle in the Northern Territory are turned off for live export. Costs of production for cattle sold for live export are generally lower. This is because cattle are sold for live export at a younger age and at lighter weights than they are for domestic slaughter.

Table 13 Per kilogram live weight cost of beef production and operating margins, beef farms, by state, 2016–17 to 2018–19

average per farm

Production and price	Unit	New South Wales		Victoria		Queensland		South Australia		Western Australia		Tasmania		Northern Territory	
Total live weight of cattle produced	tonnes	76	(4)	65	(5)	178	(4)	85	(12)	147	(6)	111	(7)	1,620	(7)
Average price received	c/kg	274	(2)	265	(2)	268	(1)	257	(4)	241	(3)	286	(3)	232	(3)
Production costs															
Total cash costs excluding finance costs	c/kg	186	(3)	163	(5)	152	(3)	151	(5)	139	(4)	158	(4)	140	(5)
Total cash costs including finance costs	c/kg	203	(3)	172	(5)	170	(2)	158	(6)	147	(4)	170	(4)	145	(4)
Total cash, finance and depreciation costs	c/kg	225	(3)	198	(5)	193	(3)	177	(5)	165	(4)	189	(4)	154	(4)
Total costs (all cash costs, finance, depreciation and the value of unpaid labour)	c/kg	271	(3)	260	(4)	230	(3)	207	(5)	191	(4)	225	(4)	158	(4)
Operating margin over:															
Cash costs	c/kg	88	(7)	101	(7)	116	(4)	106	(9)	102	(7)	128	(6)	92	(6)
Cash and finance costs	c/kg	71	(9)	93	(7)	98	(5)	99	(10)	94	(8)	116	(6)	87	(6)
Cash, finance and depreciation costs	c/kg	48	(14)	67	(11)	75	(8)	80	(13)	76	(10)	97	(8)	78	(6)
All costs including unpaid labour costs	c/kg	3	(251)	4	(235)	38	(17)	49	(24)	50	(15)	60	(14)	74	(7)

Note: Figures in parentheses are standard errors expressed as a percentage of the estimate. Estimates have been rounded to the nearest whole number and are presented in 2019–20 dollars.

Source: ABARES Australian Agricultural and Grazing Industries Survey

References

ABS 2020a, Agricultural commodities, Australia, 2018–2019, cat. no. 7121.0 Australian Bureau of Statistics, Canberra, accessed 1 June 2020.

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