



30 April 2013

## Total Income from Farming 2012 – 1<sup>st</sup> estimate, United Kingdom

The latest National Statistics on Total Income from Farming in the United Kingdom were released on 30 April 2013 according to the arrangements approved by the UK Statistics Authority. Total Income from Farming is the income to those with an entrepreneurial interest in the agricultural industry, typically farmers and partners.

This release presents the first estimate of Total Income from Farming in the United Kingdom for 2012. Revisions may have also been made to previous years. A second estimate of Total Income from Farming for the United Kingdom for 2012, incorporating data that becomes available later, is to be released on 28 November 2013.

### Key points:

- Total Income from Farming is estimated to have fallen between 2011 and 2012 by 14 per cent (£737 million) in real terms after adjustment for the effect of inflation, to £4,704 million.
- Total Income from Farming per annual work unit (AWU) of entrepreneurial labour (farmers and other unpaid labour) is also estimated to have fallen by 14 per cent in real terms to £25,175 in 2012.
- Over the longer term, Total Income from Farming per Annual Work Unit (AWU) of entrepreneurial labour has performed better than Total Income from Farming owing to a decline in the number of farmers and other unpaid workers.
- The fall in Total Income from Farming was due to an increase in the value of inputs and other costs that was greater than an increase in the value of output, coupled with a fall in the value of direct payments to farmers due primarily to changes in the Pound to Euro exchange rate. Inflation as measured by the Retail Price Index increased by 3.2 per cent in 2012.

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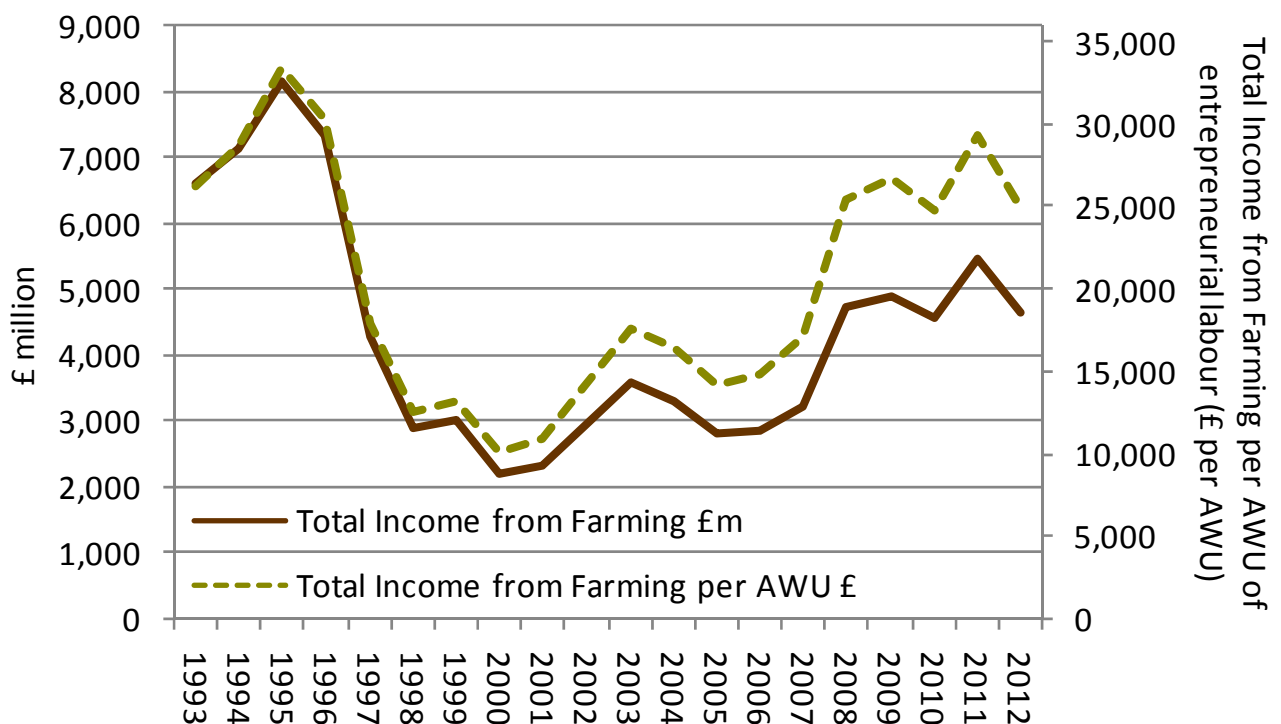
## Latest figures and long term trends

