

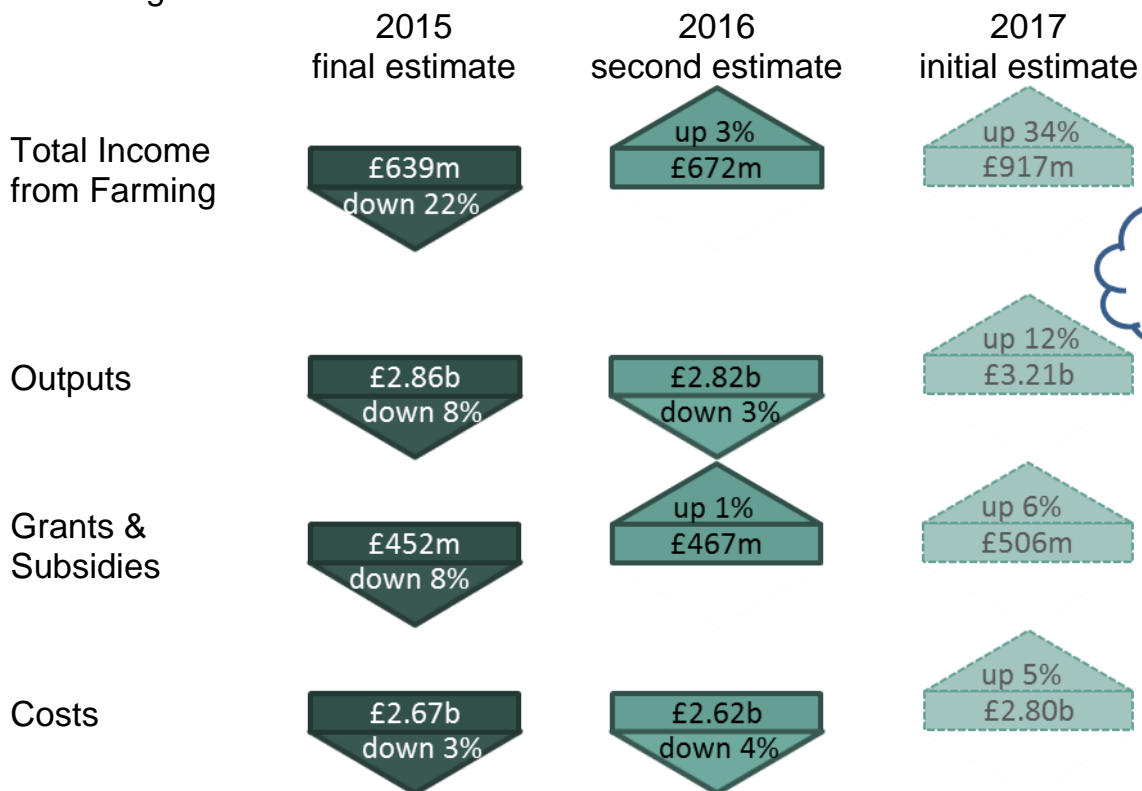
## AGRICULTURE, ENVIRONMENT AND MARINE

# Total Income from Farming Estimates for Scotland 2015 to 2017

31<sup>st</sup> January 2018

### 1. Main Findings

The following summary gives estimates of Total Income from Farming for the latest three years, together with their constituent parts, and the percentage changes after accounting for inflation.



PLEASE NOTE  
Percentage  
changes are  
in real terms

Big changes in 2016	Big changes estimated in 2017
Milk down £53m	Milk up £117m
Potatoes up £35m	Barley up £67m
Cost of fertilisers down £34m	Payments & subsidies up £39m
Sheep up £24m	Cost of labour up £34m

### **Why are the results referred to as “estimates”?**




This publication contains three sets of estimates of Total Income from Farming (TIFF)

- final estimates for the calendar year 2015
- second estimates for the calendar year 2016
- initial estimates for the calendar year 2017.

Many of the data used in calculating income from farming for 2017 will only become available during 2018, and some not until 2019. In particular, the final results of the Farm Business Survey 2017-18, to be used within many of the 2017 costs estimates, are not available until 2019.

This means that the 2017 TIFF estimates published here contain a large number of forecasts, often based on projecting past trends. In January 2019 we will publish updated “second estimates” for 2017, which may differ substantially from those published here. Final estimates for 2017 will then be published in January 2020.

The tables in this publication give a breakdown of the constituent elements of TIFF. In Table 1 we have attempted to illustrate the degree of certainty in the estimates of each element by means of colour coding.

-  Based heavily on proxy estimates
-  Based on incomplete data
-  Based on complete/final data

### **Why do initial estimates of TIFF often change so much when they are updated?**

TIFF is calculated as income minus costs. Income and costs are similarly-sized large figures, giving a relatively small difference as the value of TIFF. This means that a small percentage update in estimates for income or costs may automatically lead to a large percentage revision in TIFF.

For example, if income = 100 and costs = 96, then TIFF = 4. If we then update the estimate for income upwards by just one per cent, and for costs down by just one per cent, income = 101 and costs = 95, so TIFF = 6, a 50 per cent increase in the value of TIFF.

So reasonable small updates in the estimates of income and costs can lead to what may seem an unreasonable 50 per cent change in TIFF. See also note 4.4.

### **What does “in real terms” mean?**

It shows, for previous years, the value of the income or costs expressed in today's prices. This is because, for example, income of £10,000 in 1990 could have paid for something that nowadays costs £20,000, so we say the 1990 income was worth £20,000 in today's prices.

To do this we simply multiply our data on previous years' figures by the amount prices have gone up since then. In our example prices have doubled, so we multiply the 1990 income by two to see what it would be worth in today's prices. For these multipliers we now use the GDP deflator, from the Office for National Statistics (ONS)<sup>1</sup>.

<sup>1</sup> See note 4.5. ONS GDP deflators can be found at the following website, <https://www.gov.uk/government/collections/gdp-deflators-at-market-prices-and-money-gdp>

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## 2. Introduction

Total Income from Farming (TIFF) is an official measure of the net income gained by the agriculture industry in Scotland. It seeks to provide an estimate of the total net income across all agricultural holdings, with a breakdown, at the national level, of the value of farm outputs, costs and subsidies. This is done by collecting the best relevant data available and using it to produce estimates for each element.

In some cases available data provide a complete result, for example, there are accurate data on the quantity and price of all finished cattle, collected from abattoirs – though the expenses related to the sale of these have to be estimated. In other cases the lack of data means results have to be modelled based on whatever data we do have, for example the cull of spent hens is estimated using June and December population figures and estimates on their productive lifespan. Many other elements of TIFF are based on sample surveys, for example the miscellaneous expenses of most farm-types are based on results of the Farm Business Survey.

A full description of the methodology used for each element of TIFF is published online at

[www.gov.scot/farmingmethodology2017](http://www.gov.scot/farmingmethodology2017)

This publication contains three new sets of estimates for Total Income from Farming; 2015, 2016 and 2017 (see the note on page 2 on why estimates need to be revised twice). The publication also provides some revised time series for previous years, where methodological changes have been made (see also section 10). Details of changes to the methodology and data since last year's publication, and the resulting changes to the figures, are published online at

[www.gov.scot/farmingrevisions2017](http://www.gov.scot/farmingrevisions2017)

We welcome comments on the content and format of this publication, which can be sent to:

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We would like to thank Scotland's farmers, and others in the industry, for their cooperation with all of our data collections.

### 3. Overview of TIFF 2016 and 2017

Chart 1 gives a summary of the make-up of outputs and costs within TIFF. Gross outputs were £2.8 billion in 2016, rising to an estimated £3.2 billion in 2017, total costs rose from £2.6 billion in 2016 to £2.8 billion in 2017, with subsidies rising from £467 million in 2016 to £506 million in 2017. The differences between income (outputs plus subsidies) and costs give the overall estimates of TIFF.

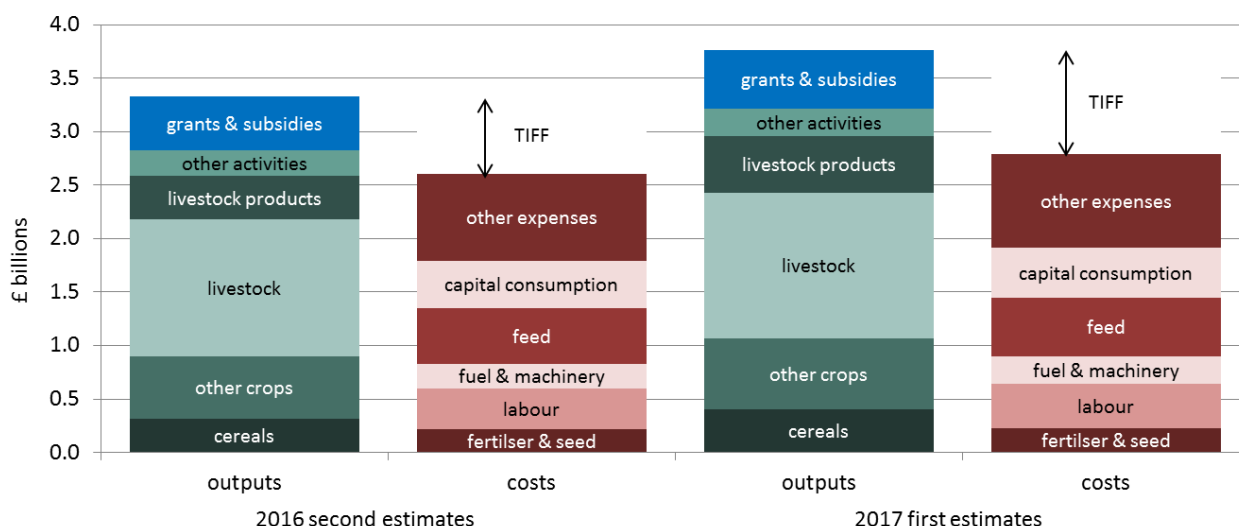
With more data for 2016 now available, last year’s initial estimate for TIFF has been revised downwards to £672 million. The 2016 estimate is up £33 million on 2015; that’s an increase of five per cent, or three per cent after accounting for inflation.

The initial estimate for 2017 is £917 million, an increase of £245 million on 2016, 36 per cent, or 34 per cent in real terms. Outputs are estimated to have risen faster than costs, with large rises seen in milk (up £117m) and barley (up £67m), both mainly due to improved prices.

The data show that the profitability of the agricultural sector is heavily, though not entirely, dependent upon subsidies, with subsidies accounting for 60 per cent of TIFF. In 2017, the original amount of pillar 1 EU support increased five per cent (€24 million), but the weakening of the pound resulted in an eight per cent increase in overall support payments.

Tables showing the detailed list of components of TIFF are provided in section 12, with data from 2007 to 2016. Chart 1 illustrates the components that make up the calculation of TIFF, with TIFF being the difference between total outputs (plus subsidies) and total costs.

Chart 1: Make-up of Agricultural Accounts, 2016 and 2017 [source: Table 1](#)

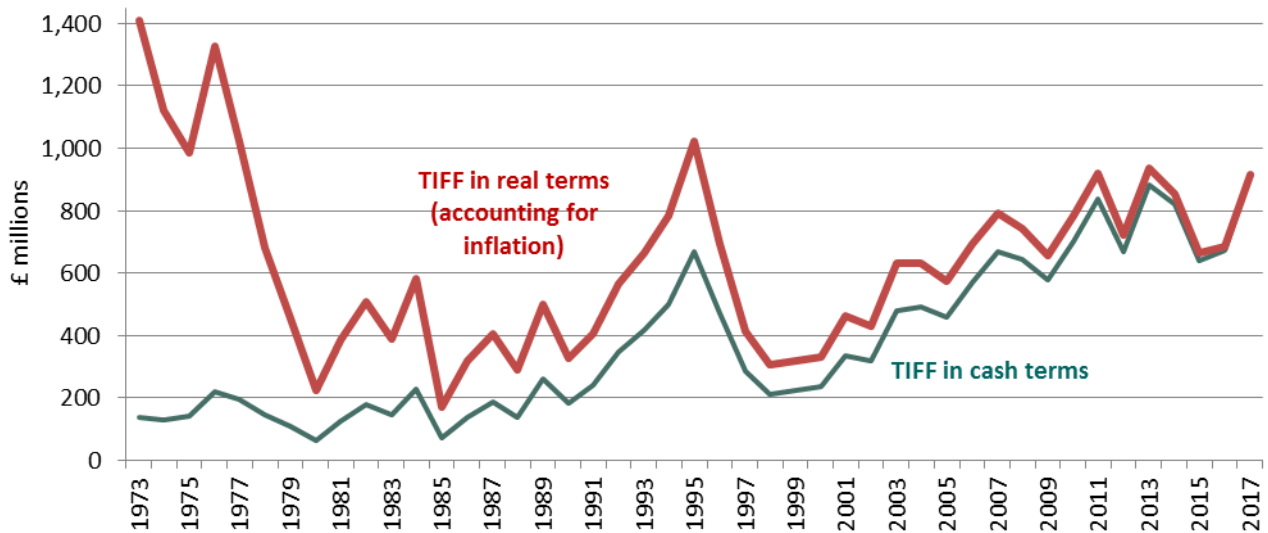


### 3.1 Long term trends

The long term trend, illustrated in Chart 2, inevitably includes some jumps in individual elements where a particular methodology has changed and it has not been possible or preferable to recalculate the time-series back to 1973. However these individual discontinuities are considered small enough relative to the overall pattern of changes in TIFF.

