



Farm Business Survey 2019/2020 Hill Farming in England



David Harvey and Charles Scott
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Foreword to the Fifteenth Series

Welcome to the fifteenth series of reports on the economics of agriculture and horticulture in England from *Rural Business Research (RBR)*. At a time of change, uncertainty and opportunity, planning ahead on the basis of data and evidence is crucial. Some key points below outline the market, policy, physical and biological environments through which agriculture and horticulture have operated in the last 12 months. These also highlight the importance of our work on the Farm Business Survey (FBS) that is only achieved through the highly valued co-operation of participating agricultural and horticultural businesses.

The new Agriculture Act that received Royal Assent in the closing weeks of 2020 now means that the sector no longer operates within the Common Agricultural Policy. The development of the Agriculture Act relied extensively on evidence from the FBS that demonstrated the reliance of key sectors on the Basic Payment Scheme (BPS) and the need for a longer 'transition period' than was initially proposed. The recently published Path to Sustainable Farming outlines the broad direction of the policy environment over the 2021-2027 period, as the phased decline in BPS support makes way for increased payments for public goods. There will be opportunities for businesses to be supported to increase farm efficiency and productivity, enhance animal welfare and reduce agriculture's 'carbon footprint'. The UK-EU trade agreement has been broadly welcomed by the industry. During the last 12 months our industry has endured an exceptionally wet winter of 19/20 that impacted crop establishment and gave way to a spring drought followed by a low yielding and sometimes difficult harvest. The impact of challenging weather and the Covid-19 pandemic have been felt in very diverse ways across agricultural and horticultural businesses. While the full impact of these challenges on the economics of agriculture and horticulture won't be collected and analysed until later in 2021, the FBS was once again drawn upon by Government to evidence the need for specific Covid-19 related support packages including the Dairy Response Fund.

For the 2019/20 financial year, which covers the 2019 harvest, average Farm Business Income (FBI), derived from our work on the FBS, fell to £46,000 per business, from £50,400 in 2018/19. Seldom are the fortunes of the different agricultural and horticultural sectors aligned. In 2019/20 Upland Grazing Livestock saw an increase of 47% in FBI, from a low base to a slightly higher one (£22,800); by contrast the average Mixed farm business income fell by 36% to £28,900. Generally lower cereal prices negatively impacted Cereals farm businesses, while livestock farms, in particular Pig and Poultry businesses, benefited from lower feed costs.

As with our previous editions of these reports, available at www.ruralbusinessresearch.co.uk, our core aim is to inform agricultural and horticultural businesses about the economics in their sector. This series of reports, and our work on the FBS more generally, would not be possible without the cooperation of the farmers and growers who participate in the FBS to ensure that the data we provide for policy making, and in our reports and free to use online data services at www.farmbusinesssurvey.co.uk, is truly representative of the sectors. Our sincere thanks therefore go to the farmers and growers for their most valuable contribution.

Professor Paul Wilson

Chief Executive Officer, Rural Business Research
February 2021

www.ruralbusinessresearch.co.uk

Executive Summary

The total area of land classified as Less Favoured Area (LFA) in England is 2.2 million hectares. Of this, 1.8 million hectares are farmed - 17% of the total farmed area of England¹. This total is made up of Severely Disadvantaged Areas (67%) and Disadvantaged Areas (33%). The Moorland designation of semi-natural vegetation covers 42% of the LFA area². These are areas where farming is more difficult due to poor climate, soils and terrain, which in turn lead to lower yields, and higher production and transportation costs. LFAs essentially define the upland hill-farming areas; they include almost all of the upland areas in the North of England (including the Pennines, Lake District and North York Moors), the Peak District, the English part of the English-Welsh border, Exmoor, Dartmoor, and parts of Cornwall. In England, 27% of beef cows and 40% of female breeding sheep are on LFA grazing livestock farms³. Farming plays a crucial role in maintaining the distinctive landscape of such areas.

The average LFA Grazing Livestock farm has 164 ha of enclosed land and typically has access to an area of common grazing. It is part owned (77 ha) and part rented (94 ha) and most of the farm (95 ha) is in permanent grass. The average LFA farmer is 60 years old, has 24 beef cows and 394 breeding ewes. Cattle and sheep youngstock and fatstock make up the total to 77 cattle and 760 sheep on the farm, making a total of 87 Grazing Livestock Units.

The average LFA Grazing Livestock farm earns 58% of its total revenue (output) from crop and livestock farming activities, 25% comes from the Basic Payment, and 12% from specific agri-environment payments. The balance of revenues (5%) is earned from diversification activities.

The crop and livestock farming side of the business covers its variable costs and earns a respectable gross margin of £26,029 per farm. However, since this side of the whole farm business is assumed to incur most of the fixed costs (82%) the average LFA farm is shown as making an Agricultural Business Income loss of -£16,622 (before unpaid labour) from crop and livestock production per farm in 2019/20. Allowing for the unpaid labour allocation of £26,322 to this side of the business results in an Agricultural Corporate Income of -£42,945.

Farm revenues from all sources combine to generate a headline Farm Business Income of £22,808 per farm in 2019/20, a 47% increase on the previous year. This income fails to cover the opportunity costs of the unpaid labour (provided mainly by the farmer's family) estimated at £28,267 per farm. As a result, Farm Corporate Income shows a loss of -£5,459 per farm (from -£12,406 in the previous year). Adjusting for the net interest payments made by the farm, Farm Investment Income (which represents the return on risk and entrepreneurship on all capital invested in the farm business whether borrowed or not) of -£2,078 is improved by £7,031 compared with the previous year's figure of -£9,109. The traditional measure of farm income of Net Farm Income (which puts all farm businesses on a comparable tenanted basis) averaged £14,044 per farm, up 138% from £5,906 in 2018/19. LFA farms depend to a

¹ Defra- <http://archive.defra.gov.uk/rural/countryside/uplands/land-classification.htm>

² Natural England - Entry Level Stewardship: Environmental Stewardship Handbook (NE349)

³ Data from Defra, June Survey of Agriculture and Horticulture, 2018

substantial extent on public payments; the Basic Payment and Agri-environmental payments together account for over 37% of their revenue. Although there is substantial variation amongst the farms in terms of their commercial performance, most of these farms could not survive in their present form as commercial businesses without the public payments, particularly those with an emphasis on cattle production.

1. Background & Context

The total area of land classified as Less Favoured Area (LFA) on farms in England is 2.2 million hectares. Of this, 1.8 m hectares are farmed - 17% of the total farmed area of England⁴. This total is made up of Severely Disadvantaged Areas (SDAs) which account for 67% of the LFA, and Disadvantaged Areas (DAs) accounting for 33% of the LFA. The Moorland designation of semi-natural vegetation covers 42% of the LFA area⁵. These are areas where farming is more difficult because of poor climate, soils and terrain, which in turn lead to lower yields and higher production and transportation costs. LFAs essentially define the upland hill-farming areas; they include almost all of the upland areas in the North of England (including the Pennines, Lake District and North York Moors) the Peak District, the English part of the English-Welsh border, Exmoor, Dartmoor, and parts of Cornwall. In England, 27% of beef cows and 40% of female breeding sheep are on LFA grazing livestock farms⁶. Farming plays a crucial role in maintaining the distinctive landscape of such areas.

There are some 12,412 commercial holdings classified as Grazing Livestock (LFA) farms and these account for 1.3 million ha of English farmland (excluding commons)⁷. While these holdings predominantly farm in the LFA this is not exclusively the case; that is some LFA Grazing livestock farms may farm areas of lowland and some Lowland grazing farms may farm some areas of the LFA. Of the 12,412 LFA Grazing livestock holdings, this report presents data representing the 6,842 commercial holdings above the lower size limit of 25,000 euros of Standard Output (see below).

As we reported last year (Hill Farming in England, 2018/19, RBR) the continued economic health of the farmers (and other land users and managers) in the uplands is of considerable value to society. The current performance and, hence, economic health of the livestock farmers in the Less Favoured Areas of England is the focus of this report. (Other farm types present in the LFA including Upland Dairy farms are covered by other Enterprise Reports in this series, see Appendix 8. Reports in this series).

1.1 The LFA

Map 1 (Appendix 1) shows the LFA areas and also the Government Office (GO) Regions. This report does not concentrate on data by Government Office region (which is otherwise available on the [Rural Business Research](#) website) but rather the EU Regions, which are used for administrative purposes at the European level and represent amalgamations of GO Regions:

- EU West Region comprises the South West and West Midlands GO regions.
- EU North Region includes North West, North East and Yorkshire & Humberside GO regions.

⁴ Defra- <http://archive.defra.gov.uk/rural/countryside/uplands/land-classification.htm>

⁵ Natural England - Entry Level Stewardship: Environmental Stewardship Handbook (NE349)

⁶Data from Defra, June Survey of Agriculture and Horticulture, 2019

⁷ Data from Defra, June Survey of Agriculture and Horticulture, 2019

- EU East Region is the East Midlands, Eastern and South East GO regions.

The LFA designation is part of EU law and extra farm support was provided for farms in these areas as Hill Livestock Compensatory Allowances between 1975 and 2000. This was paid as headage support to eligible beef cows and ewes. In 2001 this support was replaced by an area based scheme - the Hill Farming Allowance (HFA). In 2010 the HFA scheme was replaced by the Uplands Entry Level Stewardship Scheme (Uplands ELS). For further detail see the section on Hill Farm Support below.

A major change to note is that land in the Disadvantaged Areas (DA) became ineligible for HFA as of 1st January 2007 (including Moorland and common land in the DA). In comparison to land in the SDA, land in the DA is generally higher-grade agricultural land, is more accessible, and producers have more options to maximise the potential of the land. Under the Single Payment Scheme (SPS) and now the Basic Payment Scheme (BPS) the DA is subsumed within the lowland region and therefore receives a higher flat rate payment than the SDA.

1.2 Hill Farm Support

The traditional basis of farming in the LFA is the keeping of beef suckler cows and breeding ewes. The breed of livestock kept corresponds with the type of land; the hills being dominated by hardy breeds and the lower land having more upland and lowland type stock. Between 2006 and 2009 (and with the exception of DA land from 2008 – see above) suckler cow and/or sheep producers who had at least 10 ha of eligible forage area in the English LFAs (including common land) were eligible for the HFA. Holdings with less than 10 ha of English LFA land were not eligible, unless part of the holding was in Wales, Scotland or Northern Ireland. Livestock had to be kept at a minimum stocking density of 0.15 livestock units per hectare (LU/ha); this could be less if producers were taking part in an agri-environment or other scheme which restricted their stocking density. Up to and including 2006, producers needed to follow Good Farming Practice (GFP) and undertake to keep their LFA land continuously in agricultural production for five years from the date of first payment of LFA support (i.e. HFA or HLCA).

Since 2007 producers had to follow Good Agricultural and Environmental Condition (GAEC) requirements to qualify for all support payments. The HFA scheme ended with the HFA 2010 payment in Spring 2010 (covering land farmed and stock held in 2009). From July 2010, uplands support became fully integrated into Environmental Stewardship with a specific uplands strand to the Entry Level Stewardship (Uplands ELS - UELS, and Organic Uplands ELS - OUELS). Farms that were in Environmentally Sensitive Area (ESA) agreements or Countryside Stewardship Schemes (CSS) were excluded from applying for UELS but were able to apply for the Uplands Transitional Payment (UTP) until such time as the ESA or CSS agreement terminated. The payment rates (per hectare) for the 2019 UELS and OUELS schemes are shown in Table 1. Although 2019 was designated the final year for the UELS, some farms have been invited to roll the scheme forward at the discretion of Natural England.

Table 1 Uplands Entry Level Scheme rates (2019)**Uplands Entry Level Scheme payments (£/ha) 2019**

Land Type	UELS	OUELS
SDA below the moorland line	£62	£92
SDA above the moorland line in parcels of <15ha (not commonland)	£62	£92
SDA above the moorland line in parcels of >15ha (not commonland)	£23	£23
SDA above the moorland line in parcels of >15ha on commons	£28	£28

2. The Data: FBS Grazing Livestock Farms (LFA)

The data presented in this publication comes from 202 farms, which are all part of the Farm Business Survey. Sixty-three per cent come from the EU North Region, 28% from the EU West and the remaining 9% from the EU East. The data have been ‘weighted’ to represent the total population with each individual farm assigned a weighting factor. As a consequence, the ‘raised sample’ provides a basis for estimating the total land use and performance for the LFA, by farm type and by region.

It is important to note that all surveys are subject to sampling error as they are not measuring the whole population, the FBS is no exception. It is common practice to publish 95% confidence intervals and error bars alongside any published estimated figures to give the reader an indication of the size of the sampling error. These signify that we are 95% confident that this range contains the true value. For simplicity within these reports, the confidence intervals have not always been published. Readers should be aware that the figures calculated from the FBS data have a level of uncertainty around them and that all figures are estimates. Generally, the smaller the sample size the greater the sampling error and the less confidence we have in the estimates. For details on the FBS confidence intervals, please refer to Defra FBS publications <https://www.gov.uk/government/collections/farm-business-survey>

2.1 Farm Types within the LFA

The Farm Business Survey classifies farms based upon Standard Outputs (SO)⁸. This is a departure from the Standard Gross Margins (SGM) basis for classification which was used prior to the 2010/11 year (see <http://www.defra.gov.uk/statistics/foodfarm/farmmanage/fbs>). Where comparisons are made with the 2009/10 year the 2009/10 data has been reconfigured onto an SO

⁸ The Standard Output (SO) for a farm business represents the theoretical output for all the agricultural production activities on the farm, based on standard coefficients for each commodity on the farm. The SO is representative of expected output under typical conditions for enterprises of average size and performance. Farms are classified according to the enterprise mix of SOs on a farm. 2007 SO coefficients are used to classify the farm datasets from 2010/11 to 2011/12, 2010 SO coefficients used for the datasets 2012/13 to 2017/18 and 2013 SO coefficients from 2018/19 (2017/18 results have been recalculated and presented in this report on the 2013 coefficients. (See Appendix 10. Definition of Terms, for more information on Standard Output.)

basis. LFA Grazing Livestock Farms are holdings on which cattle, sheep and other grazing livestock account for more than two thirds of their total SO - except holdings classified as dairy. Dairy farms are those where dairy cows account for more than two thirds of the total SO (and are excluded from this report). A holding is classified as an LFA holding if 50% or more of its total area is in the LFA. Of holdings classified as LFA, those whose LFA land is wholly or mainly (50% or more) in the SDA are classified as SDA; those whose LFA land is wholly or mainly (more than 50%) in the DA are classified as DA. For the purposes of the survey, only those farms with an SO of greater than 25,000 euros are considered, which excludes some 11,000 very small holdings in the LFA. In addition, these farms are also classified according to their size (measured by their 'standard labour requirement' (SLR) see Appendix 9. Definition of Terms).

The structure of the sample and estimates of the population distribution are shown in Table 2. The population estimates are calculated using weighted sample data. As can be seen, the FBS sample is (deliberately) biased towards the larger (and more commercial) farms, which are responsible for the management of most of the LFA. However, the results presented in this report are weighted to remove this selection bias.

Table 2 Sample characteristics and population distribution (2019)

Farm	Sample		Population from 2019 June survey		Average size (SLR) *		Average area farmed (ha) [€]	
	No.	%	No.	%	Sample	June survey	Sample	June survey
Size								
Part-time [†]	19	9%	2895	42%	0.7	0.6	65	62
Small	52	26%	1862	27%	1.5	1.4	115	128
Medium	44	22%	940	14%	2.5	2.5	171	230
Large	87	43%	1145	17%	5.8	5.2	411	532
All Sizes	202	100%	6842	100%	2.3	1.9	168	182

* The Standard Labour Requirement (SLR) for a farm business represents the labour requirement (in full-time equivalents) for all the agricultural activities on the farm, based on standard coefficients for each enterprise on the farm. The SLR is representative of labour requirement under typical conditions for enterprises of average size and performance.

[†] Part-Time includes 5 Spare-time sample farms which are excluded from the SLR analysis. Large and Very large SLR bands are combined in the SLR analysis in band 4. Note: FBS survey data refers only to those businesses calculated to generate more than €25,000 of Standard Output (see footnote 8) which excludes 5,570 very small but commercial 'holdings' within the LFA as recorded by the June Survey.

[€] Average area farmed is unadjusted UAA plus land rented in on a short term basis (net of land let out on a short term basis).

Within this Grazing Livestock (LFA) group there are four sub-groups:

1. *SDA Sheep*- farms where more than two thirds of the total SO is accounted by sheep, and 50% or more of the total area of the farm is in the LFA, of which 50% or more is in the SDA;
2. *SDA Beef*- farms where more than two thirds of the total SO is accounted by beef cattle, and 50% or more of the total area of the farm is in the LFA, of

which 50% or more is in the SDA;

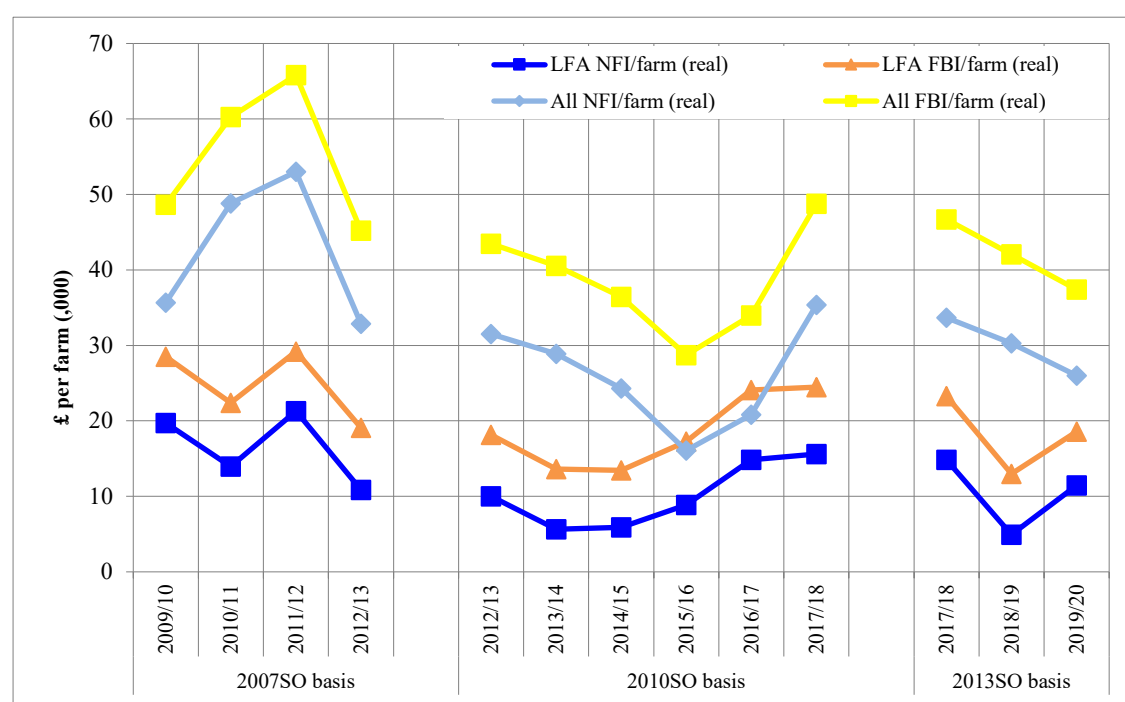
3. *SDA Cattle and Sheep*- farms that are neither specialist sheep or cattle but where more than two thirds of the total SGM is accounted by beef cattle and sheep, and 50% or more of the total area of the farm is in the LFA, of which 50% or more is in the SDA;
4. *DA Cattle and sheep farms*- farms where more than two thirds of the total SO is accounted by beef cattle and sheep, and 50% or more of the total area of the farm is in the LFA, of which 50% or more is in the DA;

Other farm types are present in the LFAs, but analysis has been restricted to cattle and sheep farms as they represent the most common type of LFA holdings.