Total Income from Farming is estimated to have fallen between 2011 and 2012 by 14 per cent (£737 million) in real terms after adjustment for the effect of inflation, to £4,704 million. Total Income from Farming per annual work unit (AWU) of entrepreneurial labour (farmers and other unpaid labour) is also estimated to have fallen by 14 per cent in real terms to £25,175 in 2012.

Over the longer term, Total Income from Farming per Annual Work Unit (AWU) of entrepreneurial labour has performed better than Total Income from Farming owing to a decline in the number of farmers and other unpaid workers. Looking over the longer period, Total Income from Farming has remained at a level higher than in the late 1990s/early 2000s though below the peak seen in the mid-1990s.

Figure 1 below shows the trends in Total Income from Farming and Total Income from Farming per annual work unit (AWU) of entrepreneurial labour over the last twenty years. Table 1 below gives the values used in Figure 1 and also year-on-year % changes.

**Figure 1: Agricultural industry income trends in the UK (in real terms)**



**Table 1: Total Income from Farming and Total Income from Farming per annual work unit (AWU) of entrepreneurial labour in real terms: 1993 to 2012**

United Kingdom

	Total Income from Farming	Year-on-year change	Total Income from Farming per AWU	Year-on-year change
1993	£6,603m		£26,269	
1994	£7,112m	8%	£28,653	9%
1995	£8,148m	15%	£33,378	16%
1996	£7,318m	-10%	£30,334	-9%
1997	£4,275m	-42%	£17,872	-41%
1998	£2,917m	-32%	£12,404	-31%
1999	£3,007m	3%	£13,179	6%
2000	£2,202m	-27%	£10,009	-24%
2001	£2,315m	5%	£10,787	8%
2002	£2,942m	27%	£13,986	30%
2003	£3,607m	23%	£17,525	25%
2004	£3,311m	-8%	£16,367	-7%
2005	£2,798m	-16%	£14,030	-14%
2006	£2,875m	3%	£14,722	5%
2007	£3,237m	13%	£16,973	15%
2008	£4,740m	46%	£25,348	49%
2009	£4,902m	3%	£26,651	5%
2010	£4,557m	-7%	£24,841	-7%
2011	£5,441m	19%	£29,254	18%
2012	£4,704m	-14%	£25,175	-14%

### **Aggregate Agricultural Accounts : production and income accounts : main findings**

Table 4 presents detailed production and income accounts from the aggregate agricultural accounts. Values are expressed in current prices, i.e. based on prices in the year in question, except where otherwise stated.

#### Output

The value of gross output at basic prices rose by £354 million (1.5%) in 2012 to £23,927 million. The value of total crop output fell by £170 million (-1.9%) to £8,682 million, largely due falls in the value of output of wheat, oilseed rape and potatoes. This was offset by an increase in the value of total livestock output of £536 million (4.2%) to £13,160 million, which was due mainly to increases in the value of output of livestock (other than sheep) and eggs.

The value of output of wheat fell by £215 million (-9.7%) to £1,995 million. The wheat harvest fell by 13% compared to 2011 due primarily to a 14% fall in yield as a result of poor weather conditions. The fall in the value of output of wheat was offset by increases in the value of output of barley (£157 million; 19%) and of oats (£64 million; 109%) driven mainly by improved prices. Production of barley increased slightly by 0.5% despite a small fall in yields (-2.7%) and production of oats also increased (2.2%).

