

20 December 2018
SFR 121/2018

Farm incomes in Wales, 2017-18

Average farm business income in Wales 2017-18, and change since 2016-17 (at current prices)



£82,400

163%

Dairy farms: Average income varied greatly in the past five years. 2017-18 saw income return to a higher level than 2014-15 after two particularly low years.



£26,900

17%

Cattle and sheep (LFA) farms: Average income was higher than in any year since 2011-12.



£24,000

5%

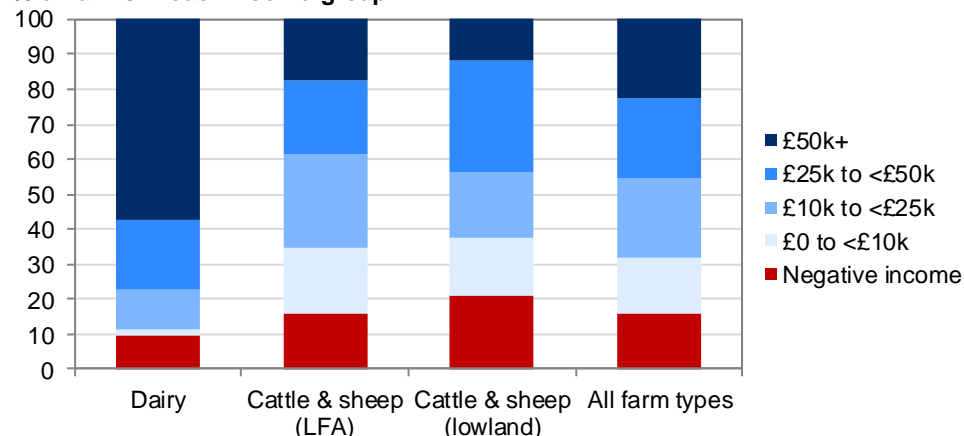
Cattle and sheep (lowland) farms: Despite the increase in 2017-18, average income remains below levels seen during the period 2008-09 to 2014-15.

It is important to see latest farm incomes in the context of longer term trends in farm incomes and market conditions. Farm incomes are the small difference between total output and total input, so can be volatile across years. Small changes in output or input (such as movements in input costs) can result in large percentage changes in farm income.

Farm income average values mask considerable variation in incomes at the farm level. Variation exists both between and within farm types, with farm-level factors influencing variations in production and costs (see [Section A](#)).

Figure A1: Variation in farm business income in 2017-18, by farm type

% of farms in each income group



Source: Farm Business Survey

About this release

Figures are presented on farm incomes in Wales for 2017-18 (up to March 2018).

These figures replace forecast estimates for 2017-18 published on 22 March 2018 and represent the results of the Wales Farm Business Survey for 2017-18.

Results largely exclude very small and part time holdings (see '[Notes](#)' for details).

In this release

Farm business income	3
Components of income and output	6
Weather	14
Commodity prices	16
Assets, liabilities and net worth	21
Glossary	27
Notes	27
Key quality information	31
Strengths and limitations of the Farm Business Survey	33

Importance of measuring farm incomes

Although agriculture makes a relatively small contribution to GDP ⁽¹⁾, around half of the food consumed in the UK is sourced from UK agriculture (with the rest imported into the UK from abroad) ⁽²⁾. Agriculture also has important impacts on the natural environment, with over 80 per cent of land in Wales used for agricultural purposes ⁽³⁾. Farm incomes show some volatility from year to year, influenced by prevailing agricultural (including weather related) and market conditions. There is also wide variation in farm incomes for individual farms, including for farms of the same type. Farm incomes provide an important measure of farm profitability and, in conjunction with other measures from the farm accounts, can inform on the performance and viability of farm businesses.

(1) Agriculture, forestry and fishing together account for around 0.6% of UK GDP (source: [Office for National Statistics](#)).

(2) Source: [Food statistics pocketbook](#), Defra.

(3) Source: [June agricultural survey](#), Welsh Government

Key points from other sections of this release

Components of income and output (Section B):

- There is wide variation between farms in the extent that subsidy* contributes towards both farm business income and output.
* Subsidy is defined here as the basic / single farm payment plus agri-environment payments.
- The proportion of farms involved in some form of diversified activity increased in each of the past six years, to 39 per cent in 2017-18. But on average, the contribution of diversified activities towards both income and output could be considered to be small.

Weather (Section C): Context provided for one of the factors that can affect farm incomes.

Commodity prices (Section D):

- Considering annual averages for the past seven years, the average farm gate milk price in Wales was generally between 1 and 3 pence per litre lower than the equivalent price in the UK, but with a reduced gap of 0.8 pence per litre in 2017-18)
- [Section D](#) contains analysis of weekly prices for finished cattle (England & Wales) and finished lambs (Wales).

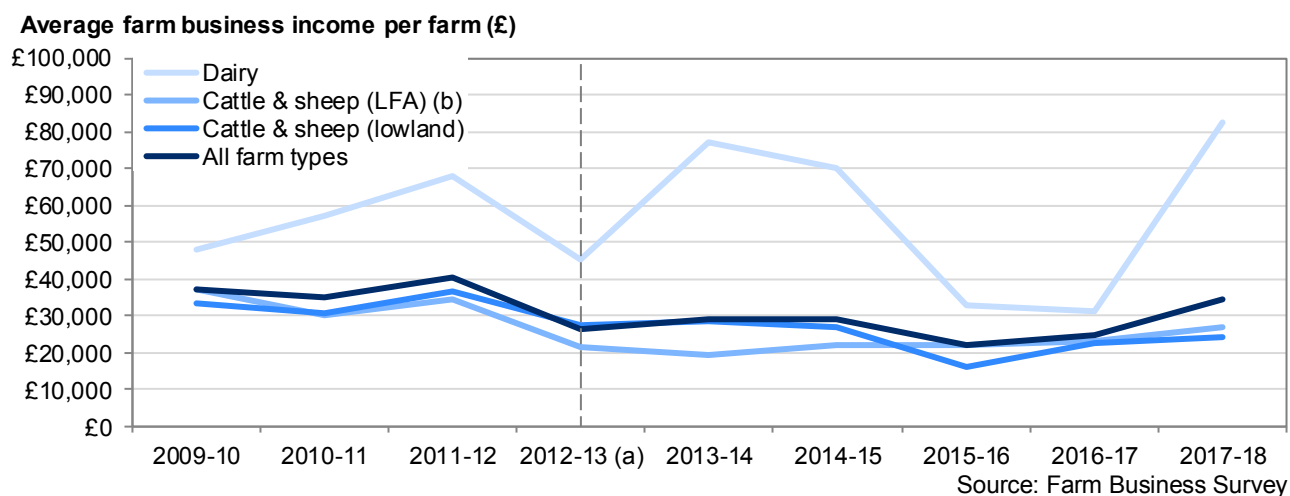
Assets, liabilities and net worth (Section E):

- Average net worth for farms in Wales varies greatly with farm type, economic size and tenure.
- Considering farm assets and liabilities, there is a wide variation across farms in Wales in both their short-term and long-term financial positions.

Section A: Farm business income

This section considers trends in average farm business income by farm type, and how incomes vary around these averages.

Figure A2: Average farm business income in Wales, 2009-10 to 2017-18 (at current prices)



(a) The vertical dashed line indicates how Standard Output coefficients were updated in 2012-13. This had an effect on both the survey population and classification of farms (see [Notes](#) for further details).
(b) LFA denotes Less Favoured Area (see [Notes](#) for further details).

Figure A3: Average farm business income by farm type in Wales, 2012-13 to 2017-18

Average farm business income per farm

£ per farm

Farm type	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	% change (2016-17 to 2017-18)
At current prices							
Dairy	45,100	77,000	70,200	32,800	31,300	82,400	163%
Cattle & sheep (LFA)	21,600	19,200	22,100	21,900	23,100	26,900	17%
Cattle & sheep (lowland)	27,200	28,600	27,000	16,300	22,700	24,000	5%
All farm types	26,600	29,300	29,000	22,200	24,500	34,600	41%
In real terms at 2017-18 prices (a)							
Dairy	48,700	81,800	73,300	34,100	31,900	82,400	158%
Cattle & sheep (LFA)	23,300	20,400	23,100	22,700	23,500	26,900	14%
Cattle & sheep (lowland)	29,400	30,400	28,200	16,900	23,200	24,000	3%
All farm types	28,800	31,200	30,300	23,100	25,000	34,600	39%

Source: Farm Business Survey

(a) GDP deflators are used here to uprate figures for 2016-17 (and earlier) to 2017-18 prices.

Average farm business income in 2017-18, by farm type

Farm income measures

For non-corporate businesses, **farm business income** represents the financial return to all unpaid workers (farmers, spouses, non-principal partners and their spouses, and family workers) and on all their capital invested in the farm business (including land and buildings). For corporate businesses, it represents the financial return on the shareholders capital invested in the farm business. Farm business income includes some 'notional' items, such as depreciation of farm assets (eg machinery) and changes in the value of breeding livestock.

In essence, farm business income is the same as **net profit**, which as a standard financial accounting measure of income, is used widely within and outside agriculture. However, using the term farm business income rather than net profit:

- gives an indication of the measure's farm management accounting rather than financial accounting origins, and accurately describes its composition;
- is intuitively recognisable to users as a measure of farm income.

Importantly, farm business income does not include other sources of household income from outside the farm business (such as other employment of the farmer or spouse outside of the farm).

Farm business income is the headline measure of farm incomes in Wales. Data for other measures of income (**net farm income** and **cash income**) is published in a spreadsheet alongside this release on the Welsh Government [farm income statistics page](#).

Dairy farms:

- Average farm business income rose significantly by 163 per cent at current prices (or 158 per cent in real terms) to £82,400 per farm from the previous year. This is a return to a level last seen in 2013-14 before the dip over the period 2015-17. It means that the average goes from the lowest value since 2009/10 to the highest in a single year.
- Farm gate milk prices are a key factor which effect income on dairy farms. Following a seven-year low reached in June 2016, the average price has continued to increase almost on a monthly basis to reach levels similar to 2012-13. Looking at the data at a farm level there has been a wide variation in milk price paid to farmers in Wales (see [section D](#) for further milk price analysis).
- On dairy farms, a significant rise in income from agriculture was offset by higher agricultural costs. The increase of purchased feed and fodder costs had an impact as feed costs generally account for around half of variable costs on dairy farms, and other livestock costs also rose.

Cattle & sheep (LFA) farms:

- Average farm business income rose by 17 per cent at current prices (or 14 per cent in real terms) to £26,900 per farm from the previous year. This was the highest average income for this farm type for more than five years.
- Between 2016/17 and 2017/18 the gross output from sheep has slightly fallen while that for beef has slightly increased. This suggests that farm incomes may be different depending on the balance of sheep and beef production on a farm.

- The basic farm payment* is generally a more important component of income on cattle & sheep (LFA) farms than on other types of farms and this rose by 8 per cent on the previous year. The amount of rent paid also decreased by 20% on the previous year but this was offset by marginal increases in other costs.

* Basic farm payment is defined in [section B](#) of this release.

Cattle & sheep (lowland) farms:

- Average farm business income rose by 5 per cent at current prices (or 3 per cent in real terms) to £24,000 per farm. This remained lower than in any of the seven years 2008-09 to 2014-15.
- There was a decrease in the variable agricultural costs but these were offset by fixed costs related to machinery. Unlike for the other two farm types discussed, costs of purchased feed and fodder fell marginally for cattle & sheep (lowland) farms, from the previous year.

‘All farm types’:

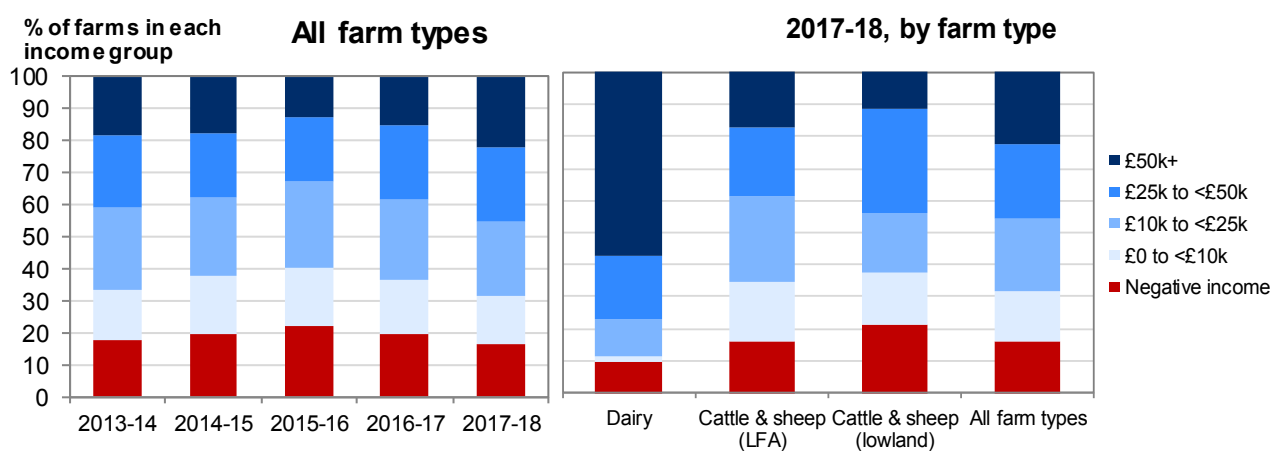
- Average farm business income for the combined ‘all farm types’ rose by 41 per cent at current prices (or 39 per cent in real terms) to £34,600 per farm from the previous year. There were marginal increases in variable agricultural costs for all farm types as discussed above, but these were more than offset by the significant increase in income from dairy farms.

Variation in farm business income

The average values shown in figures A2 and A3 mask the considerable variation in incomes at the level of individual farms, both between and within farm types. One way of looking at the variation in incomes is to consider different income groups. Figure A4 below shows farms grouped by the level of their farm business income in the past five years, and also by farm type for 2017-18.

The level of income on a farm can be influenced by a range of physical, social and economic factors. The skill and business acumen of the farmer will play a role. The level of income will also depend on production costs and the circumstances of the farm (for example, the location, land quality, economic size of the farm, and types of activity undertaken). Incomes will also be affected by where a farm is in its business cycle. For example, a farm that has just invested to expand or improve may have a temporary low income until the benefits start to accrue.

Figure A4: Variation in farm business income in Wales, by year and farm type



Source: Farm Business Survey

- The charts stress the level of variation around the average farm business income.
- Over the five years shown, the shares in each income size band are broadly consistent. 2015-16 has the highest share of farms making a loss and 2017-18 the highest share of those making a profit of at least £50,000.
- Dairy farms have a higher share in the largest band and a lower share making a loss than the cattle and sheep farms. However, there are dairy farms making a loss and cattle and sheep farms making large profits.