3. The LFA Farms in context

The comparative business performance of LFA farms is illustrated in Figure 1, which compares the Net Farm Income (NFI) and Farm Business Income (FBI) per farm earned by the LFA grazing farms and by all farms in the England FBS sample over the last ten years. Farm Business Income represents the financial return to all unpaid labour (farmers and spouses, non-principal partners and their spouses and family workers) and on all their capital invested in the farm business, including land and buildings (net of any interest payments on debt capital). Net Farm Income deducts from Farm Business Income a notional return to unpaid family labour (at local wage rates) and also deducts an imputed rental figure for owner-occupied land (at prevailing local rents for similar land) and adds back net interest payments and landlord type expenses. Hence NFI is a measure of the returns to the farmers' own labour, tenant's capital and management, on a consistent basis for both owned and tenanted farms.

Figure 1 LFA^a farms vs All farms 2009/10 to 2019/20 (England in real^b terms)



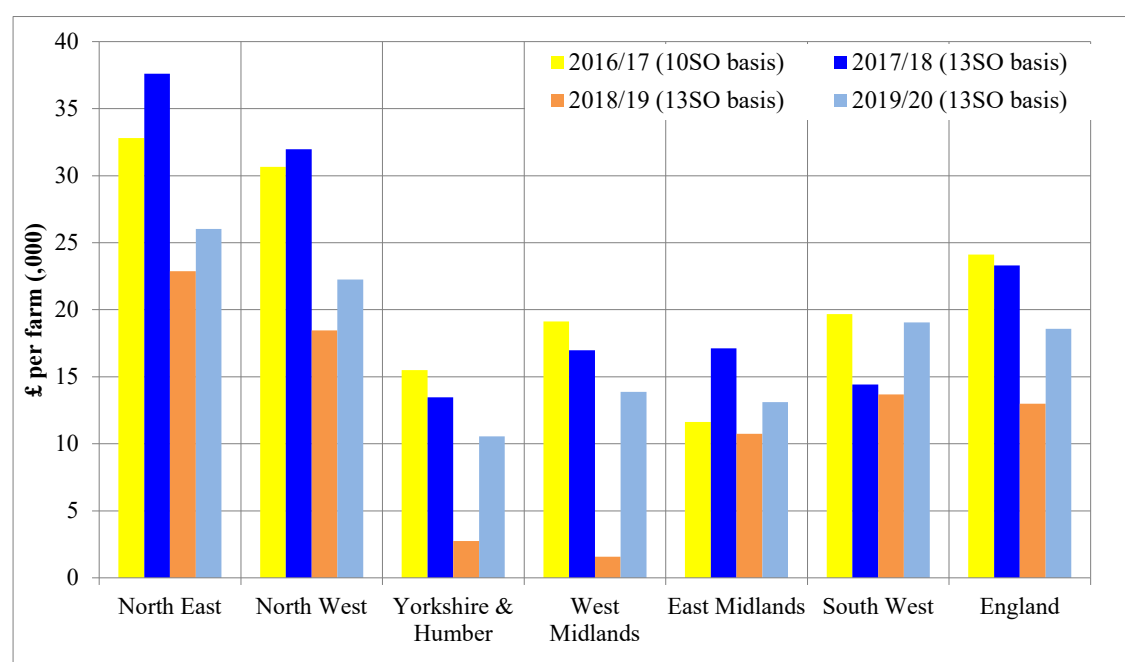
Source: *Farm Accounts in England, 2019/20*, Defra

Notes: a: defined as Upland Grazing Farms

b: Real terms = deflated by RPI (all items).

As can be seen, the upland farms have always under-performed relative to their peers elsewhere in the industry in terms of income per farm. The average farm generally has shown variable income performance over the last ten years in real (purchasing power) terms. The national income peaks of English farms in general, of 2011/12 and 2017/18, were not shared with their upland counterparts although the LFA farms did experience slight upturns at those points. From 2014/15 LFA incomes did increase slightly through to 2017/18, only to drop back again in 2018/19.

However, there is substantial variation around these average figures for all farms, both between regions and between years, as Figure 2 illustrates.

Figure 2 LFA Farm Business Income per farm, by region (2016/17 to 2019/20)

Source: - Government Office Reports, 2019/20, [RBR](#).

Notes: Data in real terms (by RPI) 2015/16 to 2016/17 on a 2010SO basis and 2017/18 to 2019/20 on a 2013SO basis.

4. The Average LFA Farm in 2019/20

Although the average LFA farm in the FBS sample in 2019/20 does not reflect the wide variation in either the sample, or still more the whole population, its description still provides a general picture of the sector. The sample represents just over 6,800 LFA farms in England (excluding the smallest farms - those with a Standard Output of less than 25,000 euros). The average farm area is 164 ha plus common grazing. This area includes some 7 ha under woodland, buildings and roads and 66 ha rough grazing. A further 4 ha of land is rented in (net of land let out) giving a total of 168 ha farmed (excluding common grazing). The adjusted area (see Appendix 9. Definition of Terms, for a full description of adjusted area) of the on-farm rough grazing equates to 19 ha adjusted area which, plus 10 ha of adjusted common grazing, gives a total adjusted area farmed of 130 ha. The average farm is part owned (77 ha) and part rented (94 ha) and most of the farm (95 ha) is in permanent grass. The average LFA farmer is 60 years old, and has 24 beef cows and 394 breeding ewes. Cattle and Sheep youngstock and fatstock make up the total to 77 cattle and 760 sheep on the farm, making a total of 87 Grazing Livestock Units (GLUs)⁹.

4.1 The average LFA Farm account

The average LFA Grazing Livestock farm in England in 2019/20 is represented by the set of accounts shown in Table 3. This table reports the average farm accounts for the whole sample of 202 farms, broken out by four “cost centres” representing the

⁹ GLUs convert different livestock types (cows, sheep, young stock) into a common unit based on nutrient requirements, with a dairy cow being the numeraire (=1 GLU).

different aspects of the farm business: agriculture (production agriculture and agricultural contracting) environmental management, diversification (off farm activities except agricultural contracting) and the Basic Payment Scheme. To the extent possible, the variable costs of the business have been separated out as relevant to each of these cost centres, while fixed costs (including depreciation) have also been allocated so far as possible, including the casual labour cost, according to the shares of each centre in total costs.

On average, these farms only earn some 58% of their total revenue (output) from the agriculture cost centre, with 25% coming from the Basic Payment, and 12% from specific agri-environment payments. The balance of revenues (5%) is earned from non-farm activities (mostly associated with tourism and recreation and non-agricultural contracting; agricultural contracting is included in the agriculture cost centre). The farming business covers its variable costs and earns a positive gross margin of £26,029 per farm (a 19% increase on the previous year). However, since the production agriculture side of the farm business is assumed to incur most of the fixed costs (82%) the average LFA farm is shown to generate a negative Agricultural Business Income of -£16,622 per farm in 2019/20 – a 23% improvement on the figure of -£21,496 in the previous year.

The revenues earned from agri-environment, diversification and the Basic farm payments more than offset their own costs and are able to offset the losses from traditional agriculture production activities to generate a headline Farm Business Income (FBI) (or profit) of £22,808 per farm in 2019/20, a 47% improvement on the previous year. This income fails to cover the opportunity costs of the unpaid labour (provided by the farmer and partners) of £28,267 per farm and as a result, Farm Corporate Income registers at -£5,459 per farm (a 56% increase on the -£12,406 in 2018/19). Adjusting for the net interest payments made by the farm, the Farm Investment Income (which represents the return on risk and entrepreneurship on all capital invested in the farm business whether borrowed or not) is -£2,078, up by 77% compared with the previous year's figure of -£9,109.

The traditional measure of farm income is Net Farm Income (NFI)¹⁰. NFI adjusts the business accounts to put all farm business on the same (tenancy) basis. A rental value is imputed for all owner-occupied farms (as a measure of the opportunity cost of owning land, item 12 in Table 3) and adjusted for landlord costs (item 13 in Table 3). In addition, NFI is gross of the unpaid labour of the principal farmer and spouse (though not that of other partners). NFI is, therefore, an expression of the returns earned by the business to pay the farmer and spouse for their own labour, management and tenant's capital invested in the business. The net result of these adjustments is shown in Table 3, giving an average NFI of £14,044 per farm, up 138% from £5,906 in 2018/19.

In the case of LFA grazing farms there is still a substantial number of tenanted farms. In the EU North Region, where 69% of LFA farms are found, only 44% of the land is

¹⁰ Following extensive consultation, Defra decided that Farm Business Income is a more appropriate headline measure of farm income, particularly on the grounds that most farms are not rented nowadays, and that there are a number of other business arrangements emerging between landowners and operators. However, this does mean that Farm Business Income may not be strictly comparable between farms with different tenure/ownership arrangements.

owned. The average proportion of land owned on LFA grazing farms over the whole country is only 45% compared to a national average of 67% across all farm types (Defra 2019). It therefore makes some sense in the case of LFA farms to retain a focus on NFI as opposed to FBI for comparison purposes.

4.2 Uplands Transitional Payment and Uplands Entry Level Scheme

The Hill Farm Allowance (HFA) ended with the 2010 HFA payment in the spring of 2010 (relating to the 2009 farming year). All farmers previously eligible for the HFA were entitled to apply for the Uplands Entry Level Scheme (UELS) or the Uplands Transitional Payment (UTP) if still participating in other agri-environment schemes. As the Environmentally Sensitive Area (ESA) and Countryside Stewardship Schemes (CSS) came to an end in 2015 to 2016 so did the top-up UTP – all upland support now accessed through the UELS (or Organic UELS [OUELS] for organic farms). The UELS (and OUELS) measures of support are recorded on an “as-received” basis (as are most other agri-environmental payments) rather than on an “as-due” basis as had been the case for the HFA. This does mean that year on year comparisons of both overall income and the agri-environment cost centre’s contribution to farm income must be tempered with the understanding that there may be multiple payments in some years and absent in others – simply due to the timing of these payments. The UELS (and OUELS) officially ended in 2019 but some farms have been invited (by Natural England, and where appropriate criteria are met) to roll the scheme forward one year at a time.

Table 3 LFA Grazing Livestock Farms: Business Output, Input Costs and Income

Derivation of farm income measures		Cost Centre (£ per farm)											Farm Business (£ per farm)			
		Agriculture			Agri-environment and other payments			Diversification out of agriculture			Basic Payment Scheme					
		2018/19	2019/20	% change	2018/19	2019/20	% change	2018/19	2019/20	% change	2018/19	2019/20	% change	2018/19	2019/20	% change
% contribution of cost centre revenue to total:		59%	58%		11%	12%		5%	5%		25%	25%				
1	Total output (Revenue)	67,625	67,708	0%	12,774	13,853	8%	5,460	5,626	3%	28,938	29,790	3%	114,797	116,977	2%
2	Variable costs	45,786	41,679	-9%	16	30	84%	146	189	29%	11	6	-	45,960	41,904	-9%
3=1-2	Total Gross margin	21,839	26,029	19%	12,758	13,822	8%	5,314	5,437	2%	28,927	29,784	3%	68,837	75,073	9%
4	Fixed costs	43,381	42,878	-1%	2,426	2,527	4%	2,650	2,818	6%	4,882	4,269	-13%	53,338	52,492	-2%
5=2+4	Total Costs	89,166	84,557	-5%	2,442	2,557	5%	2,796	3,007	8%	4,893	4,275	-13%	99,298	94,396	-5%
6	Profit/(loss) on sale of fixed assets	46	227	396%										46	227	396%
7=1-5+6	Farm Business Income	-21,496	-16,622	23%	10,332	11,295	9%	2,664	2,619	-2%	24,045	25,516	6%	15,545	22,808	47%
8	Adjustment for unpaid manual labour	26,062	26,322	1%	463	661	43%	1,426	1,284	-10%	0	0	-	27,951	28,267	1%
9=7-8	Farm Corporate Income	-47,558	-42,945	10%	9,869	10,634	8%	1,238	1,335	8%	24,045	25,516	6%	-12,406	-5,459	56%
10	Interest payments (net of interest received)	2,968	3,059	3%	108	105	-3%	83	81	-1%	139	137	-1%	3,297	3,382	3%
11=9+10	Farm Investment Income	-44,590	-39,886	11%	9,977	10,739	8%	1,321	1,417	7%	24,184	25,652	6%	-9,109	-2,078	77%
% contribution of cost centre costs to total:		90%	90%		2%	3%		3%	3%		5%	5%				
2019/20 Sample size (unweighted) 202 Number (weighted) 6,842 2018/19 Sample size (unweighted) 212 Number (weighted) 6,928				12	Imputed rent Ownership charges Director's remuneration Unpaid labour of principal farmer and spouse								11,652	11,065	-5%	
				13									3,803	3,698	-3%	
				18									259	225	-	
				16									22,604	23,264	3%	
				17=11-12+13+18+16				Net Farm Income				5,906	14,044	138%		
				19				Holding gains not included in farm income				-3,292	15,270	-564%		
				20				Breeding Livestock Appreciation (BLSA)				-5,591	2,597	-146%		
				21				Revaluation of machinery, permanent crops, glasshouse, quota				1,995	1,742	-13%		
				22				Revaluation of land				304	10,931	3500%		
				23				Manager's paid managerial input				52	52	0%		
24=17-16+23				Management and Investment Income				-16,647	-9,168	45%						

5. The LFA Farms' circumstances

There is, as already noted, a substantial range of performance exhibited by the sample. Figure 3 shows the sample distribution by quartile, based on Farm Business Income per farm. The “high” group of farms is the upper quartile of the (weighted) distribution of farms, consisting of the top 25% of farms ranked by FBI/farm, with the other quartiles defined accordingly. Figure 3 also distinguishes between the Agriculture Business Income (ABI) (derived solely from the agricultural enterprises, and excluding environmental, diversification and the Basic Payment Scheme (BPS)) and the Farm Business Income (which includes environmental, diversification and BPS payments). Hence, the difference between the two measures indicates the contribution of the strictly non-agricultural ‘enterprises’ in the farm business – the environmental schemes, diversification income and BPS payments. As can be seen, all LFA farm groups make losses as far as their agricultural enterprises are concerned. The medium and top quartiles manage to offset these losses by the incomes earned through environmental and diversification activities and the BPS, but not so for the lowest quartile which returns a negative FBI. In general, the better performing farms make greater incomes from their non-agricultural farm business activities and receipts.

As we reported in Hill Farming in England, 2006/7 (RBR) current estimates of the social value of landscape management and environmental conservation associated with hill farming in England broadly correspond to the extent of public payments made to these farms for their provision of CARE (Conservation, Amenity, Recreation and Environment). We have no new information to elaborate on this broad correspondence for this report.

Figure 3 LFA Agriculture and Farm Business Income by FBI/farm quartile

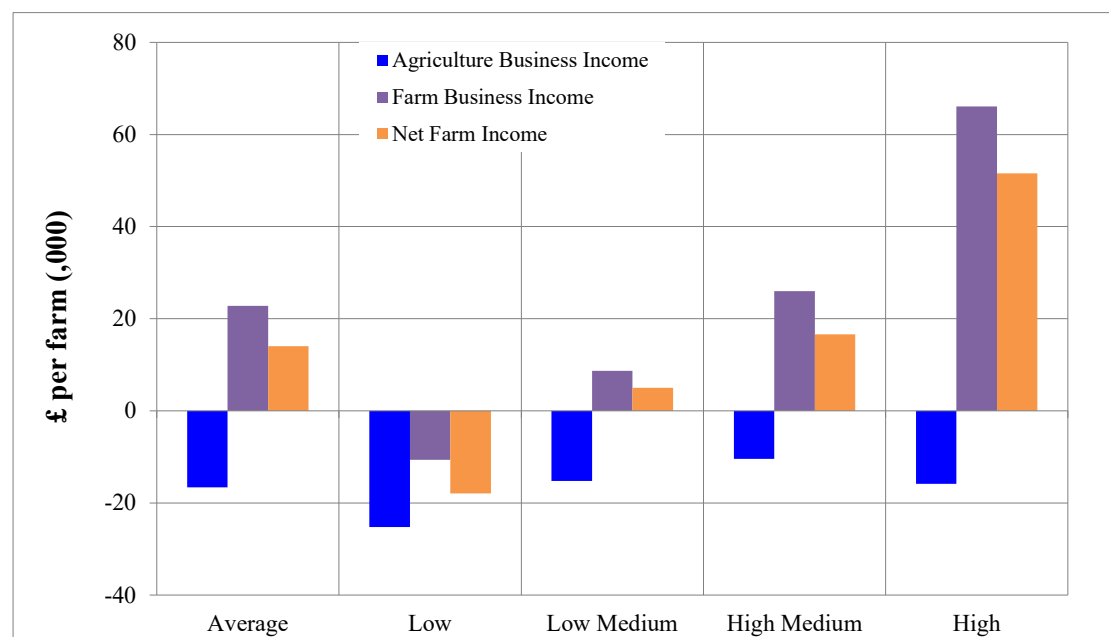


Figure 4 presents similar data on farm business performance by quartile, though here on the basis of Farm Business Income (FBI) per Grazing Livestock Unit (GLU) which

removes the effect of farm size on the FBI earnings per farm. The story remains the same with all LFA farm groups returning a negative Agriculture Business Income or net margin for their production activities.