The value of oilseed rape fell by £124 million (-11%) to £986 million. The oilseed rape harvest fell by 7.3%. Yield fell by 14% following very poor weather during spring and summer; this was partly offset by a 7.3% increase in area following favourable planting conditions in autumn 2011. The value of output of potatoes fell by £149 million (-21%) as poor weather interrupted planting in the spring and led to low yielding potato crops and increased wastage. The value of output of sugar beet fell by £25 million (-9.8%), affected by cold and wet weather, while the value of output of vegetables, plant and flowers rose by £46 million (2.0%). The value of output of fruit fell by £45 million (-7.6%), also affected by poor weather.

The value of output of cattle primarily produced for meat rose by £192 million (7.4%) to £2,776 million. Supplies of prime cattle were significantly down compared to 2011 but tight supply helped maintain strong prices for much of the year. The value of output of sheep fell by £128 million (-11%) to £1,020 million partly due to lower production but also to lower lamb prices compared to exceptionally strong prices seen in 2011. Poor weather in the second half of the year hampered the marketing of lambs resulting in a large carryover of the 2012 lamb crop into 2013. The value of output of pigs rose by £69 million (6.5%) and that of poultry by £168 million (8.8%), both due to increased production and higher prices.

The value of milk production rose by £31 million (0.8%) to £3,769 million with a fall in production offset by an increase in average annual price paid to farmers, which masked some volatility in farm gate prices during the year. The value of egg production increased by £102 million (18%) driven by stronger prices.

#### Intermediate consumption

The value of intermediate consumption, the goods and services consumed or used as inputs in the productive process, is estimated to have increased by £406 million (2.7%) to £15,322 million.

The value of animal feed rose by £228 million (5.2%) to £4,626 million, largely driven by an increase in the value of compound feed. The value for energy, principally motor and machinery fuels, is estimated to have increased by £74 million (5.4%) to £1,448 million. The value of fertilisers is estimated to have fallen by £32 million (-2.0%) to £1,600 million, reflecting lower prices compared to 2011. The cost of animal feed, energy and fertilisers have increased significantly in recent years by around 55%, 60% and 100% respectively since 2007.

### Gross Value Added

The increase in the value of intermediate consumption was greater than the increase in the value of output leading to a small fall in Gross Value Added at basic prices of £51 million (-0.8%) to £8,605 million.

### Net Value Added at factor cost

Net Value Added at factor cost, which is Gross Value Added at basic prices adjusted for consumption of fixed capital, other taxes on production and other subsidies on production, is estimated to have fallen by £492 million (-6.0%) to £7,665 million.

The value of consumption of fixed capital, which is capital, such as equipment, buildings and the breeding herd, used up in the process of generating new output, is estimated to have increased by £235 million (6.2%) to £4,052 million. The value of other subsidies on production, which are direct payments received as a consequence of engaging in agricultural production but which are not linked to production, principally the Single Payment Scheme and agri-environment schemes, fell by £200 million (-5.8%) to £3,239 million, due principally to changes in the Pound and Euro exchange rate.

### Compensation of employees

Compensation of employees, which is total remuneration in cash or in kind payable to employees in return for work done, is estimated to have increased by £47 million (2.0%) to £2,373 million.

### Total Income from Farming

Total Income from Farming at current prices is estimated to have fallen by £568 million (11%) to £4,704 million between 2011 and 2012. Inflation, as measured by the Retail Price Index, increased by 3.2 per cent during 2012. In real terms, after adjustment for inflation, Total Income from Farming is estimated to have fallen by £737 million (14%).

### **Description of Total income from Farming**

Total Income from Farming is income generated by production within the agriculture industry including subsidies and represents business profits and remuneration for work done by owners and other unpaid workers. It excludes changes in the values of assets, including stocks, due to price changes but includes non-agricultural activities such as further processing or tourist activities where these cannot be separated from the agricultural business. It is the preferred measure of aggregate income for the agricultural industry conforming to internationally agreed national accounting principles required by the UK National Accounts and by Eurostat.