Section B: Components of income and output

This section aims to provide greater understanding of how income and output are generated on farms. The contributions of the different components of income and output, and the important variation between farms, are considered.

Terms used in this section

Farm business output: Total value of all the output produced by the farm business in the accounting year.

The four **components of income and output** considered here are:

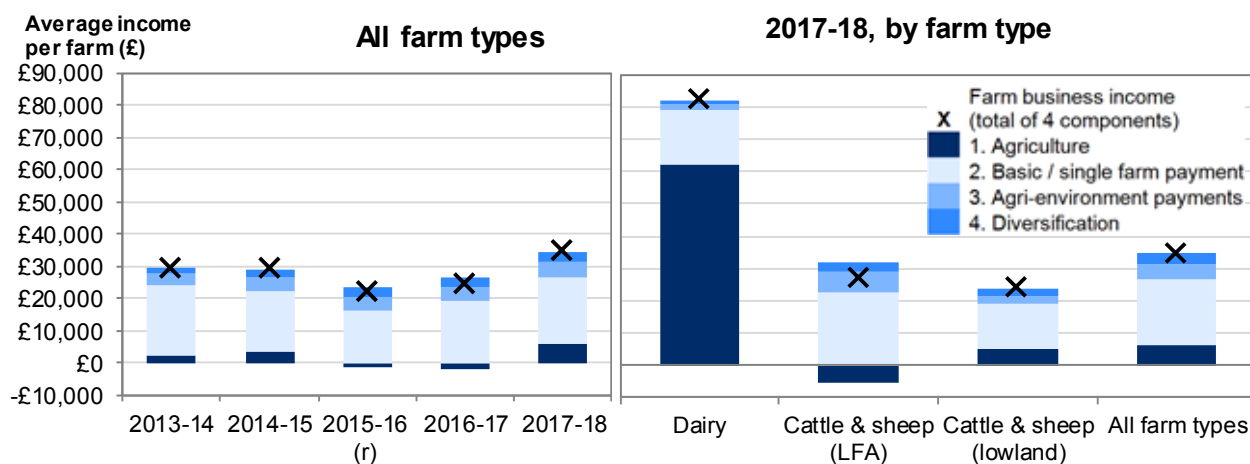
1. **Agriculture:** Income / output from agriculture, which includes compensation payments for animal disease and agricultural work done on another farm.
2. **Basic / single farm payment:** Under the EU Common Agricultural Policy (CAP), direct payments are made to farmers with the aim of ensuring a fair standard of living for farmers, and the availability of food supplies at reasonable prices. For 2015-16 onwards, this is known as the basic farm payment, and this replaced the single farm payment for 2014-15 and earlier years.
3. **Agri-environment payments:** Environmental subsidies are paid to farmers under the Glastir scheme of the Wales Rural Development Programme 2014-2020 (which is financed by the Welsh Government and the EU). Glastir is the sustainable land management scheme which pays for the delivery of specific environmental goods and services aimed at: 1) combating climate change; 2) improving water management; and 3) maintaining and enhancing biodiversity.

Diversification: The business use of farm resources for a non-agricultural purpose. This includes a wide range of activities, such as letting of buildings for non-farming use, renewable energy generation, tourism and use of farm land for sport or recreation. The definition of diversification used here (and all other statistics in this release) **excludes** other sources of household income from outside the farm business (such as other employment of the farmer or spouse outside of the farm).

Points to remember while reading this section of the release

- Figures B1-B4 in this section show average contributions of different components and then variation between farms, firstly for income and then for output. It is important to consider the components of **both** income and output, as neither measure by itself gives a full picture.
- There are four components of farming businesses which are of particular interest (see 'Terms used in this section' below). In practice, it is difficult to separate out costs (and therefore identify income, or profit) for these components. Therefore a methodology was developed to allocate variable and fixed costs to these four components of the business (details available on gov.uk). The methodology to allocate costs involves a degree of **estimation** so results should be **interpreted with caution**.
- Variation by farm type has been analysed and described in text where possible. It has not been possible to visually display this data due to small numbers of farms in some categories.
- Figures B2 and B4 (showing the variation around average income and output) combine the basic / single farm payment and agri-environment payments into an 'all subsidies' category. This allows variation around the average for subsidies to be considered in a single chart.
- Income values can be negative where a farm makes a loss on a given activity. Where a farm has a mix of positive and negative components this makes interpreting the share of the total difficult. The positive components will add up to more than 100 per cent to balance the negative components.

Figure B1: Average farm business income and its components in Wales, by farm type and year (at current prices)

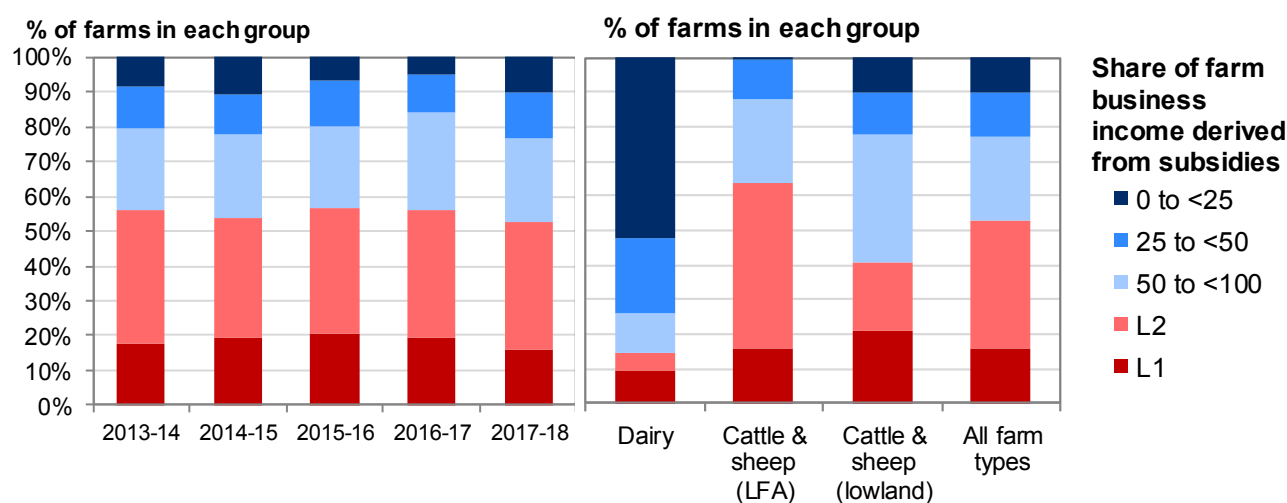


Source: Farm Business Survey

(r) Revised.

- How to interpret the component shares is complicated by the fact that the components can be positive or negative.
- Looking at **farm type**, agriculture contribution to the average farm business income on dairy farms rose from 40 to 76 per cent in 2017-18, whilst cattle & sheep farms differed in that lowland agriculture was 20 per cent and LFA farms were negative at -19 per cent. On average, the basic farm payment made a larger contribution to farm business income on cattle & sheep farms than for dairy.
- For **'all farm types'**, agriculture made a positive contribution of 17 per cent to farm business income after being negative in both 2015-16 and 2016-17. The average income from the basic farm payment decreased although this was offset by a significant increase in agriculture driven by the dairy farms, as described in my detail in [section A](#).

Figure B2: Variation in subsidies (a) as a share of farm business income in Wales



Source: Farm Business Survey

- (a) Categories 2 and 3 (basic / single farm payment and agri-environment payments, respectively) from Figure B1 above have been combined here to form an 'all subsidies' category.
- (b) L1 - Including subsidy, the farm made a loss; L2 - Without subsidy, farm would have made a loss

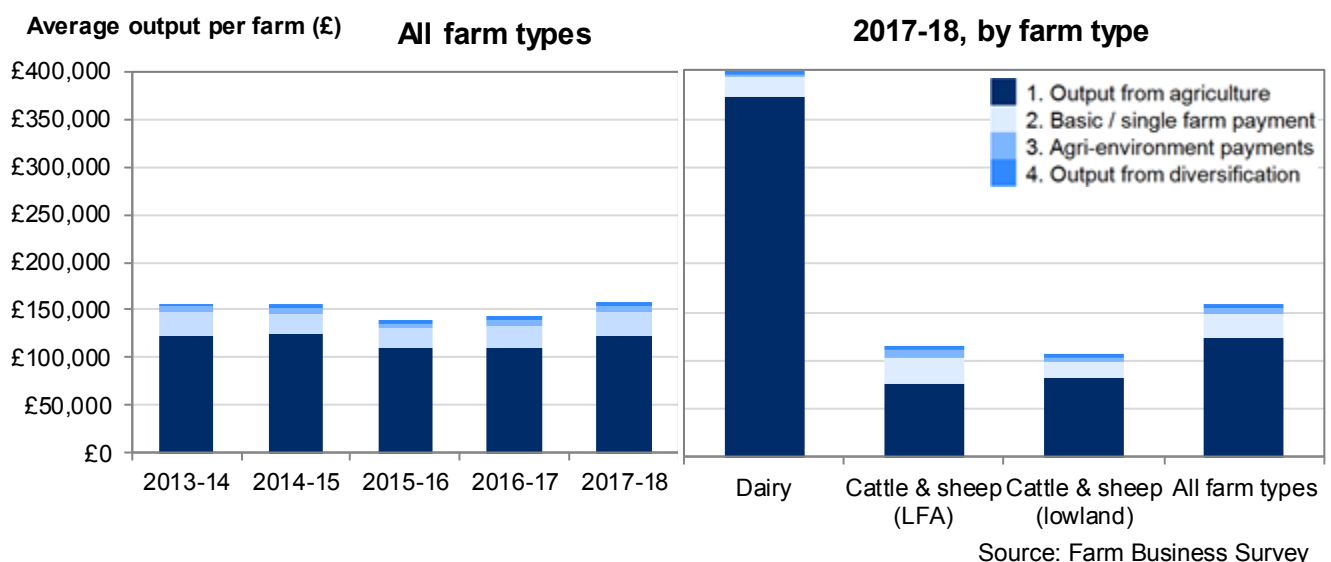
By year for all farms:

- In each of the past five years, there has been wide variation between farms in the contribution of subsidy towards farm business income.
- Across all farms there is a very wide range of dependency on subsidy.
- In each year at least half the farms were making an overall loss or would have done so without subsidy and diversification.
- The shares in each size band are fairly consistent from year to year.

By farm type, 2017-18:

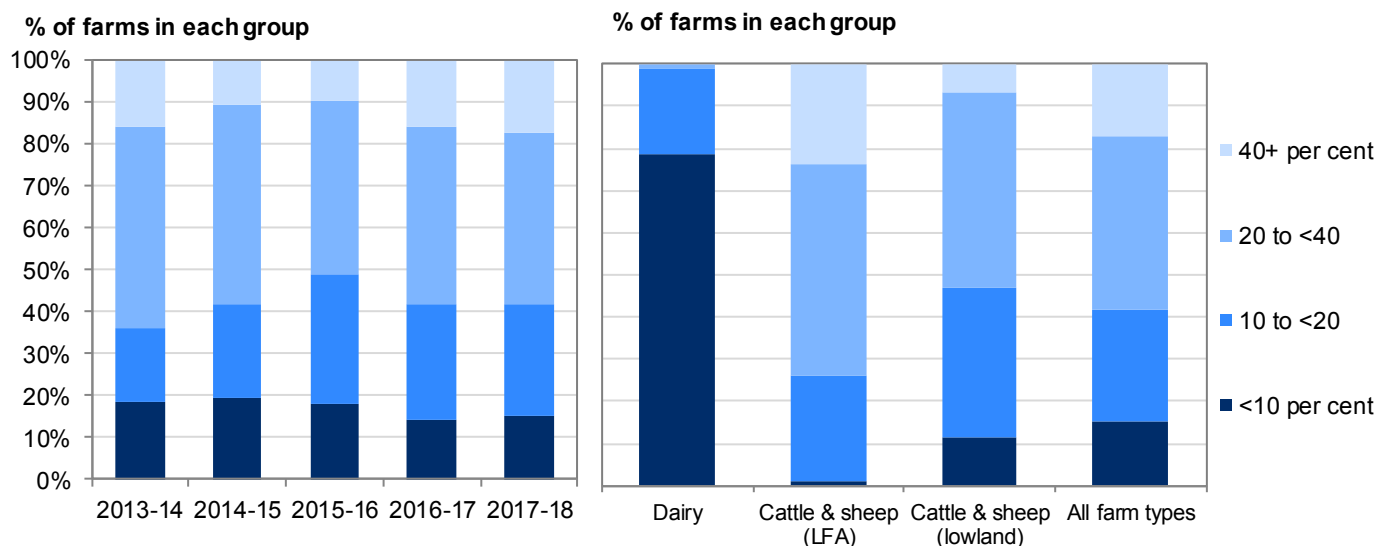
- Each farm type has farms in each of the size bands.
- Around half the dairy farms get less than 25 per cent of their Farm Business Income from subsidy.
- Just over 60 per cent of LFA cattle and sheep farms either make a loss or would have made a loss without subsidy.

Figure B3: Average farm business output and its components in Wales, by farm type and year (at current prices)



On average, agriculture has a much greater contribution to farm business output than it does for farm business income (comparing figures B1 and B3). From figure B3, agriculture contributed around 80 per cent of average farm business output in each year, although varying slightly year to year. On average, agriculture has a much greater contribution to farm business output on dairy farms than on cattle & sheep (both LFA and lowland) farms.