Figure 4 LFA Farm Business Performance by FBI/GLU quartile

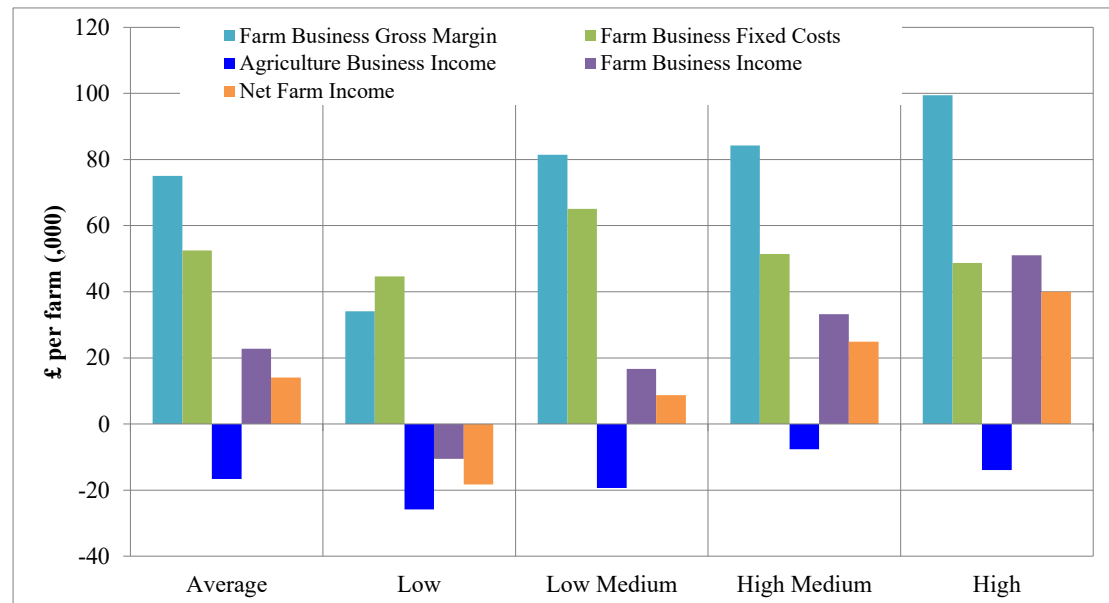
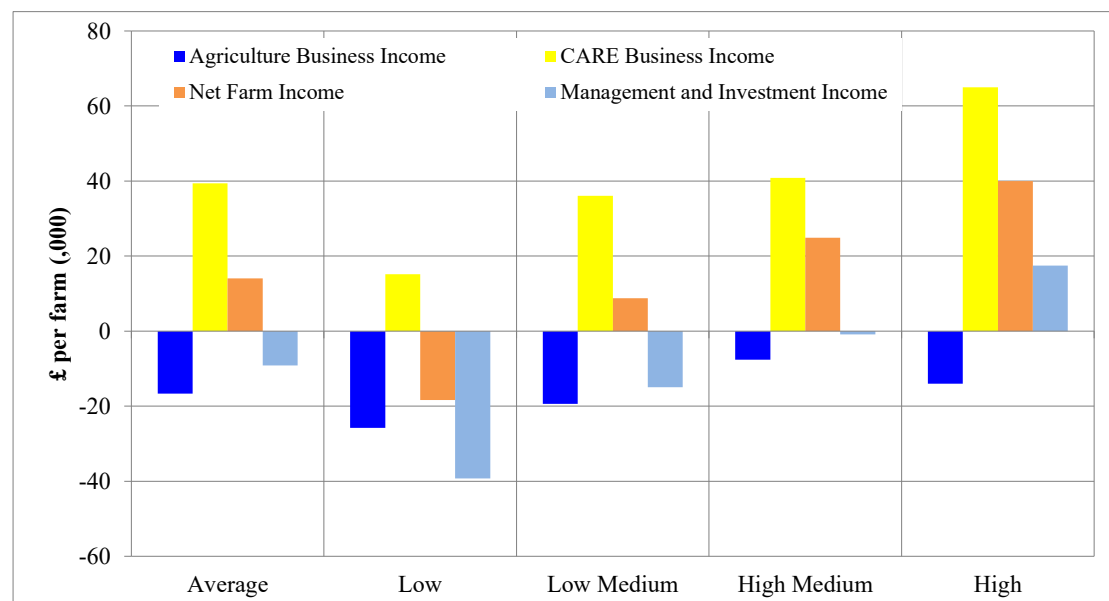


Figure 5 demonstrates how, while the CARE Business Income can rescue most farms, it is insufficient to offset the ABI losses of the lowest quartile and this group returns a negative NFI. The improvement in ABI performance is seen to be the result of both better gross margins (revenues minus variable costs) and lower fixed costs per GLU exhibited by these farms.

Figure 5 LFA Farm Earnings Performance by FBI/GLU quartile



The viability of all LFA farms depends heavily on the CARE payments (the BPS payments, environmental payments and income from recreation and amenity services) as indicated by the differences between the Agriculture Business Income and the

Farm Business Income. Figure 5 also shows the Management and Investment Income (MII) per farm; Management and Investment Income deducts a notional payment for the unpaid labour of the farmer and spouse and represents the balance available as a return on invested capital. Only the top quartile manages a positive MII suggesting that only these businesses are economically robust in the longer term.

Figure 6, showing the main measures of business performance by main farm type, suggests that the SDA Mixed grazing and Specialist sheep livestock groups appear to be the most profitable at the NFI level despite both having a negative ABI. The Specialist beef farms however, not only suffer losses at the ABI level but are barely able to recoup these losses through gains in CARE income in the same way as other farm types are able. The Various grazing livestock (DA) farms in the Disadvantaged Area of the LFA designation are now (since 2008) ineligible for the targeted Upland support (now the UELS) which provides a substantial share of the CARE revenue for farms with predominantly SDA land.

Figure 6 LFA business performance by Main Farm Type

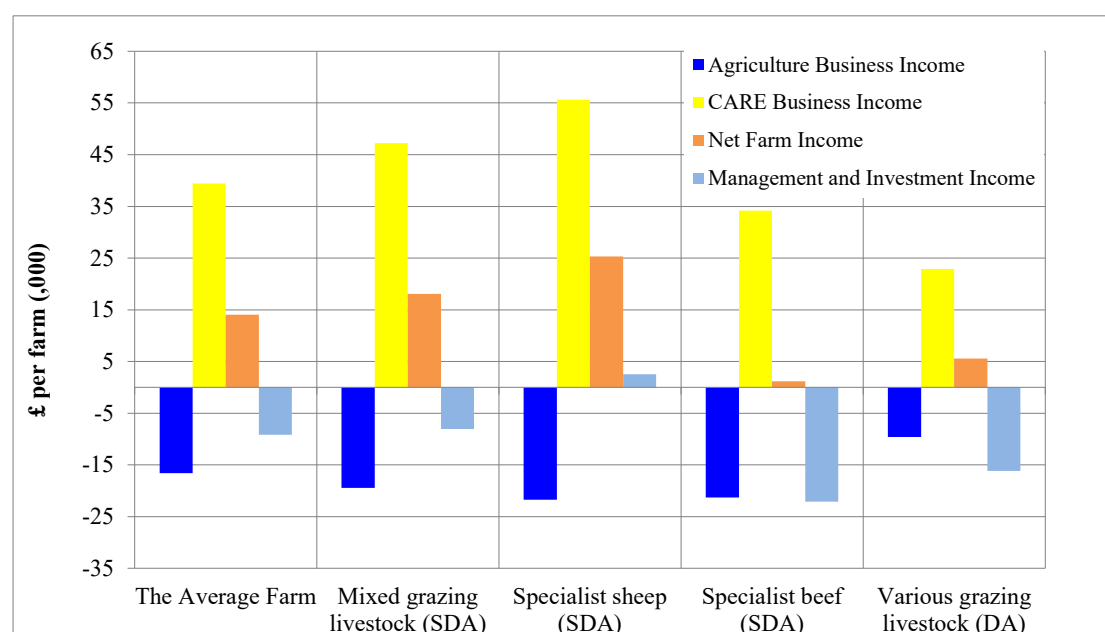


Figure 7 shows the business performance by size, measured here by the Standard Labour Requirement (SLR)¹¹ and illustrates that size is important to these farms' earning ability, although as previously seen it is the CARE income that rescues all farms from economic failure. The greater losses of ABI in the larger size groups demonstrate that in years of poor performance of the Agriculture cost centre when farm gross margins are reduced, there are size related fixed costs that still have to be covered. This figure dramatically demonstrates both the importance of CARE income and the weak position of production agriculture to LFA farms. A full explanation of the derivation and boundaries of the SLR size bands is given in paragraph 15 of Appendix 9. Definition of Terms.

¹¹ The Standard Labour Requirement (SLR) for a farm business represents the labour requirement (in full-time equivalents) for all the agricultural activities on the farm, based on standard coefficients for each commodity on the farm. The SLR is representative of labour requirement under typical conditions for enterprises of average size and performance.

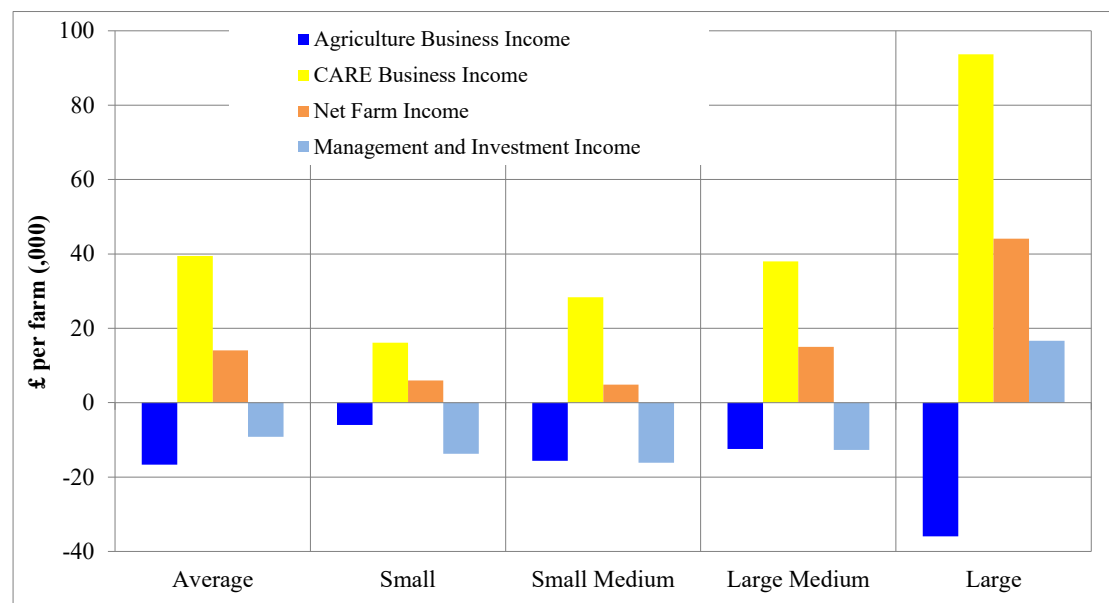
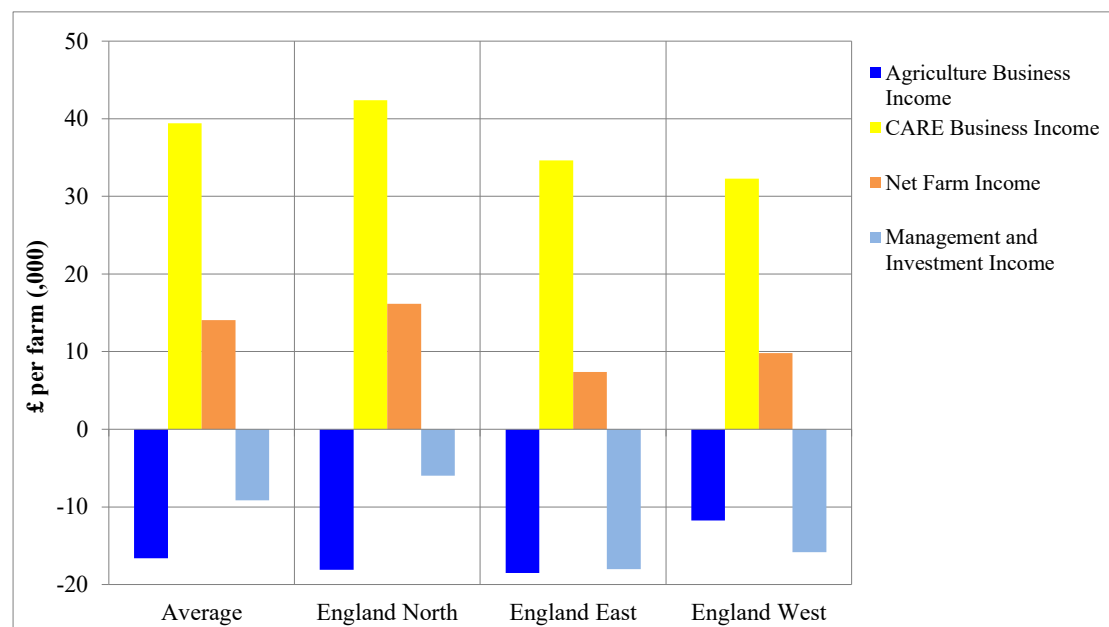
Figure 7 LFA business performance by size (SLR) quartile

Figure 8 shows the same business performance measures by EU region. As above, it is the CARE income that dominates the picture of business performance. The average LFA farm in England North is considerably larger, has more sheep and has less cattle than LFA farms in England East or West – which, from above, will partly explain the differences in regional profitability.

Figure 8 LFA business performance by EU region

5.1 Frequency distribution of farm incomes

The distribution of LFA farm incomes in England is shown in Figure 9 to Figure 11. The income bands have been amalgamated to avoid presenting groups of less than 10 farms. There is substantial variation between farms across the income measures and it is abundantly clear that less than 50% manage to realise a positive MII – as in a positive return on the tenant's capital invested and return on the farmer's management skills.

Figure 9 Frequency Distribution of FBI/farm of LFA Farms in England

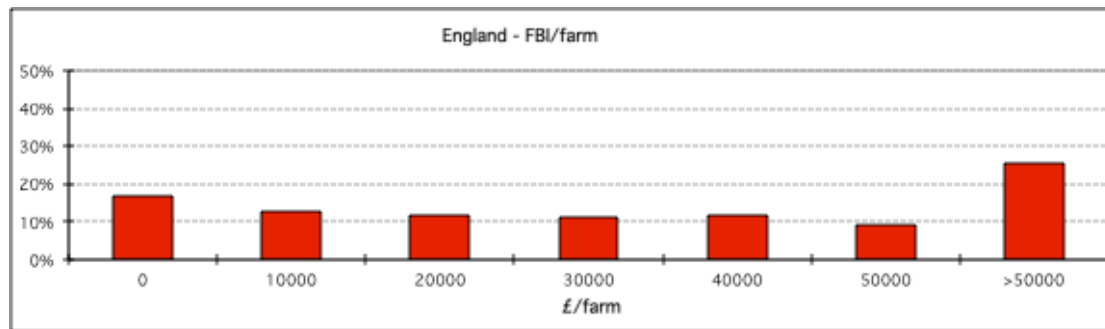


Figure 10 Frequency Distribution of NFI/farm of LFA farms in England

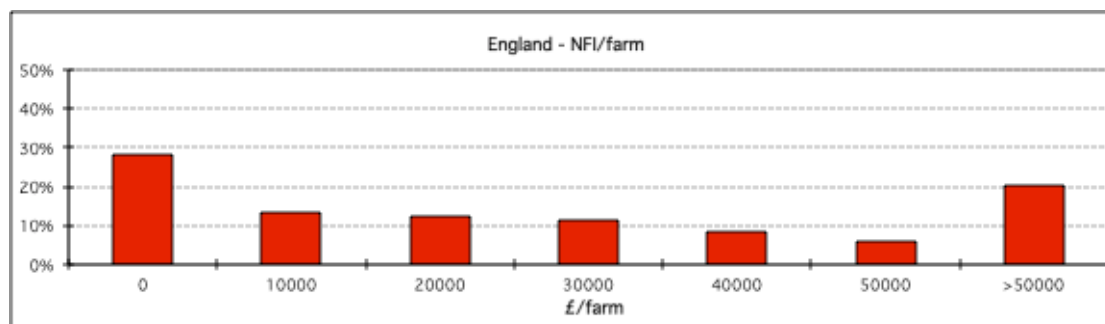
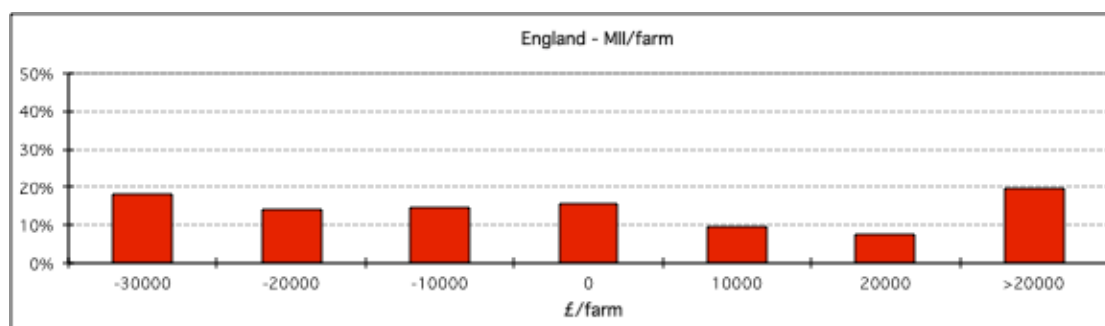


Figure 11 Frequency Distribution of MII/farm on LFA farms in England



6. LFA Enterprise Gross Margins

The major livestock enterprises on LFA grazing farms are suckler cows, typically producing store cattle (for finishing in the lowlands) and Hill and Upland sheep flocks, typically producing cross-bred ewe lambs (supplying the lowland flocks with breeding stock) and store lambs (also for finishing in the lowlands). Where conditions allow some cattle and lamb finishing also occurs on LFA farms.

Enterprise margins for Upland sheep are shown in Table 4 with a flock stratification shown in Table 5. Upland sheep flocks are those with lambing rates typically in excess of 100% (FBS Enterprise code 103) and more typically found on lower altitude LFA farms than Hill sheep flocks (lambing rates typically less than 100% FBS Enterprise code 102).