Total Income from Farming per Annual Work Unit (AWU) of entrepreneurial labour is a related measure. It expresses Total Income from Farming in terms of annual work unit of entrepreneurial labour input. An annual work unit of entrepreneurial labour input

corresponds to the input of one person with an entrepreneurial interest in the farm business who is engaged in agricultural activities on a full-time basis over an entire year. Annual work units are used rather than the number of individuals so to take account of part-time and seasonal work.

Total Income from Farming is designed to show the performance of the whole of the agricultural industry. A measure of farm incomes, Farm Business Income, designed to compare performance across different types of farming, is available in the publication Farm Accounts in England on the GOV.UK website at:

<https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/series/farm-business-survey>

## Definitions and explanations

Annual work unit:	the input of one person in the farm business who is engaged in agricultural activities on a full-time basis over an entire year.
Basic prices:	market prices plus directly paid subsidies that are linked to the production of specific products.
Current prices:	the value based on prices during the reference year.
Gross output:	the total value of output by producing enterprises.
Entrepreneurial labour:	the input of people who have an entrepreneurial interest in the farm business, e.g. farmers and other unpaid workers, usually expressed in annual work units.
Intermediate consumption:	the goods and services consumed or used as inputs in the productive process, e.g. feed, and fertiliser.
Real terms:	the value adjusted for inflation.
Total Income from Farming:	income to those with an entrepreneurial interest in the agricultural industry.

## Basic quality information

These estimates for 2012 are based on incomplete data. The amounts of data available are presented below. Over time, more data becomes available, estimates are revised and forecasts are replaced.

**Table 2: Approx. amount of data available for 2012 values at April 2013.**

	April 2013
Output	90%
Intermediate consumption	30%
Subsidies	95%
Other costs	55%

## Revisions

All estimates, by definition, have an element of uncertainty that is inherent in any process or calculation that uses sampling, estimation or modelling. There is no simple way of measuring the accuracy of the estimates – that is, the extent to which estimates measures the underlying ‘true’ value for a particular period. One dimension of measuring accuracy is reliability, which is measured using evidence from analyses of revisions to assess the closeness of early estimates to subsequently estimated values.

The table in the section below presents a revision analysis of key values for 2011 that were published in May 2012 and November 2012. Revisions have been made owing to further information becoming available.

Total Income from Farming is sensitive to small percentage changes in the values of outputs and intermediate consumption. A combination of a revision downwards in output and revision upwards in intermediate consumption leads to more sizeable revisions in percentage terms to Gross Value Added and Total Income from Farming.

**Table 3: Revisions made to the 2011 aggregate agricultural account between May 2012 and April 2013**

	May-12	Nov-12	Apr-13	Revision % May-12 / Nov-12	Revision % Nov-12 / Apr-13
Gross output at basic prices £m	23 652	23 638	23 572	-0.1%	-0.3%
Total intermediate consumption £m	14 806	14 874	14 916	0.5%	0.3%
Gross value added at basic prices £m	8 845	8 764	8 656	-0.9%	-1.2%
Net Value Added at factor cost £m	8 544	8 450	8 157	-1.1%	-3.5%
Total Income from Farming £m	5 693	5 567	5 272	-2.2%	-5.3%

### Consumption of fixed capital

A significant revision has been made to the value of consumption of fixed capital from 2002. Further information about this may be found in Annex A: Revision to capital consumption of equipment and buildings, on pages 13-14.

## **Development areas**

Defra statisticians carry out a continuous review of methods employed in making estimates for elements of the production and income accounts. This may lead to revisions to data series owing to improvements in methods in addition to the use of later information.

## **Summary quality report**

A summary quality report for this statistical release can be found on the GOV.UK website at <https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/series/aggregate-agricultural-accounts>.

This is an overview note which is not release specific but will be reviewed and updated at regular intervals. It pulls together key qualitative information on the various dimensions of quality as well as providing a summary of methods used to compile the output. It relates to estimates of Total Income from Farming and aim to provide users with information on usability and fitness for purpose of these estimates.