Figure B4: Variation in subsidies (a) as a share of farm business output in Wales



Source: Farm Business Survey

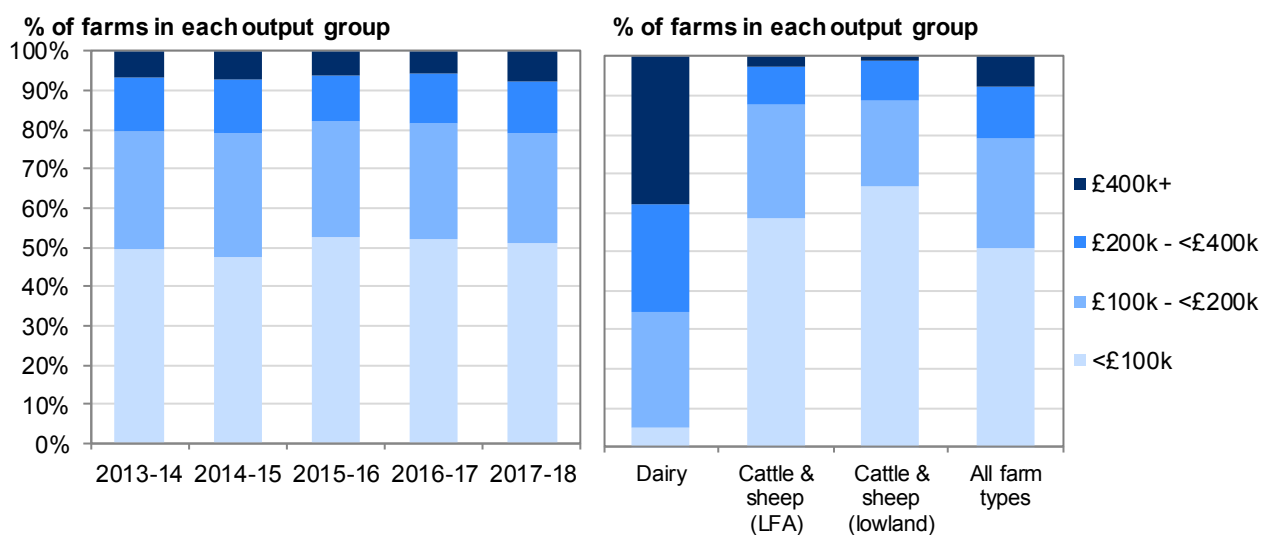
(a) Categories 2 and 3 (basic / single farm payment and agri-environment payments, respectively) from Figure B3 above have been combined here to form an 'all subsidies' category.

In each of the past five years, there has been wide variation between farms in the contribution of subsidy towards farm business output. In 2017-18, 15 per cent of farms had less than a tenth of their farm business output derived from subsidy, while 12 per cent of farms had more than half of their farm business output derived from subsidy.

By farm type, 2017-18: 79 per cent of dairy farms had less than a tenth of their farm business output derived from subsidy. This compares with just 1 per cent of cattle & sheep (LFA) farms and 11 per cent of cattle & sheep (lowland) farms. Only 1 per cent of dairy farms in the sample had more than 20% of their farm business output derived from subsidy, compared with 74 per cent of cattle & sheep (LFA) farms and 53 per cent of cattle & sheep (lowland) farms.

It is also useful to consider variation in farm business output by farm type, shown in figure B5 below.

Figure B5: Variation in farm business output in Wales (at current prices)



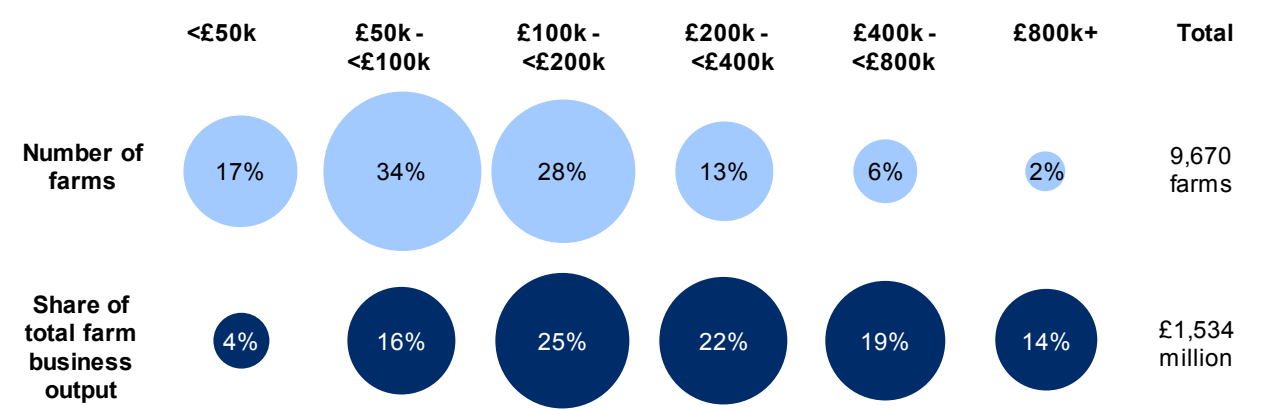
Source: Farm Business Survey

There is wide variation between farms in their level of farm business output in each of the last five years. In 2017-18, 51 per cent of farms had a farm business output of less than £100k, while 8 per cent of farms had a farm business output of £400k or greater.

By farm type: In 2017-18, only 5 per cent of dairy farms in the sample had a farm business output of less than £100k, while the equivalent values were 59 and 67 per cent for cattle & sheep farms (LFA and lowland resp). 38 per cent of dairy farms had a farm business output of £400k or more, while only around 2 per cent of cattle and sheep farms did.

For the farm business output groups shown in figure B5 above, figure B6 considers how farms of different economic sizes contribute differing amounts towards total farm business output in Wales.

Figure B6: Contribution of farms in each output group in Wales, 2017-18



Source: Farm Business Survey

- The smallest farms with output of under £50,000 account for around 17 per cent of the farms and 4 per cent of the output.
- The largest farms account for around 2 per cent of the farms and 14 per cent of the output.
- Farms in the range from £50,000 to £200,000 output account for just over 60 per cent of the farms and just over 40 per cent of the output.

Terms used in this section

Diversification: The business use of farm resources for a non-agricultural purpose. This includes a wide range of activities, such as letting of buildings for non-farming use, renewable energy generation, tourism and use of farm land for sport or recreation. The definition of diversification used here **excludes** agricultural work done on another farm (which is instead included under agricultural output). Also **excluded** here (and in all other statistics in this release) are other sources of household income from outside the farm business (such as other employment of the farmer or spouse outside of the farm).

'Letting buildings for non-farming use' includes a variety of arrangements for renting out buildings and land (for non-farming purposes). It does not include tourist accommodation and catering, which is included under a separate category.

'Tourism accommodation, catering, sport and recreation' includes camp / caravan sites, bed and breakfast, holiday cottages, and catering (eg farm house teas). It also includes shooting, fishing, nature trails, agricultural shows, equine activities, income from livery, sports, sheep dog trials etc.

'Renewable energy' includes power generating activities, wind turbines, solar power, anaerobic digesters and from 2014-15 onwards, renewable heat initiatives.

'Other diversified activities' includes activities such as processing / retailing of farm produce, non-agricultural hirework, receipts for training work or open days, and other miscellaneous output.

Diversification

In recent years, it has become more commonplace for farms to supplement their incomes through sources other than conventional agricultural production. Through diversification, it may be possible to improve the economic viability of farm businesses. Some diversification activities can also provide benefits for the wider rural economy, such as encouraging and providing job opportunities.

Using the definition of diversification above, we now consider the different types of diversified activities on farms, and how these different activities contribute towards farm income and output.

Figure B7: Diversified income for farms in Wales, by type of enterprise, 2017-18

The rows in the table only include data for those farms which have the particular enterprise.

	Number of farms	Share of farms	Total farm business income for these farms (£m)	Total income of the diversified enterprise (£m)	Contribution of the diversified enterprise towards farm business income	Average income from the enterprise (£ per farm)
All farms	9,700	100%	335			
Diversified income (a), of which:	3,800	39%	162	31	19%	8,200
1) letting buildings for non-farming use	2,200	23%	96	22	23%	9,900
2) tourist accommodation, catering, sport and recreation	700	7%	32	6	18%	8,500
3) renewable energy	1,700	18%	70	3	5%	1,900
4) other diversified activities	300	3%	13	1	11%	4,900

Source: Farm Business Survey

(a) The number and % of farms with each type of diversified activity does not add up to the total for all diversified activity. This is because some farms are involved in more than one type of diversified activity.

- In 2017-18, 3,800 farms generated £31 million of diversified income, and this contributed 19 per cent (on average) towards farm business income on these farms. For the same group of farms, the average income from diversified enterprises was £8,200 per farm.

- Letting buildings for non-farming use generated an average income of £9,900 per farm (for farms involved in this activity). In comparison, renewable energy activities generated £1,900 per farm (for those farms involved in renewable energy).

Figure B8: Diversified output for farms in Wales, by type of enterprise, 2017-18 (a)

The rows in the table only include data for those farms which have the particular enterprise.

	Number of farms	Share of farms	Total farm business output for these farms (£m)	Total output of the diversified enterprise (£m)	Contribution of the diversified enterprise towards farm business output	Average output from the enterprise (£ per farm)
All farms	9,700	100%	1,534			
Diversified output (a), of which:	3,800	39%	723	49	7%	13,000
1) letting buildings for non-farming use	2,200	23%	426	26	6%	11,800
2) tourist accommodation, catering, sport and recreation	700	7%	126	9	7%	12,800
3) renewable energy	1,700	18%	327	14	4%	8,300
4) other diversified activities	300	3%	42	2	5%	7,000

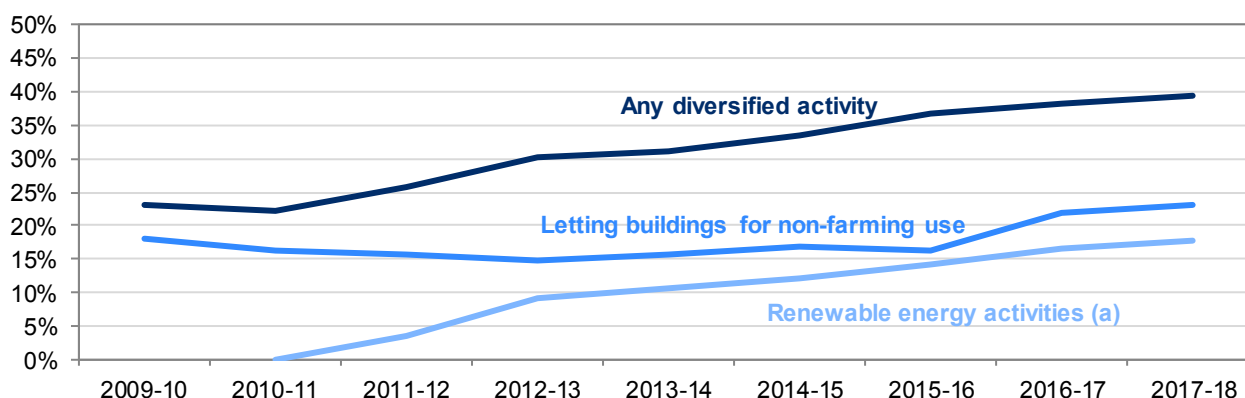
Source: Farm Business Survey

(a) The number and % of farms with each type of diversified activity does not add up to the total for all diversified activity. This is because some farms are involved in more than one type of diversified activity.

- In 2017-18, 3,800 farms generated £49 million of diversified output, and this contributed 7 per cent (on average) towards farm business output on these farms. For the same group of farms, the average output from diversified enterprises was £13,000 per farm.
- Letting buildings for non-farming use generated an average output of £11,800 per farm (for farms involved in this activity). In comparison, renewable energy activities generated £8,300 per farm (for farms involved in renewable energy).

Figure B9 shows the percentage of farms with diversified activities, and also the two most common forms of diversified activity on Welsh farms.

Figure B9: Percentage of farms with diversified activities, 2009-10 to 2017-18



Source: Farm Business Survey

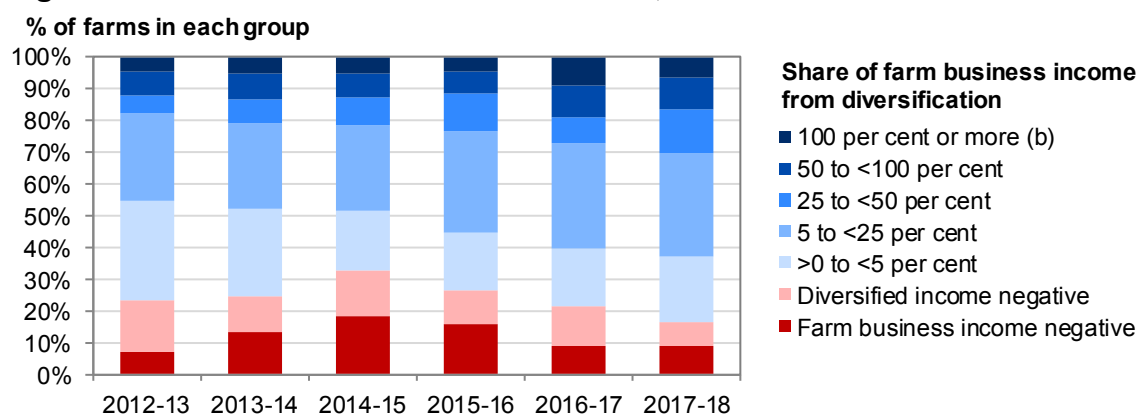
(a) Separate results for renewable energy are only available from 2010-11 onwards. There could also be some recording issues in around 2010-11, when these activities were first recorded separately.

- The proportion of farms with any type of diversified activity increased each year from 2010-11, to 39 per cent in 2017-18.
- The proportion of farms which let buildings for non-farming use, continued the steady increase from 2015-16 to 23 per cent in 2017-18, after a period of level consistency in the previous six years.

- The proportion of farms involved in renewable energy activities rose in each of the past seven years, to 18 per cent in 2017-18. Renewable energy activities provide comparatively low income, when compared with some other types of diversified activity (as shown in figure B7).

Figures B10 and B11 display the variation between farms in how diversification contributes to income (B10) and then output (B11).

Figure B10: Variation in diversified income, as a share of farm business income (a)



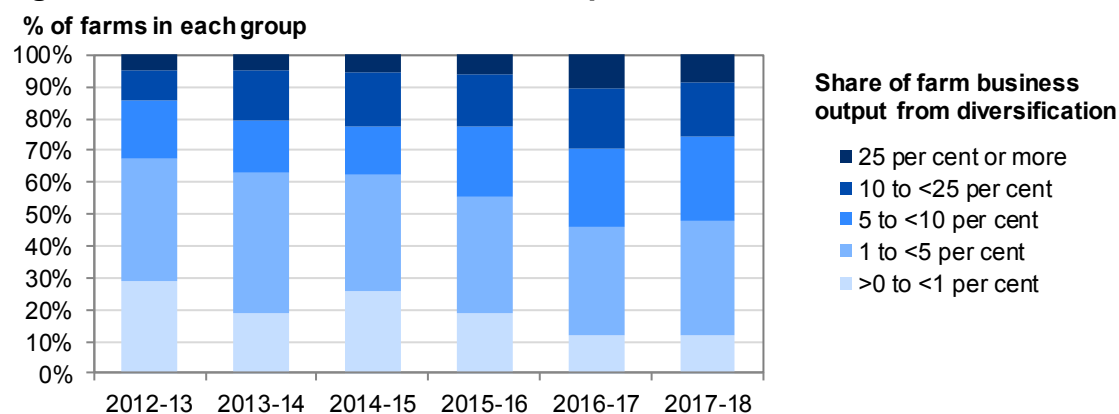
Source: Farm Business Survey

(a) Excludes farms which had no diversified activities (5,900 such farms excluded in 2017-18).