Table 4 SDA upland sheep flock performance 2018 and 2019 lambing

	All Upland flocks		Change	
	2018 lambing	2019 lambing	£/ewe	%
<i>Number of farms</i>	109	94		
<i>Number of farms (weighted)</i>	3183	2959		
<i>Flock size (no. ewes)</i>	512	503	-8.7	-2%
(£ per ewe)				
Enterprise Output (excl. BLSA)	92.0	96.8	4.8	5%
BLSA	-9.6	4.6	14.2	-148%
Total Variable costs	55.6	49.7	-6.0	-11%
Concentrates	23.0	18.2	-4.8	-21%
Purchased fodder and keep	5.3	3.8	-1.5	-28%
Veterinary and medicines	7.5	8.6	1.1	15%
Other livestock costs	13.3	12.7	-0.6	-4%
Forage variable costs	6.5	6.3	-0.2	-3%
Gross Margin (excl. BLSA) / Ewe	36.3	47.1	10.8	30%
Gross Margin range	-45 to 111	-33 to 136		
Total Fixed costs	67.4	70.3	2.8	4%
Total costs	123.1	119.9	-3.1	-3%
Enterprise NM (excluding BLSA)	-31.1	-23.1	8.0	-26%
Enterprise NM after F&S labour (excl BLSA)	-60.9	-55.2	5.7	-9%
Stocking rate (GLUs/total adj ha)	0.70	0.71	0.0	1%
Lambing rate (born and reared/average no. ewes)	1.34	1.40	0.1	4%

Table 5 SDA upland sheep flock performance by flock size 2019 lambing

2019 lambing	All flocks	<300 ewes	300-600 ewes	>600 ewes
<i>Number of farms</i>	94	31	27	36
<i>Number of farms (weighted)</i>	2959	1294	847	818
<i>Flock size (no. ewes)</i>	503	181	432	1087
(£ per ewe)				
Enterprise Output (excluding BLSA)	96.8	94.3	96.4	97.6
BLSA	4.6	2.5	2.9	5.8
Total Variable costs, of which:	49.7	43.3	49.6	51.3
Concentrates	18.2	15.7	21.5	17.4
Purchased fodder and keep	3.8	2.0	2.8	4.7
Veterinary and medicines	8.6	8.5	7.5	9.1
Other livestock costs	12.7	11.6	10.4	14.0
Forage variable costs	6.3	5.6	7.5	6.1
Gross Margin (excluding BLSA) / Ewe	47.1	51.0	46.8	46.3
Total Fixed costs	29.5	36.2	23.6	30.1
Total costs	34.1	38.7	26.6	35.9
Net Margin (excluding BLSA) / Ewe	-23.1	-30.7	-16.2	-24.0
Net Margin after F&S labour (excl BLSA)	-55.2	-92.8	-62.2	-42.5
Stocking rate (GLUs/total adj ha)	0.71	0.83	0.69	0.68
Lambing rate (born and reared/average no. ewes)	1.40	1.43	1.42	1.38

Table 6 SDA hill sheep flock performance 2018 and 2019 lambing

	All Hill flocks		Change	
	2018 lambing	2019 lambing	£/ewe	%
<i>Number of farms</i>	59	67		
<i>Number of farms (weighted)</i>	1743	2274		
<i>Flock size (no. ewes)</i>	528	451	-77	-15%
(£ per ewe)				
Enterprise Output (excl. BLSA)	59.9	67.6	7.7	13%
BLSA	-8.3	3.4	11.7	-141%
Total Variable costs	45.0	41.8	-3.2	-7%
Concentrates	18.1	16.0	-2.0	-11%
Purchased fodder and keep	6.8	5.5	-1.3	-19%
Veterinary and medicines	7.2	6.4	-0.8	-12%
Other livestock costs	9.1	9.8	0.7	8%
Forage variable costs	3.9	4.1	0.2	6%
Gross Margin (excl. BLSA) / Ewe	14.9	25.8	10.9	73%
Gross Margin range	-43 to 114	-48 to 122		
Total Fixed costs	62.7	70.6	7.9	13%
Total costs	107.7	112.4	4.7	4%
Net Margin (excl. BLSA) / Ewe	-47.8	-44.8	3.0	-6%
Net Margin after F&S labour (excl. BLSA)	-71.7	-76.5	-4.8	7%
Stocking rate (GLUs/total adj ha)	0.59	0.54	0.0	-8%
Lambing rate (born and reared/average no. ewes)	1.04	1.12	0.1	7%

Table 7 SDA hill sheep flock performance by flock size 2019 lambing

2019 lambing	All flocks	<300 ewes	300-600 ewes	>600 ewes
<i>Number of farms</i>	67	23	24	20
<i>Number of farms (weighted)</i>	2274	970	885	419
<i>Flock size (no.ewes)</i>	451	176	419	1155
(£ per ewe)				
Enterprise Output (excl. BLSA)	67.6	78.3	70.1	61.9
BLSA	3.4	1.5	4.4	3.2
Total Variable costs, of which:	41.8	46.5	44.3	38.3
Concentrates	16.0	23.4	15.1	14.1
Purchased fodder and keep	5.5	1.9	6.4	6.1
Veterinary and medicines	6.4	5.9	6.8	6.2
Other livestock costs	9.8	11.1	11.0	8.4
Forage variable costs	4.1	4.3	5.0	3.4
Gross Margin (excl. BLSA) / Ewe	25.8	31.8	25.8	23.7
Total Fixed costs	48.9	63.6	49.4	43.5
Total costs	52.3	65.1	53.8	46.7
Net Margin (excl. BLSA) / Ewe	-44.8	-59.3	-44.3	-40.0
Net Margin after F&S labour (excl. BLSA)	-76.5	-132.4	-78.7	-55.2
Stocking rate (GLUs/total adj ha)	0.54	0.60	0.55	0.50
Lambing rate (born and reared/average no. ewes)	1.12	1.32	1.12	1.04

Table 4 to Table 7 show that Sheep farming on its own in the English LFA by whatever measure is unable to fully cover all enterprise costs. There are also very clear economies of scale. This has major implications for the UK Sheep industry as a whole and the critical role that non-agricultural income streams play on LFA farms.

Table 8 LFA suckler herd performance 2018/19 and 2019/20

	All herds		change	
	2018/19	2019/20	£/cow	%
<i>Number of farms</i>	153	144		
<i>Number of farms (weighted)</i>	4,171	3,959		
<i>Herd size (no.cows)</i>	39	37	-2	-5%
(£ per cow)				
Enterprise Output (excl. BLSA)	425	408	-17	-4%
BLSA	-75	39	114	-152%
Total Variable costs	234	210	-24	-10%
Concentrates	61	57	-4	-6%
Purchased fodder and keep	33	20	-13	-40%
Veterinary and medicines	27	29	2	6%
Other livestock costs	65	57	-8	-13%
Forage variable costs	48	48	0	0%
Gross Margin (excl. BLSA) / Cow	191	197	6	3%
Gross Margin range	-594 to 578	-1825 to 1855		
Total Fixed costs	445	439	-6	-1%
Total costs	680	650	-30	-4%
Enterprise NM (excl. BLSA)	-255	-242	13	-5%
Enterprise NM after F&S labour (excl. BLSA)	-441	-413	28	-6%

LFA Suckler cow results, for 2018/19 and 2019/20, are shown in Table 8 with a herd size stratification shown in Table 9, both tables demonstrate that Beef farming in the

English LFA, regardless of size, is unable to cover all enterprise costs, and that this must have major implications for the UK Beef supply industry.

Table 9 LFA suckler herd performance by herd size 2019/20

2019/20 calving period	All herds	<30 cows	30-60 cows	>60 cows
<i>Number of farms</i>	144	53	47	44
<i>Number of farms (weighted)</i>	3,959	2,235	1,030	695
<i>Herd size (no.cows)</i>	37	15	44	99
<i>(£ per cow)</i>				
Enterprise Output (excl. BLSA)	408	389	364	445
BLSA	39	30	40	42
Total Variable costs, of which:	210	231	198	209
Concentrates	57	59	46	63
Purchased fodder and keep	20	43	13	13
Veterinary and medicines	29	34	30	26
Other livestock costs	57	57	61	54
Forage variable costs	48	38	47	53
Gross Margin (excl. BLSA) / Cow	197	158	167	237
Total Fixed costs	439	455	423	442
Total costs	650	686	620	651
Enterprise NM (excl. BLSA)	-242	-297	-256	-206
Enterprise NM after F&S labour (excl. BLSA)	-413	-570	-454	-309

A further more detailed analysis of LFA enterprise gross margins and efficiency factors is presented in Table 37 to Table 41 for all LFA enterprises with a sample size greater than 10 farms. The premium group is calculated as the top third of the sample on the basis of Gross Margin per cow or ewe, or in the trading livestock enterprises, the top third by Gross Margin per adjusted hectare.

7. Organic LFA farms

The current sample of 202 English LFA grazing farms includes 20 fully organic farms. Within this there are 17 organic suckler herds, 10 organic upland flocks and 6 organic hill flocks.

Table 10 compares suckler herd performance to the gross margin (GM) and net margin (NM) level across organic and non-organic farms. The organic suckler herd output is £3/cow less than the non-organic output but with £65/cow less spent on variable costs (particularly concentrates and purchased fodder) the gross margin for organic sucklers is £62/cow more than the non-organic average. As can be seen from the spread of GMs there is considerable variation across farms. Organic fixed costs are lower, by £28/cow, than the non-organics giving that the non-organic farms a £90/cow advantage at the net margin level (excepting farmer and spouse labour). After allowing for the farmer and spouse labour the final net margins are £151/cow higher for organic herds than the non-organic herds (albeit negative in both cases). The stocking rate for both the organic and the non-organic farms is 0.74 GLU/total adjusted area (including commons and all land rented in).

Table 10 LFA suckler herd performance Organic and Non-organic (£/cow)

2019/20	All Suckler herds	
	Non-organics	Organics
Number of farms	127	17
Number of farms (weighted)	3785	134
Herd size (no.cows)	37	56
(£ per cow)		
Enterprise Output (excluding BLSA)	409	406
BLSA	39	65
Total Variable costs	215	150
Concentrates	59	33
Purchased fodder and keep	20	11
Veterinary and medicines	29	28
Other livestock costs	57	62
Forage costs	49	16
Gross Margin (excluding BLSA)	194	256
Gross Margin range	-1825 to 1855	24 to 512
Total Fixed costs	438	410
Total costs	653	560
Enterprise NM (excluding BLSA)	-243	-153
Enterprise NM after F&S labour (excl BLSA)	-413	-262
Stocking rate (GLUs/total adj ha)	0.74	0.74

Table 11 compares organic and non-organic Upland SDA flocks to the GM and NM level. Enterprise output is £1/ewe lower for organics (at £96/ewe) than that of the non-organics. Variable costs are £9/ewe lower for organic flocks (at £41/ewe) than the non-organics. The resultant gross margin is £55/ewe for organic flocks and £47/ewe for the non-organic flocks. Fixed costs are £78/ewe for organic flocks and £70/ewe for non-organics – this results in net margins (after farmer and spouse labour) of -£48/ewe for organic flocks and -£55/ewe for non-organic flocks.

Table 11 SDA flock performance Organic and Non-organic

2019 lambing	Upland SDA Flocks	
	Non-organic	Organic
Number of farms	84	10
Number of farms (weighted)	2876	84
Flock size (no. ewes)	506	422
(£ per ewe)		
Enterprise Output (excluding BLSA)	96.8	95.5
BLSA	4.6	4.7
Total Variable costs	49.9	40.7
Concentrates	18.3	13.4
Purchased fodder and keep	3.9	1.4
Veterinary and medicines	8.6	8.3
Other livestock costs	12.7	14.6
Forage costs	6.4	3.1
Gross Margin (excluding BLSA) / Ewe	47.0	54.8
Gross Margin range	-33 to 136	29 to 93
Total Fixed costs	70.1	77.8
Total costs	119.9	118.4
Enterprise NM (excluding BLSA)	-23.1	-22.9
Enterprise NM after F&S labour (excl BLSA)	-55.4	-48.1
Stocking rate (GLUs/total adj ha)	0.71	0.71
Lambing rate (born and reared/average no. ewes)	1.40	1.36

*A part of this table was derived from data with less than 15 observations in the sample which could reduce the robustness of the results

Table 12 compares whole farm profitability across all four cost centres between the 20 fully organic farms and the 182 non-organic LFA grazing farms in the sample. This table shows that the overall difference in profit favours the organic farms by £10,839 in Farm Business Income and by around £14,000 in Farm Corporate Income and Farm Investment Income. After the appropriate adjustments these profit figures translate to a Net Farm Income (NFI) of £22,769, which is £8,980 higher than the non-organic LFA grazing farms, and a Management and Investment Income (MII) profit of £497, which is £9,947 better than the non-organic farms' loss of -£9,450. This greater FBI is down to the higher profitability (by FBI) of all cost centres; production Agriculture by £2,006 (albeit both negative) the Agri-environmental cost centre (by £4,308) the Basic Payment cost centre (by £4,497) and the Diversification cost centre (by £29). Clearly the large area advantage that the organic farms enjoy goes some way to explain the difference in the Basic Payment revenue – see Table 13. Table 13 compares the Organic sample with the Non-organic sample through a series of land use, stocking, outputs and variable costs. With an average area farmed of 185ha, organic farms are 11% larger, in area terms, than the non-organics (168ha) and while a large portion of this is rough grazing very little of it is common land. Organic LFA farms are 64% owner occupied, against 45% for the non-organics, and actually use 6% less labour (at 1.4 agricultural labour units per farm) than the non-organic average. Further comment on Organic farms may be found in a sister publication – see Appendix 8. Reports in this series.

Table 13 Land use, stocking, outputs & variable costs - Organic vs Non-organic

Land Use and Stocking 2019/20	The Average LFA Farm	
	LFA Non-organics	LFA Organics
Number (unweighted)	182	20
Number (weighted)	6,648	194
Total Area (includes woodland and roads etc) (ha)	169.9	186.2
Area Farmed (ha)	167.6	185.3
Net Land Hired In (ha)	4.1	8.5
Utilised Agricultural Area (ha)	163.5	176.8
<i>Of which</i> Total main products and set-aside (ha)	2.2	5.2
Grass, fodder crops and rough grazing (ha)	161.3	171.6
<i>Of which</i> rough grazing (unadjusted) (ha)	66.0	59.4
Adjusted rough grazing (sole occupation)	18.7	16.5
Adjusted rough grazing (shared)	10.4	0.0
Total Adjusted Utilised Agriculture Area (ha)	116.2	133.9
Area owner occupied (ha)	75.6	118.7
Area tenanted (ha)	94.3	67.5
Average age of farmer (years)	60	60
Agricultural labour units (ALU)	1.5	1.4
Standard Output size units (2013SO)	96,637	108,318
Standard Output size group (2013SO)	7.0	7.1
<u>Land Use</u>		
Temporary Grassland Area (ha)	3.4	15.3
Permanent Grassland Area (ha)	94.4	103.1
<u>Stocking</u>		
Total Beef cows	23.2	41.7
Total Cattle	76.1	120.8
Ewes (LFA and lowland)	397.4	274.9
Total Sheep	766.5	553.3
<u>Livestock Units</u>		
Total Cattle LU	44.7	73.0
Total Sheep LU	41.3	29.1
Grazing LU (cattle, sheep, horses and others)	86.6	102.6
Outputs & Variable Costs		
Farm Business Output	116,648	128,279
of which: Output from agriculture	67,601	71,389
Agri environment payment	13,715	18,558
Diversified output	5,652	4,754
Basic Payment	29,680	33,577
Livestock Enterprise Output	60,247	60,587
of which: Cattle Enterprise Output	24,654	34,620
Sheep Enterprise Output	35,347	25,881
Crop Enterprise Output	4,346	7,620
Non agriculture, no other category output	2,992	3,182
<u>Variable Costs</u>		
Farm Business Variable costs		
of which: Agriculture Variable Costs	42,167	32,905
Agriculture Crop Costs	41,938	32,793
Agriculture Livestock Costs	5,635	3,980
of which: Purchased Fodder Feed	29,458	20,166
Home Produced Fodder Feed	15,803	5,730
Veterinary and medicines	942	2,169
Other Livestock Costs	4,355	3,859
Agriculture Contract Costs	8,358	8,407
Agriculture Casual Labour	4,451	6,967

8. References

Hill Farming in England, 2006/7, RBR

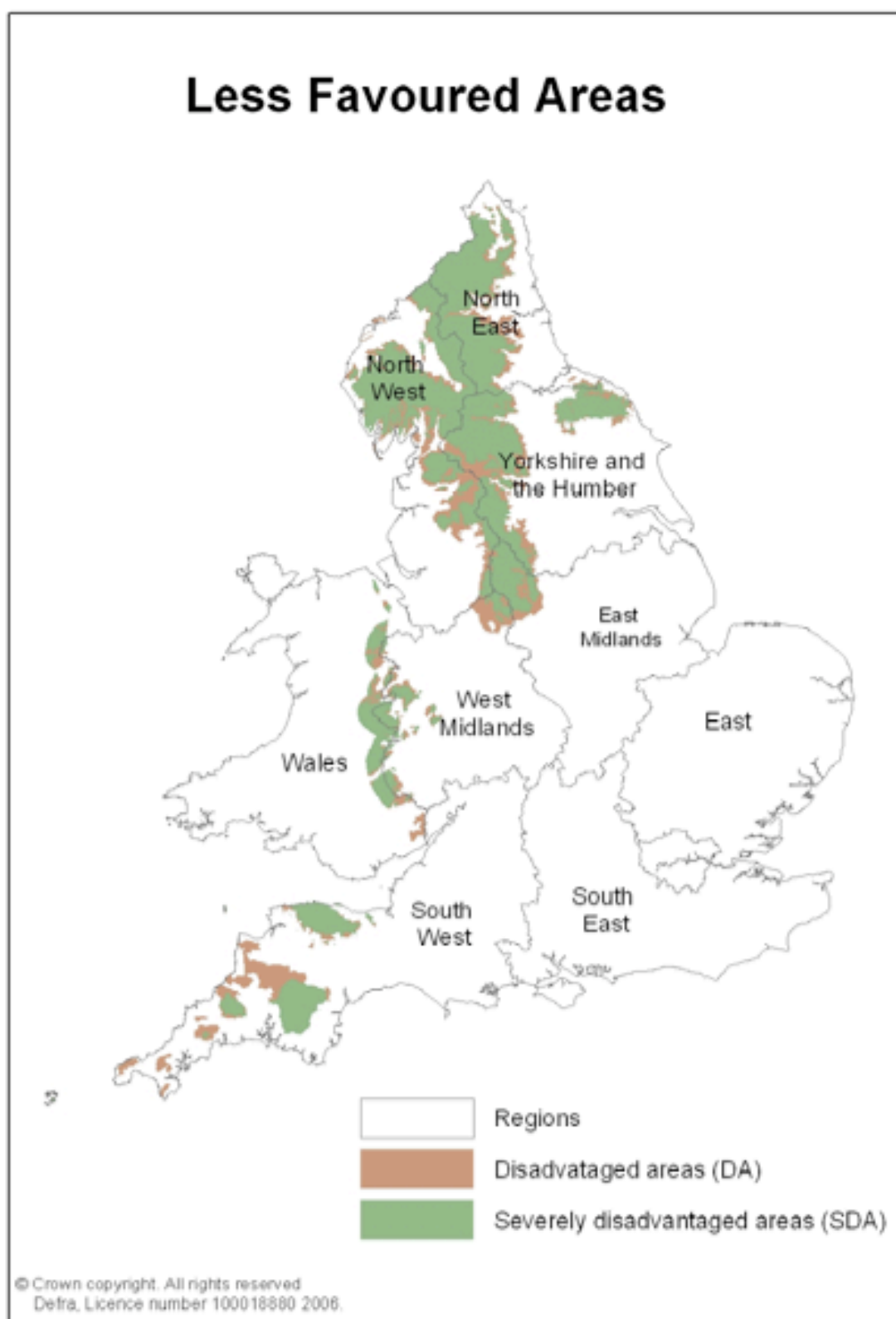
Hill Farming in England, 2018/19, RBR

Defra 2017 structure-june-eng-farmtypeseries2015-10mar17

Government Office Reports, 2018/19, RBR (<http://www.farmbusinesssurvey.co.uk/>)

Appendix 1. Less favoured Areas of England

Figure 12 Map of Less Favoured Areas, England



Source: Defra

Appendix 2. Analysis of LFA Grazing Farms (England) by farm type**Table 14 Farm Income measures by Cost Centre - Mixed grazing livestock (SDA)**