## **Quality Assurance**

Defra has in place quality assurance processes to check the accuracy and reliability of the aggregate agricultural accounts that includes:

- Ongoing review of methods employed in the calculation of the accounts.
- Assessment of the quality of the estimates of components of the accounts with internal experts.
- Discussion of components of the accounts with external experts.
- Quality assessments made by Eurostat, the statistical office of the European Union.

## **Main uses of the aggregate agricultural accounts**

The aggregate agricultural accounts are used in conjunction with other economic information to:

- To monitor the productivity and competitiveness of the farming industry.
- Inform policy decisions and to help monitor and evaluate current policies relating to agriculture in the UK by Government and in the European Union by the European Commission.
- Inform stakeholders of the performance of the agricultural industry.
- Inform research into the economic performance of the agricultural industry.
- Total Income from Farming sets the context when looking at a number of policies; the agricultural industry contributes around £5 billion to the national economy and accounts



for about 0.5% of national GDP. It is most relevant to policies relating to CAP reform and the competitiveness of farming.

### **User engagement**

As part of our ongoing commitment to compliance with the Code of Practice for Official Statistics (<http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html>), we wish to strengthen our engagement with users of these statistics and better understand the use made of them and the types of decisions that they inform. Consequently, we invite users to make themselves known, to advise us of the use they do, or might, make of these statistics, and what their wishes are in terms of engagement. Feedback on this notice and enquiries about these statistics are also welcome.

### **Publication policy**

First estimates of Total Income from Farming and the production and income accounts for the UK agricultural industry are published at the end of April followed by more detailed information in the publication 'Agriculture in the United Kingdom'. The production and income accounts are then updated and published at the end of the following November when Farm Business Survey data is available to inform estimates of elements of intermediate consumption. The production and income accounts may be revised later as further data becomes available.

DEFRA publishes all of its statistics and releases on the GOV.UK internet site at <https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/about/statistics>. Pre-announced publication dates can be found on the National Statistics Publication Hub at <http://www.statistics.gov.uk/hub/index.html>.

**Table 4: Aggregate Agricultural Accounts : Production and income accounts**  
United Kingdom

£ million current prices	Calendar years			
	2009	2010	2011	2012
1 Output of cereals	2 338	2 306	3 108	3 116
of which: wheat	1 562	1 680	2 210	1 995
barley	701	560	834	992
2 Output of industrial crops	1 106	1 321	1 857	1 860
of which: oilseed rape	476	674	1 110	986
sugar beet	246	197	251	227
other industrial crops	367	427	468	631
3 Output of forage plants	302	293	266	230
4 Output of vegetables and horticultural products	1 962	2 260	2 262	2 308
of which: fresh vegetables	1 083	1 263	1 217	1 260
plants and flowers	879	997	1 045	1 048
5 Output of potatoes (including seeds)	681	640	711	562
6 Output of fruit	570	585	600	555
7 Output of other crop products incl. seeds	58	52	48	51
<b>Total crop output (sum 1-7)</b>	<b>7 017</b>	<b>7 458</b>	<b>8 852</b>	<b>8 682</b>
8 Output of livestock	7 148	7 241	8 236	8 675
primarily for meat	5 846	6 108	6 914	7 222
of which: cattle	2 131	2 154	2 584	2 776
pigs	968	978	1 070	1 139
sheep	967	979	1 149	1 020
poultry	1 590	1 799	1 904	2 072
gross fixed capital formation	1 302	1 133	1 322	1 453
of which: cattle	871	649	696	898
pigs	8	8	8	10
sheep	238	295	405	342
poultry	185	181	213	203
9 Output of livestock products	3 711	3 973	4 387	4 485
of which: milk	3 123	3 329	3 738	3 769
eggs	531	561	559	661
<b>Total livestock output (8+9)</b>	<b>10 859</b>	<b>11 214</b>	<b>12 623</b>	<b>13 160</b>
10 Other agricultural activities	865	925	1 042	1 050
11 Inseparable non-agricultural activities	913	991	1 028	1 012
12 Output (at market prices) (sum 1 to 11)	19 654	20 588	23 545	23 903
13 Total subsidies (less taxes) on product	38	29	28	24
<b>14 Gross output at basic prices (12+13)</b>	<b>19 691</b>	<b>20 616</b>	<b>23 572</b>	<b>23 927</b>