(b) On farms, it is possible for diversified income to be larger than farm business income (and therefore contribute more than 100 per cent of farm business income). For example, if income from agriculture is strongly negative.

- From 2014-15 there has been an increasing share of farms with a positive contribution from diversified activities.
- The share of farms with diversification contributing at least 25 per cent of farm business income has been increasing from under 20 per cent in 2012-13 to 30 per cent in 2017-18.

Figure B11: Variation in diversified output, as a share of farm business output (a)



Source: Farm Business Survey

(a) Excludes farms which had no diversified activities (5,900 such farms excluded in 2017-18).

- For farms which have diversified activities, there is a trend towards diversification making a greater contribution to total farm business output (although the average contribution remains relatively small). There is also wide variation between these farms in how diversified output contributes towards overall farm business output.
- In just under half of the farms with diversified activities in 2017-18, the diversified activities contributed less than 5 per cent of output. In 2017-18, 9 per cent of farms generated more than a quarter of their farm business output through diversified activities, which is a fall from 11 per cent for 2016-17 but higher than in previous years.

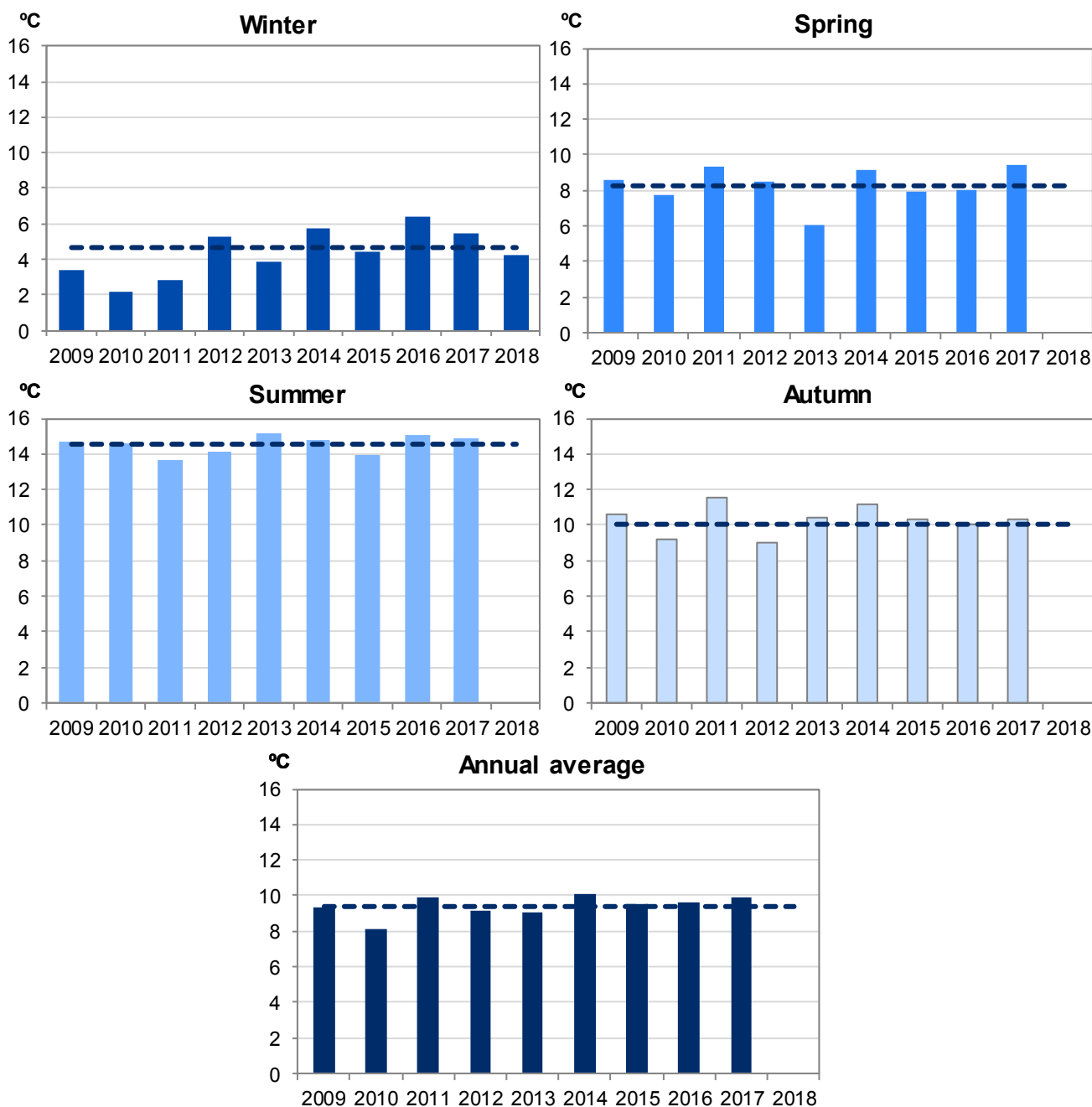
Section C: Weather

This section considers the mean temperature and average rainfall by season in Wales over the last decade. The section is intended to provide an insight into one of the factors that can affect farm businesses and therefore farm incomes. The volatility of farm incomes from year to year can be influenced by adverse or extreme weather conditions.

Figure C1: Mean temperature in Wales (°C), 2009 to 2018 (a)

Seasons: Winter = Dec - Feb, Spring = Mar - May, Summer = June - Aug, Autumn = Sep – Nov

Broken lines show the long term averages for the period 1988 to 2018



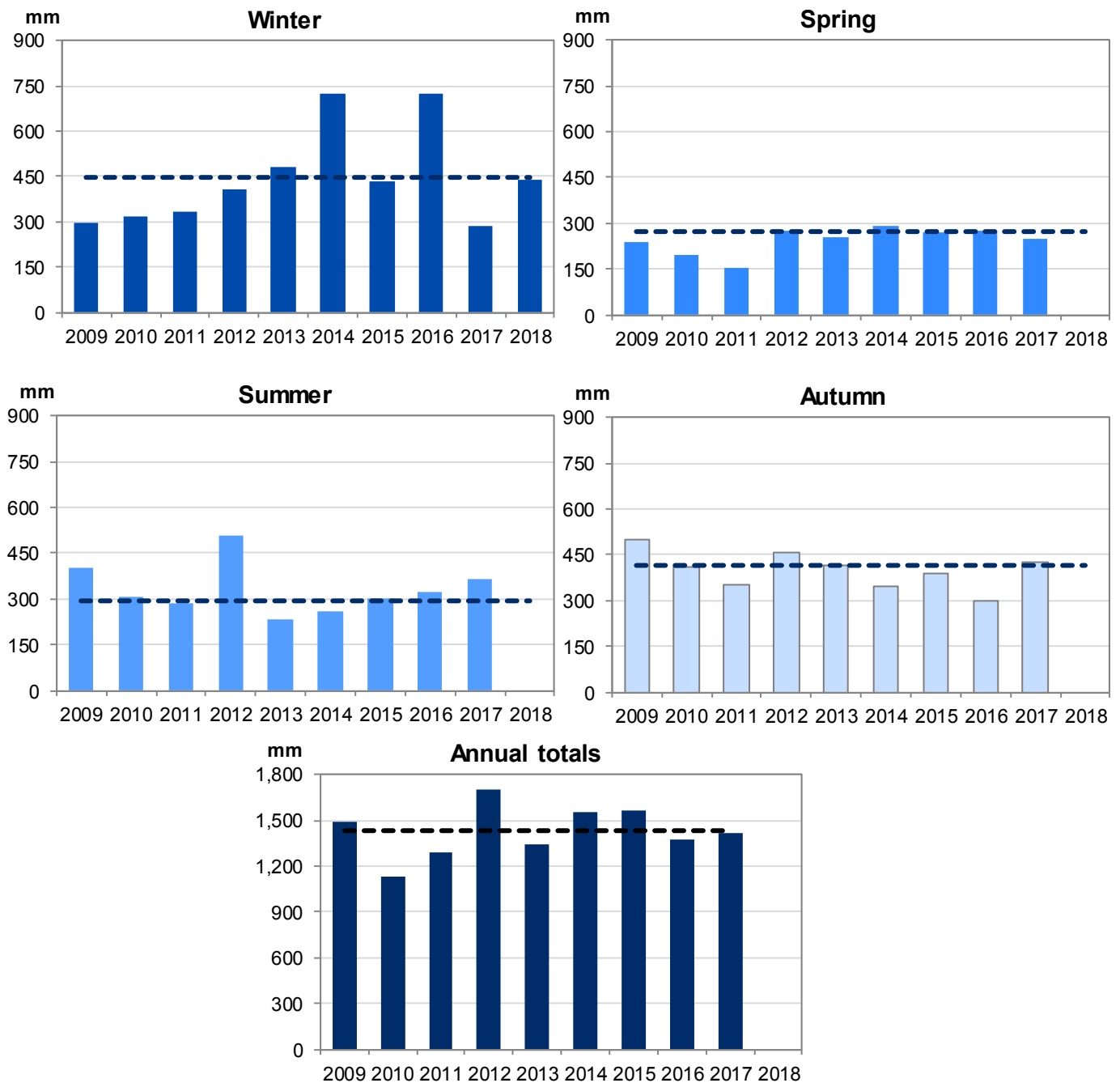
Source: [Met Office](#)

(a) Mean temperature data is available for Spring and Summer 2018 but is not shown here, as this release relates to farm incomes and other data for the period up to March 2018.

Figure C2: Rainfall in Wales (mm), 2008 to 2017 (a)

Seasons: Winter = Dec - Feb, Spring = Mar - May, Summer = June - Aug, Autumn = Sep – Nov

Broken lines show the long term averages for the period 1988 to 2017



(a) Rainfall data is available for Spring and Summer 2018 but is not shown here, as this release relates to farm incomes and other data for the period up to March 2018.

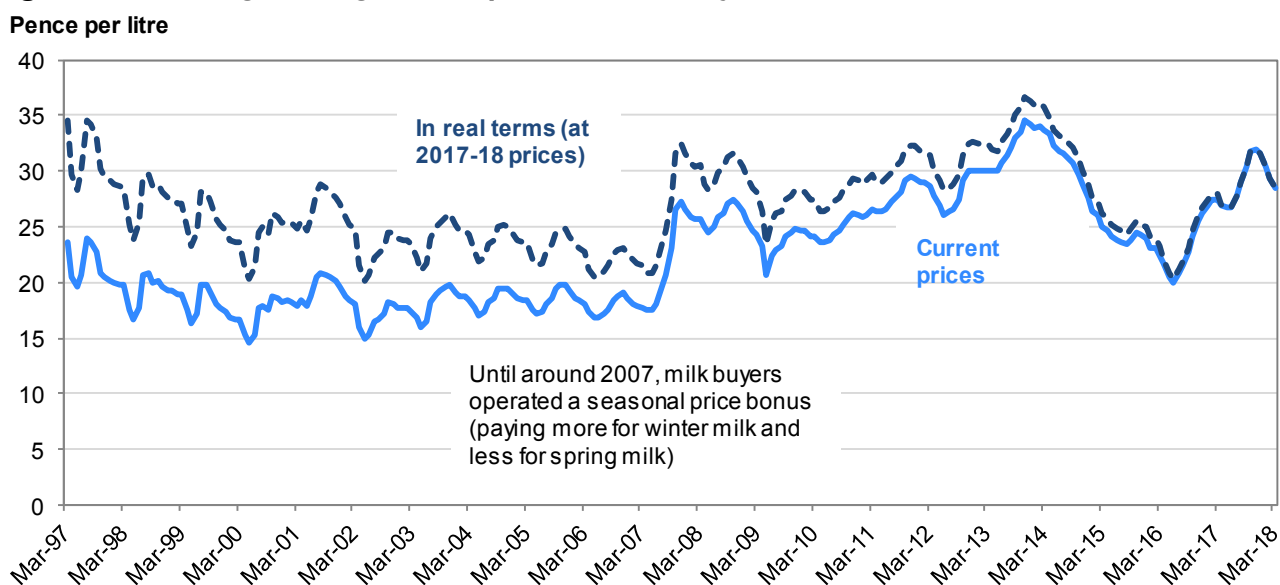
Note that the period covered by this release ends in March 2018. The effects of the hot summer in 2018 and the “Beast from the East” are likely to be reflected in next years release rather than this one.

In terms of the monthly averages for rainfall and temperature, 2017 seems to have been generally close to the average.

Section D: Commodity prices

The prices received by farmers for their products, in conjunction with wider market conditions, can have a large effect on farm business income and output. Figure D1 shows official statistics for UK farm gate milk prices over a 20 year period (Wales milk prices are not available from this source).

Figure D1: Average farm gate milk prices (UK) – 20 year trend (March 1997 to March 2018)



Source: [UK milk price statistics \(published by Defra\)](#)

- The average farm gate milk price in June 2016 was lower in real terms than at any time since May 2002.
- Since June 2016 the average price has generally risen. It reached a peak in Nov 2017, which is the highest since September 2014.
- The first few months of 2018 show another fall. Whether this is a trend or a short term effect is not yet known.

Farm gate milk price: the price paid by dairy processors to farms for their milk. After milk leaves the farm it will go for processing before being sold to retailers.

The wide variation in farm gate milk prices received by farms in Wales is shown in Figure D2 below. This is shown in terms of the share of production sold at different prices.