In real terms (once inflation has been accounted for), high inflation in the mid-1970s resulted in a large fall in TIFF. TIFF then almost trebled between 1990 and 1995 before falling from 1995 to 1998 primarily due to a strong pound, weak world commodity prices and the impact of BSE. The outbreak of Foot and Mouth Disease in 2001 appears to have had little impact on TIFF. The real terms value of TIFF then almost trebled between 1998 and 2013, showing consistent steady growth, though fluctuating every few years.

Chart 2: Trends in Total Income from Farming (TIFF), 1973 to 2017 [source: Table 4](#)



### 3.2 High-level components of TIFF

Total outputs from farms in Scotland fell from £2.86 billion in 2015 to £2.82 billion in 2016. Once inflation is taken into account this was a decrease of three per cent. The first estimates for 2017 suggest an increase of £390 million to £3.21 billion, or a real terms increase of 12 per cent.

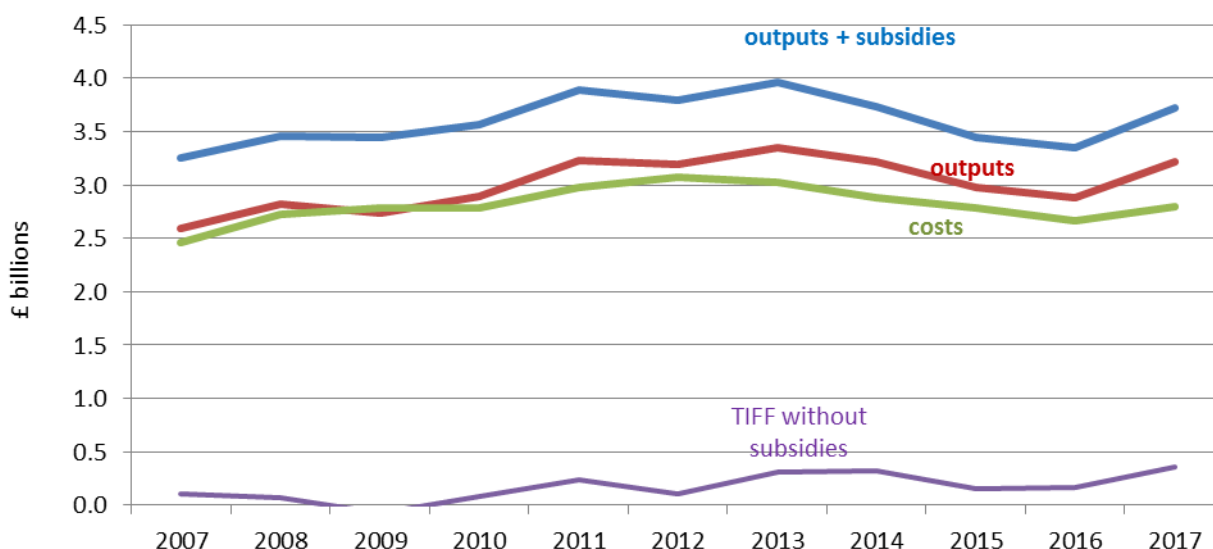
Total costs for farms in Scotland fell from £2.67 billion in 2015 to £2.62 billion in 2016. Once inflation is taken into account this was a fall of four per cent. The first estimates for 2017 suggest an increase of £184 million to £2.80 billion, or a real terms increase of five per cent.

Chart 3 shows that outputs and costs have been broadly similar across the last ten years, with outputs slightly higher than costs in nine of the last ten years, and more clearly so since 2013.

Subsidies and other payments are mainly affected by changes in the euro exchange-rate, though until recently there had also been significant reductions in the euro payment amount. However, in the last two years receipt of convergence payments have resulted in an increase in the budgeted euro amount of direct payments, though once deductions and penalties are applied this does not always result in increased payments. This meant that in 2016 total payments (excluding coupled support) increased by £16 million to £467 million, a one per cent increase after accounting for inflation, and an increase of £39 million in 2017 to £506 million, a six per cent increase after accounting for inflation.

Total grants, subsidies and coupled support, as a proportion of TIFF, has fallen from 89 per cent in 2010 to an estimated 60 per cent in 2017. The last time that TIFF would have been negative without subsidies was in 2009.

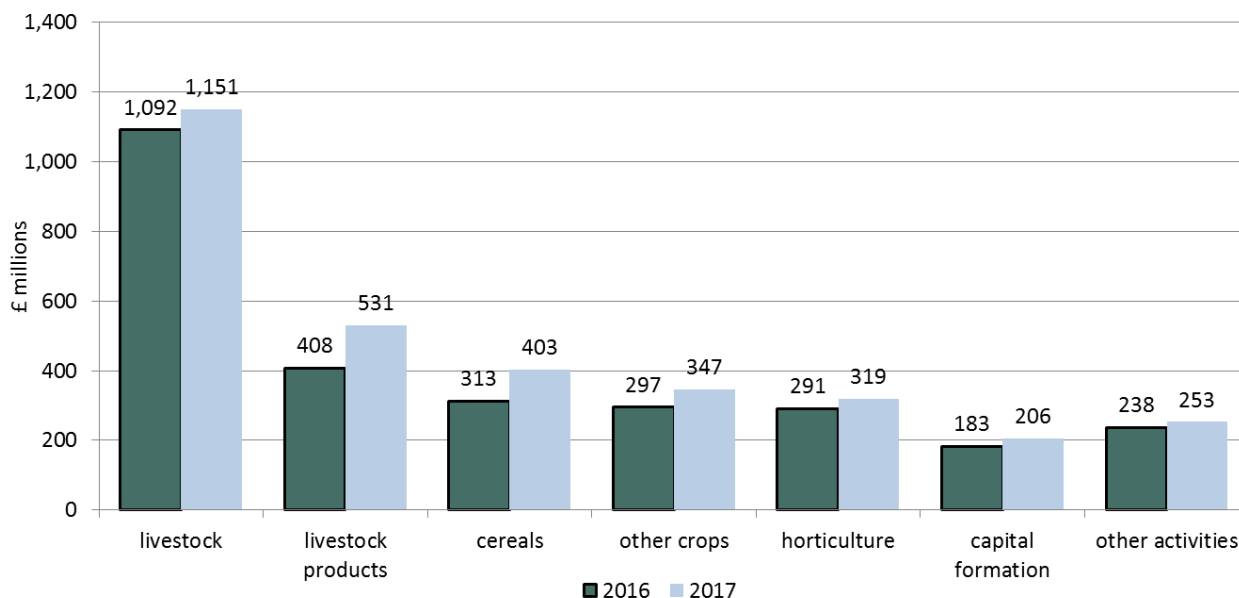
Chart 3: Trends in outputs, costs and subsidies over the period, in real terms  
source: Table 3



## 4. Outputs from Scottish farms

The value of outputs from Scottish farms fell from £2.86 billion in 2015 to £2.82 billion in 2016, but then rose to an estimated £3.21 billion in 2017. Changes in outputs will be due to both changes in volume and in prices.

Chart 4: Output, 2016 and 2017 [source: Table 1](#)



The total output of **livestock** (finished, store sales outwith Scotland, and coupled support) was estimated as £1.09 billion in 2016 (39 per cent of output; up £31 million, three per cent or one per cent real terms) and £1.15 billion in 2017 (36 per cent of output; up £60 million, five per cent or four per cent real terms).

Within this the value of finished and store **cattle** fell to £686 million in 2016 (24 per cent of output; down £13 million, two per cent or four per cent real terms) but is estimated to have risen to £716 million in 2017 (22 per cent of output; up £31 million, four per cent or three per cent real terms). Both years saw a fairly steady volume, with a drop in price in 2016 followed by an increase in price in 2017.

Finished **sheep** and lamb output was estimated as £195 million in 2016 (seven per cent of output; up £23 million, 13 per cent or 11 per cent real terms) and £209 million in 2017 (seven per cent of output; up £14 million, seven per cent and five per cent real terms). Changes are due to prices in both 2015 and 2016. Store sheep and lamb output was estimated at £14 million in 2016 and £13 million in 2017, with around £7 million both years in coupled support.

Output of **pigs** was estimated as £87 million in 2016 (three per cent of output; up £2 million, two per cent, or little changed in real terms) and £108 million in 2017 (three per cent of output; up £21 million, 24 per cent or 22 per cent real terms). Production increased slightly in both years, but 2017 saw a strong increase in price.



**Poultry** was estimated as £84 million in 2016 (three per cent of output; up £19 million, 30 per cent or 27 per cent real terms) and £80 million in 2017 (two per cent of output; down £4 million, five per cent or seven per cent real terms). 2016 saw a recovery in broiler numbers, before dropping slightly in 2017, with price remaining steady.

Amongst livestock products, the value of **milk** fell further in 2016 to £317 million (11 per cent of output; down £53 million, 14 per cent or 16 per cent real terms) but rebounded to an estimated £434 million in 2017 (14 per cent of output; up £117 million, 37 per cent or 34 per cent real terms). The average price for a litre fell from 24.1p to 22.0p between 2015 and 2016, with a six per cent reduction in volume to 1.43 billion litres. However, during 2017 the average price increased to 28.2p per litre, which was accompanied by a seven per cent increase in volume to 1.53 billion litres.

The value of **eggs** for food was estimated at £83 million in 2016 (three per cent of output; down £9 million, 10 per cent or 12 per cent real terms) and £89 million in 2017 (three per cent of output; up £6 million, eight per cent or six per cent real terms). There were increases in production in both years with a drop in price in 2016 followed by a small increase in 2017. The value of egg production in 2017 was estimated as being greater than for poultry production.

**Wool** accounted for £4 million in both 2016 and 2017.

**Other livestock and livestock products** includes around £8 million for exported hatching eggs.

**Cereals** were valued at £313 million in 2016 (11 per cent of output; down £21 million, six per cent or eight per cent real terms) and £403 million in 2017 (13 per cent of output; up £90 million, 29 per cent or 27 per cent real terms). About 60 per cent of this value comes from barley, with barley showing a seven per cent reduction in value in 2016 to £185 million, but a 36 per cent increase to £253 million in 2017, due to an increase in both price and volume. The value of wheat fell in 2016, down to £105 million, but rose to £128 million in 2017, while oats rose 43 per cent in 2016 to £23 million before dropping off slightly to £22 million in 2017.

Amongst other crops, **potatoes** were valued at £205 million in 2016 (seven per cent of output; up £35 million, 20 per cent or 18 per cent real terms) and an estimated £215 million in 2017 (seven per cent of output; up £9 million, four per cent or three per cent real terms). The increase in 2016 was due to the ware prices, whereas in 2017 an increase in volume offset a drop in price. Seed volumes and prices remained more constant.

Within **horticulture**, vegetable production accounted for an estimated £130 million in 2016 (five per cent of output; up £21 million, 20 per cent or 17 per cent real terms) and £155 million in 2017 (five per cent of output; up £24 million, 19 per cent or 16 per cent in real terms).

