

8 December 2016  
SFR 160/2016

## Farm incomes in Wales, 2015-16

### Average farm business income in Wales in 2015-16, and change since 2014-15 (a)



**Dairy farms:** lower output driven by a fall in milk prices was partially offset by higher volumes of milk produced. Variable and fixed costs were lower, particularly purchased feed and fodder.



**Cattle and sheep (LFA) farms:** lower output was almost entirely offset by lower variable and fixed costs.



**Cattle and sheep (lowland) farms:** output fell by more and input costs fell by less than on cattle & sheep (LFA) farms.

(a) At current prices.

This edition of the statistical release includes new analyses aimed at improving understanding of factors that can affect farm incomes, including:

**Long term context:** It is important to see farm income figures 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, therefore are volatile across years. Small changes in output or input (such as movements in input costs) can result in large percentage changes in farm income.

**Variation around the average:** Whilst farm incomes and other measures are shown as averages, such average values mask the considerable variability in incomes at the farm level. This variation exists both between and within farm types, with farm-level factors influencing variations in production and costs. Some analysis of this variation is presented.

**New analysis** of components of income and output, including subsidy ([section B](#)), and assets, liabilities and net worth of farms in Wales ([section E](#)).

**Contextual information:** Data on commodity prices and weather patterns.

### About this release

Figures are presented on farm incomes in Wales for 2015-16 (up to March 2016).

These figures replace forecast estimates for 2015-16 published on 25 February 2016 and represent the results of the Wales Farm Business Survey for 2015-16.

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

### New analysis

This release includes new analysis not published here before (marked \* below).

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## Importance of measuring farm incomes

Although agriculture makes a relatively small contribution to GDP (\*), most of the food consumed in the UK is sourced from UK agriculture (with the rest imported into the UK from abroad). Agriculture also has important impacts on the natural environment, with over 80 per cent of land in Wales used for agricultural purposes. 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 between (and within) farm types. 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.

\* Agriculture, forestry and fishing together account for around 0.7% of UK GDP.

## Changes made to this edition of the release

To improve understanding of the factors that can affect farm incomes in Wales, we have made a number of changes to the content and format of this release. Some of the main changes made are:

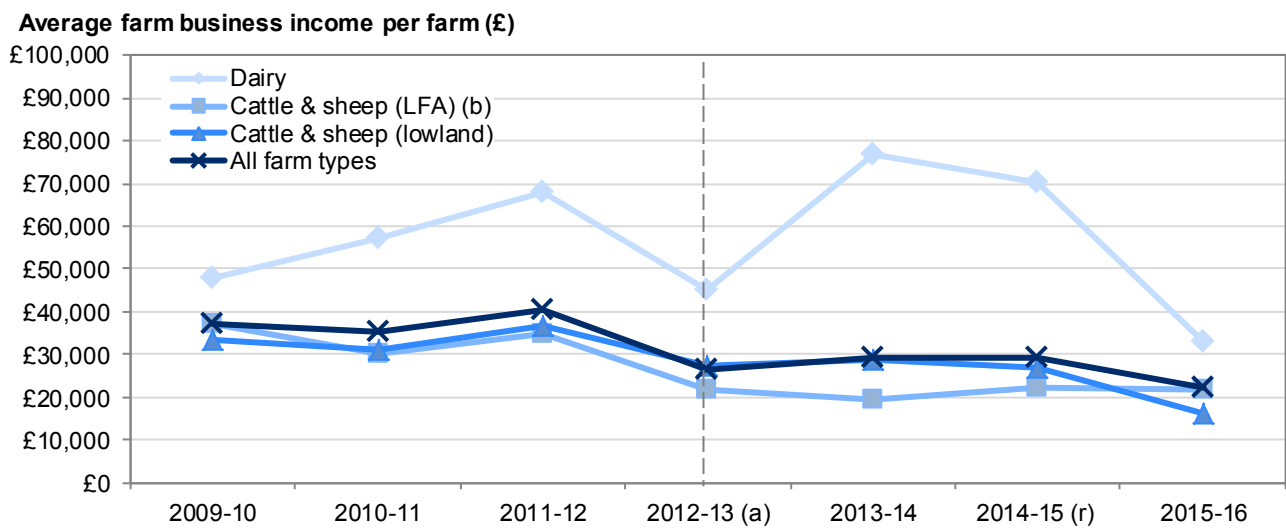
- Improved key quality information, including a new summary of [strengths and limitations](#) of estimates from the Farm Business Survey. We **strongly recommend** that users understand these strengths and limitations in order to make appropriate use of estimates from the survey.
- **Farm business income** is now the only measure of income analysed in this statistical release. Other measures of farm income (net farm income and cash income) are now included in a spreadsheet published alongside this release on the [Welsh Government farm income statistics page](#). Also included in this spreadsheet (for the first time) are detailed tables on outputs and costs by farm type. These tables have been used to inform commentary on farm incomes in [section A](#) of this release.
- New analysis of the **components of income and output** ([section B](#)), including how the contribution of subsidies towards income and output varies by farm type. Previously, some analysis of the components of income and output was included in the ad-hoc Welsh Government statistical bulletin on [farm diversification](#).
- Analysis of factors that can affect farm incomes, such as **weather** and **commodity prices** ([section C](#) and [section D](#) respectively). Particular attention has been paid to analysing milk prices paid to farmers, given the current market conditions for milk and milk products.
- An overview of **assets, liabilities and net worth** of farms in Wales ([section E](#)). This is intended as a starting point to seek feedback from users and from which to base further analysis. This is the first time that the Welsh Government has published analysis of these 'balance sheet' measures. Analysis of this data for Wales (on an unweighted basis) has been previously published in the [Aberystwyth University farm incomes booklet](#) for many years.
- Terms are defined in the release as they are used, and there is a new [glossary section](#).
- New front page design for the statistical release, including new graphics for farm types.

We would be grateful for feedback from users of these statistics on any of the changes made, and any other aspect of these statistics (please use contact details on the front page of the release).

## Section A: Farm business income

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

**Chart 1: Average farm business income in Wales, 2009-10 to 2015-16 (at current prices)**



Source: Farm Business Survey

(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).

(r) Revised.

**Table 1: Average farm business income by type of farm in Wales, 2012-13 to 2015-16**

Average farm business income per farm					£ per farm
Farm type	2012-13	2013-14	2014-15 (r)	2015-16	% change (2014-15 to 2015-16)
<b>At current prices</b>					
Dairy	45,100	77,000	70,200	32,800	-53%
Cattle & sheep (LFA)	21,600	19,200	22,100	21,900	-1%
Cattle & sheep (lowland)	27,200	28,600	27,000	16,300	-40%
All farm types	26,600	29,300	29,000	22,200	-23%
<b>In real terms at 2015-16 prices (a)</b>					
Dairy	46,900	78,600	70,500	32,800	-53%
Cattle & sheep (LFA)	22,400	19,600	22,200	21,900	-2%
Cattle & sheep (lowland)	28,300	29,200	27,100	16,300	-40%
All farm types	27,700	30,000	29,100	22,200	-24%

Source: Farm Business Survey

(a) GDP deflators are used here to uprate figures for 2015-16 (and earlier) to 2015-16 prices.

(r) Revised.

### Average farm business income in 2015-16, by farm type

Average farm business income on **dairy farms** fell by over half to £32,800 per farm from the previous year. This was almost entirely due to a reduced value for milk output, driven by a 25 per cent fall in the price in Wales, but partially offset by a higher volume of milk. This is a greater price fall than the 21 per cent fall seen across the UK for the same period (based on national milk price statistics). In the last five years, the average milk price paid to farmers in Wales was generally 1 to 2 pence per litre lower than for the UK as a whole. Over the past 20 years, the highest milk prices

were in 2013-14. The milk price has fallen since and in 2015-16 was at similar levels to prices seen in the early to mid 2000s (particularly when prices are considered in real terms). Around the Wales average, there has been a wide variation in milk price paid to farmers in Wales (see [section D](#) for further milk price analysis). Agricultural costs (both variable and fixed) were lower for dairy farms. The largest component of this fall was a 17 per cent fall in purchased feed and fodder costs, and these costs generally account for around half of variable costs on dairy farms. The average basic payment\* was also 18 per cent lower than the single payment of the previous year.

\* Basic payment and single payment are defined in [section B](#) of this release.

Average farm business income on **cattle & sheep (LFA) farms** fell slightly by 1 per cent at current prices (or 2 per cent in real terms) to £21,900 per farm. A lower farm business output was almost entirely offset by lower variable and fixed costs. Around half of the fall in farm business output was due to lower output from the sheep and wool enterprise. This was driven by lower fat lamb, store and ewe prices in 2015-16, due to plentiful domestic supplies of sheep meat whilst demand remained relatively stable. The average basic payment was 12 per cent lower than the single payment of the previous year.

Average farm business income on **cattle & sheep (lowland) farms** fell by 40 per cent to £16,300 per farm from the previous year; the lowest figure for this farm type since 2005-06. Comparing with cattle & sheep (LFA) farms, there was a larger fall in farm business output on cattle & sheep (lowland) farms and input costs fell by less. Therefore the fall in farm business income was much greater on cattle & sheep (lowland) farms than on cattle & sheep (LFA) farms. The average basic payment was 17 per cent lower than the single payment of the previous year.

Average farm business income for '**all farm types**' fell by 23 per cent at current prices (or 24 per cent in real terms) to £22,200 per farm from the previous year. Lower output was offset to some extent by a fall in variable and fixed costs. Compared with the 2014-15 single payment, the basic payment fell by 13 per cent for 'all farm types'. This was partly driven by a fall in the amount of money available for direct payments, and also some movement in Common Agricultural Policy (CAP) spending in Wales from direct payments to the Rural Development Programme.

## Farm income measures

For non-corporate businesses, **farm business income** represents the financial return to all unpaid labour (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.

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. 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, accurately describes its composition and is intuitively recognisable to users as a measure of farm income.