Figure D2: Variation in farm gate milk prices in Wales, 2010-11 to 2017-18 (at current prices)(a,b)

Percentage of milk produced on Welsh farms which was sold in each price band %

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Price band (pence per litre)								
< 20p	2	*	*	*	*	29	21	*
20p < 22.5p	29	*	*	*	*	22	38	*
22.5p < 25p	59	13	7	*	*	31	28	*
25p < 27.5p	5	54	44	6	14	6	8	20
27.5p < 30p	*	25	36	18	47	6	*	65
30p+	*	6	12	76	36	5	*	12
Average price per litre in pence	23.3	26.3	26.7	30.4	29.0	21.7	21.0	27.8

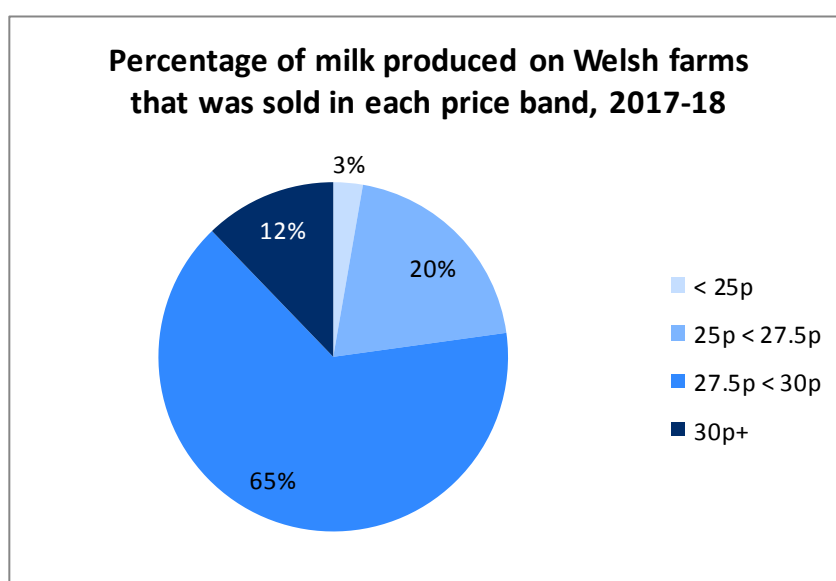
Source: Farm Business Survey

(a) The average milk price over a year has been calculated for each farm in the survey. Therefore the figures do not account for any variation in milk price or production within farms in the year. The average milk price for a farm each year has then been weighted up according to the farm's survey weight and share of milk production.

(b) Calculations exclude a small number of milk producing farms which produced less than 100,000 litres per year.

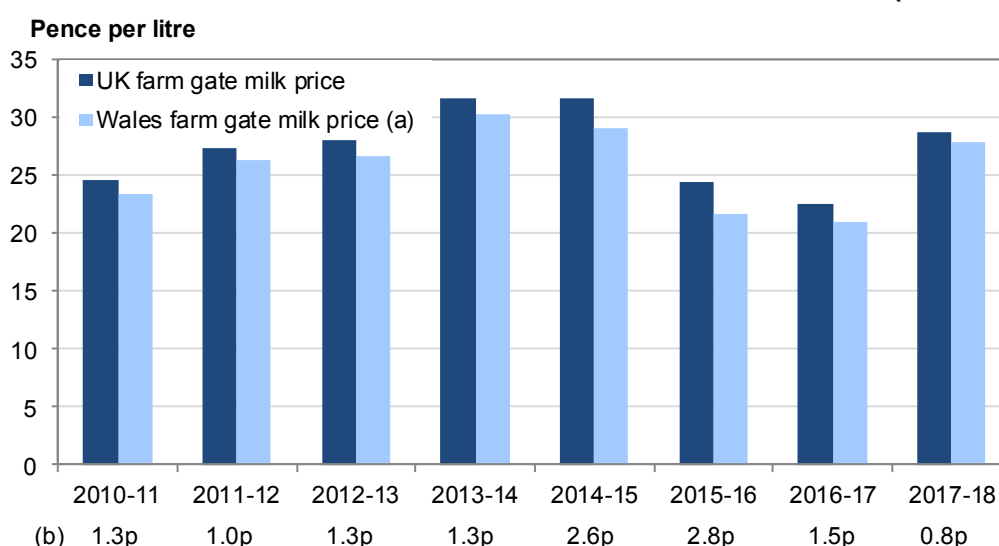
* Value not shown as the figure is based on fewer than 5 farms (or no farms) from the sample.

- The table above shows the wide range of farm gate milk prices received for milk sold in Wales, in each year since 2010-11.



- In 2017-18, only 3 per cent of milk produced on farms in Wales was sold to processors for less than 25 pence per litre, down from 87 per cent in 2016-17 but equivalent to the 3 per cent in 2014-15.
- 77 per cent of milk produced on farms in Wales was sold at 27.5 pence per litre or more in 2017-18, a large increase from 5 per cent in 2016-17 but similar to the level of 83 per cent in 2014-15.

Figure D3: Annual average farm gate milk prices for Wales & UK, 2010-11 to 2017-18 (at current prices)



Source: [UK milk price statistics \(published by Defra\)](#), Farm Business Survey (Wales prices)

(a) Data for Wales excludes a small number of milk producing farms which produced less than 100,000 litres per year.

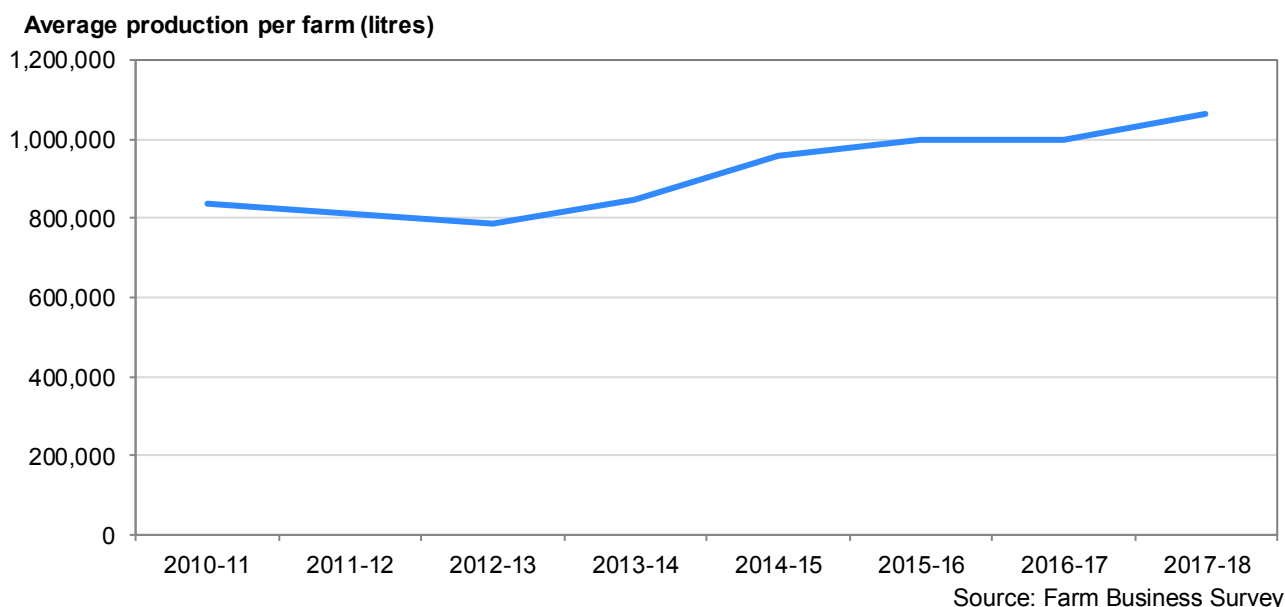
(b) Difference between UK and Wales price in pence per litre

It should be noted that the data is derived from two different sources with differing methodologies, so there may some issues with comparing the two sources.

- Figure D3 suggests that over the past nine years, the average farm gate milk price in Wales was between 1 and 3 pence per litre lower than the equivalent price in the UK, with a slightly smaller gap of 0.8 pence per litre in 2017-18.

The following figures D4 and D5 show trends in milk production per farm and average dairy herd size for farms in Wales.

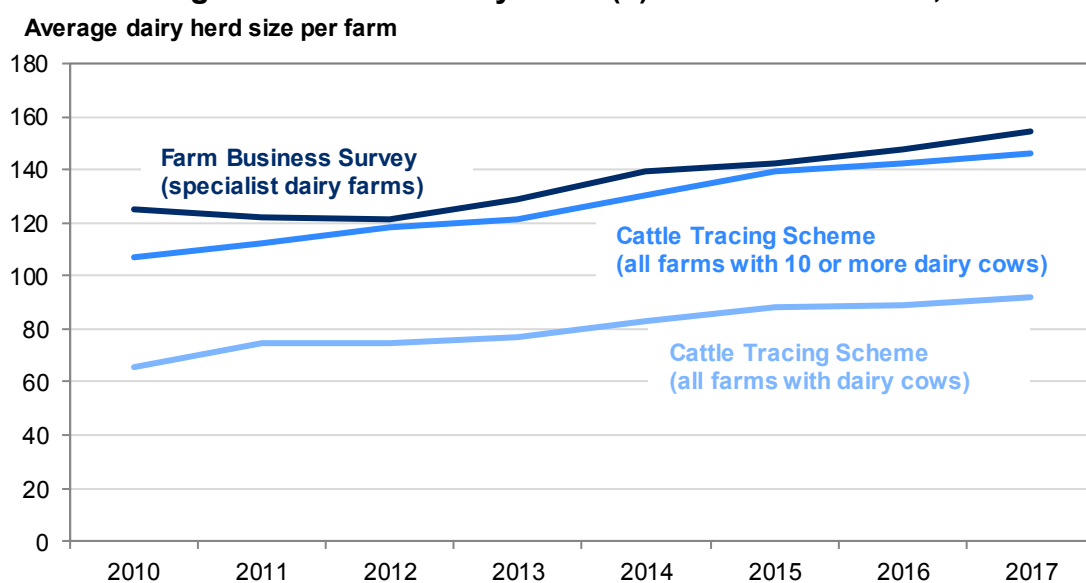
Figure D4: Milk production per farm in Wales, 2010-11 to 2017-18 (a)



(a) The average excludes a small number of milk producing farms which produced less than 100,000 litres per year.

- Average milk production per farm increased in 2017-18 to more than 1 million litres per farm, having increased in the preceding three years. The increase in the average farm gate milk price may have been a factor in the increased level of production.

Figure D5: Average herd size for dairy cows (a) on farms in Wales, 2010 to 2017 (a)



(a) Dairy cows are defined as female dairy cows over 2 years old with offspring (from the CTS).

The average dairy herd size (number of dairy cows per farm) has gradually increased in the past seven years (from Cattle Tracing Scheme data). There has been little change in the total number of dairy cows across all farms in Wales, while there has been a decline in the number of farms which have dairy cows. However, there is wide variation between farms in how their individual dairy herd sizes have changed.

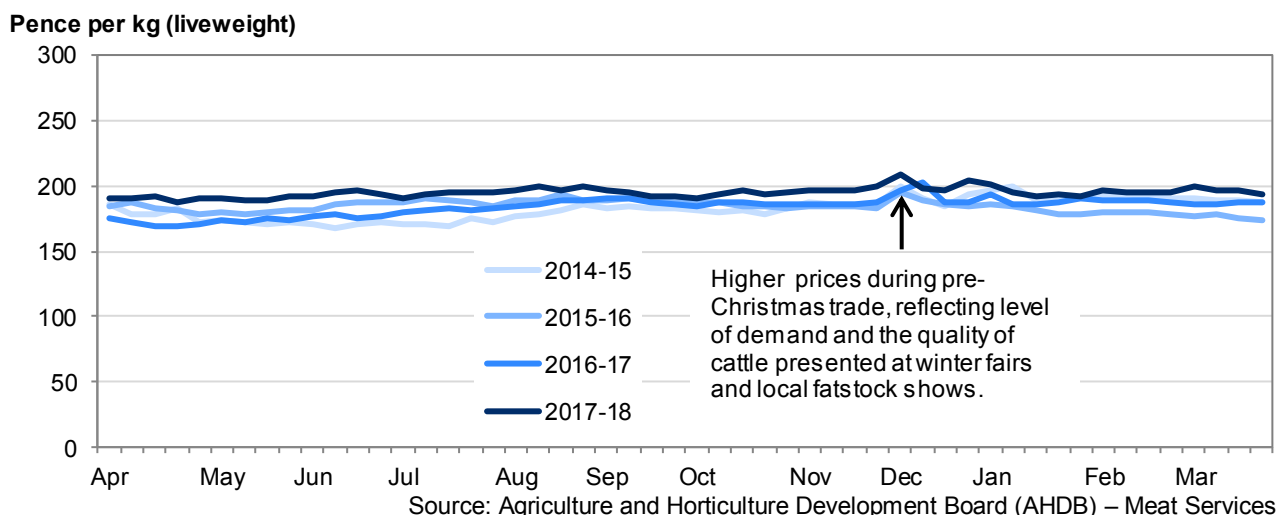
The impact of these Welsh trends is complex; farm gate milk price is influenced by supply and demand factors within the rest of the UK and in world markets.

Finished cattle and lamb prices

Many factors can influence prices for finished cattle and lambs, such as the production system, technical efficiency of the farmer, breed of animal, weather, supply and demand, strength of the pound, and the level of imports and exports.

The following figure D6 shows cattle prices for England and Wales combined, as there are too few finished cattle sales in auction markets in Wales to generate reliable prices data just for Wales.

Figure D6: Weekly prime cattle prices at auction markets in England and Wales, April 2014 to March 2018

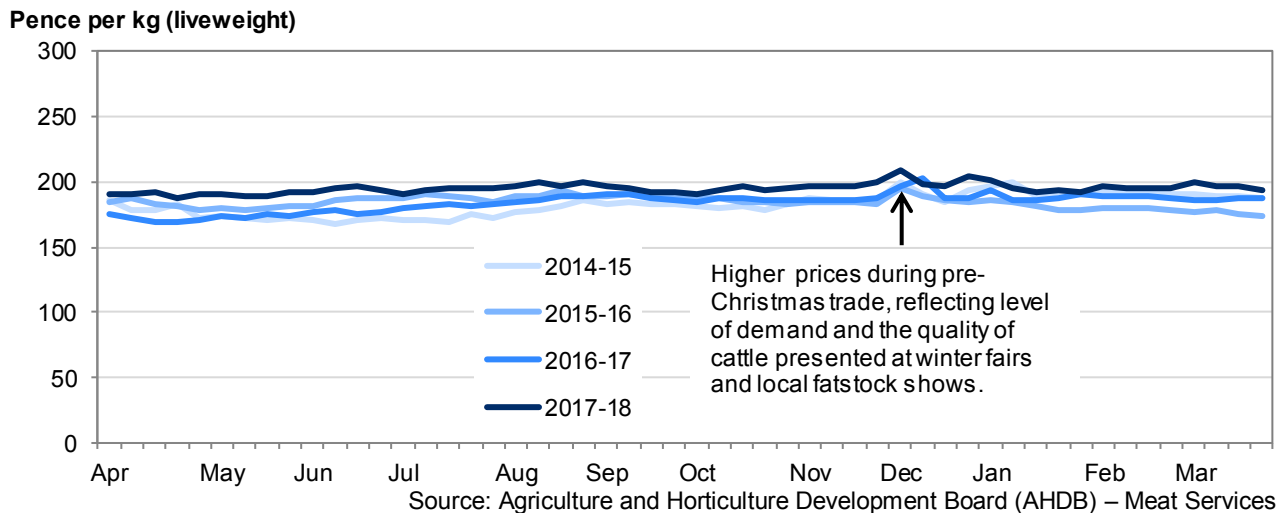


Cattle have a longer production cycle than for lambs, and finished cattle are generally sold at between 12 months and 30 months old. This factor for cattle levels out supply throughout the year, therefore little seasonality can be seen in the prime cattle price.