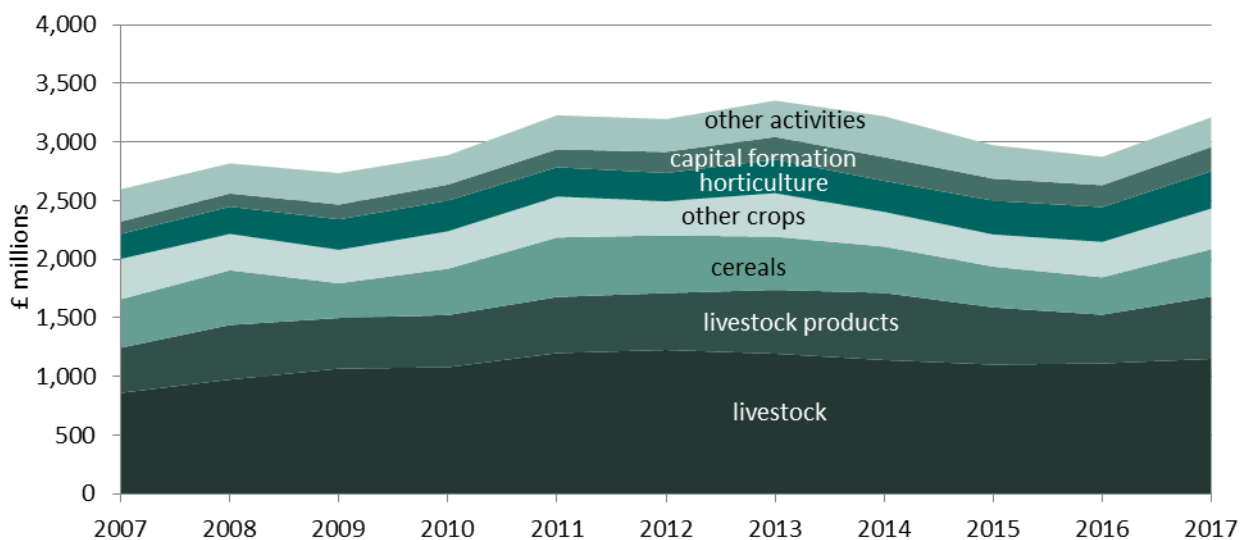
Fruit production accounted for an estimated £136 million in 2016 (five per cent of output; down £4 million, three per cent or five per cent real terms) and £134 million in 2017 (four per cent of output; down £2 million, one per cent or three per cent real

terms). While the trend in vegetables continues to rise, there have now been two years of small drops in the value of fruit.

**Capital formation**, which in financial terms recognises the value of putting livestock into the breeding herd rather than slaughter, was estimated at £183 million in 2016 (six per cent of output; up £3 million, two per cent or no change real terms) and £206 million in 2017 (six per cent of output; up £23 million, 12 per cent or 10 per cent real terms).

**Other agricultural work** accounted for £74 million in 2016 and was estimated at £81 million in 2017 (three per cent of output in both years), with income from non-agricultural activity<sup>2</sup> estimated at £164 million in 2016 (six per cent of output; down £27 million, 14 per cent or 16 per cent real terms) and £172 million in 2017 (five per cent of output; up £8 million, five per cent or three per cent real terms).

Chart 5: Value of outputs, in real terms, 2007 to 2017 [source: Table 3](#)



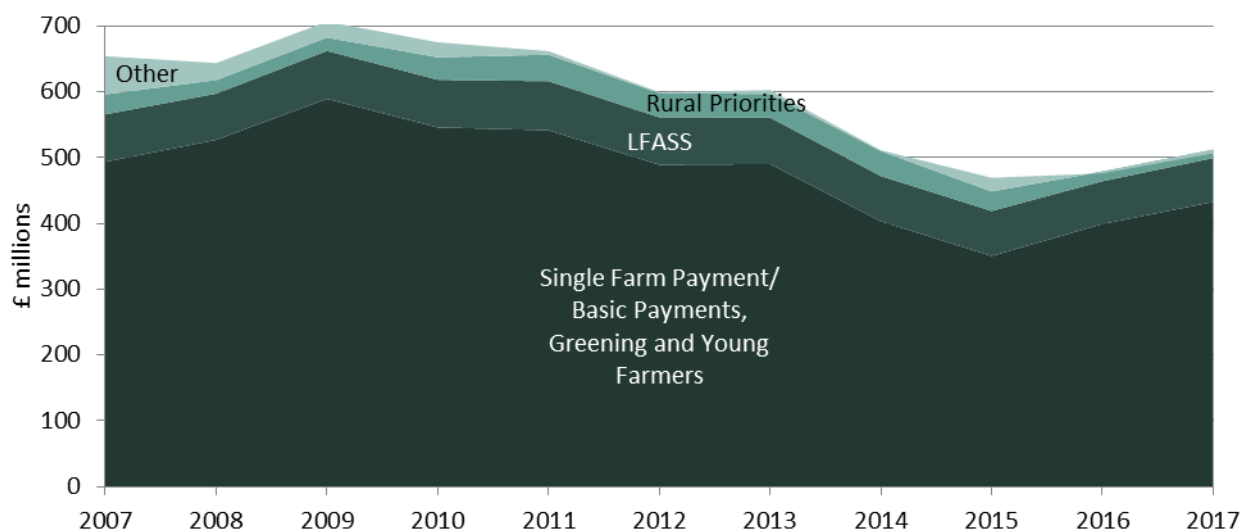
<sup>2</sup> This only relates to activities that are not separable from the agricultural activity. Forms of diversification such as large-scale energy generation would be excluded from TIFF.

## 5. Total grants and subsidies

Total payments (including coupled support) increased by £24 million to £511 million in 2016, and increased £42 million to £554 million in 2017.

Direct Payments (Basic Payment Scheme, Greening and Young Farmer Payment) were 384 million in 2016 (75 per cent of payments or 12 per cent of total gross income; up £48 million, 14 per cent or 12 per cent real terms) increasing to £425 million in 2017 (77 per cent of payments or 11 per cent of total gross income; up £40 million, 11 per cent or eight per cent real terms). The increase in 2016 was due to a favourable exchange rate ( $\text{€}1=\text{£}0.85228$ ) which offset an €8.5 million decrease in the amount paid out. The 2017 budgeted figures saw a €24 million increase in the initial euro amount, to €475 million, with a five per cent further weakening of the Sterling exchange rate ( $\text{€}1=\text{£}0.8947$ ) resulting in an 11 per cent Sterling increase in pillar 1 payments.

Chart 6: Grants and Subsidies 2007-2017 [source: Table 3](#)  
(excludes coupled support)



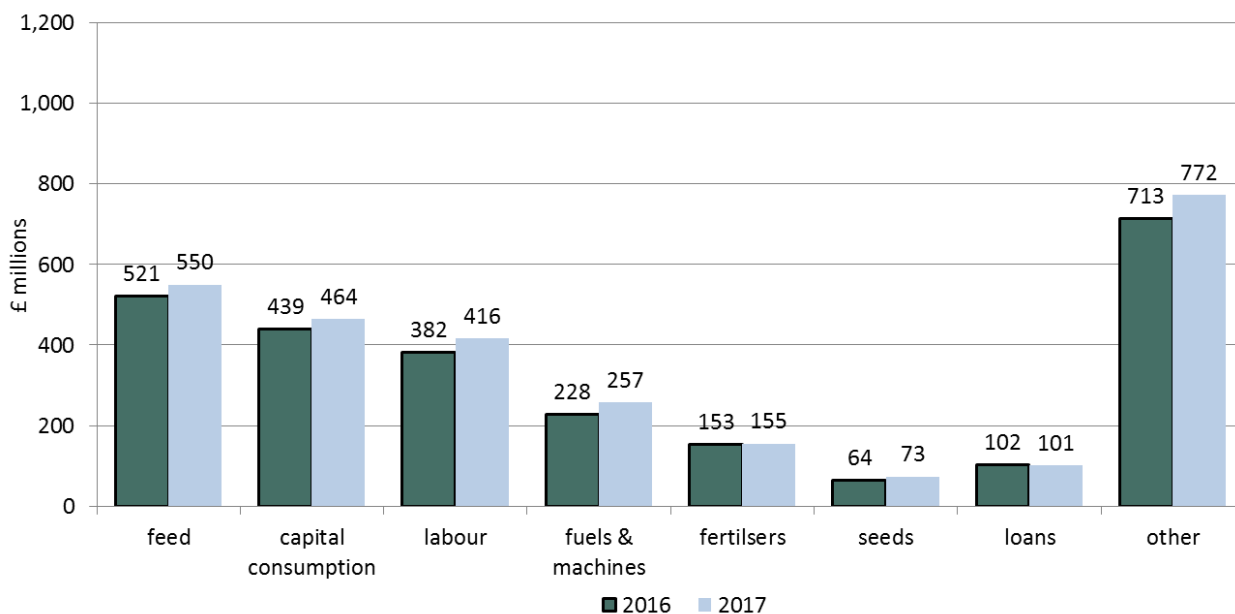
Other payments include the Less-favoured Areas Support Scheme, which accounted for £63 million in 2016, with £66 million estimated for 2017, and Rural Priorities payments which accounted for £14 million in 2016 and £13 million in 2017. The remaining schemes included the £2.4 million EU Milk Production Reduction Scheme in 2016.

Coupled support increased from £44 million in 2016 to £47 million in 2017. The figures are included in the livestock income in this publication's tables.

## 6. Input costs faced by Scottish farms

Total costs for Scottish farms fell from £2.67 billion in 2015 to £2.62 billion in 2016, but then rose to an estimated £2.80 billion in 2017. Changes in costs will be due to both changes in volume and in prices.

Chart 7: Distribution of costs, 2016 and 2017 [source: Table 1](#)



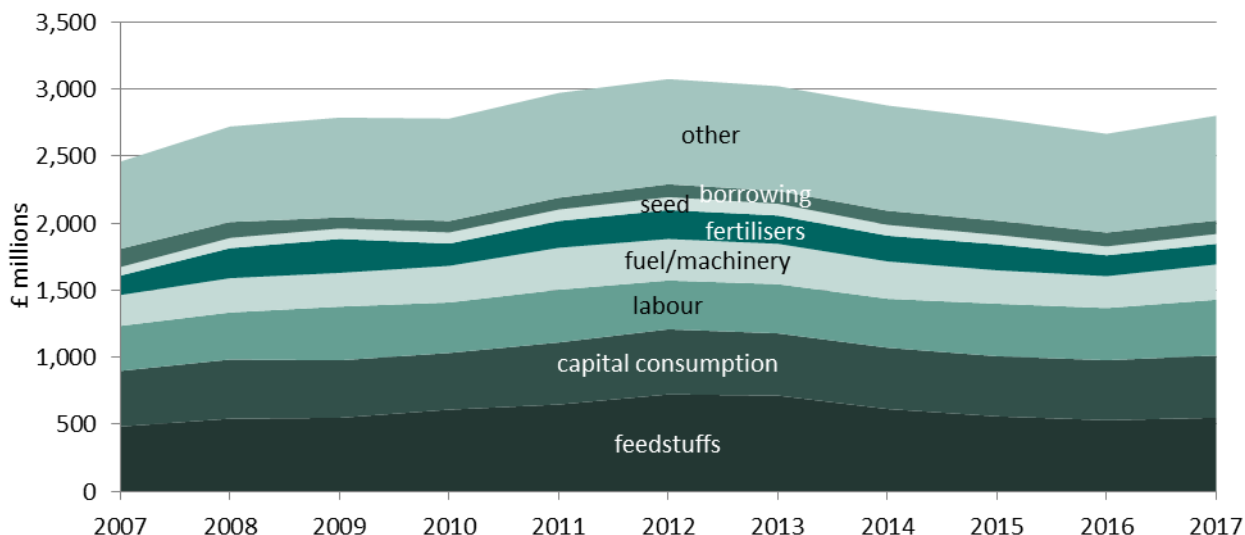
The cost of **feed** was estimated as £521 million in 2016 (20 per cent of costs; down £18 million, three per cent or five per cent real terms) and £550 million in 2017 (20 per cent of costs; up £28 million, five per cent or four per cent real terms).

Figures based mainly on the Farm Business Survey showed a two per cent reduction in the value of concentrates for sheep and cattle for 2016 and a similar reduction in roughages. There was also a two per cent fall calculated in granivore feed. Initial estimates for 2017, based on Agricultural Price Indices, livestock numbers and consideration of the grass harvested, suggest an increase in the bill, particularly for roughages.

**Consumption of fixed capital**, which in financial terms recognises the economic cost of using up a farm's previous capital investment (in livestock, buildings, plant and machinery), was estimated as £439 million in 2016 (17 per cent of costs; up £7 million, two per cent or steady in real terms) and £464 million in 2017 (17 per cent of costs; up £25 million, six per cent or four per cent real terms).

The cost of **labour** was estimated as £382 million in 2016 (15 per cent of costs; up £5 million, one per cent or a drop of one per cent in real terms) and £416 million in 2017 (15 per cent of costs; up £34 million, nine per cent or seven per cent real terms). Also included in this category is the cost of specialist contract work which was estimated as £7 million in 2016 and £6 million in 2017.

Chart 8: Input costs, in real terms, 2007 to 2017 [source: Table 3](#)



The cost of **fuel** was estimated as £108 million in 2016 (four per cent of costs; down £11 million, nine per cent or 11 per cent real terms) and £126 million in 2017 (four per cent of costs ; up £18 million, 17 per cent or 14 per cent real terms). The prices of red diesel and other fuels fell in 2016 but increased in 2017. Other machinery expenses and repairs amounted to a further £120 million in 2016 and £131 million in 2017.