The average Mixed grazing livestock (SDA) farm 2019/20		Cost Centre (£ per farm)				Farm Business (£ per farm) 2019/20
		Agriculture 2019/20	Agri-environment and other payments 2019/20	Diversification out of agriculture 2019/20	Basic Payment Scheme 2019/20	
Derivation of farm income measures:						
Total output	(a)	82,448	19,366	3,967	34,693	140,474
Variable costs	(b)	49,906	11	319	2	50,237
Total Gross margin	(c=a-b)	32,542	19,356	3,648	34,691	90,237
Fixed costs	(d)	52,268	3,712	2,495	4,284	62,760
Total Costs	(e=b+d)	102,174	3,723	2,814	4,287	112,997
Profit/(loss) on sale of fixed assets	(f)	283				283
Farm Business Income	(g=a-e+f)	-19,444	15,644	1,153	30,406	27,760
Adjustment for unpaid manual labour	(h)	29,747	1,058	1,093	0	31,899
Farm Corporate Income	(i=g-h)	-49,191	14,586	60	30,406	-4,139
Interest payments (net of interest received)	(j)	2,744	155	69	90	3,057
Farm Investment Income	(k=i+j)	-46,447	14,740	129	30,497	-1,082
Derivation of Net Farm Income:						
Imputed rent (l)						11,674
Ownership charges (m)						4,473
Director's remuneration (n)						89
Unpaid labour of principal farmer and spouse (o)						26,280
Net Farm Income (p=k-l+m+n+o)						18,087
Holding gains not included in farm income (q)						12,425
Breeding Livestock Appreciation (BLSA) (r)						3,378
Revaluation of machinery, permanent crops, glasshouse & quota (s)						2,217
Revaluation of land (t)						6,830
Manager's paid managerial input (u)						113
Management and Investment Income (v=p-o+u)						-8,081
The average farm						
Number (unweighted)	81					
Number (weighted)	1,575					

Table 15 Farm Income measures by cost centre - Specialist Beef (SDA)

The average Specialist beef (SDA) farm 2019/20		Cost Centre (£ per farm)				Farm Business (£ per farm) 2019/20
		Agriculture 2019/20	Agri-environment and other payments 2019/20	Diversification out of agriculture 2019/20	Basic Payment Scheme 2019/20	
Derivation of farm income measures:						
Total output	(a)	66,521	8,650	11,066	24,343	110,580
Variable costs	(b)	39,851	32	3	13	39,899
Total Gross margin	(c=a-b)	26,670	8,618	11,063	24,330	70,681
Fixed costs	(d)	48,873	1,608	4,240	3,999	58,719
Total Costs	(e=b+d)	88,724	1,639	4,243	4,012	98,618
Profit/(loss) on sale of fixed assets	(f)	910				910
Farm Business Income	(g=a-e+f)	-21,293	7,010	6,823	20,331	12,872
Adjustment for unpaid manual labour	(h)	25,680	534	1,692	0	27,907
Farm Corporate Income	(i=g-h)	-46,973	6,476	5,131	20,331	-15,035
Interest payments (net of interest received)	(j)	2,673	75	113	105	2,967
Farm Investment Income	(k=i+j)	-44,300	6,551	5,244	20,437	-12,068
Derivation of Net Farm Income						
Imputed rent (l)						17,301
Ownership charges (m)						6,777
Director's remuneration (n)						507
Unpaid labour of principal farmer and spouse (o)						23,276
Net Farm Income (p=k-l+m+n+o)						1,192
Holding gains not included in farm income (q)						13,917
Breeding Livestock Appreciation (BLSA) (r)						2,648
Revaluation of machinery, permanent crops, glasshouse & quota (s)						2,151
Revaluation of land (t)						9,119
Manager's paid managerial input (u)						0
Management and Investment Income (v=p-o+u)						-22,085
The average farm						
Number (unweighted)	29					
Number (weighted)	620					

Table 16 Farm income measures by cost centre - Specialist Sheep (SDA)

The average Specialist sheep (SDA) farm 2019/20		Cost Centre (£ per farm)				Farm Business (£ per farm) 2019/20
		Agriculture 2019/20	Agri-environment and other payments 2019/20	Diversification out of agriculture 2019/20	Basic Payment Scheme 2019/20	
Derivation of farm income measures:						
Total output	(a)	53,671	24,433	5,310	39,445	122,859
Variable costs	(b)	38,827	75	36	11	38,948
Total Gross margin	(c=a-b)	14,844	24,359	5,274	39,434	83,911
Fixed costs	(d)	36,651	4,060	3,376	5,996	50,084
Total Costs	(e=b+d)	75,478	4,135	3,412	6,007	89,032
Profit/(loss) on sale of fixed assets	(f)	61				61
Farm Business Income	(g=a-e+f)	-21,746	20,299	1,898	33,438	33,888
Adjustment for unpaid manual labour	(h)	25,735	978	1,168	0	27,881
Farm Corporate Income	(i=g-h)	-47,481	19,321	730	33,438	6,008
Interest payments (net of interest received)	(j)	3,850	168	67	242	4,327
Farm Investment Income	(k=i+j)	-43,632	19,489	798	33,680	10,335
Derivation of Net Farm Income						
Imputed rent (l)						11,061
Ownership charges (m)						3,090
Director's remuneration (n)						84
Unpaid labour of principal farmer and spouse (o)						22,884
Net Farm Income (p=k-l+m+n+o)						25,332
Holding gains not included in farm income (q)						18,877
Breeding Livestock Appreciation (BLSA) (r)						2,537
Revaluation of machinery, permanent crops, glasshouse & quota (s)						1,479
Revaluation of land (t)						14,861
Manager's paid managerial input (u)						84
Management and Investment Income (v=p-o+u)						2,532
The average farm						
Number (unweighted)	36					
Number (weighted)	2,075					

Table 17 Farm Income measures by cost centre - Various grazing livestock (DA)

The average Various grazing livestock (DA) farm 2019/20		Cost Centre (£ per farm)				Farm Business (£ per farm) 2019/20
		Agriculture	Agri-environment and other payments	Diversification out of agriculture	Basic Payment Scheme	
Derivation of farm income measures:		2019/20	2019/20	2019/20	2019/20	
Total output	(a)	70,296	3,196	5,585	20,314	99,391
Variable costs	(b)	39,386	6	278	2	39,672
Total Gross margin	(c=a-b)	30,910	3,190	5,307	20,312	59,719
Fixed costs	(d)	40,706	786	2,223	2,931	46,646
Total Costs	(e=b+d)	80,092	792	2,501	2,933	86,318
Profit/(loss) on sale of fixed assets	(f)	161				161
Farm Business Income	(g=a-e+f)	-9,635	2,404	3,084	17,381	13,234
Adjustment for unpaid manual labour	(h)	24,854	194	1,395	0	26,443
Farm Corporate Income	(i=g-h)	-34,489	2,210	1,689	17,381	-13,209
Interest payments (net of interest received)	(j)	2,707	30	93	87	2,917
Farm Investment Income	(k=i+j)	-31,782	2,240	1,782	17,468	-10,292
Derivation of Net Farm Income						
Imputed rent (l)						9,191
Ownership charges (m)						2,971
Director's remuneration (n)						353
Unpaid labour of principal farmer and spouse (o)						21,720
Net Farm Income (p=k-l+m+n+o)						5,562
Holding gains not included in farm income (q)						14,428
Breeding Livestock Appreciation (BLSA) (r)						2,155
Revaluation of machinery, permanent crops, glasshouse & quota (s)						1,564
Revaluation of land (t)						10,708
Manager's paid managerial input (u)						0
Management and Investment Income (v=p-o+u)						-16,158
The average farm						
Number (unweighted)	56					
Number (weighted)	2,572					

Table 18 Output, variable costs and farm gross margins by cost centre & farm type

	The average LFA Farm	Mixed grazing livestock (SDA)	Specialist sheep (SDA)	Specialist beef (SDA)	Various grazing livestock (DA)
2019/20					
Number of farms in the group	202	81	36	29	56
Number (weighted)	6,842	1,575	2,075	620	2,572
Utilisable Agricultural Area (UAA) (ha)	164	183	250	114	95
Average adjusted UAA (ha)	117	135	142	94	91
Average adjusted sole grazing (ha)	19	24	38	10	2
Average herd size	24	39	8	48	23
Average flock size	394	435	572	145	285
Output					
<u>Farm Output</u>	117,475	141,251	123,211	110,748	99,914
Farm Business Output	116,977	140,474	122,859	110,580	99,391
of which: Output from agriculture	67,708	82,448	53,671	66,521	70,296
Agri environment payment	13,853	19,366	24,433	8,650	3,196
Diversified output	5,626	3,967	5,310	11,066	5,585
Basic Payment	29,790	34,693	39,445	24,343	20,314
Livestock Enterprise Output	60,257	75,767	50,248	58,501	59,261
of which: Cattle Enterprise Output	24,937	36,152	5,001	44,322	29,477
(incl Livestock disease compensation)	94	119	3	649	17
Sheep Enterprise Output	35,079	39,607	45,115	14,059	29,283
Poultry Enterprise Output	248	8	162	113	499
Pigs Enterprise Output	1	0	0	7	0
Other Livestock Enterprise Output	-8	-1	-30	0	3
Crop Enterprise Output	4,439	2,703	1,683	6,128	7,317
of which: Crop Subsidies	0	0	0	0	0
Main Crops	2,012	846	122	3,152	3,976
Forage & by-products	2,357	1,876	1,550	2,912	3,169
Cultivations output	69	-19	11	65	171
Non agriculture, no other category output	2,997	3,975	1,740	1,891	3,680
Disposal Previous Crops	15	3	0	1	38
Farm Business Output	116,977	140,474	122,859	110,580	99,391
Variable Costs					
Farm Business Variable costs	41,904	50,237	38,948	39,899	39,672
of which: Agriculture Variable Costs	41,679	49,906	38,827	39,851	39,386
Agri environment Variable Costs	30	11	75	32	6
Diversified income Variable Costs	189	319	36	3	278
BPS Variable Costs	6	2	11	13	2
Agriculture Crop Costs	5,588	6,112	3,288	7,271	6,718
of which: Seed	512	269	219	814	826
Fertilizer	3,950	4,866	2,574	4,989	4,249
Crop Protection	462	366	215	654	673
Other Crop Costs	665	612	280	814	970
Agriculture Livestock Costs	29,195	36,875	29,097	27,262	25,040
of which: Purchased Fodder Feed	15,518	20,782	16,119	13,650	12,262
Home Produced Fodder Feed	977	838	57	2,822	1,359
Veterinary and medicines	4,341	4,940	5,264	2,799	3,602
Other Livestock Costs	8,359	10,315	7,657	7,991	7,817
Agriculture Contract Costs	4,522	4,643	3,861	4,120	5,079
Agriculture Casual Labour	2,322	2,076	2,581	1,185	2,537
Agriculture, no other category Variable Costs	51	199	0	13	11
Farm Business Gross Margin	75,073	90,237	83,911	70,681	59,719
Agriculture Gross Margin	26,029	32,542	14,844	26,670	30,910
Agri Environment Gross Margin	13,822	19,356	24,359	8,618	3,190
Diversified Gross Margin	5,437	3,648	5,274	11,063	5,307

Table 19 Fixed costs and farm income measures by main farm type

	The Average LFA Farm	Mixed grazing livestock (SDA)	Specialist sheep (SDA)	Specialist beef (SDA)	Various grazing livestock (DA)
2019/20					
Number (unweighted)	202	81	36	29	56
Number (weighted)	6,842	1,575	2,075	620	2,572
Utilisable Agricultural Land (UAA) (ha)	164	183	250	114	95
Average adjusted UAA (ha)	117	135	142	94	91
Average adjusted sole grazing (ha)	19	24	38	10	2
Average herd size	24	39	8	48	23
Average flock size	394	435	572	145	285
Gross Margin					
Farm Business Gross Margin	75,073	90,237	83,911	70,681	59,719
Agriculture Gross Margin	26,029	32,542	14,844	26,670	30,910
Agri Environment Gross Margin	13,822	19,356	24,359	8,618	3,190
Diversified Income Gross Margin	5,437	3,648	5,274	11,063	5,307
BPS Gross Margin	29,784	34,691	39,434	24,330	20,312
Fixed Costs					
Farm Business Fixed Costs	52,492	62,760	50,084	58,719	46,646
of which: Agriculture Fixed Costs	42,878	52,268	36,651	48,873	40,706
Agri Environment Fixed Costs	2,527	3,712	4,060	1,608	786
Diversified Income Fixed Costs	2,818	2,495	3,376	4,240	2,223
BPS Fixed Costs	4,269	4,284	5,996	3,999	2,931
Agriculture Paid Labour	6,079	7,395	6,499	6,689	4,786
Of which Fixed Labour Costs	3,757	5,319	3,918	5,504	2,249
(-) Casual Labour Costs (a Variable Cost)	2,322	2,076	2,581	1,185	2,537
Agriculture Machinery Costs	17,655	22,423	14,455	23,010	16,026
of which: Machinery Running Costs	8,341	10,796	6,870	10,867	7,414
Agriculture Depreciation Tenants Capital	9,315	11,627	7,585	12,142	8,612
Agriculture General Farming Costs	10,792	11,781	10,249	10,460	10,706
of which: Agriculture Bank & Professional Fees	2,074	2,542	1,746	1,638	2,157
Agriculture Other General Costs	5,660	6,496	4,653	6,149	5,841
Net Interest Payments	3,059	2,744	3,850	2,673	2,707
Bad Debts Write-offs	0	0	0	0	0
Agriculture Property Costs	8,757	9,841	6,797	8,820	9,659
Non Agriculture Other Fixed Costs	1,917	2,904	1,232	1,080	2,066
Profit/loss sale of fixed assets	227	283	61	910	161
Agriculture Net Margin (AGRICULTURE BUSINESS INCOME)					
	-16,622	-19,444	-21,746	-21,293	-9,635
Unpaid manual labour	26,322	29,747	25,735	25,680	24,854
Of Which Unpaid Farmer and Spouse	21,683	24,622	20,953	21,213	20,587
Unpaid Partner	4,639	5,126	4,782	4,467	4,268
Agriculture Economic Profit (AGRICULTURE CORPORATE INCOME)					
	-42,945	-49,191	-47,481	-46,973	-34,489
Agriculture Net Interest Payment (added back)	3,059	2,744	3,850	2,673	2,707
AGRICULTURE INVESTMENT INCOME					
	-39,886	-46,447	-43,632	-44,300	-31,782
Farm Net Margin (FARM BUSINESS INCOME)					
	22,808	27,760	33,888	12,872	13,234
Farm Economic Profit (FARM CORPORATE INCOME)					
	-5,459	-4,139	6,008	-15,035	-13,209
FARM INVESTMENT INCOME					
	-2,078	-1,082	10,335	-12,068	-10,292
NET FARM INCOME					
	14,044	18,087	25,332	1,192	5,562
Holding gains not included in farm income	15,270	12,425	18,877	13,917	14,428
BLSA	2,597	3,378	2,537	2,648	2,155
Revaluation of Machinery, permanent crops etc.	1,742	2,217	1,479	2,151	1,564
Revaluation of Land	10,931	6,830	14,861	9,119	10,708
MANAGEMENT AND INVESTMENT INCOME					
	-9,168	-8,081	2,532	-22,085	-16,158

Table 20 Balance sheet by main farm type

2019/20	The Average LFA Farm	Mixed grazing livestock (SDA)	Specialist sheep (SDA)	Specialist beef (SDA)	Various grazing livestock (DA)
Number (unweighted)	202	81	36	29	56
Number (weighted)	6,842	1,575	2,075	620	2,572
Average Farmed Area (ha)	168.1	187.4	257.7	120.7	95.4
Adjusted Utilisable Agricultural Area (ha)	116.7	135.0	141.7	94.0	90.9
Utilisable Agricultural Area (ha)	163.8	182.9	250.1	113.9	94.6
Grazing Livestock Units	87.1	111.1	69.4	109.0	81.4
Ewes (head)	394	435	572	145	285
Beef Cows (head)	22	36	8	47	19
Occupied Area (ha)	76.8	79.2	103.1	86.3	51.8
Tenanted Area (ha)	93.5	107.6	160.0	31.8	46.2
Percentage of Land Owned (%)	45.1	42.4	39.2	73.1	52.9
Assets					
Fixed Assets	883,631	938,900	861,998	1,207,519	789,113
Of which: Agricultural Land	677,193	685,520	651,016	960,011	624,985
Woodland	6,133	6,755	3,603	11,901	6,402
Total Buildings	28,813	38,547	23,359	49,318	22,307
Total Improvements	11,614	7,171	25,382	10,084	3,595
BPS Entitlements	30,095	34,554	41,113	23,460	20,077
Machinery	60,340	77,193	49,229	78,999	54,485
Breeding Livestock	67,354	88,335	67,644	67,190	54,316
Miscellaneous Business Assets	2,089	826	652	6,554	2,946
Current Assets	82,539	105,447	71,297	93,540	74,932
of which: Trading Livestock	30,229	38,483	9,561	54,587	35,974
Crops	443	197	14	2,207	514
Forage	3,929	4,902	2,236	6,598	4,054
Cultivation	909	1,231	552	860	1,010
Stores	3,235	3,960	2,030	3,515	3,698
Liquid Assets	43,795	56,674	56,904	25,773	29,681
Of which: Cash at Bank and In Hand	30,468	45,331	33,653	19,564	21,431
Debtors	8,448	9,383	14,628	3,890	3,989
Suspended	0	0	0	0	0
BPS debtors	4,879	1,960	8,623	2,319	4,262
Total Assets (£/farm)	966,170	1,044,347	933,295	1,301,059	864,045
Of which: Total Landlord-type Capital	723,753	737,993	703,361	1,031,315	657,289
Tenant Type Capital	242,418	306,354	229,934	269,744	206,756
Loans					
Total Long Term Loans	79,568	80,769	74,871	75,027	83,719
Of which: Bank Loans	42,217	51,083	40,284	31,924	40,831
Institutional Loans	27,478	24,388	29,274	42,349	24,334
Of which: AMC	22,696	12,514	25,327	34,818	23,883
Building Societies	938	923	142	7,531	0
Other Institutional Loans	3,844	10,952	3,805	0	451
Family Loans	9,852	5,298	5,313	519	18,554
Other Loans	21	0	0	235	0
Current Liabilities	26,650	24,583	25,941	34,003	26,713
Of which: Hire Purchase	4,857	5,991	4,428	7,779	3,804
Leasing	1	0	0	14	0
Other Current Liabilities	21,792	18,592	21,513	26,211	22,909
Of which Creditors	8,580	9,328	9,966	6,909	7,408
Bank Overdraft	13,165	9,225	11,547	18,888	15,501
Others	47	39	0	414	0
Total Liabilities	106,218	105,352	100,812	109,030	110,432
Closing Net Worth	859,952	938,994	832,483	1,192,029	753,613
Opening Net Worth	831,147	913,463	780,246	1,189,349	735,405
Change in New Worth	28,805	25,531	52,237	2,679	18,208