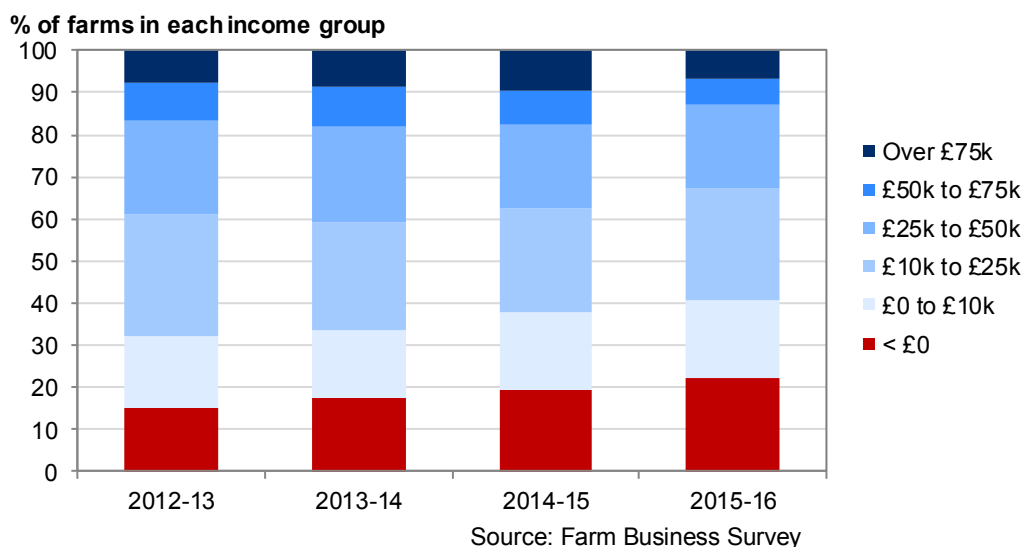
Farm business income is regarded as the headline measure of farm incomes in Wales. There are other measures of income (such as **net farm income** and **cash income**) which can be used for other purposes, and data for these measures are included in a spreadsheet published alongside this release on the [Welsh Government farm income statistics page](#).

## Variation in farm business income

The average values shown in table 1 and chart 1 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. Chart 2 below shows farms grouped by the level of their farm business income in the past four years. This data has also been analysed by farm type. It is not possible to show data by farm type in chart 2 due to small numbers of farms in some categories, although important results by farm type are described in the text.

The level of income on a farm can be influenced by a range of 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 (location, land quality, size, types of activity undertaken for example). 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.

**Chart 2: Variation in farm business income in Wales, 2012-13 to 2015-16**



- There has been a great deal of variation around the average farm business income for 'all farm types' in each of the past four years. The percentage of farms making a loss has gradually risen each year since 2012-13 (to 22 per cent in 2015-16). In 2015-16, 7 per cent of farms had a farm business income of greater than £75,000.
- **By farm type:** 25 per cent of dairy farms made a loss in 2015-16 compared with 20 per cent and 17 per cent for cattle & sheep farms (LFA and lowland respectively). The figure for dairy farms was much changed from the previous year; in 2014-15, only 10 per cent of dairy farms made a loss.
- In 2015-16, around 19 per cent of dairy farms had a farm business income of more than £75,000. The figure for cattle & sheep (LFA) farms was just 5 per cent. The figure for dairy farms was much changed from the previous year; in 2014-15, 36 per cent of dairy farms had a farm business income of more than £75,000.

Note that 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). Further analysis could be done to understand what a particular level of farm income could mean to farms.

## 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. The data behind charts 3 and 5 in this section (for 2014-15 and 2015-16) is available in the spreadsheet published alongside this release on the [Welsh Government farm income statistics page](#).

### Points to remember while reading this section of the release

- Charts 3, 4, 5 and 6 in this section show average contributions of different components and 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.
- The methodology for analysing components of income and output was developed previously to allocate fixed and variable costs to four components of the business (also known as 'cost centres'). Details of this methodology are 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 include this data in charts due to small numbers of farms in some categories.
- Charts 4 and 6 (showing the variation around average income and output) combine the basic / single payment and agri-environment payments into an 'all subsidies' category. This enables variation around the average to be considered in a single chart.

### Terms used in this section

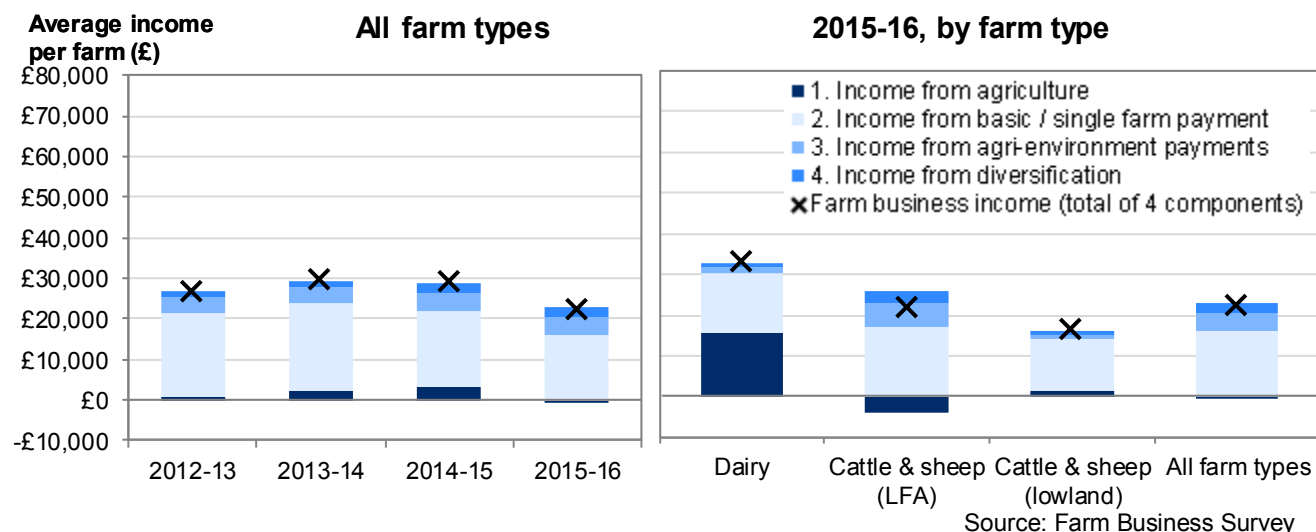
**Farm business output:** The total value of all of the output produced by the farm business within the accounting year.

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

1. **Agriculture:** Income / output from agriculture, including animal disease compensation payments.
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, 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.
4. **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, tourism, renewable energy generation, and use of farm land for sport or recreation.



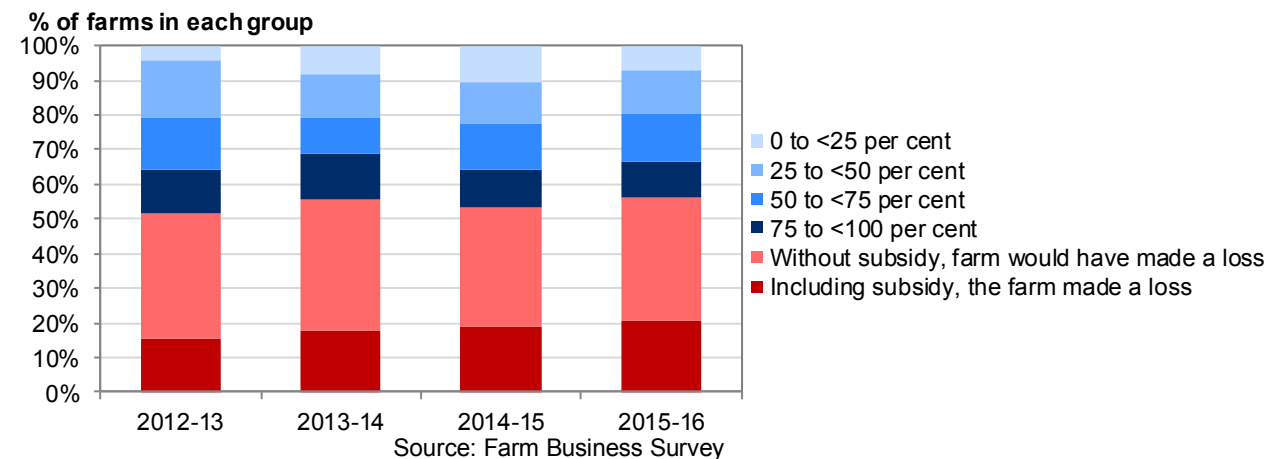
**Chart 3: Average farm business income and its components in Wales, by farm type and year (at current prices)**



For **'all farm types'**, agriculture made a small negative contribution to farm business income in 2015-16, after increasing positive contributions in the previous two years. The average income from the basic / single farm payment declined in 2014-15 and 2015-16, although it remained the largest component of farm business income.

**By farm type:** In 2015-16, agriculture contributed nearly half of average farm business income on dairy farms, made a small positive contribution on cattle & sheep (lowland) farms and was negative on cattle & sheep (LFA) farms. On average, agri-environment payments made a larger contribution to farm business income on cattle & sheep (LFA) farms than for the other two farm types shown.