Month by month the prices for 2017-18 tend to be higher than the previous years.

As there are large enough numbers of finished lamb sales in Wales to generate reliable prices data, average lamb prices at Welsh auction markets are shown in Figure D7 below.

Figure D7: Weekly prime lamb (SQQ) (a) prices at auction markets in Wales, April 2014 to March 2018



(a) The liveweight SQQ (Standard Quality Quotation) is for lamb carcasses falling in the 12-21.5 kg weight bracket.

There is a large amount of seasonality in the finished lamb price. The highest prices are generally seen in late spring, falling prices during summer, with prices beginning to rise again gradually during autumn and continuing into winter. Finished lambs are generally sold at less than one year old and are usually born in late winter and spring, therefore there are supply and demand imbalances at different times of year.

Month by month the prices for 2017-18 tend to be higher than the previous years.

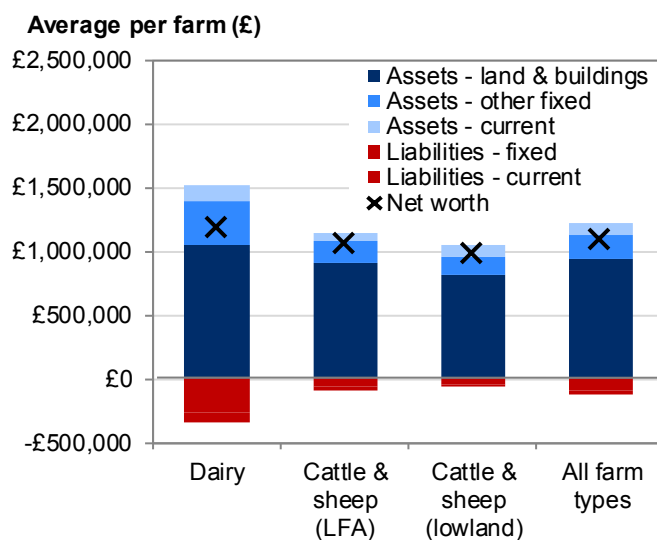
Section E: Assets and liabilities

This section gives an overview of the financial strength of farms in Wales, by considering the assets, liabilities and net worth of these farms.

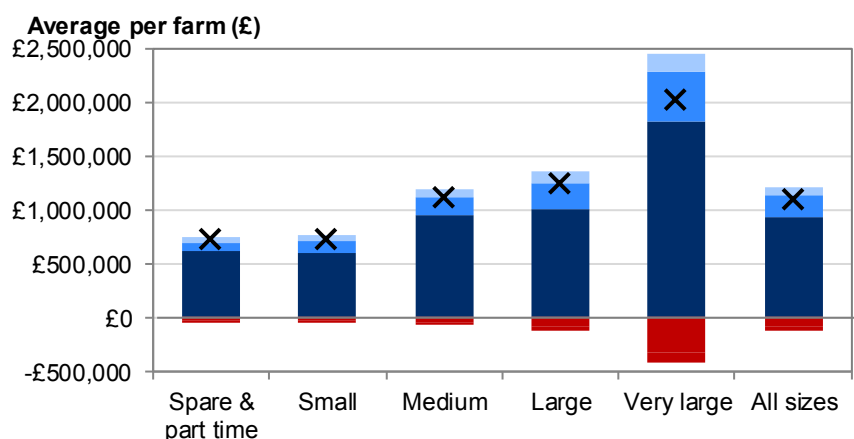
Note that throughout this section, the average (mean) has been taken of the financial position at start and end of year (known as the opening valuation and closing valuation, respectively). This is to smooth out some of the volatility in the financial position of individual farms from year to year.

Figure E1: Average assets, liabilities and net worth for farms in Wales in 2017-18, by farm type, size and tenure

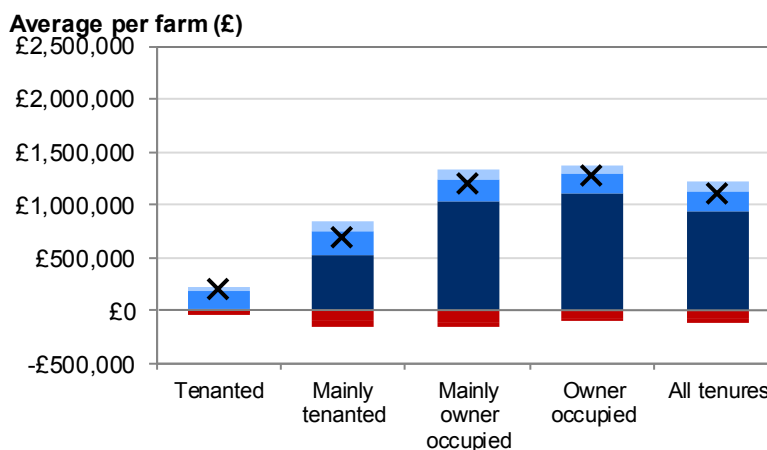
Farm type



Economic size



Tenure



Source: Farm Business Survey

Figure E1 considers average assets, liabilities and net worth for three key variables: farm type, size and tenure. It is not possible (due to low sample size in some categories) to provide analysis of, for instance, asset and liabilities for different sizes of particular types of farm. There is very wide variation around the average values shown in figure E1.

- Land and buildings are generally the largest component of assets. The only exception is, as expected, for fully tenanted farms that have no owned land.
- Liabilities are generally small compared to assets. The level of liabilities tends to be higher for dairy farms and for economically larger farms.
- On average, dairy farms have larger assets (and also liabilities) than cattle & sheep farms (both LFA and lowland).
- Analysing by size, average assets, liabilities and net worth all increase as the size of farm increases.

Terms used in this section

(1) Fixed assets (assets purchased for long-term use and not likely to be converted quickly into cash) are divided here into:

(a) Land and buildings of the farm business.

(b) Other fixed assets include breeding livestock, machinery and basic farm payment scheme entitlements for 2015-16 onwards (single farm payment for 2014-15 and earlier).

(2) Current assets includes trading livestock, cash and other short-term assets.

(3) Fixed liabilities includes mortgages and other secured long-term loans.

(4) Current liabilities includes overdrafts and short-term loans.

Total assets (what the business is worth) = (1) + (2)

Total liabilities (what the business owes) = (3) + (4)

Net worth (the owner's share of the business) = (1) + (2) – (3) – (4)

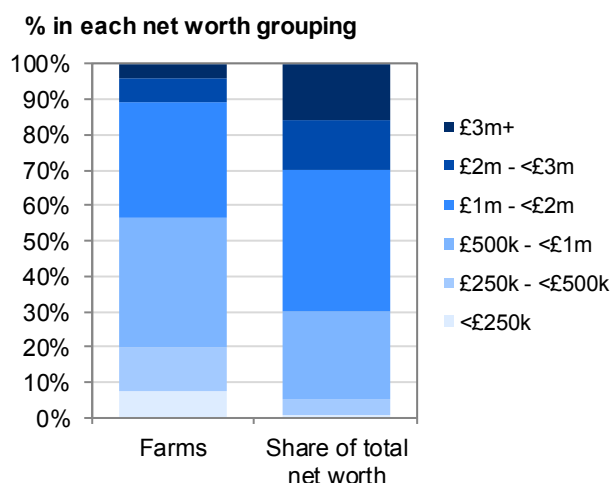
Economic size of farms is measured here in Standard Labour Requirements (SLR) and expressed in terms of full-time equivalents. The size groups used here are:

Spare & part time	less than 1 SLR
Small	greater than or equal to 1 and less than 2 SLRs
Medium	greater than or equal to 2 and less than 3 SLRs
Large	greater than or equal to 3 and less than 5 SLRs
Very large	greater than or equal to 5 SLRs

Tenure indicates the balance between land on the farm that is owned or rented by the farmer. The following categories are used here:

Tenanted	100% rented
Mainly tenanted	Over half of the land on the farm is rented
Mainly owner occupied	Over half of the land on the farm is owner occupied
Owner occupied	100% owner occupied.

Figure E2: Variation in net worth for farms in Wales, 2017-18



Source: Farm Business Survey

Net worth subtracts the value of total liabilities from total assets, and represents the wealth of a farm if all of their liabilities were called in. Businesses with a higher net worth are likely to be more resilient, at least in the short term, to fluctuations in their income. Such farms can draw on these reserves to support the business if the financial position of the farm deteriorates.

Figure E2 shows the share of farms and total net worth by the net worth on a farm. The figure again shows the mismatch between share of farms and share of the value from the farms, as shown previously with share of output (compare to Figure B6), and the extremely wide variation in net worth held by farms in Wales is evident.

- In 2017-18, 20 per cent of farms had a net worth of less than £0.50million, while 11 per cent of farms had a net worth of greater than £2 million.
- Farm businesses with a high net worth account for a large share of total net worth for farms in Wales. The 4 per cent of farms with greater than £3 million net worth account for 16 per cent of total net worth of farms in Wales, which is an increase from 14 per cent in 2016-17.

We now consider the variation in assets and liabilities held by farms in Wales.

Figure E3: Comparison of total assets and liabilities for farms in Wales, 2017-18

Percentage (%) of farms in each grouping for total assets and total liabilities.

Total liabilities	Total assets					Total
	<£200k	£200k - <£500k	£500k - <£1m	£1m - <£2m	£2m+	
£0 - <£10k	3	6	18	13	3	43
£10k - <£50k	2	3	6	7	3	21
£50k - <£200k	*	2	7	8	2	19
£200k - <£500k	*	*	2	5	3	10
£500k+	*	*	*	3	4	7
Total	6	11	34	36	13	100

Source: Farm Business Survey

* Value not shown as it is based on fewer than 5 farms (or no farms) from the sample.

Figure E3 helps when considering the **long term viability** of farm businesses in Wales. As an example to show how to read the table, 4 per cent of farm businesses in Wales had total assets of £2 million or greater and total liabilities of £500k or greater. Total liabilities provide a measure of the indebtedness and reflect the total debt (short and long term) of the farm business. High levels

of liabilities will require consistent income flows (or sale of assets) to ensure that interest on borrowing can be paid. If total liabilities of a farm are too high (in relation to total assets), the farm could have difficulty in meeting its investment needs from earnings. On the other hand, increasing the levels of borrowing in order to invest in the farm can help to improve farm performance.

Figure E3 shows the wide variation in the long term financial position of farms in Wales; there are farms which appear in most areas of the table.

- 43 per cent of farms had total liabilities of zero to £10,000, while 7 per cent of farms had total liabilities of £500,000 or greater. As expected almost all of the farms with the highest level of liabilities also had assets of at least £1,000,000.
- 13 per cent of farms had total assets of at least £2,000,000. These farms with high asset levels are spread all across the range of liability values.
- 6 per cent of farms had total assets of less than £200k.

Figure E4: Comparison of current assets and liabilities for farms in Wales, 2017-18

Percentage (%) of farms in each grouping for current assets and current liabilities

Current liabilities	Current assets					Total
	<£25k	£25k - <£50k	£50k - <£100k	£100k - <£200k	£200k+	
£0 - <£5k	8	11	13	6	3	41
£5k - <£25k	7	7	9	5	2	29
£25k - <£50k	4	2	4	2	2	13
£50k - <£100k	*	2	2	2	*	8
£100k+	*	*	2	4	2	9
Total	20	23	29	19	9	100

Source: Farm Business Survey

* Value not shown as it is based on fewer than 5 farms (or no farms) from the sample.

Figure E4 helps when considering the **short term viability** of farm businesses in Wales. As an example to show how to read the table, 2 per cent of farm businesses in Wales had current assets of at least £200,000 or greater and current liabilities of at least £100,000. A large proportion of the assets on a farm, such as land or machinery, will typically have a monetary value that is difficult or costly to realise in the short term. Figure E4 gives an indication of the ability of farms in Wales to finance their immediate financial demands from their current assets, such as cash, savings or stock. If current liabilities are similar to or greater than current assets, the farm may be experiencing short term financial difficulties.

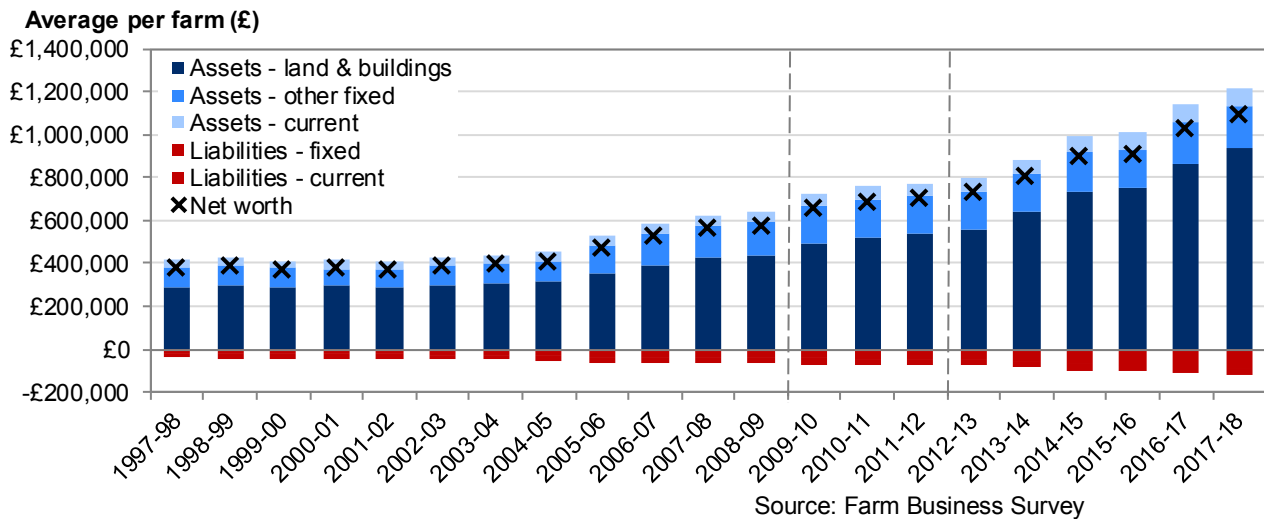
Figure E4 shows the wide variation in the short term financial position of farms in Wales; there are farms which appear in all areas of the table.