Table 21 Land use, stocking and technical efficiency by main farm type

	The Average LFA Farm	Mixed grazing livestock (SDA)	Specialist sheep (SDA)	Specialist beef (SDA)	Various grazing livestock (DA)
2019/20					
Number (unweighted)	202	81	36	29	56
Number (weighted)	6,842	1,575	2,075	620	2,572
Total Area (includes woodland and roads etc) (ha)	170.3	186.9	263.1	118.1	98.0
Area Farmed (ha)	168.1	187.4	257.7	120.7	95.4
Net Land Hired In (ha)	4.2	4.5	7.6	6.8	0.8
Utilised Agricultural Area (ha)	163.8	182.9	250.1	113.9	94.6
Of which Total main products (ha)	2.3	1.0	0.2	3.4	4.4
Grass, fodder crops and rough grazing (ha)	161.6	181.9	249.9	110.5	90.2
Of which rough grazing (unadjusted) (ha)	65.8	72.1	146.2	30.0	5.8
Adjusted rough grazing (sole occupation)	18.7	24.1	37.8	10.1	2.0
Adjusted rough grazing (shared)	10.1	12.0	23.5	0.3	0.5
Total Adjusted Utilised Agriculture Area (ha)	116.7	135.0	141.7	94.0	90.9
Area owner occupied (ha)	76.8	79.2	103.1	86.3	51.8
Area tenanted (ha)	93.5	107.6	160.0	31.8	46.2
Average age of farmer (years)	60	58	62	63	60
Agricultural labour units (ALU)	1.5	1.7	1.5	1.5	1.4
Standard Output (2013SO)	96,968	119,402	87,985	99,863	89,782
Standard Output size group (2013SO)	7.0	7.4	7.0	6.9	6.9
Land Use					
Temporary Grassland Area (ha)	3.8	4.9	0.7	3.6	5.7
Permanent Grassland Area (ha)	94.7	107.9	109.0	82.4	78.0
Stocking					
Total Dairy Cows	1	3	0	0	0
Total Beef cows	24	36	8	48	23
Total Cattle	77	110	22	155	84
Ewes (LFA and lowland)	394	435	572	145	285
Of which LFA Ewes	380	435	572	145	248
Lowland Ewes	14	0	0	0	37
Total Sheep	760	858	1,057	307	571
Livestock Units					
Total Cattle LU	45	65	13	93	49
Of which Beef Cows LU	18	27	6	36	17
Other Cattle LU	24	31	6	51	28
Dairy Cows and Heifers	3	7	1	6	3
Total Sheep LU	41	45	57	16	32
Of which Ewe LU	28	30	40	11	21
Grazing LU (cattle, sheep, horses and others)	87	111	69	109	81
Total LU	87	111	69	109	81
Financial Performance per GLU					
Farm Business Output per GLU (£/GLU)	1,343	1,264	1,771	1,014	1,222
Farm Business Variable Costs (£/GLU)	481	452	561	366	488
Farm Business Gross Margin (£/GLU)	862	812	1,209	648	734
Farm Business Fixed Costs (£/GLU)	603	565	722	538	573
Farm Business Income (£/GLU)	262	250	488	118	163
Farm Corporate Income (£/GLU)	-63	-37	87	-138	-162
Farm Investment Income (£/GLU)	-24	-10	149	-111	-126
Holding Gains Not In Income (£/GLU)	175	112	272	128	177
of which Land Revaluation (£/GLU)	126	61	214	84	132
Net Farm Income (£/GLU)	161	163	365	11	68
Management and Investment Income (£/GLU)	-105	-73	36	-203	-199
Agriculture Net Margin (Agriculture business income) (£/GLU)	-191	-175	-313	-195	-118
Agriculture Economic Profit (Agriculture corporate income) (£/GLU)	-493	-443	-684	-431	-424
Agriculture Investment Income (£/GLU)	-458	-418	-629	-406	-391

Appendix 3. Analysis of English Grazing Livestock Farms in the LFA- by EU region

Table 22 Output, variable costs and farm gross margins by EU region

2019/20	The average LFA Farm	EU Region England North	EU Region England East	EU Region England West
Number of farms in the group	202	128	18	56
Number (weighted)	6,842	4,734	492	1,615
Utilisable Agricultural Area (UAA) (ha)	164	182	168	108
Average adjusted UAA (ha)	117	123	134	94
Average adjusted sole grazing (ha)	19	21	34	6
Average herd size	24	21	29	32
Average flock size	394	454	206	275
Output				
Farm Output	117,475	122,908	106,967	104,754
Farm Business Output	116,977	122,396	106,373	104,329
of which: Output from agriculture	67,708	69,300	61,029	65,079
Agri environment payment	13,853	14,700	12,601	11,752
Diversified output	5,626	5,547	6,695	5,535
Basic Payment	29,790	32,850	26,048	21,963
Livestock Enterprise Output	60,257	62,974	50,989	55,120
of which: Cattle Enterprise Output	24,937	21,333	32,452	33,207
(incl Livestock disease compensation	94	0	276	312
Sheep Enterprise Output	35,079	41,289	18,566	21,914
Poultry Enterprise Output	248	349	96	0
Pigs Enterprise Output	1	0	9	0
Other Livestock Enterprise Output	-8	3	-133	-1
Crop Enterprise Output	4,439	4,217	5,140	4,875
of which: Crop Subsidies	0	0	0	0
Main Crops	2,012	2,047	170	2,472
Forage & by-products	2,357	2,027	5,217	2,453
Cultivations output	69	143	-247	-50
Non agriculture, no other category output	2,997	2,088	4,900	5,080
Disposal Previous Crops	15	21	0	4
Farm Business Output	116,977	122,396	106,373	104,329
Variable Costs				
Farm Business Variable costs	41,904	44,672	39,104	34,647
of which: Agriculture Variable Costs	41,679	44,496	37,729	34,627
Agri environment Variable Costs	30	40	2	9
Diversified income Variable Costs	189	128	1,368	9
BPS Variable Costs	6	7	4	2
Agriculture Crop Costs	5,588	5,791	3,266	5,702
of which: Seed	512	499	210	643
Fertilizer	3,950	4,098	2,392	3,989
Crop Protection	462	431	325	593
Other Crop Costs	665	762	338	477
Agriculture Livestock Costs	29,195	31,121	30,031	23,298
of which: Purchased Fodder Feed	15,518	16,928	18,976	10,331
Home Produced Fodder Feed	977	689	240	2,047
Veterinary and medicines	4,341	4,804	3,558	3,223
Other Livestock Costs	8,359	8,700	7,257	7,697
Agriculture Contract Costs	4,522	4,737	3,657	4,157
Agriculture Casual Labour	2,322	2,805	758	1,381
Agriculture, no other category Variable Costs	51	42	17	89
Gross Margins				
Farm Business Gross Margin	75,073	77,724	67,270	69,682
Agriculture Gross Margin	26,029	24,803	23,300	30,452
Agri Environment Gross Margin	13,822	14,659	12,599	11,742
Diversified Gross Margin	5,437	5,419	5,327	5,526
BPS Gross Margin	29,784	32,843	26,044	21,961

Table 23 Fixed costs and farm income measures by EU region

	The Average LFA Farm	EU Region England North	EU Region England East	EU Region England West
2019/20				
Number (unweighted)	202	128	18	56
Number (weighted)	6,842	4,734	492	1,615
Utilisable Agricultural Land (UAA) (ha)	164	182	168	108
Average adjusted UAA (ha)	117	123	134	94
Average adjusted sole grazing (ha)	19	21	34	6
Average herd size	24	21	29	32
Average flock size	394	454	206	275
<u>Gross Margin</u>				
Farm Business Gross Margin	75,073	77,724	67,270	69,682
Agriculture Gross Margin	26,029	24,803	23,300	30,452
Agri Environment Gross Margin	13,822	14,659	12,599	11,742
Diversified Income Gross Margin	5,437	5,419	5,327	5,526
BPS Gross Margin	29,784	32,843	26,044	21,961
<u>Fixed Costs</u>				
Farm Business Fixed Costs	52,492	53,611	51,241	49,593
of which: Agriculture Fixed Costs	42,878	43,062	41,887	42,640
Agri Environment Fixed Costs	2,527	2,764	1,987	1,996
Diversified Income Fixed Costs	2,818	2,880	3,283	2,495
BPS Fixed Costs	4,269	4,905	4,084	2,461
Agriculture Paid Labour	6,079	7,004	2,434	4,479
Of which Fixed Labour Costs	3,757	4,198	1,676	3,097
(-) Casual Labour Costs (a Variable Cost)	2,322	2,805	758	1,381
Agriculture Machinery Costs	17,655	18,033	17,589	16,568
of which: Machinery Running Costs	8,341	8,226	7,611	8,900
Agriculture Depreciation Tenants Capital	9,315	9,808	9,978	7,668
Agriculture General Farming Costs	10,792	10,587	9,548	11,775
of which: Agriculture Bank & Professional Fees	2,074	2,126	1,389	2,130
Agriculture Other General Costs	5,660	5,375	6,271	6,306
Net Interest Payments	3,059	3,085	1,888	3,339
Bad Debts Write-offs	0	0	0	0
Agriculture Property Costs	8,757	8,733	9,975	8,457
Non Agriculture Other Fixed Costs	1,917	1,511	3,099	2,743
Profit/loss sale of fixed assets	227	173	69	431
Agriculture Net Margin (AGRICULTURE BUSINESS INCOME)	-16,622	-18,085	-18,518	-11,757
Unpaid manual labour	26,322	25,189	28,581	28,955
Of Which Unpaid Farmer and Spouse	21,683	20,721	22,827	24,155
Unpaid Partner	4,639	4,468	5,754	4,800
Agriculture Economic Profit (AGRICULTURE CORPORATE INCOME)	-42,945	-43,274	-47,099	-40,712
Agriculture Net Interest Payment (added back)	3,059	3,085	1,888	3,339
AGRICULTURE INVESTMENT INCOME	-39,886	-40,189	-45,210	-37,373
Farm Net Margin (FARM BUSINESS INCOME)	22,808	24,286	16,098	20,520
Farm Economic Profit (FARM CORPORATE INCOME)	-5,459	-2,641	-16,042	-10,494
FARM INVESTMENT INCOME	-2,078	785	-14,023	-6,828
NET FARM INCOME	14,044	16,177	7,378	9,823
Holding gains not included in farm income	15,270	21,154	1,923	2,094
BLSA	2,597	3,614	95	379
Revaluation of Machinery, permanent crops etc.	1,742	1,837	1,878	1,420
Revaluation of Land	10,931	15,702	-49	295
MANAGEMENT AND INVESTMENT INCOME	-9,168	-5,969	-18,000	-15,853

Table 24 Balance sheet by EU region

	The Average LFA Farm	EU Region England North	EU Region England East	EU Region England West
2019/20				
Number (unweighted)	202	128	18	56
Number (weighted)	6,842	4,734	492	1,615
Average Farmed Area (ha)	168.1	186.0	177.3	112.6
Adjusted Utilisable Agricultural Area (ha)	117	123	134	94
Utilisable Agricultural Area (ha)	164	182	168	108
Grazing Livestock Units	87	86	85	90
Ewes (head)	394	454	206	275
Beef Cows (head)	22.0	19.1	24.7	29.7
Occupied Area (ha)	76.8	84.4	41.4	65.5
Tenanted Area (ha)	94	106	129	46
Percentage of Land Owned (%)	45	44	24	59
Assets				
Fixed Assets	883,631	846,032	600,901	1,080,003
Of which: Agricultural Land	677,193	628,966	390,715	905,851
Woodland	6,133	6,204	10,150	4,702
Total Buildings	28,813	27,945	47,523	25,653
Total Improvements	11,614	14,391	3,140	6,058
BPS Entitlements	30,095	33,212	25,760	22,280
Machinery	60,340	62,721	67,186	51,275
Breeding Livestock	67,354	70,500	56,165	61,545
Miscellaneous Business Assets	2,089	2,092	261	2,638
Current Assets	82,539	83,514	102,415	73,626
of which: Trading Livestock	30,229	28,283	31,661	35,497
Crops	443	385	21	742
Forage	3,929	3,777	5,889	3,777
Cultivation	909	444	4,685	1,119
Stores	3,235	3,198	2,456	3,584
Liquid Assets	43,795	47,428	57,702	28,908
Of which: Cash at Bank and In Hand	30,468	31,455	50,294	21,534
Debtors	8,448	9,689	3,149	6,424
Suspended	0	0	0	0
BPS debtors	4,879	6,284	4,259	950
Total Assets (£/farm)	966,170	929,545	703,315	1,153,628
Of which: Total Landlord-type Capital	723,753	677,506	451,528	942,265
Tenant Type Capital	242,418	252,039	251,787	211,364
Loans				
Total Long Term Loans	79,568	79,459	38,310	92,465
Of which: Bank Loans	42,217	40,994	11,379	55,200
Institutional Loans	27,478	27,238	13,934	32,312
Of which: AMC	22,696	20,745	13,934	31,085
Building Societies	938	1,356	0	0
Other Institutional Loans	3,844	5,136	0	1,227
Family Loans	9,852	11,227	12,997	4,863
Other Loans	21	0	0	90
Current Liabilities	26,650	26,426	31,411	25,855
Of which: Hire Purchase	4,857	5,369	4,817	3,370
Leasing	1	0	0	5
Other Current Liabilities	21,792	21,058	26,594	22,480
Of which Creditors	8,580	8,969	5,133	8,493
Bank Overdraft	13,165	12,077	21,461	13,825
Others	47	12	0	162
Total Liabilities	106,218	105,885	69,720	118,319
Closing Net Worth	859,952	823,660	633,595	1,035,309
Opening Net Worth	831,147	785,532	643,793	1,021,940
Change in New Worth	28,805	38,128	-10,198	13,370

Table 25 Land use, stocking and technical efficiency by EU region

	The Average LFA Farm	EU Region England North	EU Region England East	EU Region England West
2019/20				
Number (unweighted)	202	128	18	56
Number (weighted)	6,842	4,734	492	1,615
Total Area (includes woodland and roads etc.) (ha)	170.3	190.5	170.4	111.1
Area Farmed (ha)	168.1	186.0	177.3	112.6
Net Land Hired In (ha)	4.2	3.6	9.6	4.6
Utilised Agricultural Area (ha)	163.8	182.5	167.7	108.0
Of which Total main products and set-aside (ha)	2.3	2.3	0.2	2.7
Grass, fodder crops and rough grazing (ha)	161.6	180.2	167.5	105.3
Of which rough grazing (unadjusted) (ha)	65.8	81.3	67.3	20.0
Adjusted rough grazing (sole occupation)	18.7	21.3	33.6	6.4
Adjusted rough grazing (shared)	10.1	13.7	0.0	2.7
Total Adjusted Utilised Agriculture Area (ha)	116.7	122.5	134.1	94.4
Area owner occupied (ha)	76.8	84.4	41.4	65.5
Area tenanted (ha)	93.5	106.2	129.0	45.6
Average age of farmer (years)	60	60	60	61
Agricultural labour units (ALU)	1.5	1.5	1.4	1.5
Standard Output (2013SO)	96,968	94,829	98,698	102,708
Standard Output size group (2013SO)	7.0	7.0	7.2	7.0
Land Use				
Temporary Grassland Area (ha)	3.8	3.1	0.1	6.8
Permanent Grassland Area (ha)	94.7	97.6	109.6	81.6
Stocking				
Total Dairy Cows	1	1	3	1
Total Beef cows	24	21	26	31
Total Cattle	77	67	99	102
Ewes (LFA and lowland)	394	454	206	275
Of which LFA Ewes	380	437	206	265
Lowland Ewes	14	17	0	11
Total Sheep	760	872	434	534
Livestock Units				
Total Cattle LU	45	39	58	61
Of which Beef Cows LU	18	16	20	23
Other Cattle LU	24	20	33	33
Dairy Cows and Heifers	3	3	5	4
Total Sheep LU	41	47	23	29
Of which Ewe LU	28	32	17	19
Grazing LU (cattle, sheep, horses and others)	87	86	85	90
Total LU	87	86	85	90
Financial Performance per GLU				
Farm Business Output per GLU (£/GLU)	1,343	1,419	1,252	1,158
Farm Business Variable Costs (£/GLU)	481	518	460	385
Farm Business Gross Margin (£/GLU)	862	901	792	773
Farm Business Fixed Costs (£/GLU)	603	621	603	550
Farm Business Income (£/GLU)	262	282	189	228
Farm Corporate Income (£/GLU)	-63	-31	-189	-116
Farm Investment Income (£/GLU)	-24	9	-165	-76
Holding Gains Not In Income (£/GLU)	175	245	23	23
of which Land Revaluation (£/GLU)	126	182	-1	3
Net Farm Income (£/GLU)	161	188	87	109
Management and Investment Income (£/GLU)	-105	-69	-212	-176
Agriculture Net Margin (Agriculture business income) (£/GLU)	-191	-210	-218	-130
Agriculture Economic Profit (Agriculture corporate income) (£/GLU)	-493	-502	-554	-452
Agriculture Investment Income (£/GLU)	-458	-466	-532	-415

Appendix 4. Analysis of English Grazing Livestock Farms in the LFA- by farm size (SLR Publication size band)

Table 26 Output, variable costs and farm gross margins by SLR size band

	The Average LFA Farm	Band 1 (Part time)	Band 2 (Small)	Band 3 (Medium)	Band 4 (Large)
2019/20					
Number of farms in the group	202	14	52	44	87
Number (weighted)	6,842	1,206	2,856	1,075	1,301
Utilisable Agricultural Area (UAA) (ha)	164	74	114	163	395
Average adjusted UAA (ha)	117	56	82	116	272
Average adjusted sole grazing (ha)	19	11	14	16	43
Average herd size	24	7	17	28	61
Average flock size	394	115	267	437	1,001
Output					
Farm Output	117,475	51,734	76,447	123,274	287,968
Farm Business Output	116,977	51,659	75,947	122,949	286,789
of which: Output from agriculture	67,708	26,965	39,776	77,359	174,481
Agri environment payment	13,853	6,116	9,479	11,042	35,936
Diversified output	5,626	6,597	4,509	5,189	7,047
Basic Payment	29,790	11,980	22,183	29,358	69,325
Livestock Enterprise Output	60,257	20,509	37,092	69,327	155,089
of which: Cattle Enterprise Output	24,937	10,404	15,150	31,088	59,395
(incl Livestock disease compensation)	94	0	0	52	280
Sheep Enterprise Output	35,079	10,105	21,814	37,047	95,692
Poultry Enterprise Output	248	0	125	1,193	46
Pigs Enterprise Output	1	0	0	0	3
Other Livestock Enterprise Output	-8	0	3	0	-48
Crop Enterprise Output	4,439	1,769	1,558	2,398	15,079
of which: Crop Subsidies	0	0	0	0	0
Main Crops	2,012	0	240	461	9,538
Forage & by-products	2,357	1,769	1,341	1,953	5,107
Cultivations output	69	0	-23	-16	434
Non agriculture, no other category output	2,997	4,686	1,126	5,634	4,234
Disposal Previous Crops	15	0	0	0	80
Farm Business Output	116,977	51,659	75,947	122,949	286,789
Variable Costs					
Farm Business Variable costs	41,904	15,132	27,044	46,224	106,236
of which: Agriculture Variable Costs	41,679	14,577	26,979	45,926	105,955
Agri environment Variable Costs	30	2	5	23	128
Diversified income Variable Costs	189	552	53	263	149
BPS Variable Costs	6	1	7	12	4
Agriculture Crop Costs	5,588	1,802	3,244	5,390	15,869
of which: Seed	512	96	231	253	1,803
Fertilizer	3,950	1,463	2,652	4,059	10,116
Crop Protection	462	35	158	303	1,790
Other Crop Costs	665	208	203	775	2,159
Agriculture Livestock Costs	29,195	10,633	19,411	33,430	71,680
of which: Purchased Fodder Feed	15,518	6,193	10,469	19,373	36,097
Home Produced Fodder Feed	977	0	235	472	4,125
Veterinary and medicines	4,341	1,499	3,033	4,563	10,831
Other Livestock Costs	8,359	2,941	5,673	9,022	20,628
Agriculture Contract Costs	4,522	1,880	3,256	4,635	10,720
Agriculture Casual Labour	2,322	256	1,068	2,267	7,592
Agriculture, no other category Variable Costs	51	7	0	204	94
Farm Business Gross Margin	75,073	36,526	48,903	76,725	180,553
Agriculture Gross Margin	26,029	12,387	12,797	31,434	68,526
Agri Environment Gross Margin	13,822	6,114	9,475	11,019	35,808
Diversified Gross Margin	5,437	6,046	4,456	4,926	6,899
BPS Gross Margin	29,784	11,979	22,176	29,346	69,321