**Chart 4: Variation in subsidies (a) as a share of farm business income in Wales**

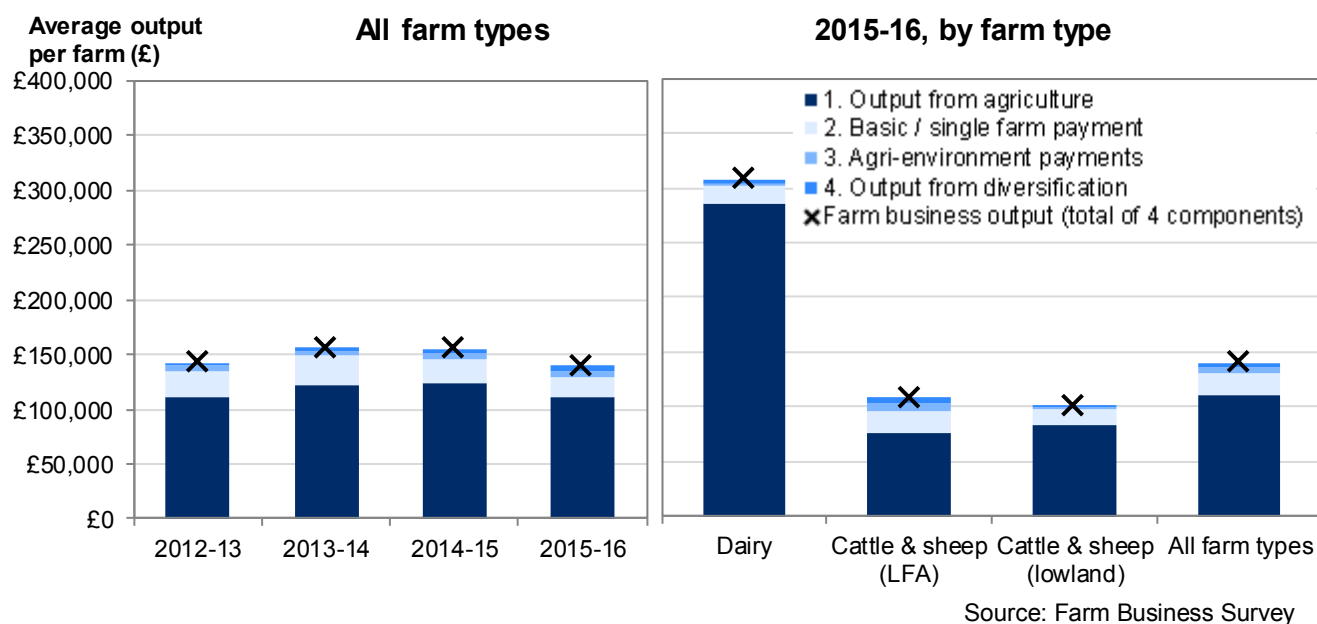


(a) Categories 2 and 3 (basic / single farm payment and agri-environment payments, respectively) from chart 3 above have been combined here to form an 'all subsidies' category.

In each of the past four years, there has been wide variation between farms in the contribution of subsidy towards farm business income. In 2015-16, 56 per cent of all farms either made a loss or would have done so without subsidy. In 2015-16, subsidy was a small component of farm business income (less than a quarter) on 7 per cent of all farms.

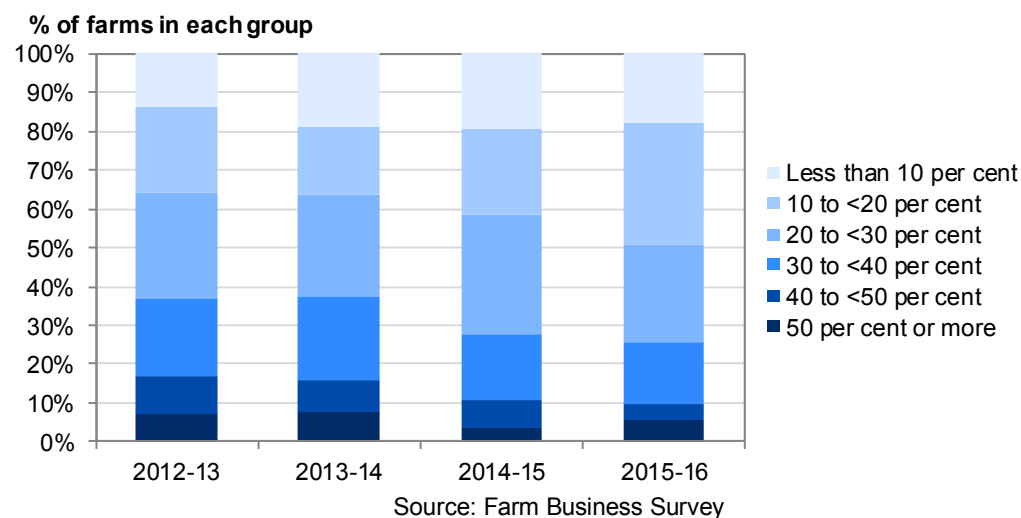
**By farm type:** In 2015-16, around 60 per cent of cattle & sheep (LFA) farms either made a loss or would have done so without subsidy, compared with around half of cattle & sheep (lowland) farms and around 40 per cent of dairy farms. Subsidy was a small component of farm business income (less than a quarter) on 3 per cent of cattle & sheep (LFA) farms, compared with 26 per cent of dairy farms.

**Chart 5: 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 charts 3 and 5). From chart 5, agriculture made an increasing contribution to average farm business output from 2012-13 to 2014-15, although this declined in 2015-16. On average, agriculture has a much greater contribution to farm business output on dairy farms than on cattle & sheep (both LFA and lowland) farms.

**Chart 6: Variation in subsidies (a) as a share of farm business output in Wales**



(a) Categories 2 and 3 (basic / single farm payment and agri-environment payments, respectively) from chart 5 above have been combined here to form an 'all subsidies' category.

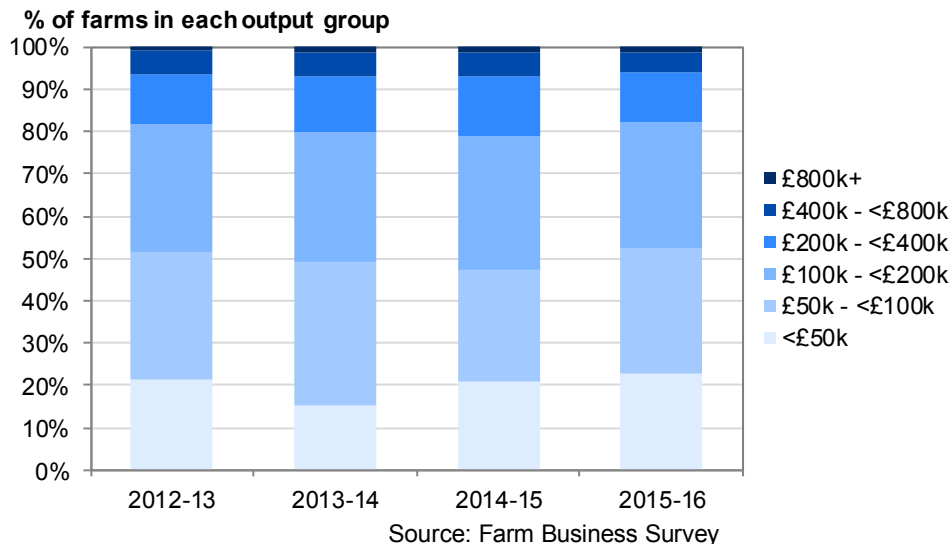
In each of the past four years, there has been wide variation between farms in the contribution of subsidy towards farm business output. In 2015-16, 18 per cent of farms has less than a tenth of their farm business output derived from subsidy, while 5 per cent of farms had more than half of their farm business output derived from subsidy.

**By farm type:** 87 per cent of dairy farms had less than a tenth of their farm business output derived from subsidy. This compares with just 3 per cent of cattle & sheep (LFA) farms and 13 per cent of cattle & sheep (lowland) farms. No dairy farms in the sample had more than 40% of their farm business output derived from subsidy, compared with 13 per cent of cattle & sheep (LFA) farms.



It is also useful to consider variation in farm business output by farm type, shown in chart 7 below.

**Chart 7: Variation in farm business output in Wales (at current prices)**



There is wide variation in the level of farm business output in each of the last four years. In 2015-16, 23 per cent of farms had a farm business output of less than £50k, while 6 per cent of farms had a farm business output of £400k or greater.

**By farm type:** In 2015-16, no dairy farms in the sample had a farm business output of less than £50k, while the equivalent figures were just over a quarter for cattle & sheep farms (both LFA and lowland). Nearly a quarter of dairy farms had a farm business output of £400k or more, while only 2 per cent of cattle and sheep (LFA) farms did so.

For the farm business output groups shown in chart 7 above, the next chart considers how farms of different sizes contribute differing amounts towards total farm business output in Wales.

**Chart 8: Distribution of farms in each output group in Wales, 2015-16**

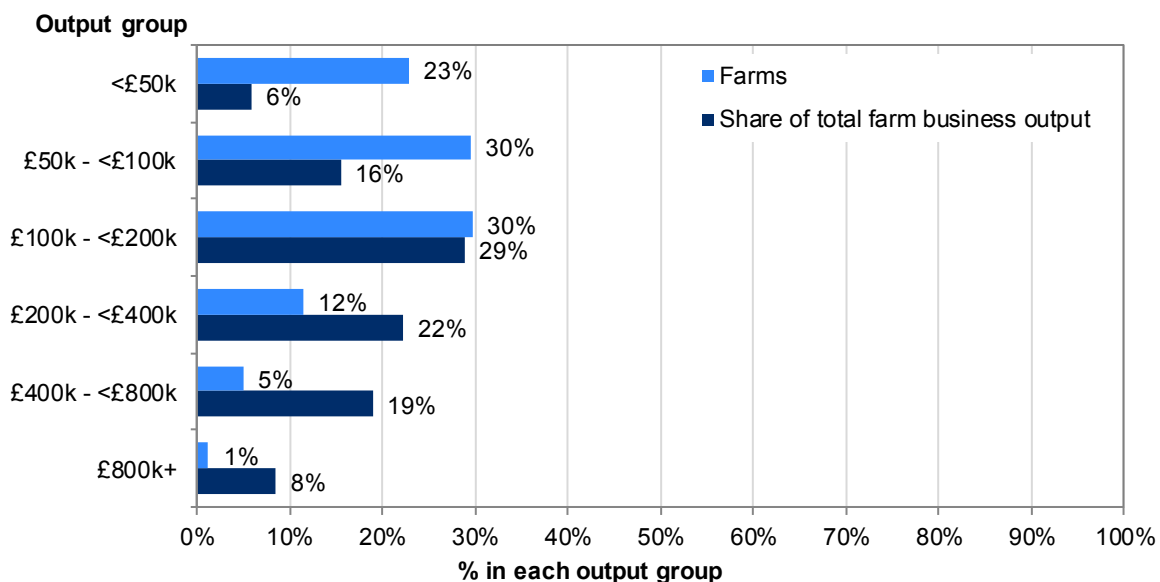


Chart 8 shows that while 23 per cent of farms in Wales had a farm business output of less than £50k in 2015-16, this particular group of farms accounted for only 6 per cent of total farm business output in Wales. While just 1 per cent of farms had a farm business output of £800k or more, this group of farms contributed 8 per cent of total farm business output in Wales.