continued

**Table 4: Aggregate Agricultural Accounts : Production and income accounts**  
United Kingdom (continued)

£ million	Calendar years			
	2009	2010	2011	2012
<b>Intermediate consumption</b>				
15 Seeds	690	636	658	610
16 Energy	1 094	1 201	1 374	1 448
of which: electricity and fuels for heating	340	354	369	387
motor and machinery fuels	754	846	1 005	1 061
17 Fertilisers	1 234	1 352	1 632	1 600
18 Plant protection products	715	762	809	839
19 Veterinary expenses	360	401	410	424
20 Animal feed	3 615	3 991	4 398	4 626
of which: compounds	2 088	2 255	2 622	2 809
straights	1 045	1 270	1 253	1 283
feed produced & used on farm or purchased from other farms	482	466	523	534
21 Total maintenance	1 288	1 371	1 433	1 459
of which: materials	794	852	892	906
buildings	494	519	541	553
22 Agricultural services	865	924	1 042	1 050
23 FISIM	127	143	150	160
24 Other goods and services	2 658	2 774	3 010	3 106
<b>25 Total intermediate consumption (sum 15 to 24)</b>	<b>12 647</b>	<b>13 554</b>	<b>14 916</b>	<b>15 322</b>
<b>26 Gross value added at market prices (12-25)</b>	<b>7 007</b>	<b>7 033</b>	<b>8 629</b>	<b>8 581</b>
<b>27 Gross value added at basic prices (14-25)</b>	<b>7 044</b>	<b>7 062</b>	<b>8 656</b>	<b>8 605</b>
28 Total consumption of Fixed Capital	3 493	3 439	3 817	4 052
of which: equipment	1 359	1 454	1 598	1 694
buildings	961	840	865	917
livestock	1 173	1 145	1 354	1 441
cattle	731	679	791	885
pigs	8	8	8	10
sheep	269	291	350	327
poultry	164	167	205	220
<b>29 Net value added at market prices (26-28)</b>	<b>3 514</b>	<b>3 595</b>	<b>4 812</b>	<b>4 529</b>
<b>30 Net value added at basic prices (27-28)</b>	<b>3 551</b>	<b>3 623</b>	<b>4 839</b>	<b>4 553</b>
31 Other taxes on production	-106	-114	-121	-127
32 Other subsidies on production	3 580	3 445	3 439	3 239
<b>33 Net value added at factor cost (30+31+32)</b>	<b>7 026</b>	<b>6 954</b>	<b>8 157</b>	<b>7 665</b>
34 Compensation of employees	2 168	2 216	2 326	2 373
35 Rent	366	366	373	390
36 Interest	176	175	187	199
<b>37 Total income from farming (33-34-35-36)</b>	<b>4 315</b>	<b>4 197</b>	<b>5 272</b>	<b>4 704</b>