The cost of **fertiliser** usage was estimated as £153 million in 2016 (six per cent of costs; down £34 million, 18 per cent or 20 per cent real terms) and £155 million in 2017 (six per cent of costs; up £2 million, one per cent or a one per cent fall in real terms). The estimated fall in 2016 was due mainly to price reductions, particularly for nitrogen.

Expenditure on **seed**, which only accounts for about two or three per cent of costs, was estimated as £64 million in 2016 and £73 million in 2017.

The cost of **borrowing**, split in the tables into FISIM (the costs of financial services) and interest (though both of these would appear, in practice, mainly as interest payments) fell slightly in 2016 and again in 2017, due mainly to the reductions in average interest rates.

All **other expenses**, including maintenance, veterinary fees, crop protection, rent and other miscellaneous expenses, fell £6 million to £707 million in 2016, but increased an estimated £62 million to £768 million in 2017.

## 7. Production indices

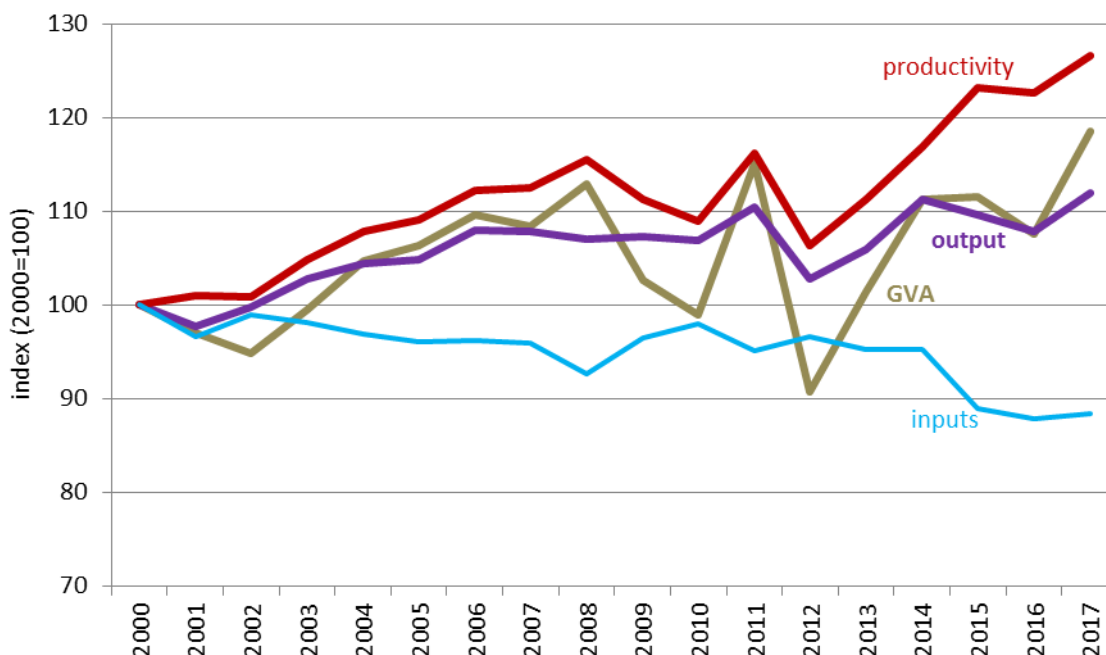
Table 5 shows four different production indices. To produce these, income and expenditure accounts (similar to TIFF) are calculated based on constant prices. The percentage annual changes in these is calculated, which are then converted into indices.

- The Output Index looks at how the volume of output changes over time. It doesn't take into account capital formation, and is not affected by whether commodities have received coupled support.
- The Input Index looks at most items of input, hence how the volume of input changes over time. It doesn't however take into account spend on contract work, interest or taxes on production.
- Total Factor Productivity Index calculates the ratio of outputs to inputs, in line with that published at UK-level by DEFRA.
- The Gross Value Added Index is a volume-based indicator of the economic size of the industry, used in GDP calculations. As with the other indicators, it is not, strictly speaking, affected by the value of commodities, other than in terms of the weight given to each element within the calculation. This index is therefore different from the Gross Value Added figure included in Table 1.

The three indicators, excluding input, show fluctuating growth compared to the base year 2000. Initial growth until 2008 stuttered, with dips caused by the bad weather in 2010 and 2012.

Total factor productivity has generally been increasing, with dips in 2010 and 2012, but has increased in four of the last five years.

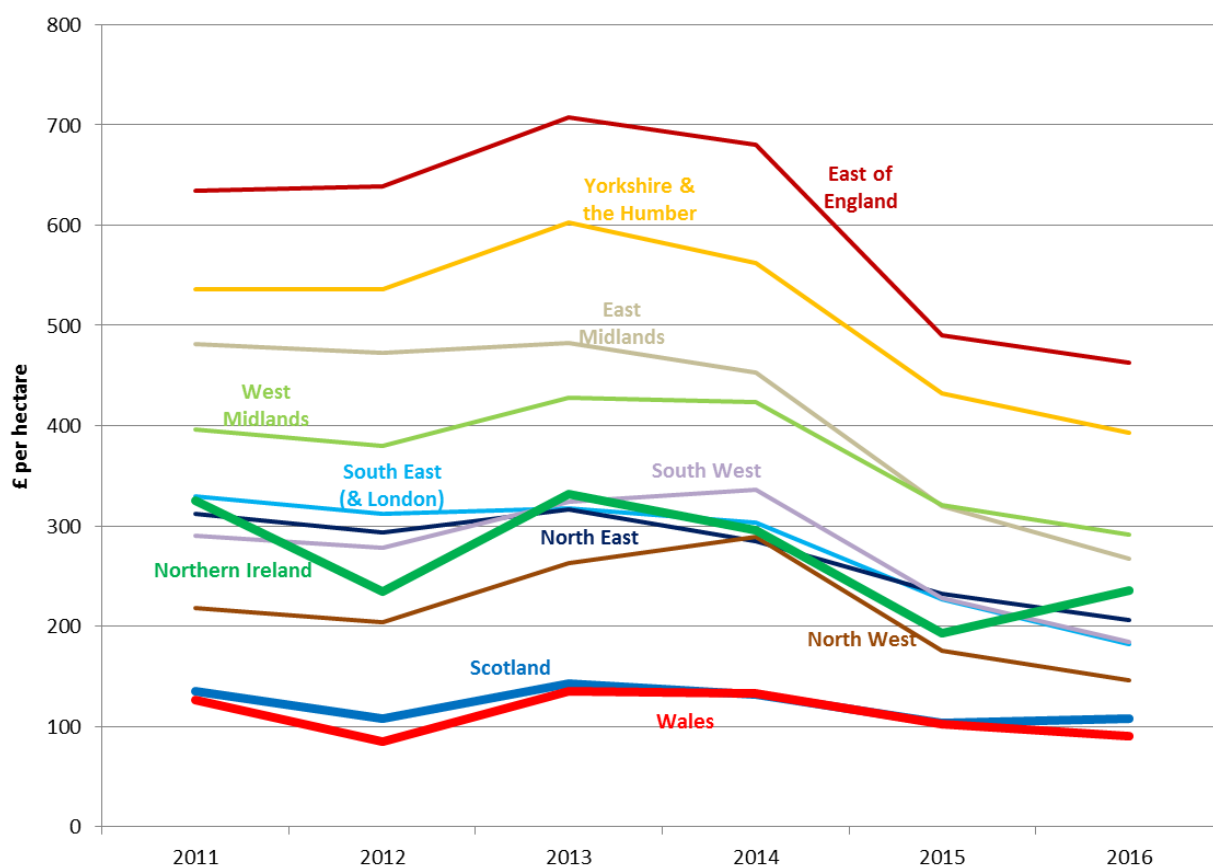
Chart 9: Production indices, 2000 to 2017



## 8. NUTS1 area comparisons

Chart 10 shows the latest Scotland data for 2016 in comparison with other UK NUTS1<sup>3</sup> areas. The data are shown on a per hectare basis, to illustrate the productivity of land, rather than be affected by the differing sizes of NUTS1 areas. Scotland and Wales are consistently below any other NUTS1 area, with Northern Ireland at similar levels to the lower performing English regions, and four English regions (East of England, Yorkshire & Humber, East Midlands, West Midlands) on top. All of the English regions, and Wales, saw falls in their provisional estimates for 2016, while Northern Ireland saw a stronger increase than Scotland.

Chart 10: TIFF per hectare, by NUTS1 region, 2011 to 2016



<sup>3</sup> Nomenclature of Territorial Units for Statistics (NUTS) is the EU's geocode standard for the UK

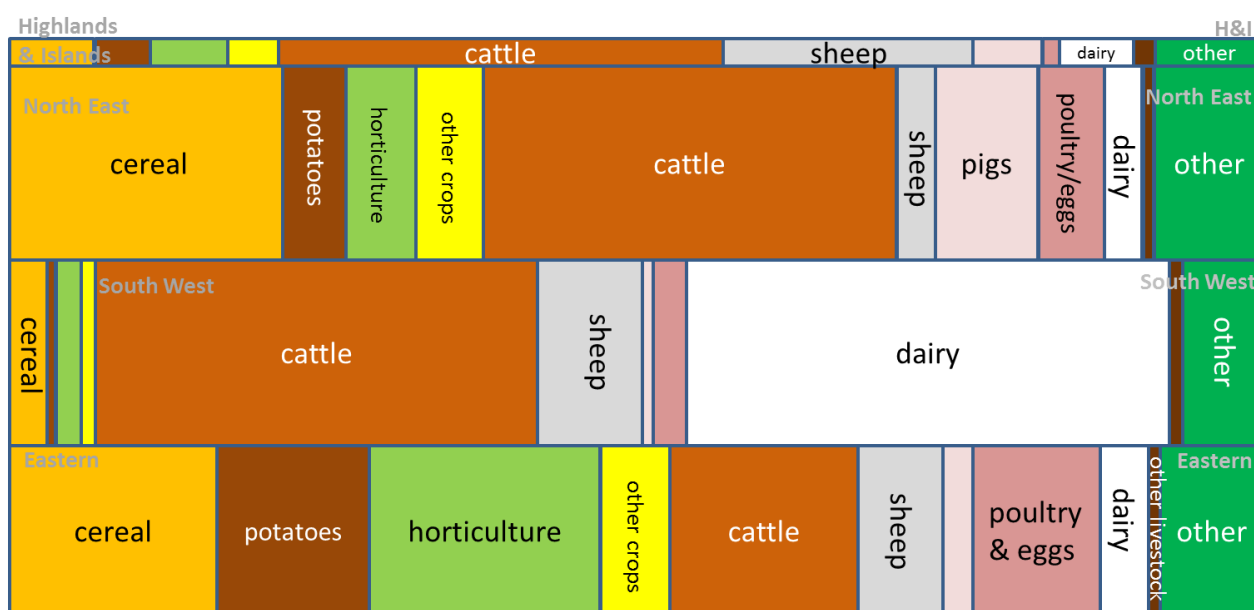


## 9. NUTS2 regional estimates

Regional estimates of TIFF have been calculated by allocating outputs and inputs to Scotland's four NUTS2-level regions<sup>4</sup>. Census and Farm Business Survey data are used to allocate livestock, crop data and costs, though it should be noted that uniform prices are applied across all regions. For example, the national estimate of dairy output is allocated in proportion to the number of dairy cows in each region, without taking into account any differential prices that there may be.

Chart 11 illustrates the relative importance of each output sector to the regions. The graphic relates to outputs only, estimated costs are not included and so the graphic should not be taken as illustrating regional sector GVA or profits. It can be seen that the South West relies heavily on output from milk, accounting for well over a third of the region's output, though also on beef production. Beef and cereals dominate the North East, with Highlands and Islands having important beef and sheep sectors, as well as relying more on other income sources. Eastern Scotland has the most balanced distribution of output, with cereals, potatoes, horticulture, cattle, and poultry each producing more than ten per cent of the region's output, with none above 20 per cent.

Chart 11: Estimated output per hectare by NUTS2 region 2017



Assumed uniformity of price is also an issue in the estimation of regional input costs. However, where these are taken from the Farm Business Survey, farm-type level costs are used, with each region's costs produced by applying the proportion of each farm-type in the region. Hence, for example, the Highlands and Islands region would be heavily influenced by the average costs of LFA cattle and sheep farms, whereas East Scotland would be more influenced by the average costs of cereal, horticulture or general cropping farms. This year we have also estimated differential

<sup>4</sup> This will increase to five regions from 2018



costs for feed and fertiliser, based on research findings into the additional costs in rural areas, and for labour, based on the Hours and Earnings Survey.