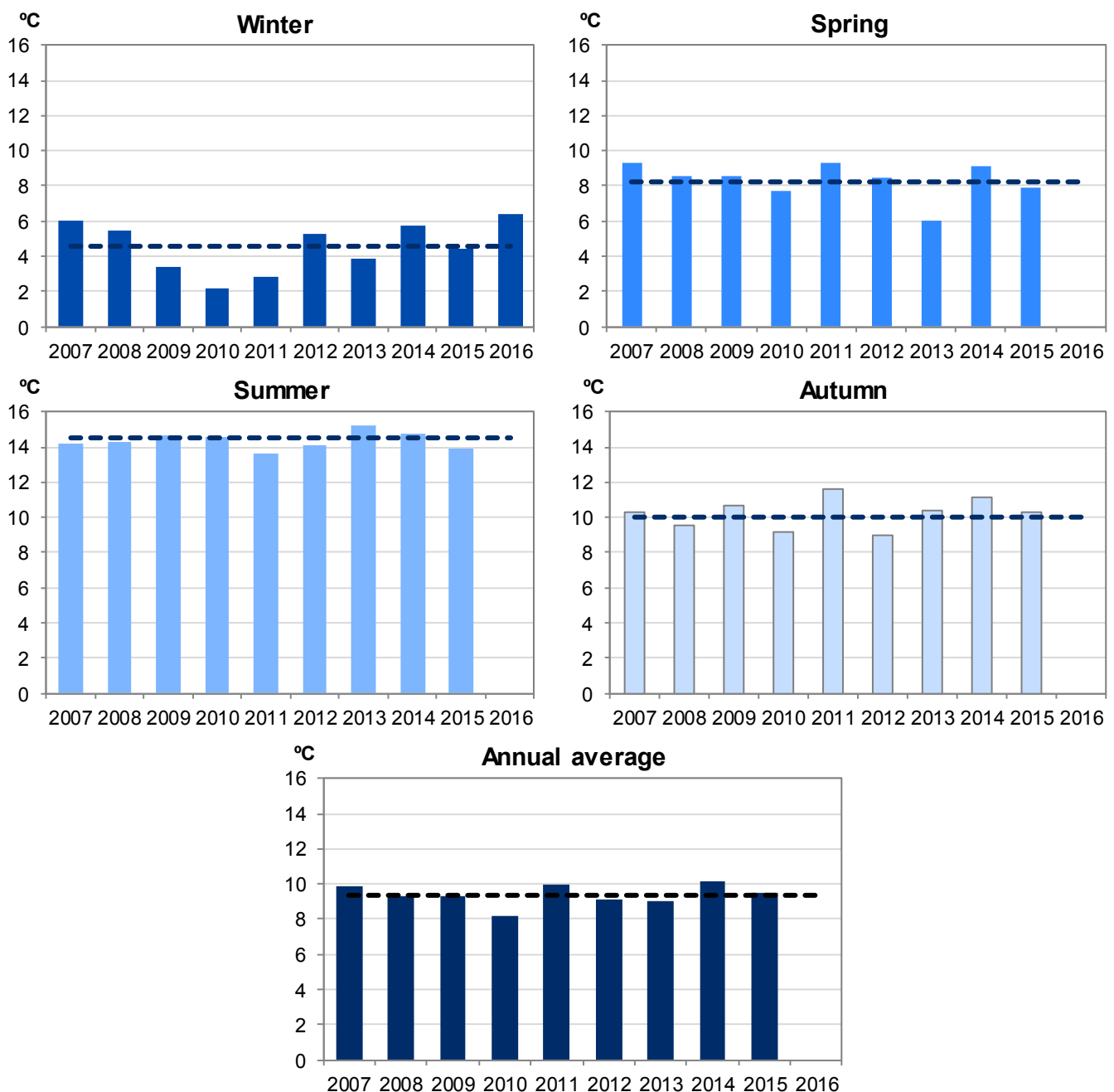
## Section C: Weather

This section considers the mean temperature and average rainfall by season in Wales over the last decade and is intended to provide some context to understanding 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.

**Chart 9: Mean temperature in Wales (°C), 2007 to 2016 (a)**

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

*Broken lines show the long term averages for the period 1987 to 2016*



Source: [Met Office](#)

(a) Mean temperature data is available for Spring and Summer 2016 but is not shown here, as this release relates to farm incomes and other data for the period up to March 2016.

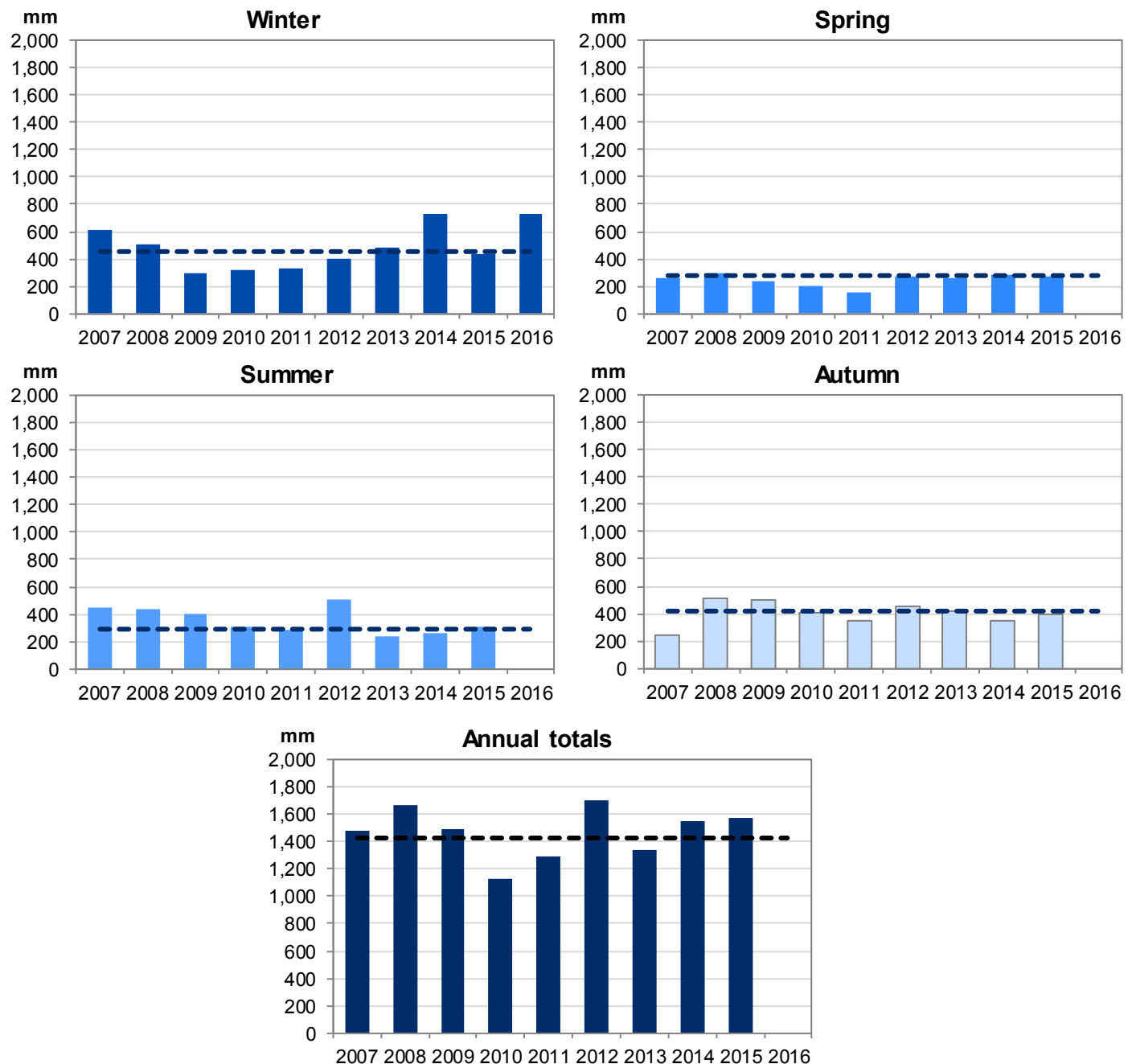
Winter 2015 saw some mild and wet conditions resulting in slow crop growth, some soil damage and difficulties emptying slurry stores early in the season. Spring 2015 saw a reasonable turnout of

livestock by many farmers. Favourable weather produced a good grazing season and reasonable harvests. A slightly wetter autumn 2015 shortened the grazing season for some farmers. Winter 2016 was both the mildest and wettest winter in records going back to 1910, resulting in some localised flooding and increased animal respiratory issues.

#### Chart 10: Rainfall in Wales (mm), 2007 to 2016 (a)

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

*Broken lines show the long term averages for the period 1987 to 2016*



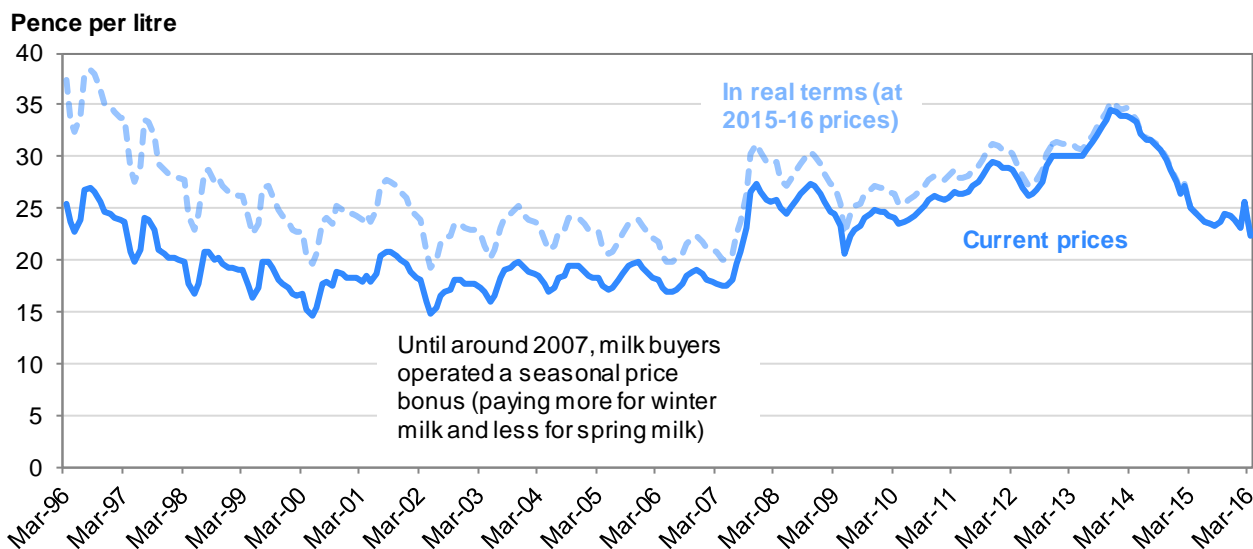
Source: [Met Office](#)

(a) Rainfall data is available for Spring and Summer 2016 but is not shown here, as this release relates to farm incomes and other data for the period up to March 2016.