**A part of this table was derived from data with less than 15 observations in the sample which could reduce the robustness of the results*

Table 27 Fixed costs and farm income measures by SLR size band

	The Average LFA Farm	Band 1 (Part time)	Band 2 (Small)	Band 3 (Medium)	Band 4 (Large)
2019/20					
Number (unweighted)	202	14	52	44	87
Number (weighted)	6,842	1,206	2,856	1,075	1,301
Utilisable Agricultural Land (UAA) (ha)	164	74	114	163	395
Average adjusted UAA (ha)	117	56	82	116	272
Average adjusted sole grazing (ha)	19	11	14	16	43
Average herd size	24	7	17	28	61
Average flock size	394	115	267	437	1,001
Gross Margin					
Farm Business Gross Margin	75,073	36,526	48,903	76,725	180,553
Agriculture Gross Margin	26,029	12,387	12,797	31,434	68,526
Agri Environment Gross Margin	13,822	6,114	9,475	11,019	35,808
Diversified Income Gross Margin	5,437	6,046	4,456	4,926	6,899
BPS Gross Margin	29,784	11,979	22,176	29,346	69,321
Fixed Costs					
Farm Business Fixed Costs	52,492	26,797	36,259	51,668	122,952
of which: Agriculture Fixed Costs	42,878	18,806	28,539	44,398	104,627
Agri Environment Fixed Costs	2,527	1,617	1,848	1,763	5,988
Diversified Income Fixed Costs	2,818	4,200	2,275	1,827	3,187
BPS Fixed Costs	4,269	2,174	3,598	3,681	9,150
Agriculture Paid Labour	6,079	668	1,554	3,994	24,474
Of which Fixed Labour Costs	3,757	412	487	1,727	16,882
(-) Casual Labour Costs (a Variable Cost)	2,322	256	1,068	2,267	7,592
Agriculture Machinery Costs	17,655	8,269	12,944	18,871	39,525
of which: Machinery Running Costs	8,341	3,566	6,202	8,756	18,770
Agriculture Depreciation Tenants Capital	9,315	4,703	6,742	10,115	20,755
Agriculture General Farming Costs	10,792	4,889	8,892	10,134	22,871
of which: Agriculture Bank & Professional Fees	2,074	1,054	1,607	2,305	4,151
Agriculture Other General Costs	5,660	3,077	5,002	5,894	9,948
Net Interest Payments	3,059	758	2,283	1,935	8,773
Bad Debts Write-offs	0	0	0	0	0
Agriculture Property Costs	8,757	2,881	5,198	10,371	22,415
Non Agriculture Other Fixed Costs	1,917	2,354	1,018	3,295	2,933
Profit/loss sale of fixed assets	227	414	79	497	192
Agriculture Net Margin (AGRICULTURE BUSINESS INCOME)	-16,622	-6,005	-15,662	-12,468	-35,909
Unpaid manual labour	26,322	18,193	24,471	30,944	35,805
Of Which Unpaid Farmer and Spouse	21,683	17,367	19,469	26,680	26,678
Unpaid Partner	4,639	826	5,003	4,264	9,127
Agriculture Economic Profit (AGRICULTURE CORPORATE INCOME)	-42,945	-24,198	-40,134	-43,411	-71,715
Agriculture Net Interest Payment (added back)	3,059	758	2,283	1,935	8,773
AGRICULTURE INVESTMENT INCOME	-39,886	-23,440	-37,851	-41,477	-62,942
Farm Net Margin (FARM BUSINESS INCOME)	22,808	10,143	12,723	25,553	57,793
Farm Economic Profit (FARM CORPORATE INCOME)	-5,459	-10,753	-13,337	-7,289	20,233
FARM INVESTMENT INCOME	-2,078	-9,920	-10,727	-5,189	29,779
NET FARM INCOME	14,044	5,980	4,876	14,999	44,080
Holding gains not included in farm income	15,270	3,629	14,386	19,089	27,474
BLSA	2,597	450	1,546	2,034	8,172
Revaluation of Machinery, permanent crops etc	1,742	959	1,277	1,933	3,762
Revaluation of Land	10,931	2,220	11,564	15,122	15,541
MANAGEMENT AND INVESTMENT INCOME	-9,168	-13,723	-16,133	-12,726	16,684

**A part of this table was derived from data with less than 15 observations in the sample which could reduce the robustness of the results*

Table 28 Balance sheet by SLR size band

2019/20	The Average LFA Farm	Band 1 (Part time)	Band 2 (Small)	Band 3 (Medium)	Band 4 (Large)
Number (unweighted)	202	14	52	44	87
Number (weighted)	6,842	1,206	2,856	1,075	1,301
Average Farmed Area (ha)	168.1	75.5	114.7	170.7	410.9
Adjusted Utilisable Agricultural Area (ha)	164	74	114	163	395
Utilisable Agricultural Area (ha)	117	56	82	116	272
Grazing Livestock Units	87	34	58	97	211
Ewes (head)	394	115	267	437	1,001
Beef Cows (head)	22.0	7.3	14.9	26.0	54.7
Occupied Area (ha)	76.8	65.8	54.6	93.6	130.8
Tenanted Area (ha)	94	10	61	75	287
Percentage of Land Owned (%)	45	87	47	56	31
Assets					
Fixed Assets	883,631	679,365	658,204	916,897	1,568,353
Of which: Agricultural Land	677,193	592,626	510,156	698,460	1,088,812
Woodland	6,133	4,055	3,503	10,764	11,013
Total Buildings	28,813	12,779	25,273	30,871	51,918
Total Improvements	11,614	4,260	5,358	6,650	36,840
BPS Entitlements	30,095	13,075	21,971	29,709	70,116
Machinery	60,340	33,633	42,869	66,434	132,139
Breeding Livestock	67,354	18,644	47,051	73,602	171,574
Miscellaneous Business Assets	2,089	294	2,023	406	5,941
Current Assets	82,539	52,221	51,054	82,751	196,396
of which: Trading Livestock	30,229	14,696	18,428	37,255	72,399
Crops	443	0	83	80	2,066
Forage	3,929	1,577	2,297	3,958	10,471
Cultivation	909	165	591	861	2,520
Stores	3,235	1,851	2,457	2,702	7,429
Liquid Assets	43,795	33,932	27,198	37,896	101,510
Of which: Cash at Bank and In Hand	30,468	30,800	15,489	33,372	65,750
Debtors	8,448	3,121	8,532	3,182	19,630
Suspended	0	0	0	0	0
BPS debtors	4,879	11	3,177	1,342	16,130
Total Assets (£/farm)	966,170	731,586	709,258	999,648	1,764,748
Of which: Total Landlord-type Capital	723,753	613,720	544,291	746,745	1,188,583
Tenant Type Capital	242,418	117,866	164,968	252,903	576,165
Loans					
Total Long Term Loans	79,568	62,897	51,400	38,779	215,295
Of which: Bank Loans	42,217	42,222	12,701	29,496	130,637
Institutional Loans	27,478	15,472	20,439	5,270	80,956
Of which: AMC	22,696	15,472	14,654	4,980	68,745
Building Societies	938	0	0	102	4,852
Other Institutional Loans	3,844	0	5,786	188	7,359
Family Loans	9,852	5,203	18,208	4,013	3,702
Other Loans	21	0	51	0	0
Current Liabilities	26,650	12,368	24,522	23,714	54,948
Of which: Hire Purchase	4,857	609	4,123	6,205	10,802
Leasing	1	0	0	0	7
Other Current Liabilities	21,792	11,759	20,400	17,508	44,139
Of which Creditors	8,580	2,503	7,656	5,402	21,218
Bank Overdraft	13,165	9,256	12,744	11,996	22,767
Others	47	0	0	110	154
Total Liabilities	106,218	75,265	75,922	62,493	270,243
Closing Net Worth	859,952	656,321	633,336	937,155	1,494,506
Opening Net Worth	831,147	599,814	629,478	896,191	1,443,694
Change in New Worth	28,805	56,508	3,858	40,965	50,811

*A part of this table was derived from data with less than 15 observations in the sample which could reduce the robustness of the results

Table 29 Land use, stocking and technical efficiency by SLR size band

2019/20	The Average LFA Farm	Band 1 (Part time)	Band 2 (Small)	Band 3 (Medium)	Band 4 (Large)
Number (unweighted)	202	14	52	44	87
Number (weighted)	6,842	1,206	2,856	1,075	1,301
Total Area (includes woodland and roads etc) (ha)	170.3	75.8	115.4	168.4	418.1
Area Farmed (ha)	168.1	75.5	114.7	170.7	410.9
Net Land Hired In (ha)	4.2	1.9	1.1	7.8	15.8
Utilised Agricultural Area (ha)	163.8	73.7	113.5	162.9	395.1
Of which Total main products and set-aside (ha)	2.3	0.0	0.3	0.4	10.7
Grass, fodder crops and rough grazing (ha)	161.6	73.7	113.3	162.5	384.4
Of which rough grazing (unadjusted) (ha)	65.8	28.7	45.6	63.7	166.7
Adjusted rough grazing (sole occupation)	18.7	10.7	14.4	16.4	43.2
Adjusted rough grazing (shared)	10.1	0.0	8.3	17.6	20.3
Total Adjusted Utilised Agriculture Area (ha)	116.7	55.7	82.3	115.6	271.7
Area owner occupied (ha)	76.8	65.8	54.6	93.6	130.8
Area tenanted (ha)	93.5	10.0	60.8	74.8	287.3
Average age of farmer (years)	60	64	59	59	56
Agricultural labour units (ALU)	1.5	0.9	1.2	1.6	2.7
Standard Output (2013SO)	96,968	39,294	62,921	106,011	238,826
Standard Output size group (2013SO)	7.0	6.1	6.8	7.5	8.4
<u>Land Use</u>					
Temporary Grassland Area (ha)	3.8	0.9	3.8	1.9	9.1
Permanent Grassland Area (ha)	94.7	45.9	63.7	104.1	219.8
<u>Stocking</u>					
Total Dairy Cows	1	0	0	1	3
Total Beef cows	24	7	17	27	58
Total Cattle	77	35	51	92	177
Ewes (LFA and lowland)	394	115	267	437	1,001
Of which LFA Ewes	380	115	253	428	972
Lowland Ewes	14	0	14	9	29
Total Sheep	760	241	505	823	1,959
<u>Livestock Units</u>					
Total Cattle LU	45	20	30	52	105
Of which Beef Cows LU	18	5	13	20	44
Other Cattle LU	24	14	15	29	52
Dairy Cows and Heifers	3	1	2	3	10
Total Sheep LU	41	13	28	44	105
Of which Ewe LU	28	8	19	31	71
Grazing LU (cattle, sheep, horses and others)	87	34	58	97	211
Total LU	87	34	58	97	211
<u>Financial Performance per GLU</u>					
Farm Business Output per GLU (£/GLU)	1,343	1,524	1,306	1,267	1,358
Farm Business Variable Costs (£/GLU)	481	446	465	476	503
Farm Business Gross Margin (£/GLU)	862	1,077	841	791	855
Farm Business Fixed Costs (£/GLU)	603	790	624	532	582
Farm Business Income (£/GLU)	262	299	219	263	274
Farm Corporate Income (£/GLU)	-63	-317	-229	-75	96
Farm Investment Income (£/GLU)	-24	-293	-184	-53	141
Holding Gains Not In Income (£/GLU)	175	107	247	197	130
of which Land Revaluation (£/GLU)	126	65	199	156	74
Net Farm Income (£/GLU)	161	176	84	155	209
Management and Investment Income (£/GLU)	-105	-405	-277	-131	79
Agriculture Net Margin (Agriculture business income) (£/GLU)	-191	-177	-269	-128	-170
Agriculture Economic Profit (Agriculture corporate income) (£/GLU)	-493	-714	-690	-447	-340
Agriculture Investment Income (£/GLU)	-458	-691	-651	-427	-298

**A part of this table was derived from data with less than 15 observations in the sample which could reduce the robustness of the results*

Appendix 5. Analysis of English Grazing Livestock Farms in the LFA - by Performance Ratio

Table 30 Output, variable costs and farm gross margins by performance ratio

2019/20	The Average LFA farm	Performance Band		
		Low	Medium	High
Number of farms in the group	202	30	111	61
Number (weighted)	6,842	1,682	3,430	1,731
Utilisable Agricultural Area (UAA) (ha)	164	68	140	305
Average adjusted UAA (ha)	117	62	109	184
Average adjusted sole grazing (ha)	19	4	13	44
Average herd size	24	17	26	29
Average flock size	394	222	382	584
<u>Output</u>				
Farm Output	117,475	55,463	117,577	177,530
Farm Business Output	116,977	55,220	117,102	176,741
of which: Output from agriculture	67,708	35,133	75,003	84,907
Agri environment payment	13,853	3,297	9,115	33,497
Diversified output	5,626	1,992	7,111	6,217
Basic Payment	29,790	14,798	25,874	52,120
Livestock Enterprise Output	60,257	32,495	65,253	77,334
of which: Cattle Enterprise Output	24,937	16,126	28,466	26,505
(incl Livestock disease compensation)	94	33	146	50
Sheep Enterprise Output	35,079	16,351	36,395	50,671
Poultry Enterprise Output	248	14	391	194
Pigs Enterprise Output	1	0	1	0
Other Livestock Enterprise Output	-8	5	0	-36
Crop Enterprise Output	4,439	1,348	6,226	3,900
of which: Crop Subsidies	0	0	0	0
Main Crops	2,012	0	3,013	1,984
Forage & by-products	2,357	1,394	3,125	1,771
Cultivations output	69	-46	87	145
Non agriculture, no other category output	2,997	1,290	3,493	3,673
Disposal Previous Crops	15	0	30	0
<u>Farm Business Output</u>	116,977	55,220	117,102	176,741
<u>Variable Costs</u>				
Farm Business Variable costs	41,904	28,080	45,295	48,620
of which: Agriculture Variable Costs	41,679	28,061	44,977	48,377
Agri environment Variable Costs	30	2	6	106
Diversified income Variable Costs	189	14	308	122
BPS Variable Costs	6	2	3	14
Agriculture Crop Costs	5,588	3,441	6,440	5,987
of which: Seed	512	206	661	515
Fertilizer	3,950	2,820	4,303	4,347
Crop Protection	462	93	685	377
Other Crop Costs	665	322	791	747
Agriculture Livestock Costs	29,195	21,033	30,885	33,777
of which: Purchased Fodder Feed	15,518	12,245	16,482	16,788
Home Produced Fodder Feed	977	12	1,370	1,135
Veterinary and medicines	4,341	2,691	4,564	5,502
Other Livestock Costs	8,359	6,085	8,469	10,352
Agriculture Contract Costs	4,522	3,018	5,036	4,966
Agriculture Casual Labour	2,322	568	2,517	3,639
Agriculture, no other category Variable Costs	51	1	98	9
<u>Farm Business Gross Margin</u>	75,073	27,141	71,807	128,121
Agriculture Gross Margin	26,029	7,072	30,026	36,530
Agri Environment Gross Margin	13,822	3,295	9,109	33,391
Diversified Gross Margin	5,437	1,978	6,802	6,094
BPS Gross Margin	29,784	14,796	25,870	52,106

Table 31 Fixed costs and farm income measures by performance ratio

2019/20	The Average LFA Farm	Performance band		
		Low	Medium	High
Number (unweighted)	202	30	111	61
Number (weighted)	6,842	1,682	3,430	1,731
Utilisable Agricultural Land (UAA) (ha)	164	68	140	305
Average adjusted UAA (ha)	117	62	109	184
Average adjusted sole grazing (ha)	19	4	13	44
Average herd size	24	17	26	29
Average flock size	394	222	382	584
<u>Gross Margin</u>				
Farm Business Gross Margin	75,073	27,141	71,807	128,121
Agriculture Gross Margin	26,029	7,072	30,026	36,530
Agri Environment Gross Margin	13,822	3,295	9,109	33,391
Diversified Income Gross Margin	5,437	1,978	6,802	6,094
BPS Gross Margin	29,784	14,796	25,870	52,106
<u>Fixed Costs</u>				
Farm Business Fixed Costs	52,492	35,934	52,230	69,101
of which: Agriculture Fixed Costs	42,878	28,485	43,678	55,277
Agri Environment Fixed Costs	2,527	1,585	1,600	5,279
Diversified Income Fixed Costs	2,818	1,720	3,564	2,409
BPS Fixed Costs	4,269	4,144	3,388	6,136
Agriculture Paid Labour	6,079	864	5,389	12,512
Of which Fixed Labour Costs	3,757	297	2,872	8,873
(-) Casual Labour Costs (a Variable Cost)	2,322	568	2,517	3,639
Agriculture Machinery Costs	17,655	12,179	18,224	21,849
of which: Machinery Running Costs	8,341	6,179	8,452	10,220
Agriculture Depreciation Tenants Capital	9,315	6,000	9,772	11,628
Agriculture General Farming Costs	10,792	9,987	10,793	11,574
of which: Agriculture Bank & Professional Fees	2,074	2,062	2,084	2,066
Agriculture Other General Costs	5,660	4,907	6,004	5,708
Net Interest Payments	3,059	3,018	2,705	3,801
Bad Debts Write-offs	0	0	0	0
Agriculture Property Costs	8,757	5,144	9,818	10,165
Non Agriculture Other Fixed Costs	1,917	879	1,972	2,815
Profit/loss sale of fixed assets	227	-154	419	214
Agriculture Net Margin (AGRICULTURE BUSINESS INCOME)	-16,622	-21,567	-13,233	-18,533
Unpaid manual labour	26,322	26,332	27,808	23,369
Of Which Unpaid Farmer and Spouse	21,683	20,526	23,981	18,254
Unpaid Partner	4,639	5,806	3,827	5,115
Agriculture Economic Profit (AGRICULTURE CORPORATE INCOME)	-42,945	-47,899	-41,041	-41,902
Agriculture Net Interest Payment (added back)	3,059	3,018	2,705	3,801
AGRICULTURE INVESTMENT INCOME	-39,886	-44,882	-38,337	-38,101
Farm Net Margin (FARM BUSINESS INCOME)	22,808	-8,947	19,997	59,235
Farm Economic Profit (FARM CORPORATE INCOME)	-5,459	-36,482	-10,298	34,275
FARM INVESTMENT INCOME	-2,078	-33,071	-7,408	38,601
NET FARM INCOME	14,044	-15,848	11,812	47,512
Holding gains not included in farm income	15,270	6,753	13,247	27,554
BLSA	2,597	1,057	2,417	4,451
Revaluation of Machinery, permanent crops etc	1,742	1,168	1,806	2,172
Revaluation of Land	10,931	4,528	9,024	20,931
MANAGEMENT AND INVESTMENT INCOME	-9,168	-37,462	-14,085	28,068