It is also recognised that certain regions produce store cattle for other regions, and that this is not included directly in the regional TIFF calculations, as only exported cattle are counted. However, since income from slaughter is distributed in proportion to regional cattle numbers, and these numbers include those that will be sold as store, it is likely that the overall estimation for income from cattle will not be affected too much.

As illustrated in chart 13, the TIFF estimates for 2016, and initial estimates for 2017, suggest that on a per hectare basis, the highest level of income from farming is in the North East. In 2016 Eastern Scotland and the South West had similar values per hectare, though in 2017 the increased milk price benefited the South West. Highlands & Islands has the lowest income from farming, with agriculture estimated to have made only a very small profit once support is included.

Chart 12: Regional TIFF estimates for 2016 and initial estimates for 2017

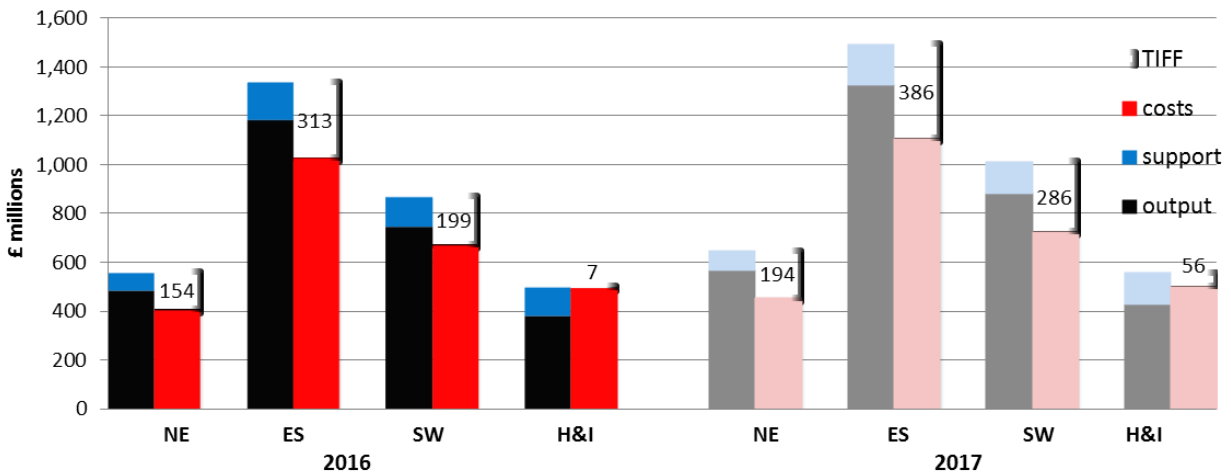


Chart 13: Regional TIFF estimates, per hectare, for 2016 and initial estimates for 2017

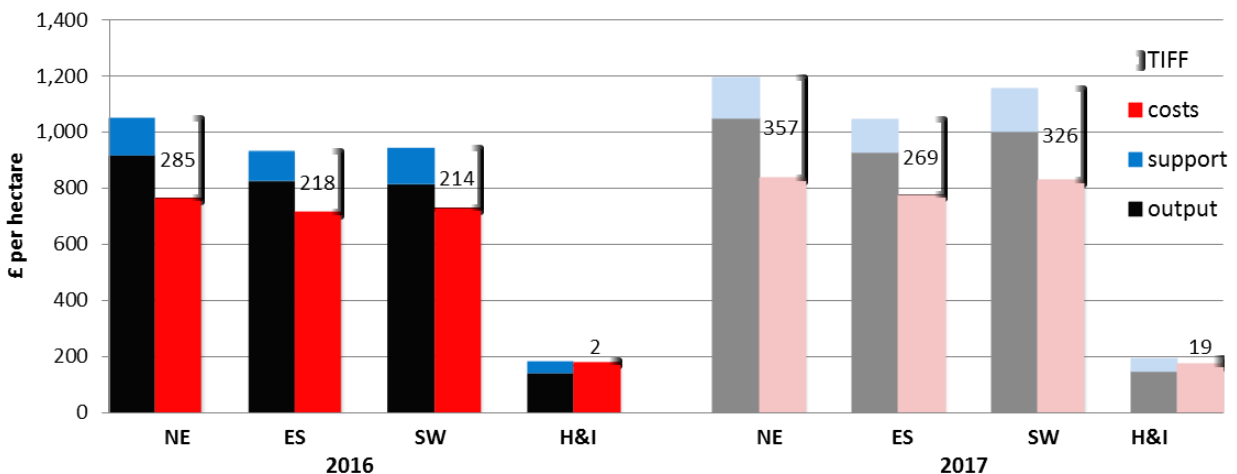


Chart 14: Map showing NUTS2 Regions of Scotland used in regional analysis



## 10. Revisions

### Regular revisions

Values for many of the datasets used in TIFF do not become available until later in the year. This means that the data published here for 2017 are often only a first estimate, with revised data being published next year and possibly a further update the following year. For this reason this publication contains updated data for 2015 and 2016.

### Methodological changes

A wide-ranging review of TIFF methodology was carried out during 2012 and 2013. Thereafter more minor methodology improvements have been identified, due to improved data sources, estimations or modelling. Where such changes have been made, back series are calculated where necessary. A document explaining the latest revisions to previously published TIFF estimates is available online at the following link

[www.gov.scot/farmingrevisions2017](http://www.gov.scot/farmingrevisions2017)

The main methodological changes in this year's publication relate to the inclusion of stockfeed, roughage, and camelids in the outputs, the inclusion of stockfeed and protein crops in the feed bill. Data changes affecting earlier years occurred in revised cattle data and in the ONS index used to separate finance costs into interest and FISIM.

### Effect of changes

For the most recent years, compared to the results published in January 2017, TIFF has been revised downwards £14 million (two per cent ) for 2015, and down £77 million (11 per cent) for 2016. This 11 per cent change was due to a two per cent revision in the income estimate and a 0.1 per cent revision in the costs estimate.

This year's revised trend in TIFF between 2015 and 2016 shows an increase of £33 million (five per cent) before inflation, a smaller increase than that published in January 2017 (which initially estimated a 15 per cent increase before inflation).

The largest revisions (in numerical rather than percentage terms) between 2016 initial estimates published last year and 2016 second estimates published here, which result in the £77 million change in estimate, are in

- i. income from non-agricultural activities, revised down £89 million. This is due to actual expenditure reported in the Farm Business Survey being quite different from initial estimates based on a range of price indices and other data. The value of income from non-agricultural activities, which only includes those activities that are non-separable from the farm activity, is difficult to measure consistently, and therefore difficult to estimate in advance.
- ii. income from other crops, revised upwards £39 million. This was due to the value of roughages and protein crops being included for the first time in the calculation.
- iii. subsidies, revised downwards £24 million as based on actual claims rather than initial budgets.

# 11. Notes

## 11.1 Uses of Information

The TIFF statistics are used for a wide range of purposes. The statistics help the government to assess the economic well-being of the different agricultural sectors, and to form, monitor and evaluate policy. The compilation of Scotland-level TIFF statistics is also part of the UK's requirement to submit an agricultural account to the Statistical Office of the European Communities on behalf of the UK.

Some examples detailing how the TIFF statistics are (or have been) used:

- Data from TIFF are used as part of the quarterly compilation of Scottish GDP. The TIFF statistics are also used to compile the National Accounts of the UK.
- The TIFF statistics are used frequently as part of informing briefing for Ministerial discussions with stakeholders across the industry. Price data for the sectors (as supplied by the markets) are also regularly updated and used to provide a picture of current market performance of these sectors.
- The TIFF statistics are also regularly used in the economic and analytical modelling of Scottish agriculture, for example, as used by the Food and Policy Research Institute (FAPRI).

Results from the TIFF statistical publication are also used (and available to the public) in the following publications:

### The Economic Report on Scottish Agriculture.

This is a compendium publication which contains detailed statistics on Scottish agriculture. It brings together information from the June Census, the Farm Business Survey, and TIFF calculations to provide a thematic overview of agriculture in Scotland. Since 2017 this has been in the form of a set of spreadsheet tables <http://www.gov.scot/Topics/Statistics/Browse/Agriculture-Fisheries/PubEconomicReport>

### Agricultural Facts and Figures pocketbook.

This provides a useful summary of the key statistics in the Scottish agriculture and food sector, in a convenient pocketbook format. <http://www.gov.scot/Topics/Statistics/Browse/Agriculture-Fisheries/PubFactsFigures>

We also use the TIFF statistics to contribute to the formulation and publication of UK statistics on agriculture. These publications are co-ordinated by DEFRA and more details are available here.

[www.gov.uk/government/publications?departments\[\]=department-for-environment-food-rural-affairs&publication\\_filter\\_option=statistics](http://www.gov.uk/government/publications?departments[]=department-for-environment-food-rural-affairs&publication_filter_option=statistics)

## 11.2 Methodology

The Total Income from Farming (TIFF) statistics are compiled annually by the Scottish Government's Rural & Environment Science & Analytical Services (RESAS).

There are about 40 different data sources that are used in compiling the TIFF statistics, for example;

- The annual June Agriculture Census run by the Scottish Government (SG), which itself also includes administrative data from Basic Payments applications and the British Cattle Tracing Scheme (CTS and RADAR).
- The annual December Agriculture Survey run by the SG.
- Farm Business Survey run by the SG.
- Prices and volumes data sourced from specific market reports from the appropriate industries.
- Prices and volumes data sourced from bespoke surveys, including those run by the SG and additional separate surveys run by industry bodies such as the Agriculture and Horticulture Development Board (AHDB).

A full description of the updated methodology is set out in a separate document published online at

[www.gov.scot/farmingmethodology2017](http://www.gov.scot/farmingmethodology2017)

## 11.3 Data Quality Assurance

Data used in the compilation of TIFF undergo several validation processes as follows;

- Prices checking for any obvious errors upon receipt of data, using both internal components and totals cross-checking and cross-referencing against previous years.
- Auto-checking and identifying any internal inconsistencies once loaded into the relevant TIFF modules.
- Checking for any sudden changes in comparison with previous returns.
- Assessing any trends or switches in areas, volumes, prices etc. that look unreasonable.

If necessary data suppliers are contacted to ensure data are correct.

The Scottish Government also uses industry expertise to quality assure emerging agricultural statistics. For the annual release of headline farm income statistics in January, this process involves quality assurance meetings with representatives of the National Farmers Union Scotland (NFUS), Quality Meat Scotland (QMS) and the Committee of Scottish Clearing Bankers (CSCB).

These meetings are usually held about two weeks prior to the publication of the farm income statistics and involve a detailed discussion on emerging statistics and trends on all the components making up the farm income statistics. This discussion

covers trends on agricultural production, prices, related costs and subsidy payments as well as on underlying methodologies used to generate the estimates. This is particularly useful for the components where data are not available for the most recent year and projections need to be made using various assumptions, indices and other information sources.

Representatives of NFUS, QMS and CSCB often have up-to-date and widespread knowledge of the agricultural sector, as well as access to their own information sources. This enables them to identify any questionable trends in the emerging statistics, which the Scottish Government can then investigate further and amend if necessary before the statistics are finalised and published. More fundamental comments on underlying methodologies can also be considered ahead of the following year's publication.

In addition, representatives of NFUS, QMS and CSCB also assist the Scottish Government Statisticians in understanding the likely reasons and causes behind various trends.

These quality assurance meetings are held in strict confidence and representatives of NFUS, QMS and CSCB provide assurances that any emerging statistics and trends will not be used by their organisations until publication of the final statistics. It should be noted however, that many components of the farm income estimates, for example market prices, are already in the public domain.

## 11.4 Accuracy of first estimates

As described on page 2 of this publication, the 2017 data are only first estimates, much of the required information to produce them only becoming available later this year. The following table shows a comparison made between last year's 2016 first estimates and this year's 2016 second estimates. This should serve as an indicator of how reliable this year's 2017 first estimates are likely to be. Text is coloured **blue** if this year we have revised our estimate upwards, **brown** if we have revised down and black if there has been no change. Traffic-light colour coding, used in Table 1, is that provided at the time to illustrate how dependent the estimates were on data that were not available at the time of publication.

Last year's second estimates for 2015 have been compared with this year's final estimates for 2015, using the same categories as above. Twenty-one of the 31 were zero change, two were one per cent out, four were two per cent out, two were three per cent out, and two were four or more per cent out. This suggests that, apart from methodological changes, the second estimates are very close to our final estimates.