## 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. Chart 11 shows official statistics for UK farm gate milk prices over a 20 year period (Wales milk prices are not available from this source).

**Chart 11: Average farm gate milk prices (UK) – 20 year trend (March 1996 to March 2016)**



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

Average farm gate milk prices during 2015-16 were similar to prices seen in the early to mid 2000s (particularly when considering prices in real terms). Over the past 20 years, the highest prices were seen in 2013-14 but average prices have declined markedly since.

**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.

Table 2 below shows the wide variation in farm gate milk prices received by farms in Wales (in terms of the share of production sold at different prices).

**Table 2: Variation in farm gate milk prices in Wales, 2009-10 to 2015-16 (at current prices) (a) (b)**

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

%

	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
<b>Price band (pence per litre)</b>							
< 20p	12	2	*	*	*	*	29
20p < 22.5p	50	29	*	*	*	*	22
22.5p < 25p	26	59	13	7	*	*	31
25p < 27.5p	7	5	54	44	6	14	6
27.5p < 30p	*	*	25	36	18	47	6
30p+	*	*	6	12	76	36	5
Average price per litre	21.8p	23.3p	26.3p	26.7p	30.4p	29.0p	21.7p

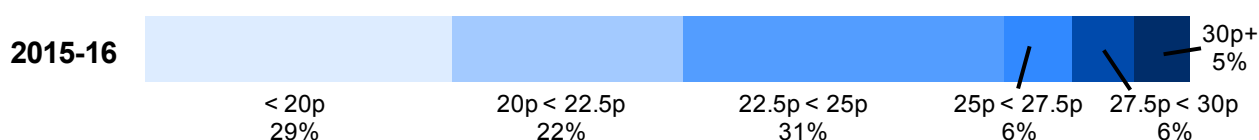
Source: Farm Business Survey

(a) The average milk price over each 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 each 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.

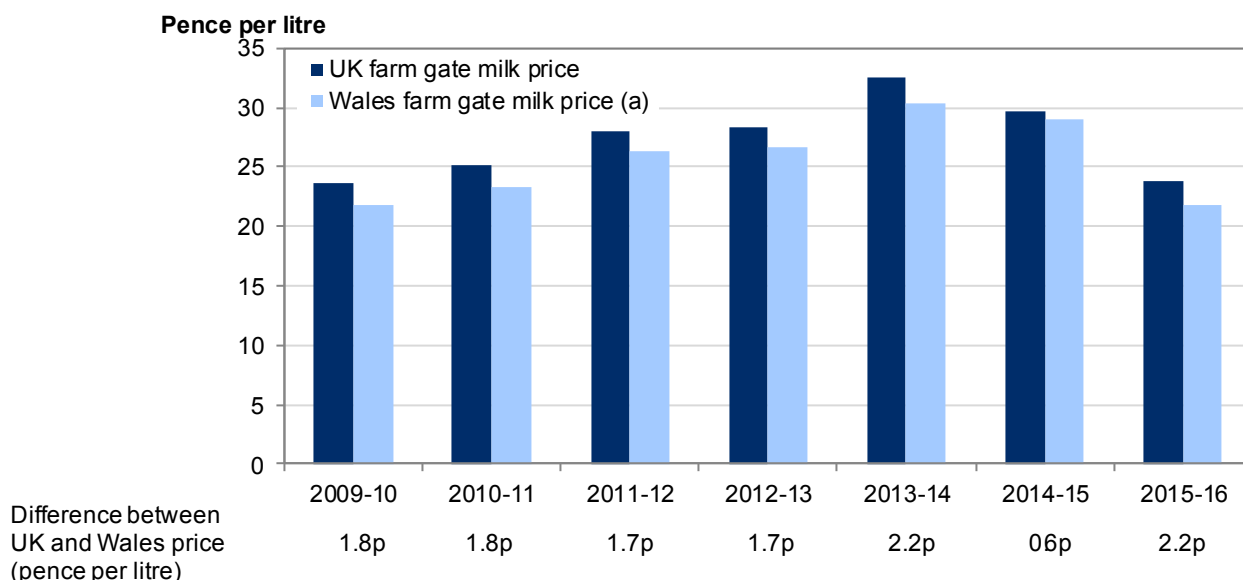
This chart shows price band data for the latest year (2015-16) from table 2.



The previous table shows the wide range of farm gate milk prices received for milk sold in Wales, in each year since 2009-10. In 2015-16, 82 per cent of milk produced on farms in Wales was sold to processors for less than 25 pence per litre, while the equivalent figure from a year earlier was just 3 per cent. Five per cent of milk produced on farms in Wales was sold at 30 pence per litre or more in 2015-16, while the equivalent figure from 2014-15 was 36 per cent.

Chart 12 below compares the annual averages for farm gate milk prices in Wales and the UK, although the data is derived from two different sources (noted below the chart) with differing methodologies, so there may be some issues with comparing the two sources. In the last five years, the chart suggests that the average farm gate milk price in Wales was generally 1 to 2 pence per litre lower than the equivalent price in the UK.

**Chart 12: Annual average farm gate milk prices for Wales and UK, 2009-10 to 2015-16 (at current prices)**



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

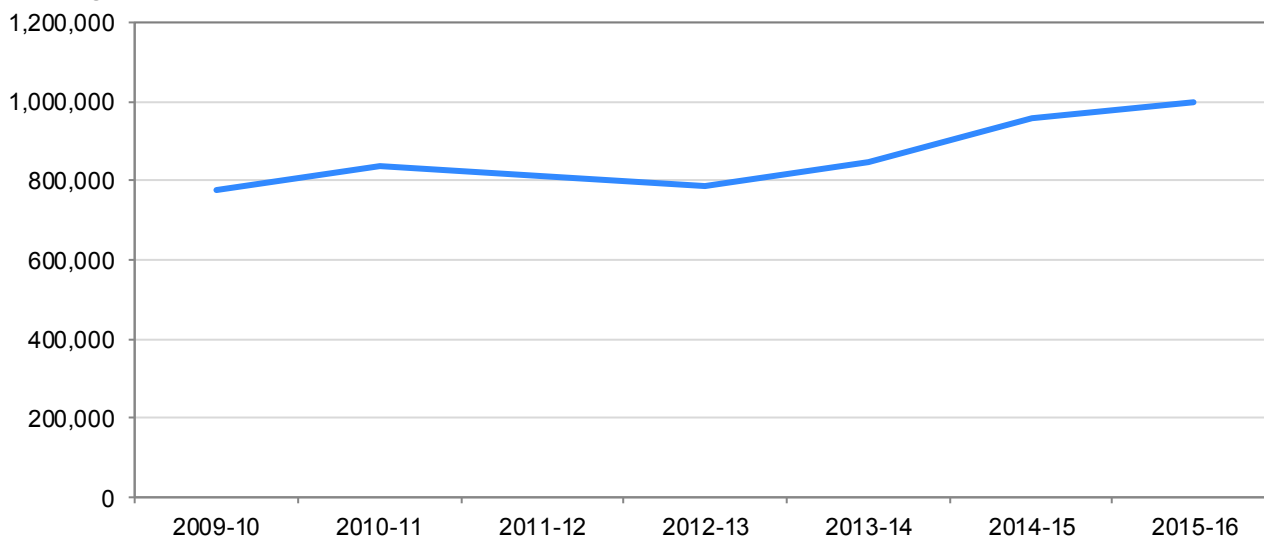
(a) Data for Wales excludes a small number of milk producing farms which produced less than 100,000 litres per year.

The following charts 13 and 14 show trends in milk production per farm and average dairy herd size for farms in Wales. Average milk production per farm increased in each of the past three years, to nearly 1 million litres per farm in 2015-16. The average dairy herd size has gradually increased in the past five years (from Cattle Tracing Scheme data); this is due to a decline in the number of farms which have dairy cows, while there has been little change in the total number of dairy cows across all farms in Wales. 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. Within the UK, milk demand has increased over time, due to increases in population and increased consumption per capita.