- 41 per cent of farms had current liabilities of under £5,000, while 9 per cent of farms had current liabilities of at least £100,000.
- 9 per cent of farms had current assets of at least £200,000, while 20 per cent of farms had current assets of under £25,000.

We now consider the long term year trend in average assets, liabilities and net worth for farms in Wales. The vertical dashed lines indicate changes in methodology over the period (see [Notes](#) for details).

It should be noted that figure E5 below shows assets, liabilities and net worth at current prices, therefore does not account for inflation.

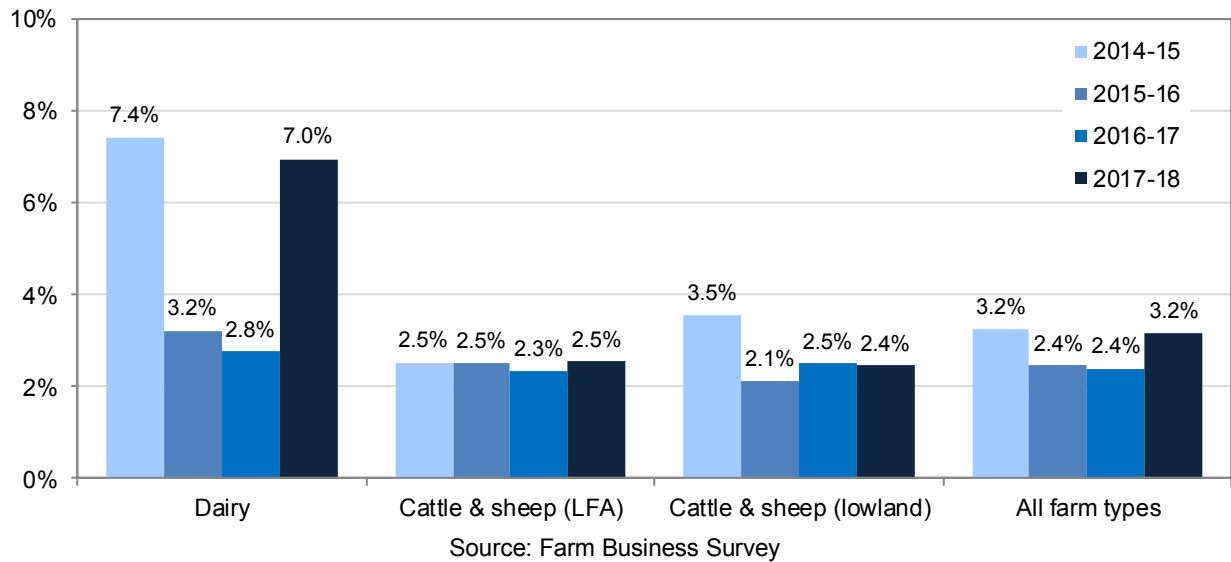
Figure E5: Average assets, liabilities and net worth for farms in Wales – 20 year trend, 1997-98 to 2017-18 (at current prices)



From the mid-1990s to mid-2000s, there was little change seen in average assets, liabilities and net worth for farms in Wales (at current prices not adjusted for inflation). From the mid-2000s, there were annual increases in the average value of assets and net worth, largely driven by increases in the asset value of land and buildings. There were also annual increases in average liabilities since the mid-2000s. There could be many reasons for these trends since the mid-2000s; one possible factor could be the capitalisation of single payment entitlements into land values from 2005 onwards.

Finally in this section, we consider the rate of return on capital employed in farms, by calculating average farm business income as a percentage of average net worth. This expression represents the annual return that all unpaid workers (farmer, spouses and others with an entrepreneurial interest in the farm business) obtain for their manual and managerial labour, and all of their investment into the farm business. This represents the return to the whole business and does not take into account how many business partners there are. This is just one way that rate of return on capital could be calculated; there are other ways also.

Figure E6: Average farm business income as a percentage of average net worth for farms in Wales, 2014-15 to 2017-18 (at current prices)



- Figure E6 shows that average farm business income is a relatively small percentage of net worth, although the rate of returns in farming could be considered to be favourable (when compared with other investment opportunities).
- The impact of the fall in average farm business income on dairy farms after 2014 can be seen but with a return in 2017-18 to similar levels to 2014-15.
- In contrast, cattle & sheep farms have remained stable over the same period.

Glossary & Notes

Costs are divided into two types: variable costs and fixed costs:

- **Variable costs** are costs that are readily allocated to an enterprise and which will vary in approximately direct proportion to the scale of the enterprise. Examples of variable costs are fertilisers, pesticides, seed, concentrate feeding stuffs (purchased or home-grown), and purchased fodder.
- **Fixed costs** are those costs which either cannot readily be allocated to a specific enterprise or do not vary with small changes in the scale of the individual enterprise. Examples of fixed costs are labour (including payments in kind), machinery repairs and depreciation, rent and rates, general expenses, and interest payments.

Enterprise: an identifiable sector of the farm business, such as a dairy enterprise.

Farm gate price: the price received by producers (farms) for their agricultural products. Once these agricultural products leave the farm, they may go for secondary processing. For instance, after milk leaves the farm, it will go for processing before being sold to retailers.

Less Favoured Area (LFA): This classification was established¹ in 1975 as a means to provide support to mountainous and hill farming areas. Within the LFA are the Severely Disadvantaged Areas (SDA) and the Disadvantaged Areas (DA). The SDA are more environmentally challenging areas and largely upland in character. The map below shows the LFA, SDA and DA in the United Kingdom then figure F1 shows values and percentages for these areas by UK country.

Dairy: Farms on which dairy cows account for more than two-thirds of the total SO.

Cattle and sheep: Farms which do not qualify as dairy farms but have more than two-thirds of their total SO from grazing livestock (cattle and sheep). They are divided into the following:

- **Cattle and sheep (LFA):** More than 50% of the land farmed is in the LFA.
- **Cattle and sheep (lowland):** Less than 50% of the land farmed is in the LFA.

Farm Business Income: See detailed explanation in Section A

Farm Business Output and components of: See detailed explanation in Section B

Diversification: See detailed explanation in Section B

Assets, liabilities & net worth: See detailed explanation in Section E

Accounting years: The figures for 2017-18 presented in this release cover the accounting years ending between 31st December 2017 and 31st March 2018 and as such reflect farming conditions between January 2017 and March 2018.

Average farm incomes: When the term 'average' is used to describe farm income (and other) measures in this release, this means that the mean (not median or mode) has been taken of the weighted farm data.

¹ Council Directive 75/268/EEC

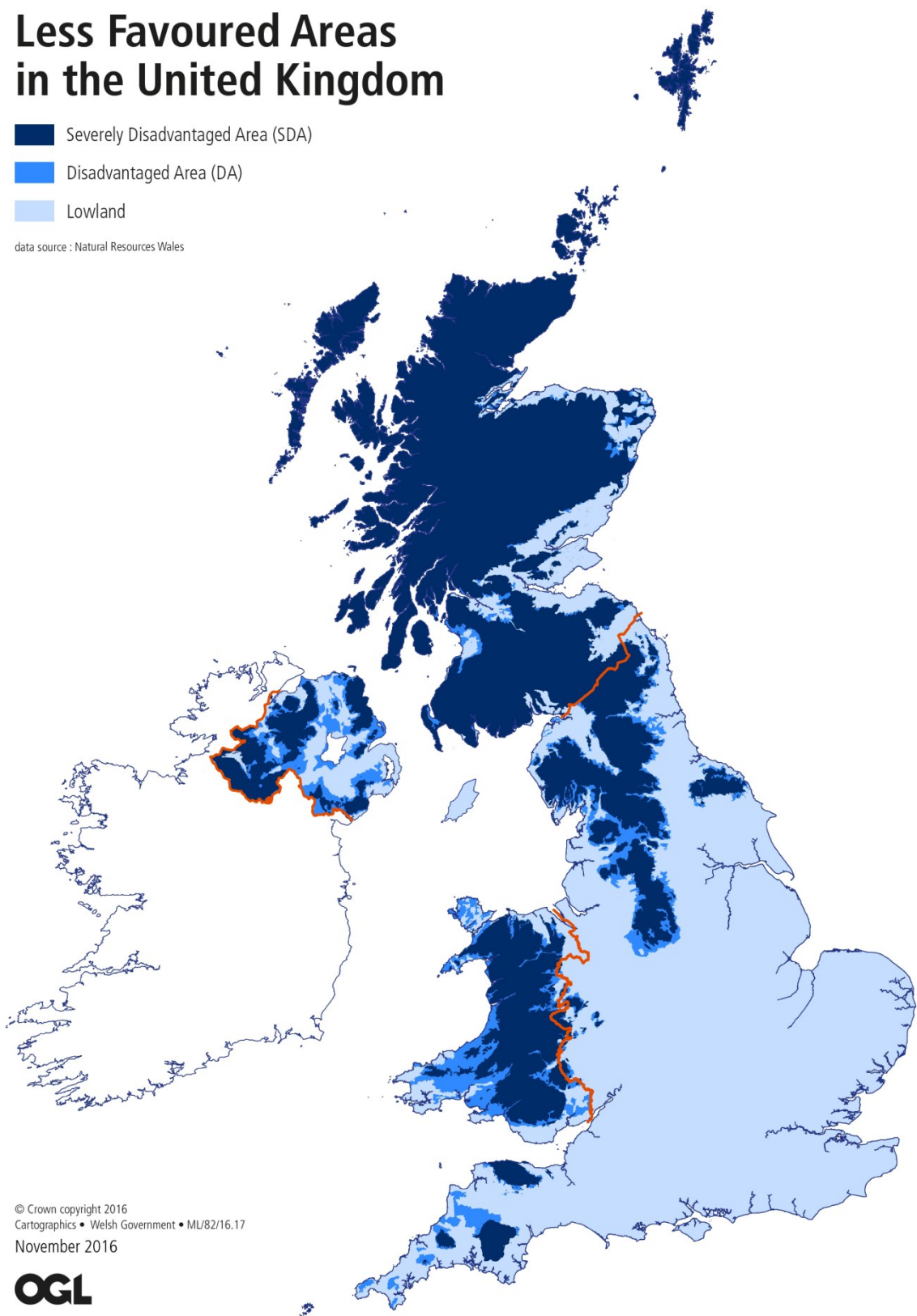
Less Favoured Areas in the United Kingdom

Severely Disadvantaged Area (SDA)

Disadvantaged Area (DA)

Lowland

data source : Natural Resources Wales



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November 2016

OGL

Figure F1: Less Favoured Areas in the United Kingdom

Farm type	Wales	England	Scotland	Northern Ireland	UK
Area (million hectares)					
Severely Disadvantaged Area (SDA)	1.2	1.6	6.8	0.6	10.1
Disadvantaged Area (DA)	0.5	0.6	0.1	0.4	1.6
Less Favoured Area (LFA) = SDA + DA	1.6	2.2	6.9	0.9	11.7
Lowland	0.4	10.8	1.0	0.5	12.7
All land	2.1	13.0	7.9	1.4	24.4
% of all land					
Severely Disadvantaged Area (SDA)	56%	12%	86%	41%	42%
Disadvantaged Area (DA)	23%	5%	2%	26%	6%
Less Favoured Area (LFA) = SDA + DA	79%	17%	88%	67%	48%
Lowland	21%	83%	12%	33%	52%
All land	100%	100%	100%	100%	100%

Source: Land, Nature and Forestry Division, Welsh Government

Current prices and in real terms (2017-18 prices)

To show the effect of inflation, some results in this release at current prices (such as averages for farm business income, in Figure A3) have been uprated using GDP deflators to also show prices in real terms (at 2017-18 prices). The GDP deflator data used here is available from the [Office for National Statistics website](#).

Disclosure control

To protect the confidentiality of farms who take part in the Farm Business Survey, results for a category are not shown if they rely on data for fewer than 5 farms (or no farms) from the sample.

Rounding

Farm income values shown in this release have been rounded to the nearest hundred pounds, therefore rounded values may not add up to totals. Calculations (such as percentage or actual change) have been made on unrounded values.

Methodology for apportioning components of income and output

There are four components of farming businesses which are of particular interest (also known as 'cost centres'): agriculture, basic / single farm payment, agri-environment payments and diversification. In practice, it is difficult to separate out costs (and therefore identify income, or profit) for these components. Therefore a methodology was developed to allocate variable and fixed costs to these four components of the business (details available on [gov.uk](#)). The methodology to allocate costs involves a degree of **estimation** so results should be **interpreted with caution**.

Farm type classification and Standard Outputs (SO)

The Standard Output (SO) is a financial measure used to classify farm type. Standard outputs measure the total value of output of any one enterprise - per head for livestock and per hectare for crops. For livestock it is the value of the main product (milk, eggs, lamb, pork) plus the value of any secondary product (calf, wool) minus the cost of replacement. For crops, this is the main product

(e.g. wheat, barley, peas) plus any by-product that is sold, for example straw. In other words, the SO of an agricultural product is the average monetary value of the agricultural output per unit at farm gate prices.

The classification of farm 'types' within the UK and EU is based on the calculation and use of SO coefficients for individual farm enterprises. The characteristics of farm types included in this release can be summarised as follows:

Dairy: Farms on which dairy cows account for more than two-thirds of the total SO.

Cattle and sheep: Farms which do not qualify as dairy farms but have more than two-thirds of their total SO from grazing livestock (cattle and sheep). They are divided into the following:

- **Cattle and sheep (LFA):** More than 50% of the land farmed is in the LFA.
- **Cattle and sheep (lowland):** Less than 50% of the land farmed is in the LFA.

[Further details on the classification of farm types are available on gov.uk](http://gov.uk)

SO coefficients have been updated within all Member States and are used to classify farms from 2013 onwards. As the threshold for inclusion within the Farm Business Survey in Wales is a minimum €25,000 of standard output, changes to standard output coefficients will have an effect on both the survey population as well as the classification of farms.

Within EU member states, SO coefficients are updated periodically. In the UK these are calculated for each NUTS1 region so Wales is calculated as one region. Averages are taken over a period of a number of years to reduce the impact of annual price fluctuations; those previously in use are averaged over the period 2005-2009 (referred to as 2007 SOs). Standard Outputs have now been recalculated for the period 2008-2012 (referred to as 2010 SOs).

In Figure A2 (on page 3 of this release), data for 2012-13 onwards is based on 2010 SOs, while data for 2011-12 and earlier is based on 2007 SOs. Due to this change in methodology, some caution should be exercised when making any comparisons of 2012-13 data onwards with earlier data.

Figure F2 below shows results for 2012-13 produced on the basis of both the 2007 SOs and 2010 SOs, showing the impact of the change in SOs.