**Table: Size of changes between last year's first estimates and this year's second estimates for 2016**

< 0.5%	1%	2%	3%	4%	5-9%	10%+
oilseed	nursery	cereals	seed	milk	subsidies	fruit
other livestock products	other livestock	potatoes		non-ag. costs	interest	wool
	eggs	finished cattle			maintenance	agric. activities
poultry	rent	pigs			vegetables	non ag. activities
labour	feed	FISIM				
store cattle	capital consumption	store sheep				
fertiliser	taxes	capital formation				
finished sheep		miscellaneous expenses				

### 11.5 Use of the GDP deflator

Prior to the January 2014 publication, the Scottish Government used the Retail Price Index (RPI) to deflate present income indicators in real terms. Following a consultation on options for improving the RPI, the National Statistician concluded in January 2013 that one of the formulae (the Carli formula) used to produce the RPI did not meet international standards. Subsequently, the UK Statistics Authority withdrew National Statistics designation from the RPI. This led the four governments responsible for UK TIFF calculations to reconsider their use of RPI in TIFF, and to opt for a GDP deflator (implicit price deflator for GDP).

### 11.6 Other Agricultural Statistics Publications

The next agricultural statistics publication due to be released is the results of the Farm Business Survey for 2016-17, which is based on the 2016 harvest year. Following that we will be publishing to results of the 2017 December Agricultural Survey. Both of these are due to be published in March 2018.

Results from all Scottish Government agricultural surveys can be accessed here: <http://www.gov.scot/Topics/Statistics/Browse/Agriculture-Fisheries/Publications>

## 12. Tables



Table 1: Changes in TIFF components 2015 to 2017

Prices not adjusted for inflation

£ millions

	Based on complete/final data	Based on incomplete data	Based on proxy estimates						
	2015	2016	2017	2015 to 2016			2016 to 2017		
		second estimate	initial estimate	change	% change	% change accounting for inflation	change	% change	% change accounting for inflation
<b>OUTPUTS</b>									
Cereals									
Wheat	118.8	104.8	128.5	-14	-12%	-13%	24	23%	20%
Barley	199.3	185.4	252.7	-14	-7%	-9%	67	36%	34%
Oats	15.9	22.8	22.2	7	43%	41%	-1	-3%	-4%
Triticale	0.3	0.0		0	-91%	-91%			-100%
<b>1. Total cereals</b>	<b>334.3</b>	<b>313.0</b>	<b>403.4</b>	<b>-21</b>	<b>-6%</b>	<b>-8%</b>	<b>90</b>	<b>29%</b>	<b>27%</b>
Cereals net of subsidies	334.3	313.0	403.4	-21	-6%	-8%	90	29%	27%
Other crops:									
Potatoes	170.9	205.5	214.7	35	20%	18%	9	4%	3%
Oilseed Rape	37.1	33.0	44.8	-4	-11%	-13%	12	35%	33%
Other Farm Crops	56.0	58.1	87.4	2	4%	2%	29	50%	48%
<b>2. Total other crops</b>	<b>264.1</b>	<b>296.6</b>	<b>346.8</b>	<b>33</b>	<b>12%</b>	<b>10%</b>	<b>50</b>	<b>17%</b>	<b>15%</b>
Other crops net of subsidies	264.1	296.6	346.8	33	12%	10%	50	17%	15%
Horticulture:									
Vegetables	108.9	130.3	154.7	21	20%	17%	24	19%	16%
Fruit	139.6	135.6	133.9	-4	-3%	-5%	-2	-1%	-3%
Flowers, Nursery Stock & Other Plants	29.6	25.4	30.5	-4	-14%	-16%	5	20%	18%
<b>3. Total Horticulture</b>	<b>278.1</b>	<b>291.3</b>	<b>319.1</b>	<b>13</b>	<b>5%</b>	<b>3%</b>	<b>28</b>	<b>10%</b>	<b>8%</b>
Livestock:									
Finished Cattle and Calves	650	632	647	-18	-3%	-5%	15	2%	0%
Finished Sheep and Lambs	172.5	195.3	209.3	23	13%	11%	14	7%	5%
Finished Pigs	85.4	87.3	108.4	2	2%	0%	21	24%	22%
Poultry	64.9	84.3	80.1	19	30%	27%	-4	-5%	-7%
Other Livestock	26.1	25.2	24.4	-1	-4%	-5%	-1	-3%	-5%
<b>4. Total Finished Livestock</b>	<b>998.9</b>	<b>1,024.3</b>	<b>1,069.1</b>	<b>25</b>	<b>3%</b>	<b>1%</b>	<b>45</b>	<b>4%</b>	<b>2%</b>
Finished livestock net of subsidies	963.2	980.2	1,021.9	17	2%	0%	42	4%	2%
Store Cattle	27.2	32.2	40.0	5	18%	16%	8	24%	22%
Store Calves	21.5	21.3	29.4	0	-1%	-3%	8	38%	35%
Store Sheep	13.0	14.0	12.8	1	8%	5%	-1	-8%	-10%
<b>5. Total Store Livestock</b>	<b>61.8</b>	<b>67.6</b>	<b>82.2</b>	<b>6</b>	<b>9%</b>	<b>7%</b>	<b>15</b>	<b>22%</b>	<b>19%</b>
Livestock Products:									
Milk and Milk Products	369.9	316.7	433.5	-53	-14%	-16%	117	37%	34%
Eggs for food	91.7	82.6	88.8	-9	-10%	-12%	6	8%	6%
Clipwool	4.6	4.1	4.2	0	-10%	-12%	0	2%	0%
Other Livestock Products	4.1	4.3	4.8	0	5%	3%	1	13%	11%
<b>6. Total Livestock Products</b>	<b>470.2</b>	<b>407.7</b>	<b>531.4</b>	<b>-63</b>	<b>-13%</b>	<b>-15%</b>	<b>124</b>	<b>30%</b>	<b>28%</b>
Livestock Products net of subsidies	470.2	407.7	531.4	-63	-13%	-15%	124	30%	28%

	2015	2016	2017	2015 to 2016			2016 to 2017		
<b>Capital Formation:</b>									
Cattle	121.3	112.2	134.4	-9	-8%	-9%	22	20%	18%
Sheep	34.8	46.9	45.2	12	35%	32%	-2	-4%	-5%
Pigs	0.8	0.6	0.6	0	-22%	-24%	0	-1%	-3%
Poultry	23.5	23.7	25.9	0	1%	-1%	2	9%	7%
<b>7. Total Capital Formation</b>	<b>180.4</b>	<b>183.3</b>	<b>206.1</b>	<b>3</b>	<b>2%</b>	<b>0%</b>	<b>23</b>	<b>12%</b>	<b>10%</b>
<b>8. Total Other Agricultural Activities</b>	<b>83.7</b>	<b>73.6</b>	<b>80.9</b>	<b>-10</b>	<b>-12%</b>	<b>-14%</b>	<b>7</b>	<b>10%</b>	<b>8%</b>
<b>9. Total Non-Agricultural Activities</b>	<b>190.8</b>	<b>163.9</b>	<b>172.1</b>	<b>-27</b>	<b>-14%</b>	<b>-16%</b>	<b>8</b>	<b>5%</b>	<b>3%</b>
<b>10. GROSS OUTPUT AT BASIC PRICES</b>	<b>2,862.3</b>	<b>2,821.2</b>	<b>3,211.1</b>	<b>-41</b>	<b>-1%</b>	<b>-3%</b>	<b>390</b>	<b>14%</b>	<b>12%</b>
Gross output at basic prices net of subsidies	2,826.5	2,777.1	3,163.9	-49	-2%	-4%	387	14%	12%
<b>INPUTS (a)</b>									
<b>11. Total Feedstuffs</b>	<b>539.0</b>	<b>521.2</b>	<b>549.6</b>	<b>-18</b>	<b>-3%</b>	<b>-5%</b>	<b>28</b>	<b>5%</b>	<b>4%</b>
<b>12. Total Seeds</b>	<b>66.8</b>	<b>64.4</b>	<b>72.7</b>	<b>-2</b>	<b>-4%</b>	<b>-5%</b>	<b>8</b>	<b>13%</b>	<b>11%</b>
<b>13. Total Fertilisers and Lime</b>	<b>186.9</b>	<b>153.1</b>	<b>154.6</b>	<b>-34</b>	<b>-18%</b>	<b>-20%</b>	<b>2</b>	<b>1%</b>	<b>-1%</b>
<b>Farm Maintenance:</b>									
Occupier	72.5	74.6	80.7	2	3%	1%	6	8%	6%
Landlord	8.4	8.3	8.8	0	-1%	-3%	0	6%	4%
<b>14. Total Farm Maintenance</b>	<b>80.9</b>	<b>82.9</b>	<b>89.5</b>	<b>2</b>	<b>3%</b>	<b>1%</b>	<b>7</b>	<b>8%</b>	<b>6%</b>
<b>Miscellaneous Expenditure:</b>									
Machinery Repairs	115.4	115.8	126.5	0	0%	-2%	11	9%	7%
Fuel and Oil	118.7	108.1	126.0	-11	-9%	-11%	18	17%	14%
Other Machinery Expenses	4.2	4.6	4.6	0	8%	6%	0	0%	-2%
Electricity and heating	21.2	20.6	23.9	-1	-3%	-5%	3	16%	14%
Veterinary Expenses and Medicines	66.8	66.3	65.0	0	-1%	-3%	-1	-2%	-4%
Crop Protection	65.5	64.3	81.6	-1	-2%	-4%	17	27%	25%
Contract Work	89.7	82.1	88.4	-8	-8%	-10%	6	8%	6%
Other Farm Costs	358.4	359.1	387.3	1	0%	-2%	28	8%	6%
<b>15. Total Miscellaneous Expenses</b>	<b>839.9</b>	<b>820.9</b>	<b>903.3</b>	<b>-19</b>	<b>-2%</b>	<b>-4%</b>	<b>82</b>	<b>10%</b>	<b>8%</b>
<b>16. FISIM (Financial Intermediation Services Indirectly Measured)</b>	<b>18.9</b>	<b>20.3</b>	<b>22.5</b>	<b>1</b>	<b>7%</b>	<b>5%</b>	<b>2</b>	<b>11%</b>	<b>9%</b>
<b>17. Total Non-Agricultural Activities</b>	<b>20.7</b>	<b>20.2</b>	<b>18.1</b>	<b>0</b>	<b>-2%</b>	<b>-4%</b>	<b>-2</b>	<b>-11%</b>	<b>-12%</b>
<b>18. GROSS INPUT (b)</b>	<b>1,753.0</b>	<b>1,683.1</b>	<b>1,810.2</b>	<b>-70</b>	<b>-4%</b>	<b>-6%</b>	<b>127</b>	<b>8%</b>	<b>6%</b>
<b>19. GROSS VALUE ADDED (c)</b>	<b>1,109.3</b>	<b>1,138.2</b>	<b>1,400.9</b>	<b>29</b>	<b>3%</b>	<b>1%</b>	<b>263</b>	<b>23%</b>	<b>21%</b>
Gross value added net of subsidies	1,073.5	1,094.1	1,353.7	21	2%	0%	260	24%	21%