**Chart 13: Milk production per farm in Wales, 2009-10 to 2015-16 (a)**

Average production per farm (litres)

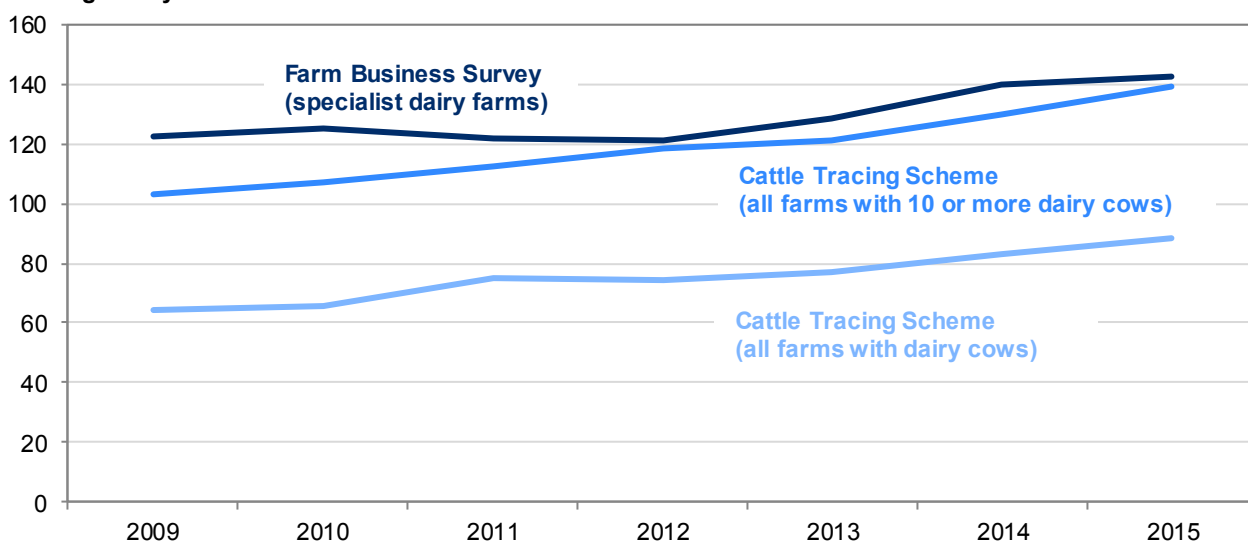


Source: Farm Business Survey

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

**Chart 14: Average herd size for dairy cows (a) on farms in Wales, 2009 to 2015**

Average dairy herd size



Source: Cattle Tracing Scheme (CTS), Farm Business Survey

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

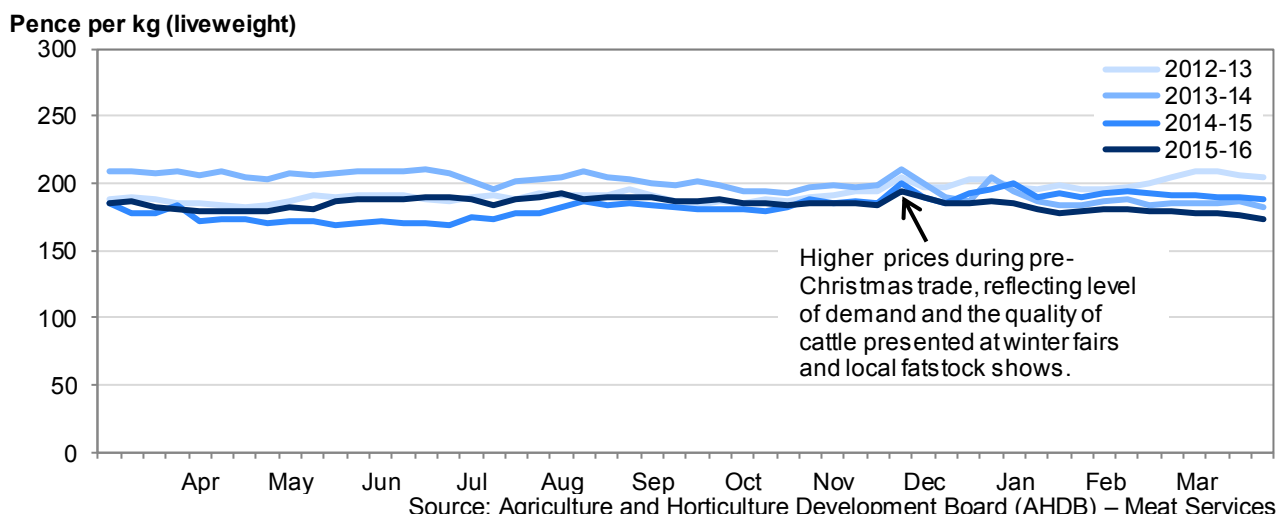
## Finished cattle and lamb prices

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 chart 15 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.



**Chart 15: Weekly prime cattle prices at auction markets in England and Wales, April 2012 to March 2016**

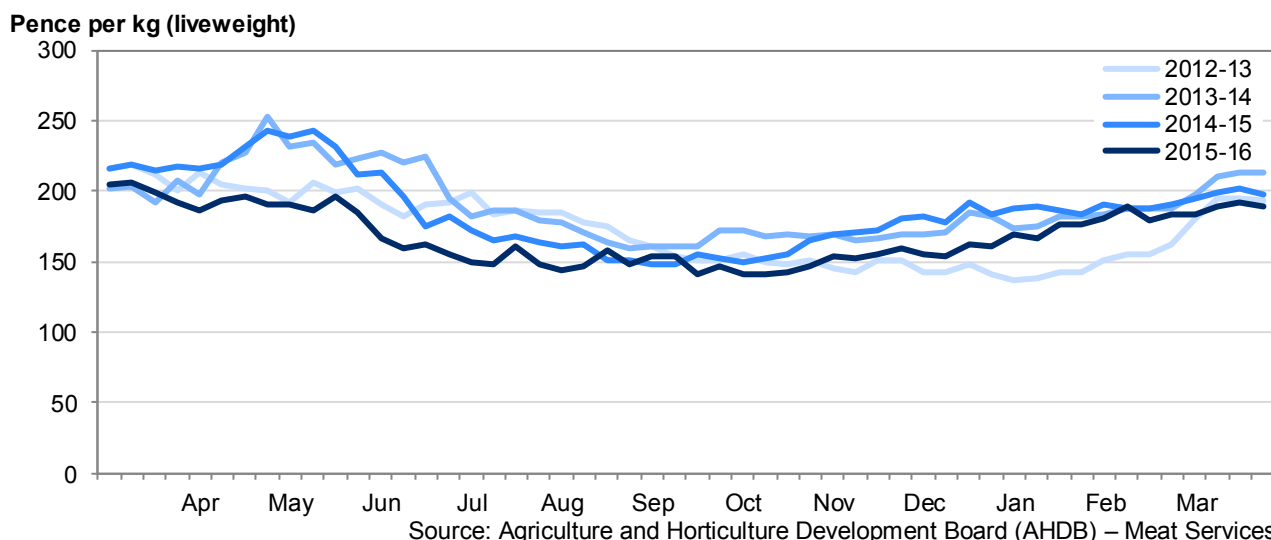


Cattle have a longer production cycle than for lambs, and finished cattle are generally sold at between 12 months and 30 months old. This factor for cattle levels out supply throughout the year, therefore little seasonality can be seen in the prime cattle price.

The cattle price in 2015-16 was slightly higher than for 2014-15 in first part of year. 2015-16 prices declined during winter, ending the accounting year lower than any of the previous three 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 Chart 16 below.

**Chart 16: Weekly prime lamb (SQQ) (a) prices at auction markets in Wales, April 2012 to March 2016**



(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.

The finished lamb price in Wales in the first part of 2015-16 was generally lower than in recent years. The lamb price then increased fairly steadily in the second half of 2015-16 (to levels seen at the start of 2015-16), although always remaining below the weekly price from a year earlier.

## Section E: Assets and liabilities

This section looks at the financial strength of farms in Wales, by considering the assets, liabilities and net worth of these farms. This overview is intended as a starting point to seek feedback from users and from which to base further analysis.

*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.*

**Chart 17: Average assets, liabilities and net worth for farms in Wales in 2015-16, by farm type, size and tenure**

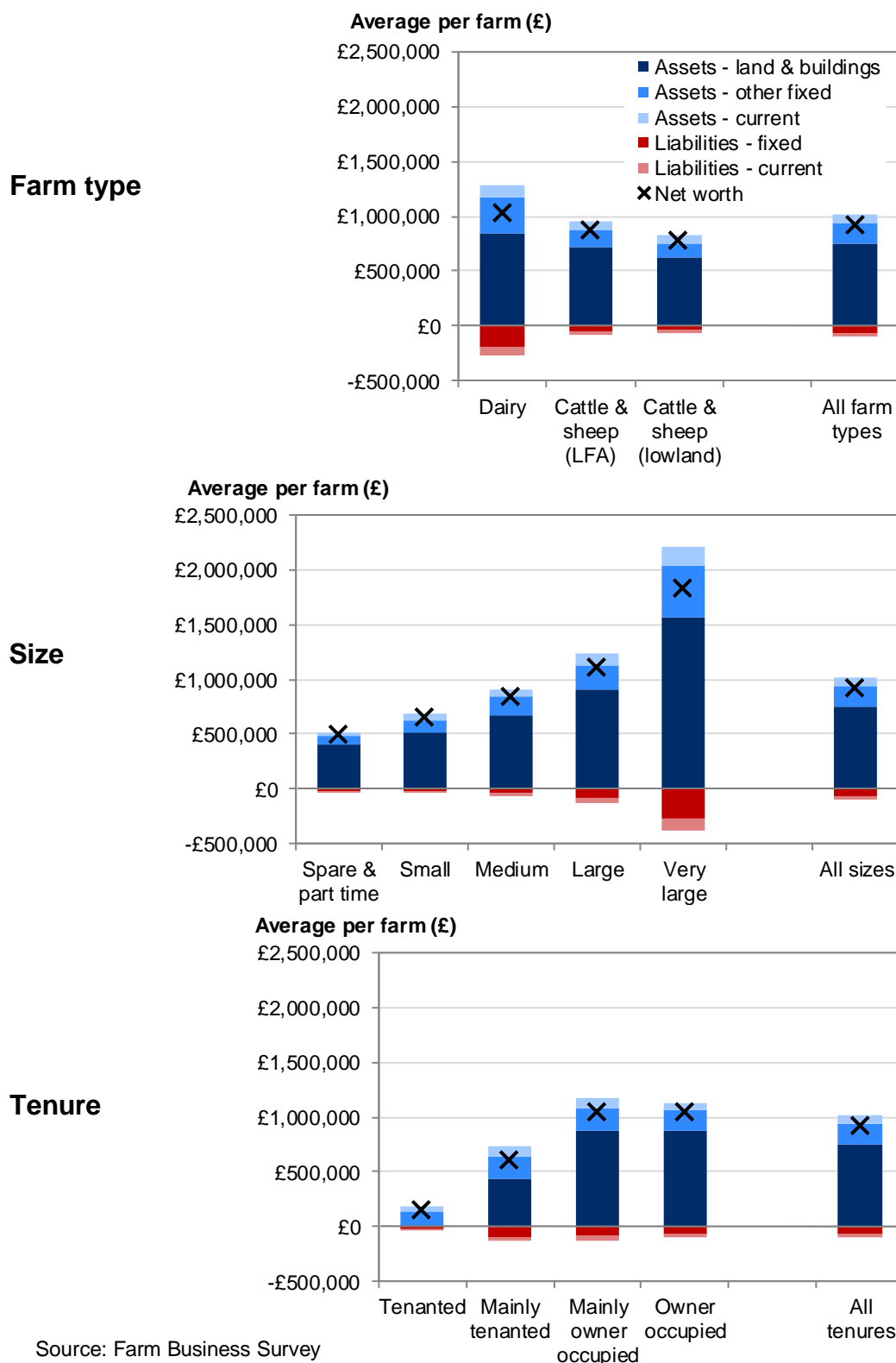


Chart 17 considers average assets, liabilities and net worth for three key variables: farm type, size and tenure. It is not possible (due to low sample size in some categories) to provide analysis of, for instance, asset and liabilities for different sizes of particular types of farm. There is very wide variation around the average values shown in chart 17.