## Annex A: Revision to capital consumption of equipment and buildings

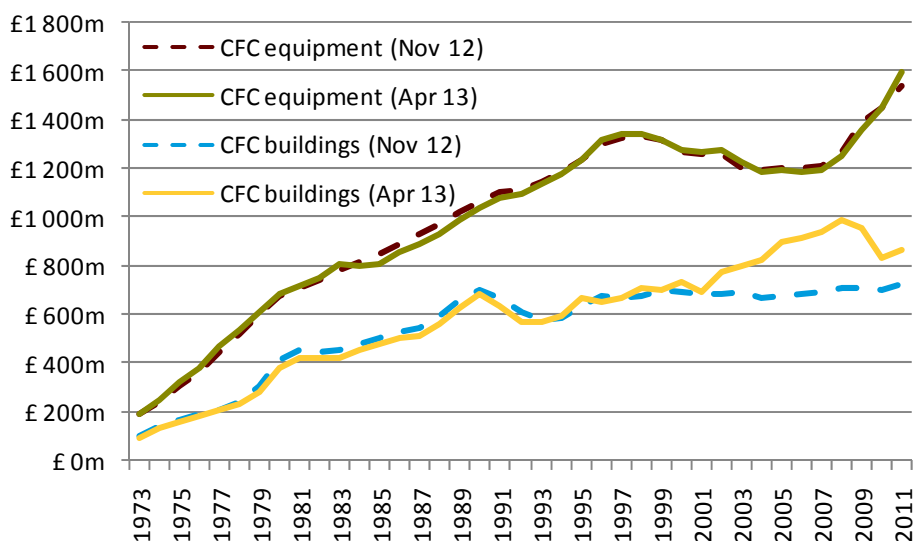
Consumption of fixed capital represents the amount of fixed capital with an economic life of more than one year that is used up in the production process as a result of normal wear and tear and foreseeable obsolescence. Its inclusion in the production account allows expenditure on fixed capital formation to be distributed over the entire period of use.

The perpetual inventory method is used to calculate consumption of fixed capital in equipment and buildings. A review of the calculations and of price input has led to revision of values. In particular, those for consumption of fixed capital in buildings have been revised significantly from 2002.

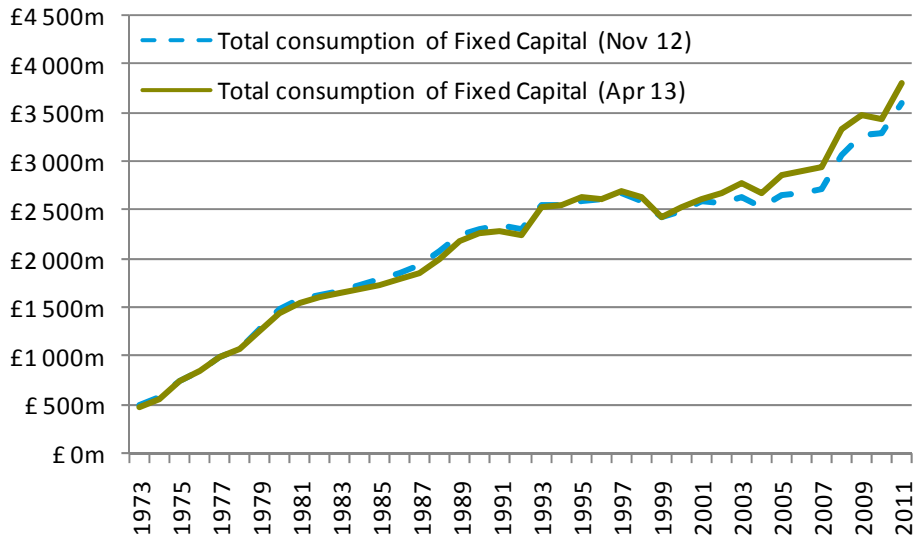
A key input to the calculation of consumption of fixed capital in buildings is an output price index for construction produced by the Office for National Statistics. In 2011, the ONS revised its price series, principally a shift in levels in quarterly values because of the introduction of the use of new deflators back to 2002 Q3.

Figure 2 shows current values of consumption of fixed capital compared to those recorded in the aggregate agricultural accounts in November 2012. The significant impact of the revision to the price series on values of consumption of fixed capital in buildings can be seen very clearly from 2002 onwards. The impact on values of total consumption of fixed capital is shown in Figure 3.

**Figure 2: Revisions to values of consumption of fixed capital in equipment and buildings**



**Figure 3: Revisions to values of total consumption of fixed capital**



Since consumption of fixed capital is recorded in the production account as a charge, revisions to values of consumption of fixed capital lead to downward revisions to values of Total Income from Farming. These can be seen in Figure 4; revisions due to other causes have been excluded here.

**Figure 4: Revisions to Total Income from Farming in real terms**