Figure F2: Average farm business income in Wales in 2012-13 (on 2007 SO and 2010 SO basis)

Average farm business income per farm			£ per farm
Farm type	2012-13 (2007 SO)	2012-13 (2010 SO)	Difference
At current prices			
Dairy	45,100	45,100	0
Cattle & sheep (LFA)	22,700	21,600	-1,100
Cattle & sheep (lowland)	30,200	27,200	-3,000
All farm types	28,200	26,600	-1,600

Source: Farm Business Survey

Figure E5 (on page 25 of this release) shows estimates from the Farm Business Survey prior to 2009-10. Until 2010, standard gross margins (SGMs) were used for the classification of farms, and farms with a standard labour requirement (SLR) of less than 0.5 were excluded from the survey. From 2010 onwards, instead standard outputs were used to classify farm type and farms with a standard output of less than €25,000 were excluded from the survey. The difference between standard outputs and standard gross margins is that variable costs are not deducted in the derivation of standard outputs. [A note describing the impact on the population by farm type as a result of the change from SGMs to SOs](#) is available on gov.uk. These changes to methodology in 2010 will have an effect on both the survey population as well as the classification of farms, therefore some caution should be exercised when making any comparisons of 2009-10 data (onwards) with earlier years.

Users and uses of data on farm incomes

Data on farm incomes are used to monitor and evaluate government and EU policies and to inform wider research into the economic performance, productivity and competitiveness of the agricultural industry. The data are provided to the EU as part of the Farm Accountancy Data Network (FADN) and are widely used by the agriculture industry for benchmarking (comparing the performance of similar types of farms).

If the above paragraph does not accurately describe how you use the data, please contact us at stats.agric@gov.wales.

Key quality information

The farm incomes data used in this statistical release are derived from the annual Farm Business Survey (FBS). The survey is conducted on behalf of the Welsh Government by the Institute of Biological, Environmental and Rural Sciences (IBERS) at Aberystwyth University. The FBS collects detailed physical and financial information from approximately 550 farm businesses across Wales and covers all types of Welsh livestock farm. Highly trained researchers collect the data by visiting farms and requesting information from farmers. Only those farm types where there are more than 20 representative holdings in the survey sample are reported in this statistical release.

Statistics produced from the same data by IBERS may differ in some respects from those in this statistical release. The differences arise largely from:

- **Weighting:** the statistics in this release are weighted to be representative of the population (farm businesses with a Standard Output of at least €25,000). However, the statistics produced by IBERS are unweighted so are only representative of the farms included in the sample.
- **Inter-year identical sample:** Some of the statistics published by IBERS are for an inter-year identical sample (farms included in the sample for two years in a row). Not every farm is included in the sample for two years in a row. Therefore the inter-year identical sample includes a smaller number of farms for each year, so the results for this group of farms may differ.

The sample for the Farm Business Survey is predominantly drawn from those farm businesses in Wales with a Standard Output (SO) of at least €25,000, based on activity recorded in the previous June Survey of Agriculture and Horticulture. The results reported here will not therefore be representative of very small and part-time holdings. Information on the survey sample, the survey population and % of the survey population sampled (by farm type and size) is shown in Figure F3.

Figure F3: Survey sample, survey population and % of survey population sampled, by farm type and size (a) (b) (c)

Farm type	Spare time / part time	Small	Medium	Large	Very large	All farm sizes
Survey sample (a) (b)						
Dairy	1	7	23	32	43	106
Cattle & sheep (LFA)	29	91	84	88	48	340
Cattle & sheep (lowland)	16	20	16	13	5	70
Other farm types (d)	10	13	5	8	4	40
All farm types	56	131	128	141	100	556
Survey population (farms with > €25,000 Standard Output) (a) (c)						
Dairy	43	201	299	394	441	1,378
Cattle & sheep (LFA)	1,201	1,931	1,171	1,249	1,033	6,585
Cattle & sheep (lowland)	392	379	188	139	110	1,208
Other farm types (d)	209	106	78	61	43	497
All farm types	1,845	2,617	1,736	1,843	1,627	9,668
% of survey population sampled						
Dairy	2.3	3.5	7.7	8.1	9.8	7.7
Cattle & sheep (LFA)	2.4	4.7	7.2	7.0	4.6	5.2
Cattle & sheep (lowland)	4.1	5.3	8.5	9.4	4.5	5.8
Other farm types (d)	4.8	12.3	6.4	13.1	9.3	8.0
All farm types	3.0	5.0	7.4	7.7	6.1	5.8

Sources: Farm Business Survey, June Survey of Agriculture and Horticulture

- (a) The survey sample and survey population both exclude a small number of farms which have a standard output of at least €25,000 but no agricultural activity. This small number of farms would have been categorised under the general cropping farm type.
- (b) The survey sample shown is for the 2017-18 Farm Business Survey.
- (c) The survey population (for 2017-18 Farm Business Survey) was from the 2017 June Survey of Agriculture and Horticulture.
- (d) Other farm types includes cereals, general cropping, and mixed farms.

Each farm in the survey is given a weight to make the sample representative of the population. The weights are calculated using the 'inverse sampling fraction' method and use data on the number of farms by type and size from the previous June Survey of Agriculture and Horticulture.

Farm income measures exhibit some degree of volatility across years, influenced by prevailing market conditions. As all the measures of farm income include an element relating to profits, these measures in the agricultural sector are therefore more volatile than measures in other sectors (which are defined purely in terms of income from wages).

Comparison of final results for 2017-18 with previous forecasts

Forecast estimates for 2017-18 were previously published on 22 March 2017. It is useful to compare the final results for 2017-18 with the previous forecasts, and this comparison is made in Figure F4.

Figure F4: Comparison of final 2017-18 results for farm business income with previous forecasts

Average farm business income per farm

£ per farm

Farm type	forecast (a)	final (b)	Difference
At current prices			
Dairy	65,000	82,400	17,100
Cattle & sheep (LFA)	25,500	26,900	1,300
Cattle & sheep (lowland)	24,500	24,000	-700
All farm types	31,000	34,600	3,400

Source: Farm Business Survey

(a) Forecast figures published on 22 March 2018 in SDR 22/2018 (Forecasts of Farm Incomes in Wales, 2017-18)

(b) Final figures published on 20 December 2018 in SDR 121/2018 (Farm incomes in Wales, 2017-18).

Strengths and limitations of the Farm Business Survey

We strongly recommend that users of these statistics understand these strengths and limitations of the Farm Business Survey, in order to make appropriate use of any results from the survey.

Strengths

- The Farm Business Survey collects a broad range of detailed physical and financial information about farms in Wales. This allows a wide range of analyses to be conducted.
- The survey is representative of the main types of livestock farm seen in Wales (dairy, cattle and sheep).
- The Farm Business Survey has been carried out in Wales for many years. Therefore there are many years of data in which to monitor any structural changes in the farming industry, and fluctuations in farm incomes between years.
- Usually, between 90 and 95 per cent of farms remain in the survey sample from one year to the next. This allows analysis across years of the survey for identical samples.

Limitations

- Given the need to control costs of the survey and the difficulty of recruiting farms, the sample for the Farm Business Survey is limited to 550 farms per year in Wales. This represents around 5 to 6 per cent of the survey population each year. This is a relatively small sample for the purposes of analysis. Average results per farm can be produced, but for any analysis produced there are always wide variations around average, which raises a number of issues:
 - With the wide variation in size of farms, on some occasions, considering the share of farms may not be the best approach. In general, a relatively small number of large farms contribute most of the agricultural production in Wales. It can often make sense to look at share of production or output, rather than share of farms, which can provide an extra complication when analysing results.
 - There is often more than one factor which can explain the variation between farms, and this usually includes farm size. It is often not possible (due to low sample size in some

categories) to analyse data for more than one variable at a time, which can limit the usefulness of any analysis.

- With the wide variation in size of farms, very large farms in the sample can have a large effect on averages; particularly when estimates for a category are based on a small number of responses.
- Farm business income considers the farm as a 'business unit'. Farm business income does not include **other sources of household income** from outside the farm business (such as other employment of the farmer or spouse outside of the farm). Therefore a wider range of data would need to be considered in order to take a view on the economic welfare of farm households. The last detailed study to be carried out in Wales on farm household incomes was the 2010 survey of farming households in Wales by the Wales Rural Observatory (the report is available [here](#)).
- There are a number of important aspects of farm businesses that the Farm Business Survey cannot inform on. These aspects will mainly be the quality of land on the farm, the farmer's aims and objectives for the farm business, and the skill of the farmer.
- The Farm Business Survey predominantly includes farms with at least €25,000 standard output, and is not intended to be representative of **small, part time and spare time** farms (below this standard output threshold). Any users who are interested in data for small, part time and spare time farms should be aware of this point. It is worth noting that when considering the farm types included in the Farm Business Survey, the survey population (around 10,000 farms each year) represents 93 per cent of total standard output. Meanwhile, around 13,000 farms each year in these farm types but with less than €25,000 standard output (which are not surveyed) account for the other 7 per cent of standard output.
- Although the Farm Business Survey is representative of main livestock farm types in Wales, it is not as representative of some of the smaller agricultural sectors in Wales. The survey includes small numbers of **cereal** and **general cropping** farms, but not enough to be able to publish results for this particular farm type. **Specialist poultry** and **specialist pig** farms are not surveyed, as there are very few farms from which to survey and obtain reliable results. Although cereal, general cropping, poultry and pig farms are relatively small sectors individually, when grouped together these farm types make up 18 per cent of total standard output for farms in Wales (when considering farms with a standard output of at least €25,000). This is a notable portion of the population which is not very well (or not) represented in the Farm Business Survey.
- As with any sample survey, results from Farm Business Survey will have a degree of **sampling error** because only part of the population is being used to estimate the value of a variable. The sampling error is the difference between the estimate derived from a sample survey and the 'true' value that would result if a census of the whole population were taken under the same conditions. Different samples will yield differing estimates for the same observation variable.

- **Non-sampling error** includes coverage error, non-response error, response error, processing error, estimation error and analysis error.
 - Any coverage errors in the Farm Business Survey will mainly be due to imperfections in the sampling frame – the June Survey of agriculture and horticulture. The June survey is used for sampling in the Farm Business Survey and also weighting of survey responses up to the survey population. The main limitations of the June agricultural survey can be read on the Welsh Government [June agricultural survey page](#). In summary, maintaining an up to date register of farms is an issue, as are falling response rates (to government surveys in general). Dairy and beef cattle data is derived from the Cattle Tracing System (an administrative source) which is generally of good quality for the information that it holds, although it does not hold complete information on intended purposes for particular animals.
 - Coverage of particular sectors in the sampling frame can be difficult. For example there are currently difficulties recruiting small dairy farms, in light of the current market conditions in the dairy sector.
 - Minimising response (measurement) errors is the strongest area of quality management for the Farm Business Survey. Processing errors are regarded as low-risk because of the self-checking nature of much of the farm management account and the high proportion of farms for which between-year checks can be applied.
 - Although the Farm Business Survey is designed to impose as little burden as possible on participating farmers, it is seeking commercial and sensitive data which some farmers might find intrusive. In order to persuade farmers to take part, participating farmers receive a set of accounts for their farm and benchmarking results against other farms (where possible). However, the refusal rate is relatively high; of those farmers who are in scope, around 80% to 85% of those approached choose not to take part in the survey.
- The potential population of non-respondents may have quite different characteristics from the potential population of respondents. This could lead to bias in the estimates of the full population. Attempts are made to deal with this by recruiting new farms from a randomised list of farms of different types.

Well-being of Future Generations Act (WFG)

The Well-being of Future Generations Act 2015 is about improving the social, economic, environmental and cultural well-being of Wales. The Act puts in place seven well-being goals for Wales. These are for a more equal, prosperous, resilient, healthier and globally responsible Wales, with cohesive communities and a vibrant culture and thriving Welsh language. Under section (10)(1) of the Act, the Welsh Ministers must (a) publish indicators (“national indicators”) that must be applied for the purpose of measuring progress towards the achievement of the Well-being goals, and (b) lay a copy of the national indicators before the National Assembly. The 46 national indicators were laid in March 2016.

Information on the indicators, along with narratives for each of the well-being goals and associated technical information is available in the [Well-being of Wales report](#).

Further information on the [Well-being of Future Generations \(Wales\) Act 2015](#).

The statistics included in this release could also provide supporting narrative to the national indicators and be used by public services boards in relation to their local well-being assessments and local well-being plans.

Useful links

Unweighted results for Wales: Annual statistical results and the annual farm incomes booklet are published by [Aberystwyth University on their website](#) for many years. It should be noted that these results are based on unweighted data, so they only represent the sample, and not the whole population of farms. In particular, the farm incomes booklet includes:

- The profit and loss account, and a summarised balance sheet for a variety of farm types.
- Gross margin data for eight different types of farm enterprise.
- Production costs for four different types of farm output.

Welsh agriculture: More detailed statistics or other statistics about agriculture in Wales can be found below on the Welsh Government [farming statistics pages](#).

England: The Department for Environment, Food and Rural Affairs (DEFRA) publish a variety of analysis from the [Farm Business Survey for England on gov.uk](#). DEFRA published comparable results on farm business income by type of farm in England for 2016-17, on 26 October 2017, and are due to publish (the more detailed) farm account statistics for England in 2016-17 on 14 December 2017.

Technical notes: DEFRA publish [technical information, notes and guidance for the Farm Business Survey for both England and Wales](#) on gov.uk.

FarmBusinessSurvey.co.uk: Rural Business Research (RBR) - a consortium of six University Research Centres - carries out the [Farm Business Survey](#) in England on behalf of DEFRA. RBR publish a variety of data from the Farm Business Survey (for England and Wales).

Scotland: The [Scottish Government](#) publish annual estimates of Farm Business Income on their website.

Northern Ireland: [The Department of Agriculture, Environment and Rural Affairs](#) (DAERA) in Northern Ireland publish annual estimates of Farm Business Income on their website.

UK: DEFRA publish farm income statistics for the UK and countries of the UK in the "[Agriculture in the UK](#)" publication (Chapter 3).

EU: Farm incomes data from UK countries are provided to the EU as part of the Farm Accountancy Data Network (FADN). Farm income statistics for EU member states is available from the [FADN website](#).

Further details

The document is available at:

<http://gov.wales/statistics-and-research/farm-incomes/?lang=en>

Next update

The provisional publication date for the statistical release 'Farm income forecasts in Wales, 2018-19' is March 2019.

We want your feedback

We welcome any feedback on any aspect of these statistics, which can be provided by email to stats.agric@gov.wales.

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