On average, dairy farms have larger assets (and also liabilities) than cattle & sheep farms (both LFA and lowland). In 2015-16 (to the nearest £10,000), average net worth was £1.02 million on dairy farms in Wales, £870,000 on cattle & sheep (LFA) farms and £770,000 on cattle & sheep (lowland) farms. Analysing by size, average assets, liabilities and net worth all increase as the size of farm increases. As would be expected, fully tenanted farms have very little land and buildings, but also low average liabilities.

## 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**

**(b) Other fixed assets** include breeding livestock, machinery and basic payment scheme entitlements for 2015-16 (single payment scheme 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)

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

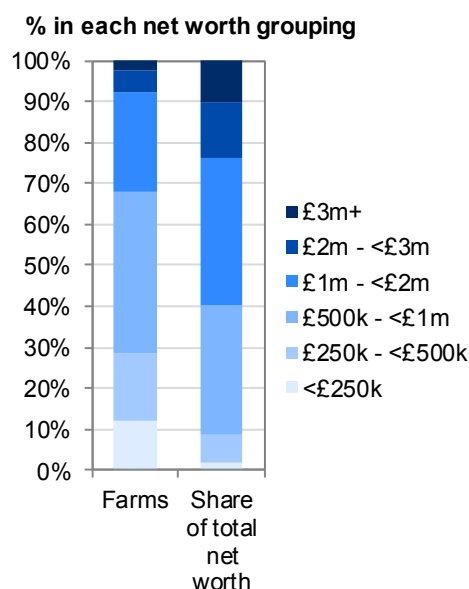
Spare & part time	less than 1 SLR
Small	greater than or equal to 1 and less than 2 SLRs
Medium	greater than or equal to 2 and less than 3 SLRs
Large	greater than or equal to 3 and less than 5 SLRs
Very large	greater than or equal to 5 SLRs

**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.

**Chart 18: Variation in net worth for farms in Wales, 2015-16**



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.

Chart 18 shows that there is extremely wide variation in net worth held by farms in Wales. In 2015-16, 12 per cent of farms had a net worth of less than £250k, while 8 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 2 per cent of farms with greater than £3 million net worth account for 10 per cent of total net worth of farms in Wales.

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

**Table 3: Comparison of total assets and total liabilities for farms in Wales, 2015-16**

Percentage (%) of farms in each asset and liability grouping

Total liabilities	Total assets					Total
	<£200k	£200k - <£500k	£500k - <£1m	£1m - <£2m	£2m+	
£0 - <£10k	4	11	20	8	2	45
£10k - <£50k	3	5	7	4	1	20
£50k - <£200k	*	3	7	8	2	20
£200k - <£500k	*	*	3	4	2	8
£500k+	*	*	*	2	3	6
Total	8	18	37	27	10	100

Source: Farm Business Survey

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

Table 3 helps when considering the **long term viability** of farm businesses in Wales. As an example to show how to read the table, 3 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.

Table 3 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. 45 per cent of farms had total liabilities of zero to £10k, while 6 per cent of farms had total liabilities of £500k or greater. 10 per cent of farms had total assets of £2 million or greater, while 8 per cent of farms had total assets of less than £200k.

**Table 4: Comparison of current assets and current liabilities for farms in Wales, 2015-16**

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	11	13	15	5	3	46
£5k - <£25k	6	5	6	4	1	23
£25k - <£50k	2	3	4	1	2	12
£50k - <£100k	2	3	4	2	1	11
£100k+	*	1	3	3	1	8
Total	21	25	31	15	8	100

Source: Farm Business Survey

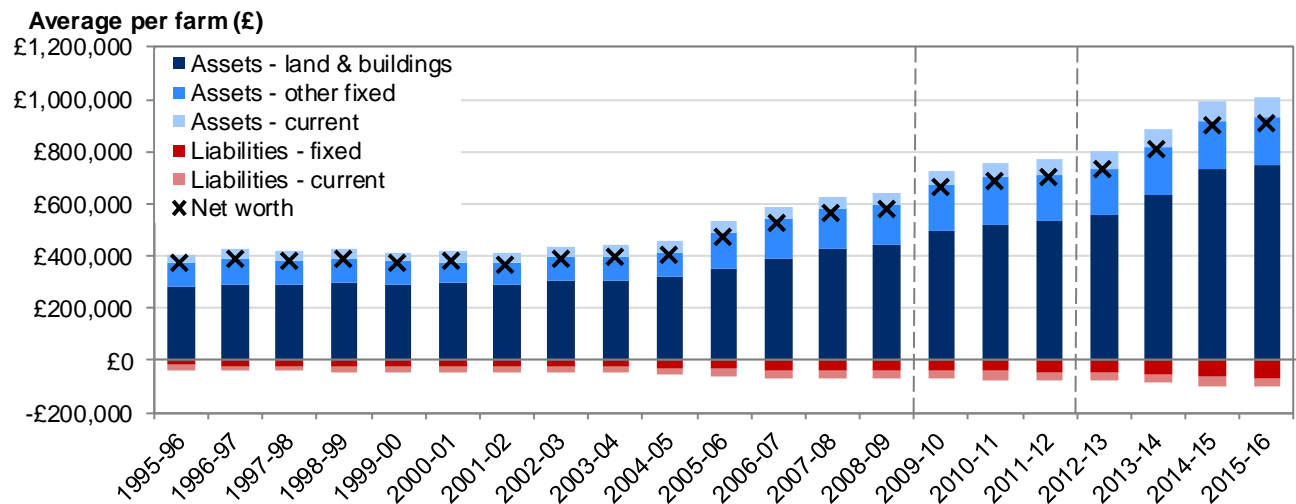
\* Value not shown as the figure is based on fewer than 5 farms (or no farms) from the sample.

Table 4 helps when considering the **short term viability** of farm businesses in Wales. As an example to show how to read the table, 1 per cent of farm businesses in Wales had current assets of £200k or greater and current liabilities of £100k or greater. 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. Table 4 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.

Table 4 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. 46 per cent of farms had current liabilities of zero to £5k, while 8 per cent of farms had current liabilities of £100k or greater. 8 per cent of farms had current assets of £200k or greater, while 21 per cent of farms had current assets of zero to £25k.

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 also be noted that chart 19 shows assets, liabilities and net worth at current prices, therefore does not account for inflation.

**Chart 19: Average assets, liabilities and net worth for farms in Wales – 20 year trend, 1995-96 to 2015-16 (at current prices)**



Source: Farm Business Survey

From the mid-1990s to mid-2000s (at current prices), there was little change seen in average assets, liabilities and net worth for farms in Wales. 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 labour (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.

**Chart 20: Average farm business income as a percentage of average net worth for farms in Wales, 2014-15 and 2015-16 (at current prices)**

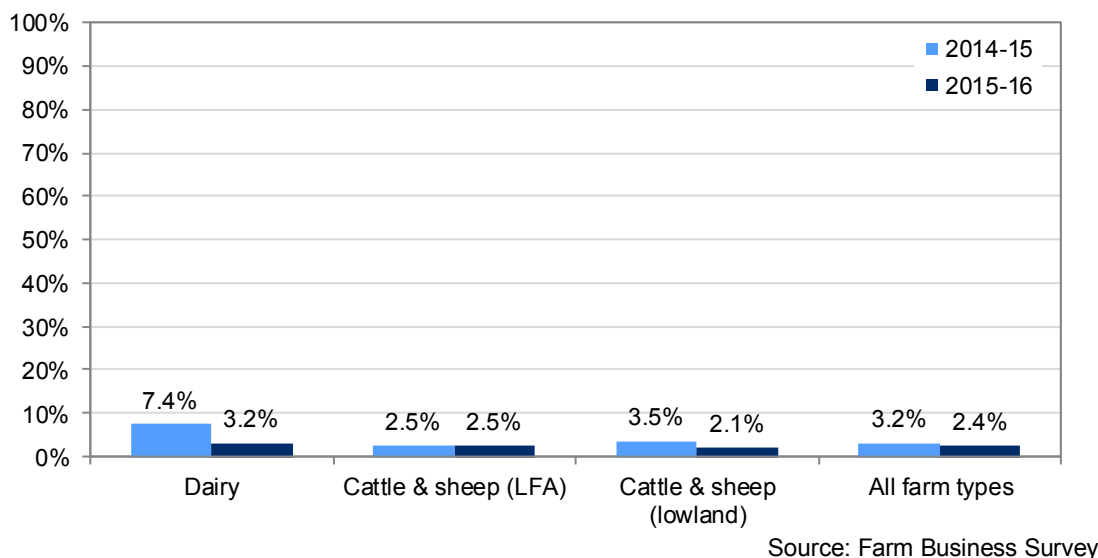


Chart 20 shows that average farm business income is a relatively small percentage of net worth, although the rate of returns shown in the chart could be considered to be favourable (when compared with other investment opportunities). The impact of the fall in average farm business income on dairy farms in 2015-16 can also be seen, with the annual rate of return on capital for dairy farms falling to 3.2 per cent in 2015-16 (from 7.4 per cent a year earlier).



## Notes

### Accounting years

The figures for 2015-16 presented in this release cover the accounting years ending between 31st December 2015 and 31st March 2016 and as such reflect farming conditions between January 2015 and March 2016.

### Methodology for apportioning components of income and output

In 2004-05 a new methodology was introduced to enable farm income and output to be broken down by four components (also known as 'cost centres'); agriculture, diversification, agri-environment activities and direct payments. Variable and fixed costs are allocated to each of these cost centres. As the methodology to allocate costs involves a degree of **estimation**, results should be **interpreted with caution**. The methodology for allocating fixed costs has been subject to a number of reviews and details of the most recent review in 2008 can be found on [gov.uk](http://gov.uk).