	2015	2016	2017	2015 to 2016			2016 to 2017		
Consumption of Fixed Capital									
Plant Machinery and Vehicles	151.3	151.7	154.7	0	0%	-2%	3	2%	0%
Building and Works	97.1	95.8	94.5	-1	-1%	-3%	-1	-1%	-3%
Cattle	127.5	122.2	145.8	-5	-4%	-6%	24	19%	17%
Sheep	32.1	45.0	43.6	13	40%	37%	-1	-3%	-5%
Pigs	1.0	0.7	0.8	0	-24%	-26%	0	7%	5%
Poultry	22.2	23.2	24.5	1	4%	2%	1	6%	4%
<b>20. Total Consumption of Fixed Capital</b>	<b>431.2</b>	<b>438.6</b>	<b>464.0</b>	<b>7</b>	<b>2%</b>	<b>0%</b>	<b>25</b>	<b>6%</b>	<b>4%</b>
<b>21. NET VALUE ADDED (at basic prices)</b>	<b>678.1</b>	<b>699.6</b>	<b>937.0</b>	<b>21</b>	<b>3%</b>	<b>1%</b>	<b>237</b>	<b>34%</b>	<b>31%</b>
Net value added (at basic prices) net of subsidies	642.3	655.5	889.7	13	2%	0%	234	36%	33%
Grants and Subsidies									
Basic Payment Scheme	219.5	251.7	280.9	32	15%	12%	29	12%	10%
Greening	115.4	130.9	141.8	16	13%	11%	11	8%	6%
Young Farmer Payment	1.0	1.6	1.9	1	64%	61%	0	19%	17%
Less-Favoured Areas Support Scheme	65.5	62.6	65.5	-3	-4%	-6%	3	5%	3%
Land Managers Options	5.2	2.1	2.2	-3	-59%	-60%	0	4%	2%
Rural Stewardship Scheme	0.1	0.0	0.0	0	-100%	-100%			
Rural Priorities	28.2	14.3	12.5	-14	-49%	-50%	-2	-13%	-14%
Other Agri Environmental Schemes (d)	2.2	1.7	1.6	-1	-25%	-26%	0	-4%	-5%
Other	14.6	2.4	0.0	-12	-84%	-84%	-2	-100%	-100%
<b>22. Total Other Grants and Subsidies</b>	<b>451.6</b>	<b>467.2</b>	<b>506.4</b>	<b>16</b>	<b>3%</b>	<b>1%</b>	<b>39</b>	<b>8%</b>	<b>6%</b>
Total grants and subsidies	487.4	511.3	553.7	24	5%	3%	42	8%	6%
<b>23. Net Value Added at Factor Cost (e)</b>	<b>1,129.7</b>	<b>1,166.8</b>	<b>1,443.4</b>	<b>37</b>	<b>3%</b>	<b>1%</b>	<b>277</b>	<b>24%</b>	<b>21%</b>
<b>24. Hired Labour (f)</b>	<b>376.9</b>	<b>382.2</b>	<b>415.9</b>	<b>5</b>	<b>1%</b>	<b>-1%</b>	<b>34</b>	<b>9%</b>	<b>7%</b>
<b>25. Net Interest</b>	<b>83.3</b>	<b>81.4</b>	<b>78.1</b>	<b>-2</b>	<b>-2%</b>	<b>-4%</b>	<b>-3</b>	<b>-4%</b>	<b>-6%</b>
<b>26. Net Rent</b>	<b>16.5</b>	<b>17.7</b>	<b>18.4</b>	<b>1</b>	<b>7%</b>	<b>5%</b>	<b>1</b>	<b>4%</b>	<b>2%</b>
<b>27. Taxes on Production</b>	<b>13.7</b>	<b>13.6</b>	<b>14.3</b>	<b>0</b>	<b>-1%</b>	<b>-3%</b>	<b>1</b>	<b>5%</b>	<b>3%</b>
<b>28. Total Costs</b>	<b>2,674.6</b>	<b>2,616.5</b>	<b>2,800.9</b>	<b>-58</b>	<b>-2%</b>	<b>-4%</b>	<b>184</b>	<b>7%</b>	<b>5%</b>
<b>29. TOTAL INCOME FROM FARMING (10+22-28)</b>	<b>639.3</b>	<b>671.9</b>	<b>916.7</b>	<b>33</b>	<b>5%</b>	<b>3%</b>	<b>245</b>	<b>36%</b>	<b>34%</b>

(a) also referred to as intermediate consumption

(b) also referred to as total intermediate consumption

(c) also referred to as gross product

(d) includes Farm Woodland Scheme, Farm Woodland Premium Scheme, Farmland Premium Scheme, Countryside Premium Scheme, and Organic Aid Scheme

(e) also referred to as net product

(f) also referred to as compensation of employees

Table 2: Components of TIFF 2008 to 2017

Prices not adjusted for inflation

£ millions

	2008	2009	2010	2011	2012	2013	2014	2015	2016 second estimate	2017 initial estimate
<b>OUTPUTS</b>										
Cereals										
Wheat	137.8	85.3	123.5	148.5	119.3	116.1	129.8	118.8	104.8	128.5
Barley	252.6	163.3	213.2	292.9	314.4	285.3	232.1	199.3	185.4	252.7
Oats	12.3	11.3	16.0	19.7	20.8	25.8	16.2	15.9	22.8	22.2
Triticale	0.8	0.4	0.5	0.6	0.4	0.5	0.4	0.3	0.0	
<b>1. Total cereals</b>	<b>403.6</b>	<b>260.3</b>	<b>353.1</b>	<b>461.7</b>	<b>454.8</b>	<b>427.6</b>	<b>378.5</b>	<b>334.3</b>	<b>313.0</b>	<b>403.4</b>
Cereals net of subsidies	403.6	260.3	353.1	461.7	454.8	427.6	378.5	334.3	313.0	403.4
Other crops:										
Potatoes	193.7	168.9	180.7	200.2	159.8	242.3	186.1	170.9	205.5	214.7
Oilseed Rape	29.7	24.1	39.5	53.0	39.4	32.6	35.5	37.1	33.0	44.8
Other Farm Crops	45.1	57.4	63.9	64.1	70.3	74.3	61.9	56.0	58.1	87.4
<b>2. Total other crops</b>	<b>268.5</b>	<b>250.5</b>	<b>284.2</b>	<b>317.3</b>	<b>269.5</b>	<b>349.2</b>	<b>283.5</b>	<b>264.1</b>	<b>296.6</b>	<b>346.8</b>
Other crops net of subsidies	268.2	250.0	284.2	317.3	269.5	349.2	283.5	264.1	296.6	346.8
Horticulture:										
Vegetables	85.3	110.5	111.8	107.5	101.1	129.0	112.4	108.9	130.3	154.7
Fruit	78.2	80.0	84.3	81.9	72.4	94.5	88.9	139.6	135.6	133.9
Flowers, Nursery Stock & Other Plants	38.1	37.8	38.4	38.3	48.6	47.0	52.3	29.6	25.4	30.5
<b>3. Total Horticulture</b>	<b>201.6</b>	<b>228.3</b>	<b>234.4</b>	<b>227.7</b>	<b>222.2</b>	<b>270.5</b>	<b>253.5</b>	<b>278.1</b>	<b>291.3</b>	<b>319.1</b>
Livestock:										
Finished Cattle and Calves	484.4	511.6	541.5	606.8	648.5	649.1	646.8	649.9	632.1	646.9
Finished Sheep and Lambs	135.1	171.5	183.4	202.7	182.0	171.4	181.8	172.5	195.3	209.3
Finished Pigs	75.8	77.4	72.1	88.9	83.2	78.6	92.7	85.4	87.3	108.4
Poultry	81.1	95.2	93.2	105.0	117.1	117.6	88.2	64.9	84.3	80.1
Other Livestock	23.7	25.5	25.0	26.1	23.6	27.5	26.1	26.1	25.2	24.4
<b>4. Total Finished Livestock</b>	<b>800.1</b>	<b>881.3</b>	<b>915.2</b>	<b>1,029.5</b>	<b>1,054.4</b>	<b>1,044.2</b>	<b>1,035.5</b>	<b>998.9</b>	<b>1,024.3</b>	<b>1,069.1</b>
Finished livestock net of subsidies	773.6	857.9	893.1	1,007.6	1,034.0	1,023.4	1,014.9	963.2	980.2	1,021.9
Store Cattle	20.0	27.4	21.8	32.2	43.3	44.3	28.0	27.2	32.2	40.0
Store Calves	12.6	15.5	11.8	16.7	24.7	25.6	18.8	21.5	21.3	29.4
Store Sheep	10.4	14.1	14.4	14.5	12.1	11.4	11.2	13.0	14.0	12.8
<b>5. Total Store Livestock</b>	<b>43.0</b>	<b>57.1</b>	<b>48.1</b>	<b>63.4</b>	<b>80.1</b>	<b>81.4</b>	<b>58.0</b>	<b>61.8</b>	<b>67.6</b>	<b>82.2</b>
Livestock Products:										
Milk and Milk Products	342.3	315.8	318.9	349.5	366.3	424.3	454.5	369.9	316.7	433.5
Eggs for food	54.5	55.5	66.9	73.4	73.5	78.4	81.5	91.7	82.6	88.8
Clipwool	2.4	3.3	6.5	8.2	5.3	6.2	7.4	4.6	4.1	4.2
Other Livestock Products	4.1	4.2	4.8	4.6	3.4	4.4	5.2	4.1	4.3	4.8
<b>6. Total Livestock Products</b>	<b>403.2</b>	<b>378.7</b>	<b>397.1</b>	<b>435.7</b>	<b>448.5</b>	<b>513.3</b>	<b>548.6</b>	<b>470.2</b>	<b>407.7</b>	<b>531.4</b>
Livestock Products net of subsidies	403.2	378.7	397.1	435.7	448.5	513.3	548.6	470.2	407.7	531.4

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Capital Formation:										
Cattle	56.7	68.4	65.7	79.4	105.7	119.6	133.4	121.3	112.2	134.4
Sheep	20.2	23.7	33.4	33.3	37.7	38.2	37.2	34.8	46.9	45.2
Pigs	0.4	0.7	0.8	0.8	0.7	1.0	0.8	0.8	0.6	0.6
Poultry	19.1	18.6	22.0	25.5	21.7	22.5	22.6	23.5	23.7	25.9
<b>7. Total Capital Formation</b>	<b>96.4</b>	<b>111.4</b>	<b>121.9</b>	<b>139.1</b>	<b>165.8</b>	<b>181.2</b>	<b>194.0</b>	<b>180.4</b>	<b>183.3</b>	<b>206.1</b>
<b>8. Total Other Agricultural Activities</b>	<b>65.6</b>	<b>61.0</b>	<b>76.1</b>	<b>82.3</b>	<b>80.7</b>	<b>82.6</b>	<b>90.1</b>	<b>83.7</b>	<b>73.6</b>	<b>80.9</b>
<b>9. Total Non-Agricultural Activities</b>	<b>156.8</b>	<b>174.7</b>	<b>146.8</b>	<b>181.3</b>	<b>178.4</b>	<b>209.3</b>	<b>243.8</b>	<b>190.8</b>	<b>163.9</b>	<b>172.1</b>
<b>10. GROSS OUTPUT AT BASIC PRICES</b>	<b>2,438.8</b>	<b>2,403.3</b>	<b>2,576.9</b>	<b>2,938.1</b>	<b>2,954.3</b>	<b>3,159.3</b>	<b>3,085.7</b>	<b>2,862.3</b>	<b>2,821.2</b>	<b>3,211.1</b>
Gross output at basic prices net of subsidies	2,412.1	2,379.4	2,554.8	2,916.1	2,933.9	3,138.5	3,065.0	2,826.5	2,777.1	3,163.9
<b>INPUTS (a)</b>										
<b>11. Total Feedstuffs</b>	<b>469.7</b>	<b>482.2</b>	<b>544.1</b>	<b>589.9</b>	<b>668.9</b>	<b>673.4</b>	<b>589.2</b>	<b>539.0</b>	<b>521.2</b>	<b>549.6</b>
<b>12. Total Seeds</b>	<b>65.4</b>	<b>68.4</b>	<b>73.9</b>	<b>77.5</b>	<b>88.4</b>	<b>82.6</b>	<b>77.0</b>	<b>66.8</b>	<b>64.4</b>	<b>72.7</b>
<b>13. Total Fertilisers and Lime</b>	<b>194.1</b>	<b>222.7</b>	<b>148.3</b>	<b>182.1</b>	<b>199.7</b>	<b>198.4</b>	<b>184.3</b>	<b>186.9</b>	<b>153.1</b>	<b>154.6</b>
Farm Maintenance:										
Occupier	50.1	60.7	65.1	75.3	78.9	82.3	80.0	72.5	74.6	80.7
Landlord	6.9	6.6	6.2	9.1	8.9	8.8	8.6	8.4	8.3	8.8
<b>14. Total Farm Maintenance</b>	<b>57.0</b>	<b>67.4</b>	<b>71.3</b>	<b>84.4</b>	<b>87.8</b>	<b>91.1</b>	<b>88.5</b>	<b>80.9</b>	<b>82.9</b>	<b>89.5</b>
Miscellaneous Expenditure:										
Machinery Repairs	94.7	103.2	105.9	117.0	116.6	116.6	114.6	115.4	115.8	126.5
Fuel and Oil	114.7	108.4	128.8	156.6	159.7	156.2	142.4	118.7	108.1	126.0
Other Machinery Expenses	5.4	5.5	4.6	4.6	5.1	5.0	4.4	4.2	4.6	4.6
Electricity and heating	24.0	24.4	23.8	24.2	24.1	22.7	21.2	21.2	20.6	23.9
Veterinary Expenses and Medicines	48.6	51.1	53.3	56.1	58.0	62.4	64.6	66.8	66.3	65.0
Crop Protection	65.9	65.1	66.9	69.9	75.2	66.1	67.5	65.5	64.3	81.6
Contract Work	73.9	70.7	81.9	88.5	89.2	91.0	95.3	89.7	82.1	88.4
Other Farm Costs	288.7	300.1	318.8	343.6	348.6	360.0	371.7	358.4	359.1	387.3
<b>15. Total Miscellaneous Expenses</b>	<b>716.0</b>	<b>728.5</b>	<b>784.0</b>	<b>860.5</b>	<b>876.4</b>	<b>880.0</b>	<b>881.6</b>	<b>839.9</b>	<b>820.9</b>	<b>903.3</b>
<b>16. FISIM (Financial Intermediation Services Indirectly Measured)</b>	<b>10.2</b>	<b>16.2</b>	<b>19.0</b>	<b>18.4</b>	<b>18.1</b>	<b>18.3</b>	<b>17.5</b>	<b>18.9</b>	<b>20.3</b>	<b>22.5</b>
<b>17. Total Non-Agricultural Activities</b>	<b>35.5</b>	<b>51.9</b>	<b>38.4</b>	<b>22.1</b>	<b>20.2</b>	<b>20.9</b>	<b>19.0</b>	<b>20.7</b>	<b>20.2</b>	<b>18.1</b>
<b>18. GROSS INPUT (b)</b>	<b>1,547.9</b>	<b>1,637.3</b>	<b>1,679.0</b>	<b>1,835.0</b>	<b>1,959.4</b>	<b>1,964.8</b>	<b>1,857.3</b>	<b>1,753.0</b>	<b>1,683.1</b>	<b>1,810.2</b>
<b>19. GROSS VALUE ADDED (c)</b>	<b>891.0</b>	<b>766.1</b>	<b>897.9</b>	<b>1,103.1</b>	<b>994.9</b>	<b>1,194.5</b>	<b>1,228.4</b>	<b>1,109.3</b>	<b>1,138.2</b>	<b>1,400.9</b>
Gross value added net of subsidies	864.2	742.2	875.8	1,081.2	974.5	1,173.8	1,207.8	1,073.5	1,094.1	1,353.7