### 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.

### Current prices and in real terms (2015-16 prices)

Some figures in this release shown at current prices (such as average farm business income figures in Table 1) have been uprated using GDP deflators to also show prices in real terms (at 2015-16 prices). The GDP deflator data used here is available from the [Office for National Statistics website](http://Office for National Statistics website).

### Disclosure control

In order 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 figures shown in this release have been rounded to the nearest hundred pounds, therefore rounded figures may not add up to totals. Calculations (such as percentage or actual change) have been applied on unrounded figures.

### Less Favoured Area (LFA)

Throughout this statistical release, the abbreviation LFA is used to denote Less Favoured Area (LFA). This classification was established<sup>1</sup> 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 following map shows the LFA, SDA and DA in the United Kingdom then table 5 shows values and percentages for these areas by UK country.

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<sup>1</sup> Council Directive 75/268/EEC

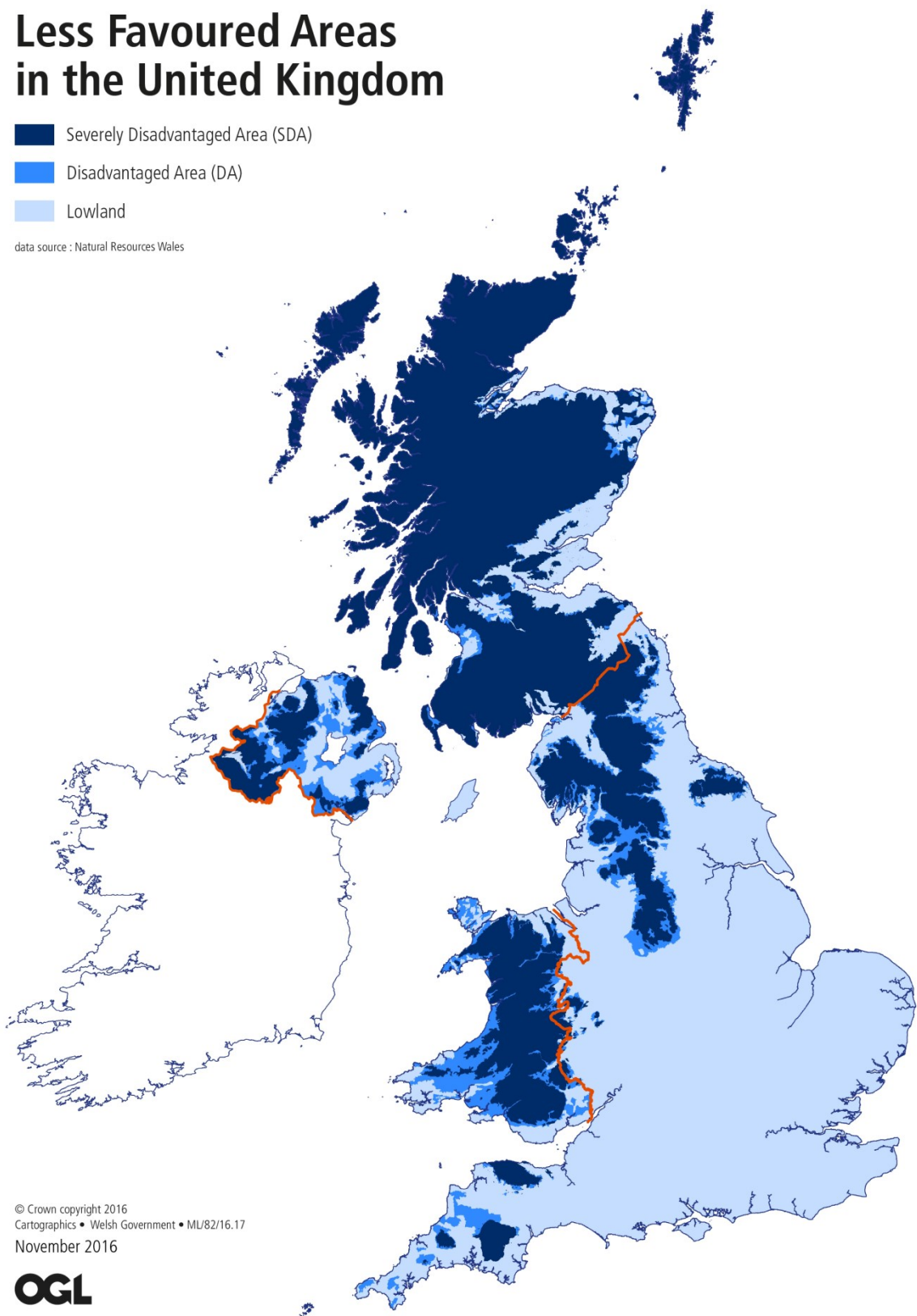
# Less Favoured Areas in the United Kingdom

Severely Disadvantaged Area (SDA)

Disadvantaged Area (DA)

Lowland

data source : Natural Resources Wales



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November 2016

**OGL**

**Table 5: Less Favoured Areas in the United Kingdom**

Farm type	Wales	England	Scotland	Northern Ireland	UK
<b>Area (million hectares)</b>					
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
<b>% of all land</b>					
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

### 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 Chart 1 (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, caution should be exercised when making any comparisons of 2012-13 data onwards with earlier data.

Table 6 below shows figures for 2012-13 produced on the basis of both the 2007 SOs and 2010 SOs, showing the impact of the change in SOs.

**Table 6: 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
<b>At current prices</b>			
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

Chart 19 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](http://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 caution should be exercised when making any comparisons of 2009-10 data with earlier data.

### 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 (our contact details are on the front page or at the end of this release).

## Glossary

**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 example, after milk leaves the farm, it will go for processing before being sold to retailers).

## Key quality information

The farm incomes data used in this statistical release are derived from the annual Farm Business Survey (FBS), which 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 speaking to the farmers. Only those farm types where there are 15 or more 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 Table 7.

**Table 7: 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
<b>Survey sample (a) (b)</b>						
Dairy	1	7	28	38	36	110
Cattle & sheep (LFA)	29	94	76	99	48	346
Cattle & sheep (lowland)	12	25	14	10	4	65
Other farm types (d)	8	8	3	8	2	29
All farm types	50	134	121	155	90	550
<b>Survey population (farms with &gt; €25,000 Standard Output) (a) (c)</b>						
Dairy	50	252	341	411	389	1,443
Cattle & sheep (LFA)	1,129	1,973	1,296	1,333	940	6,671
Cattle & sheep (lowland)	360	361	189	176	98	1,184
Other farm types (d)	202	126	67	73	57	525
All farm types	1,741	2,712	1,893	1,993	1,484	9,823
<b>% of survey population sampled</b>						
Dairy	2.0	2.8	8.2	9.2	9.3	7.6
Cattle & sheep (LFA)	2.6	4.8	5.9	7.4	5.1	5.2
Cattle & sheep (lowland)	3.3	6.9	7.4	5.7	4.1	5.5
Other farm types (d)	4.0	6.3	4.5	11.0	3.5	5.5
All farm types	2.9	4.9	6.4	7.8	6.1	5.6

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. These 277 farms would have been categorised under the general cropping farm type.
- (b) The survey sample shown is for the 2015-16 Farm Business Survey.
- (c) The survey population (for 2015-16 Farm Business Survey) was from the 2014 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 figures for 2015-16 with previous forecasts

Forecast estimates for 2015-16 were previously published on 25 February 2016. It is useful to compare the final figures for 2015-16 with the previous forecasts, and this comparison is made in Table 8.



**Table 8: Comparison of final 2015-16 figures for farm business income with previous forecasts**

Average farm business income per farm			£ per farm
Farm type	2015-16 forecast (a)	2015-16 final (b)	Difference
<b>At current prices</b>			
Dairy	42,000	32,800	-9,100
Cattle & sheep (LFA)	22,500	21,900	-600
Cattle & sheep (lowland)	25,500	16,300	-9,300
All farm types	24,500	22,200	-2,400

Source: Farm Business Survey

(a) Forecast figures published on 25 February 2016 in SDR 26/2016 (Forecasts of Farm Incomes in Wales, 2015-16)

(b) Final figures published on 8 December 2016 in SFR 160/2016 (Farm incomes in Wales, 2015-16).

## Revisions of weights for 2014-15

In this edition of the release, some small revisions have been made to farm weights, compared with the edition of this release published a year ago. The weights have been revised due to small errors found in previous weights and also some minor methodological changes to the calculation of some weights. Table 9 below shows the impact of the revisions on average farm business income for 2014-15.

**Table 9: Impact of revisions to 2014-15 figures for farm incomes**

Average farm business income per farm			£ per farm
Farm type	2014-15 (published 26 November 2015) (a)	2014-15 (published 8 December 2016) (b)	Difference
<b>At current prices</b>			
Dairy	70,200	70,200	0
Cattle & sheep (LFA)	23,300	22,100	-1,200
Cattle & sheep (lowland)	27,800	27,000	-800
All farm types	29,400	29,000	-400

Source: Farm Business Survey

(a) Published on 26 November 2015 in SDR 195/2015 (Farm Incomes in Wales, 2014-15)

(b) Revised figures for 2014-15 published on 8 December 2016 in SFR 160/2016 (Farm incomes in Wales, 2015-16).

## 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 there are always wide variations around average, which raises a number of issues:
  - 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.
  - 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.
- 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 €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 survey can be read on the [Welsh Government June survey statistics 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 fully 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 FBS. 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 indicators and associated technical information - [How do you measure a nation's progress? - National Indicators](#)

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, although it should be noted that these results are based on unweighted data. 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 data on farm business income by type of farm in England for 2015-16, on 29th October 2016.

**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) at [farmbusinesssurvey.co.uk](http://farmbusinesssurvey.co.uk).

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

**Northern Ireland:** The Department of Agriculture and Rural Development 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 documents 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, 2016-17' is February 2017.

## We want your feedback

Several changes have been made to format and content in this release, in order to improve understanding of the factors that can affect farm incomes in Wales. We welcome any feedback on any aspect of these statistics, particularly any of the changes made, which can be provided by email to [stats.agric@wales.gsi.gov.uk](mailto:stats.agric@wales.gsi.gov.uk).

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