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Consumption of Fixed Capital										
Plant Machinery and Vehicles	133.3	144.1	151.8	158.6	164.8	164.7	155.9	151.3	151.7	154.7
Building and Works	129.4	122.6	104.3	103.5	105.9	100.9	100.0	97.1	95.8	94.5
Cattle	74.3	63.8	65.9	99.8	117.5	107.3	129.6	127.5	122.2	145.8
Sheep	24.3	25.7	34.8	35.6	34.6	40.9	31.0	32.1	45.0	43.6
Pigs	0.6	0.7	0.6	1.1	0.9	1.0	1.0	1.0	0.7	0.8
Poultry	19.5	19.4	19.9	22.6	25.0	21.6	20.1	22.2	23.2	24.5
<b>20. Total Consumption of Fixed Capital</b>	<b>381.4</b>	<b>376.3</b>	<b>377.4</b>	<b>421.1</b>	<b>448.7</b>	<b>436.4</b>	<b>437.5</b>	<b>431.2</b>	<b>438.6</b>	<b>464.0</b>
<b>21. NET VALUE ADDED (at basic prices)</b>	<b>509.6</b>	<b>389.8</b>	<b>520.5</b>	<b>681.9</b>	<b>546.2</b>	<b>758.1</b>	<b>790.9</b>	<b>678.1</b>	<b>699.6</b>	<b>937.0</b>
Net value added (at basic prices) net of subsidies	425.5	311.2	440.7	579.1	447.1	644.1	598.2	642.3	655.5	889.7
Grants and Subsidies										
Single Farm Payment/Basic Payment Scheme	443.4	509.9	479.5	483.1	445.1	453.1	379.8	219.5	251.7	280.9
Greening								115.4	130.9	141.8
Young Farmer Payment Less-Favoured Areas Support Scheme								1.0	1.6	1.9
Land Management	59.0	63.1	63.6	66.6	65.6	65.2	64.7	65.5	62.6	65.5
Contract Menu Scheme	20.0	17.8	17.1	6.6	0.2	0.1	0.0	0.0	0.0	0.0
Land Managers Options	0.0	0.4	0.9	3.5	5.8	6.8	6.8	5.2	2.1	2.2
Rural Stewardship Scheme	17.3	13.0	7.8	4.0	0.7	0.2	0.2	0.1	0.0	0.0
Rural Priorities Environmentally Sensitive Areas	0.0	4.4	22.2	31.8	32.7	33.0	35.5	28.2	14.3	12.5
Other Agri Environmental Schemes (d)	3.6	2.7	1.5	0.6	0.2	0.0	0.0	0.0	0.0	0.0
Other	13.6	9.3	6.9	6.0	3.5	2.9	2.7	2.2	1.7	1.6
<b>22. Total Other Grants and Subsidies</b>	<b>557.0</b>	<b>620.7</b>	<b>602.3</b>	<b>602.2</b>	<b>553.9</b>	<b>567.6</b>	<b>489.8</b>	<b>451.6</b>	<b>467.2</b>	<b>506.4</b>
Total grants and subsidies	583.7	644.5	624.4	624.1	574.3	588.4	510.4	487.4	511.3	553.7
<b>23. Net Value Added at Factor Cost (e)</b>	<b>1,066.5</b>	<b>1,010.4</b>	<b>1,122.8</b>	<b>1,284.1</b>	<b>1,100.1</b>	<b>1,325.7</b>	<b>1,280.6</b>	<b>1,129.7</b>	<b>1,166.8</b>	<b>1,443.4</b>
<b>24. Hired Labour (f)</b>	<b>303.3</b>	<b>351.9</b>	<b>335.6</b>	<b>357.9</b>	<b>336.2</b>	<b>346.0</b>	<b>349.8</b>	<b>376.9</b>	<b>382.2</b>	<b>415.9</b>
<b>25. Net Interest</b>	<b>92.7</b>	<b>56.0</b>	<b>57.8</b>	<b>62.1</b>	<b>71.1</b>	<b>71.4</b>	<b>83.5</b>	<b>83.3</b>	<b>81.4</b>	<b>78.1</b>
<b>26. Net Rent</b>	<b>14.9</b>	<b>13.4</b>	<b>13.7</b>	<b>14.0</b>	<b>13.0</b>	<b>13.0</b>	<b>14.5</b>	<b>16.5</b>	<b>17.7</b>	<b>18.4</b>
<b>27. Taxes on Production</b>	<b>13.6</b>	<b>13.2</b>	<b>16.1</b>	<b>13.6</b>	<b>13.0</b>	<b>13.7</b>	<b>13.9</b>	<b>13.7</b>	<b>13.6</b>	<b>14.3</b>
<b>28. Total Costs</b>	<b>2,353.8</b>	<b>2,447.9</b>	<b>2,479.6</b>	<b>2,703.7</b>	<b>2,841.5</b>	<b>2,845.3</b>	<b>2,756.5</b>	<b>2,674.6</b>	<b>2,616.5</b>	<b>2,800.9</b>
<b>29. TOTAL INCOME FROM FARMING (10+22-27)</b>	<b>642.0</b>	<b>576.0</b>	<b>699.6</b>	<b>836.5</b>	<b>666.8</b>	<b>881.6</b>	<b>818.9</b>	<b>639.3</b>	<b>671.9</b>	<b>916.7</b>

(a) also referred to as intermediate consumption

(b) also referred to as total intermediate consumption

(c) also referred to as gross product

(d) includes Farm Woodland Scheme, Farm Woodland Premium Scheme, Farmland Premium Scheme, Countryside Premium Scheme, and Organic Aid Scheme

(e) also referred to as net product

(f) also referred to as compensation of employees

Table 3: Summary components of TIFF 2007 to 2017, in 2017 prices (i.e. prices adjusted for inflation)

	£millions										
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016 second estimate	2017 initial estimate
<b>OUTPUTS</b>											
Cereals	414	466	296	396	507	492	454	395	347	319	403
Other crops	343	310	285	319	349	292	371	296	274	302	347
Horticulture	213	233	260	263	250	240	287	265	289	297	319
Finished livestock	830	925	1,003	1,026	1,131	1,141	1,108	1,081	1,038	1,044	1,069
Store livestock	31	50	65	54	70	87	86	61	64	69	82
Livestock products	385	466	431	445	479	485	545	573	488	415	531
Capital formation	106	111	127	137	153	179	192	203	187	187	206
Other agricultural activities	76	76	69	85	90	87	88	94	87	75	81
Non-agricultural activities	200	181	199	164	199	193	222	254	198	167	172
Gross output	2,598	2,818	2,736	2,888	3,228	3,196	3,354	3,220	2,974	2,874	3,211
<b>GRANTS &amp; SUBSIDIES</b>											
	654	644	707	675	662	599	603	511	469	476	506
<b>COSTS</b>											
Feedstuffs	484	543	549	610	648	724	715	615	560	531	550
Seed	63	76	78	83	85	96	88	80	69	66	73
Fertilisers	146	224	253	166	200	216	211	192	194	156	155
Farm maintenance	59	66	77	80	93	95	97	92	84	84	90
Miscellaneous expenses	767	827	829	879	945	948	934	920	873	836	903
FISIM	17	12	18	21	20	20	19	18	20	21	22
Non-agricultural activities	19	41	59	43	24	22	22	20	21	21	18
Capital consumption	415	441	428	423	463	485	463	457	448	447	464
Net labour	336	351	401	376	393	364	367	365	392	389	416
Net interest	119	107	64	65	68	77	76	87	87	83	78
Net rent	17	17	15	15	15	14	14	15	17	18	18
Taxes on production	17	16	15	18	15	14	15	15	14	14	14
Gross costs	2,459	2,720	2,787	2,779	2,970	3,074	3,020	2,877	2,779	2,666	2,801
<b>TIFF</b>	<b>793</b>	<b>742</b>	<b>656</b>	<b>784</b>	<b>919</b>	<b>721</b>	<b>936</b>	<b>855</b>	<b>664</b>	<b>685</b>	<b>917</b>

Table 4: TIFF estimates 1973 to 2017, in 2017 prices.

									£ millions
1973	1974	1975	1976	1977	1978	1979	1980	1981	
1,408	1,123	986	1,327	1,021	681	456	224	386	
1982	1983	1984	1985	1986	1987	1988	1989	1990	
507	388	583	172	318	407	288	501	328	
1991	1992	1993	1994	1995	1996	1997	1998	1999	
404	566	663	783	1022	692	415	305	317	
2000	2001	2002	2003	2004	2005	2006	2007	2008	
331	464	429	631	632	575	693	793	742	
2009	2010	2011	2012	2013	2014	2015	2016 second estimate	2017 initial estimate	
656	784	919	721	936	855	664	685	917	

Note: there will be some discontinuities in various times series over this period for which it has not been possible to back-date to 1973, however these are unlikely to affect the overall pattern of changes in TIFF.

Table 5: Production indices 2000 to 2017

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Final output (gross output less transactions within the agricultural industry)	100	98	100	103	104	105	108	108	107	107	107	110	103	106	111	110	108	112
Inputs	100	97	99	98	97	96	96	96	93	96	98	95	97	95	95	89	88	88
Total Factor Productivity	100	101	101	105	108	109	112	112	116	111	109	116	106	111	117	123	123	127
Gross Value Added	100	97	95	99	105	106	110	108	113	103	99	115	91	101	111	112	108	119

Table 6: NUTS1 regional estimates TIFF estimates per area, 2011 to 2016 (£ per ha)

	2011	2012	2013	2014	2015	2016
North East	407	397	439	427	309	271
North West	635	639	708	680	490	463
Yorkshire & the Humber	536	536	602	562	432	393
East Midlands	482	473	482	453	320	267
West Midlands	396	380	428	423	320	291
East of England	330	312	317	304	227	182
South East (& London)	312	293	317	285	232	206
South West	290	279	324	337	229	185
Northern Ireland	326	234	332	296	193	236
Wales	135	108	142	132	103	108
Scotland	126	84	136	133	102	90

Areas are based on 2013 values of agricultural areas



Table 7: NUTS 2 regional TIFF estimates 2016 and 2017 (£ millions)

	output	subsidy	input	TIFF	area (ha)	TIFF (£) per ha
2016						
North East	493	72	411	154	524,000	285
Eastern	1,188	153	1,028	313	1,440,000	218
South West	753	120	675	199	908,000	214
Highlands & Islands	387	118	499	7	2,725,000	2
2017						
North East	571	79	456	194	544,000	357
Eastern	1,328	167	1,109	386	1,431,000	269
South West	883	132	728	286	878,000	326
Highlands & Islands	430	129	503	56	2,902,000	19

Table 8: Regional output estimates 2017 (£ millions)

	North East	Eastern	South West	Highlands & Islands
Cereals	127	220	28	29
Potatoes	29	161	6	19
Horticulture	32	244	17	27
Other crops	31	74	10	17
Cattle	188	199	311	152
Sheep	17	90	74	86
Pigs	47	31	7	24
Poultry	30	135	24	6
Dairy	17	51	340	25
Other livestock products	5	12	9	7
Other	50	109	57	37

# A National Statistics publication for Scotland

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## How to access background or source data

The data collected for this statistical bulletin:

- are available in more detail through Scottish Neighbourhood Statistics
- are available via an alternative route
- may be made available on request, subject to consideration of legal and ethical factors. Please contact [agric.stats@gov.scot](mailto:agric.stats@gov.scot) for further information.
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