Table 32 Balance Sheet by performance ratio

	The Average	Performance band		
2019/20	LFA Farm	Low	Medium	High
Number (unweighted)	202	30	111	61
Number (weighted)	6,842	1,682	3,430	1,731
Average Farmed Area (ha)	168.1	67.6	142.2	317.0
Utilisable Agricultural Area (ha)	163.8	67.6	139.8	305.1
Adjusted Utilisable Agricultural Area (ha)	116.7	62.3	109.3	184.2
Grazing Livestock Units	87.1	56.6	89.4	112.1
Ewes (head)	394	222	382	584
Beef Cows (head)	22	14	23	28
Occupied Area (ha)	77	44	77	109
Tenanted Area (ha)	94	25	67	213
Percentage of Land Owned (%)	45.1	63.9	53.4	33.8
<u>Assets</u>				
Fixed Assets	883,631	631,155	910,485	1,075,755
<i>Of which Agricultural Land</i>	677,193	496,326	710,706	786,535
Woodland	6,133	3,141	7,414	6,504
Total Buildings	28,813	26,129	30,279	28,515
Total Improvements	11,614	4,590	6,462	28,649
BPS Entitlements	30,095	15,524	25,721	52,922
Machinery	60,340	38,398	62,225	77,926
Breeding Livestock	67,354	42,382	67,327	91,673
Miscellaneous Business Assets	2,089	4,664	352	3,031
Current Assets	82,539	43,753	78,599	128,036
<i>of which Trading Livestock</i>	30,229	22,516	30,706	36,779
Crops	443	0	523	713
Forage	3,929	2,876	4,079	4,655
Cultivation	909	170	1,080	1,286
Stores	3,235	2,221	3,672	3,356
Liquid Assets	43,795	15,970	38,539	81,246
Of which Cash at Bank and In Hand	30,468	10,698	28,325	53,928
Debtors	8,448	3,720	5,321	19,237
Suspended	0	0	0	0
BPS debtors	4,879	1,553	4,894	8,081
Total Assets (£/farm)	966,170	674,908	989,084	1,203,792
<i>Of which Total Landlord-type Capital</i>	723,753	530,186	754,861	850,203
Tenant Type Capital	242,418	144,722	234,224	353,588
<u>Loans</u>				
Total Long Term Loans	79,568	101,795	59,943	96,860
<i>Of which Bank Loans</i>	42,217	32,142	47,535	41,468
Institutional Loans	27,478	45,585	8,689	47,117
Of which AMC	22,696	37,031	6,617	40,630
Building Societies	938	0	510	2,700
Other Institutional Loans	3,844	8,554	1,562	3,787
Family Loans	9,852	24,068	3,676	8,276
Other Loans	21	0	43	0
Current Liabilities	26,650	26,706	28,475	22,980
<i>Of which Hire Purchase</i>	4,857	4,267	4,617	5,906
Leasing	1	0	2	0
Other Current Liabilities	21,792	22,438	23,855	17,074
Of which Creditors	8,580	4,965	9,492	10,287
Bank Overdraft	13,165	17,437	14,288	6,787
Others	47	36	75	0
Total Liabilities	106,218	128,501	88,417	119,840
Closing Net Worth	859,952	546,407	900,667	1,083,951
Opening Net Worth	831,147	535,784	884,286	1,012,859
Change in New Worth	28,805	10,624	16,381	71,093

Table 33 Land use, stocking and technical efficiency by performance ratio

	The Average	Performance band		
2019/20	LFA Farm	Low	Middle	High
Number (unweighted)	202	30	111	61
Number (weighted)	6,842	1,682	3,430	1,731
Total Area (includes woodland and roads etc) (ha)	170.3	69.2	143.8	321.2
Area Farmed (ha)	168.1	67.6	142.2	317.0
Net Land Hired In (ha)	4.2	-0.1	2.4	12.0
Utilised Agricultural Area (ha)	163.8	67.6	139.8	305.1
Of which Total main products (ha)	2.3	0.0	3.4	2.1
Grass, fodder crops and rough grazing (ha)	161.6	67.6	136.3	303.0
Of which rough grazing (unadjusted) (ha)	65.8	9.7	43.3	164.9
Adjusted rough grazing (sole occupation)	18.7	4.4	12.9	44.1
Adjusted rough grazing (shared)	10.1	1.5	8.1	22.4
Total Adjusted Utilised Agriculture Area (ha)	116.7	62.3	109.3	184.2
Area owner occupied (ha)	76.8	44.3	76.7	108.6
Area tenanted (ha)	93.5	25.0	67.1	212.6
Average age of farmer (years)	60	62	61	57
Agricultural labour units (ALU)	1.5	1.2	1.5	1.7
Standard Output size units (2013SO)	96,968	61,505	98,338	128,713
Standard Output size group (2013SO)	7.0	6.7	7.1	7.4
<u>Land Use</u>				
Temporary Grassland Area (ha)	3.8	3.7	3.9	3.8
Permanent Grassland Area (ha)	94.7	54.0	90.3	142.8
<u>Stocking</u>				
Total Dairy Cows	1	0	1	1
Total Beef cows	24	16	25	28
Total Cattle	77	57	82	87
Ewes (LFA and lowland)	394	222	382	584
Of which LFA Ewes	380	199	365	584
Lowland Ewes	14	23	17	0
Total Sheep	760	422	752	1,105
<u>Livestock Units</u>				
Total Cattle LU	45	33	48	53
Of which Beef Cows LU	18	12	19	21
Other Cattle LU	24	18	25	28
Dairy Cows and Heifers	3	3	4	3
Total Sheep LU	41	23	41	59
Of which Ewe LU	28	16	28	40
Grazing LU (cattle, sheep, horses and others)	87	57	89	112
Total LU	87	57	89	112
<u>Financial Performance per GLU</u>				
Farm Business Output per GLU (£/GLU)	1,343	975	1,310	1,577
Farm Business Variable Costs (£/GLU)	481	496	507	434
Farm Business Gross Margin (£/GLU)	862	479	803	1,143
Farm Business Fixed Costs (£/GLU)	603	634	584	617
Farm Business Income (£/GLU)	262	-158	224	529
Farm Corporate Income (£/GLU)	-63	-644	-115	306
Farm Investment Income (£/GLU)	-24	-584	-83	344
Holding Gains Not In Income (£/GLU)	175	119	148	246
of which Land Revaluation (£/GLU)	126	80	101	187
Net Farm Income (£/GLU)	161	-280	132	424
Management and Investment Income (£/GLU)	-105	-661	-158	250
Agriculture Net Margin (Agriculture business income) (£/GLU)	-191	-381	-148	-165
Agriculture Economic Profit (Agriculture corporate income) (£/GLU)	-493	-846	-459	-374
Agriculture Investment Income (£/GLU)	-458	-792	-429	-340

Appendix 6. Analysis of English Grazing Livestock Farms in the LFA – enterprise margins

Table 34 LFA Suckler herd margins by herd size

2019/20	Enterprise Output and Gross margin per cow, GLU & ha			
	All herds	<30 cows	30-60 cows	>60 cows
Number of farms	144	53	47	44
Number of farms (weighted)	3,959	2,235	1,030	695
Area Farmed (UAA + net hired in) (ha)	192	155	138	392
Utilisable Agricultural Area (ha)	185	149	134	378
Adjusted UAA (ha)	142	111	109	289
Grazing Livestock Units (farm)	105	67	99	239
Grazing Livestock Units (enterprise)	37	15	43	99
Forage area (enterprise) (ha)	55	34	51	128
Stocking rate (GLUs/total adj ha)	0.7	0.6	0.9	0.8
Cows per herd	37	15	44	99
Total Cattle	107	54	122	255
Breeding Flock	412	353	256	834
<u>Output per cow</u>				
Enterprise Output (excluding BLSA)	408	389	364	445
BLSA	39	30	40	42
Concentrates	57	59	46	63
Purchased fodder and keep	20	43	13	13
Veterinary and medicines	29	34	30	26
Other livestock costs	57	57	61	54
Seed	3	2	2	3
Fertilizer	38	29	40	41
Sprays	2	2	2	3
Other crop costs	5	5	4	6
Total Variable costs	210	231	198	209
Gross Margin (excluding BLSA) / Cow	197	158	167	237
Gross margin (excluding BLSA) / forage ha	135	71	143	183
Gross Margin (excluding BLSA) / GLU	199	157	170	238
Enterprise Gross margin (excluding BLSA)	7,349	2,388	7,270	23,431
<u>Measures of Income</u>				
Farm Business Income	25,230	19,243	20,430	51,612
Farm Corporate Income	-3,947	-5,880	-10,400	11,841
Agricultural Economic Profit	-46,785	-39,149	-44,103	-75,332
Agri-environment Economic Profit	13,004	11,541	9,777	22,495
Diversified Economic Profit	1,851	44	2,606	6,546
BPS Economic Profit	27,983	21,682	21,320	58,132
Farm Investment Income	298	-3,366	-7,821	24,121
Net Farm Income	15,772	12,796	8,406	36,267
MII	-7,353	-8,509	-15,990	9,175
Enterprise NM/cow (excluding BLSA)	-242	-297	-256	-206
Enterprise NM/cow after F&S labour (excl. BLSA)	-413	-570	-454	-309

Table 35 Upland SDA flock margins by flock size

Upland SDA Flocks (flock lambing % usually >100) 2019 lamb crop	Enterprise Output and Gross margin per ewe, GLU and ha			
	All flocks	<300 ewes	300-600 ewes	>600 ewes
Number of farms	94	31	27	36
Number of farms (weighted)	2,959	1,294	847	818
Area Farmed (UAA + net hired in) (ha)	165	83	162	299
Utilisable Agricultural Area (ha)	160	79	162	285
Total adj. area farmed inc. commons (ha)	140	72	121	266
Grazing Livestock Units (farm)	99	59	83	180
Grazing Livestock Units (enterprise)	63	23	55	135
Forage area (enterprise) (ha)	102	43	104	195
Stocking rate (GLUs/total adj ha)	0.71	0.83	0.69	0.68
Cows per herd	25	19	18	43
Total Cattle	82	67	68	118
Breeding Flock	503	181	432	1,087
Total Sheep	976	371	831	2,081
<u>Output per ewe</u>				
Enterprise Output (excluding BLSA)	97	94	96	98
BLSA	5	2	3	6
Concentrates	18	16	21	17
Purchased fodder and keep	4	2	3	5
Veterinary and medicines	9	8	8	9
Other livestock costs	13	12	10	14
Seed	0	0	0	1
Fertilizer	5	4	7	4
Sprays	0	0	0	0
Other crop costs	1	1	0	1
Total Variable costs	50	43	50	51
Gross Margin (excluding BLSA) / Ewe	47	51	47	46
Gross margin (excluding BLSA) / forage ha	232	216	195	258
Gross Margin (excluding BLAS) / GLU	376	398	370	372
Enterprise Gross margin (excluding BLSA)	23,735	9,235	20,234	50,297
<u>Measures of Income (per farm)</u>				
Farm Business Income	26,637	14,171	30,318	42,548
Farm Corporate Income	-1,821	-9,380	93	8,155
Agricultural Economic Profit	-40,151	-29,003	-35,717	-62,375
Agri-environment Economic Profit	7,961	3,596	7,198	15,654
Diversified Economic Profit	2,553	2,029	1,809	4,152
BPS Economic Profit	27,816	13,998	26,802	50,724
Farm Investment Income	1,786	-7,801	4,773	13,860
Net Farm Income	18,443	7,889	23,741	29,655
MII	-5,523	-12,788	-3,663	4,043
Enterprise NM/ewe (excluding BLSA)	-23	-31	-16	-24
Enterprise NM/ewe after F&S labour (excl BLSA)	-55	-93	-62	-42
Lambs born & reared/ewe	1.40	1.43	1.42	1.38

Table 36 Hill SDA flock margins by flock size

Hill SDA Flocks (flock lambing % usually <100) 2019 lambing	Enterprise Output and Gross margin per ewe, GLU and ha			
	All flocks	<300 ewes	300-600 ewes	>600 ewes
Number of farms	67	23	24	20
Number of farms (weighted)	2,274	970	885	419
Area Farmed (UAA + net hired in) (ha)	212	130	141	550
Utilisable Agricultural Area (ha)	205	130	131	533
Total adj. area farmed inc. commons (ha)	149	86	123	349
Grazing Livestock Units (farm)	81	52	68	174
Grazing Livestock Units (enterprise)	46	22	45	105
Forage area (enterprise) (ha)	135	71	90	378
Stocking rate (GLUs/total adj ha)	0.54	0.60	0.55	0.50
Cows per herd	22	19	17	41
Total Cattle	65	57	45	123
Breeding Flock	451	176	419	1,155
Total Sheep	783	342	756	1,859
<u>Output per ewe</u>				
Enterprise Output (excluding BLSA)	68	78	70	62
BLSA	3	2	4	3
Concentrates	16	23	15	14
Purchased fodder and keep	5	2	6	6
Veterinary and medicines	6	6	7	6
Other livestock costs	10	11	11	8
Seed	0	0	0	0
Fertilizer	3	3	4	3
Sprays	0	0	0	0
Other crop costs	0	0	0	0
Total Variable costs	42	47	44	38
Gross Margin (excluding BLSA) / Ewe	26	32	26	24
Gross margin (excluding BLSA) / forage ha	86	79	120	72
Gross Margin (excluding BLAS) / GLU	253	259	243	259
Enterprise Gross margin (excluding BLSA)	11,632	5,576	10,838	27,316
<u>Measures of Income (per farm)</u>				
Farm Business Income	25,232	12,479	17,364	71,325
Farm Corporate Income	-3,001	-12,511	-7,952	29,437
Agricultural Economic Profit	-51,204	-39,652	-45,707	-89,516
Agri-environment Economic Profit	19,202	9,580	14,239	51,923
Diversified Economic Profit	257	1,176	-113	-1,086
BPS Economic Profit	28,744	16,384	23,630	68,116
Farm Investment Income	1,219	-10,668	-6,073	44,093
Net Farm Income	15,399	5,608	8,784	51,998
MII	-6,537	-16,276	-11,690	26,860
Enterprise NM/ewe (excluding BLSA)	-45	-59	-44	-40
Enterprise NM/ewe after F&S labour (excl BLSA)	-76	-132	-79	-55
Lambs born & reared/ewe	1.12	1.32	1.12	1.04

Appendix 7. Enterprise gross margins and efficiency factors – sample and premium

Table 37 LFA Sucklers

2019/20						
	No farms in sample	Sample		Premium		
		144		50		
	No farms	3959		1309		
Production information						
Average cow numbers		37		36		
Enterprise grazing livestock units *		37		37		
Calves per cow		0.93		1.07		
Herd replacement rate (%)		20%		21%		
Adjusted forage area (including commons)		48.47		43.50		
Stocking rate (cows per adj. forage ha.)		0.77		0.83		
Stocking rate (GLUs per adj. forage ha.)		0.76		0.86		
Enterprise Output	Total	per cow	per adj	Total	per cow	per adj
	(£)	(£)	for ha	(£)	(£)	for ha
			(£)			(£)
Suckler calves †	19010	511	392	22524	625	518
Less Herd Depreciation	3832	103	79	2569	71	59
Total Output (A)	15177	408	313	19955	554	459
Variable Costs						
Concentrates	2127	57	44	1641	46	38
Coarse fodder	738	20	15	363	10	8
Vet and Medicines	1076	29	22	982	27	23
Other livestock costs	2113	57	44	2024	56	47
Total Variable Costs (B)	6053	163	125	5010	139	116
Gross Margin before forage (A-B) = (C)	9124	245	188	14944	415	343
Forage Variable Costs	623	17	13	795	22	18
Gross Margin after forage (A-B) = (C)	8501	228	175	14149	393	325
Prices						
Calf price (£/calf) *	598			705		
Cull cow price (£/cow)	755			780		
Replacement heifer/cow price (£/head)	1088			1095		
Forage Costs						
Fertilizer (£/ha)	10			15		
Seed (£/ha)	1			1		
Spray (£/ha)	1			1		
Other crop costs (£/ha)	1			2		
Total (£/ha)	13			18		
Unadjusted forage area excluding commons	54.64			45.04		
* excludes stock away on agistment						
† Calf price is as sold off the cow or a transfer value at weaning						

Premium is weighted top third by gross margin after forage per cow

Table 38 Finished cattle from suckler bred calves or stores

2019/20	No farms in sample	Sample	Premium	
	No farms	39	13	
	No farms	1009	338	
Production information				
Enterprise grazing livestock units *		36	35	
Adjusted forage area (including commons)		38.46	28.74	
Stocking rate (GLUs per adj. forage ha.)		0.93	1.20	
Enterprise Output	Total (£)	per adj, for. ha (£)	Total (£)	per adj for ha (£)
Cattle output	28568	743	33034	1149
Total Output (A)	28568	743	33034	1149
Variable Costs				
Concentrates	10251	267	9357	326
Coarse fodder	345	9	453	16
Vet and Medicines	770	20	762	27
Other livestock costs	4355	113	3465	121
Total Variable Costs (B)	15721	409	14037	490
Gross Margin before forage (A-B) = (C)	12848	334	18998	659
Forage Variable Costs (D)	596	16	617	21
Gross Margin after forage (C-D) = (E)	12251	318	18380	638
Prices				
Dairy heifer transfer or sale price £	na		na	
Finished cattle price £	1188		1222	
Store cattle price £	817		850	
Forage Costs				
Fertilizer (£/ha)	12		16	
Seed (£/ha)	1		2	
Spray (£/ha)	1		1	
Other crop costs (£/ha)	2		2	
Total (£/ha)	16		21	
Unadjusted forage area excluding commons	43.41		31.16	
* excludes stock away on agistment				

**A part of this table was derived from data with less than 15 observations in the sample which could reduce the robustness of the results*

Premium is weighted top third by gross margin after forage per adjusted forage hectare

Table 39 Store cattle from suckler bred calves or stores

2019/20	No farms in sample	Sample	Premium	
	No farms	110	37	
	No farms	3247	1082	
Production information				
Enterprise grazing livestock units *		21	24	
Adjusted forage area (including commons)		30.28	28.38	
Stocking rate (GLUs per adj. forage ha.)		0.71	0.84	
Enterprise Output	Total (£)	per adj. for. ha (£)	Total (£)	per adj. for. ha (£)
Cattle output	12712	420	19340	681
Total Output (A)	12712	420	19340	681
Variable Costs				
Concentrates	3985	132	4377	154
Coarse fodder	404	13	327	12
Vet and Medicines	566	19	657	23
Other livestock costs	2120	70	2531	89
Total Variable Costs (B)	7075	234	7893	278
Gross Margin before forage (A-B) = (C)	5638	186	11447	403
Forage Variable Costs (D)	213	7	289	10
Gross Margin after forage (C-D) = (E)	5425	179	11158	393
Prices				
Dairy heifer transfer or sale price £	1100		na	
Finished cattle price £	1076		1077	
Store cattle price £	865		887	
Forage Costs				
Fertilizer (£/ha)	6		8	
Seed (£/ha)	0		1	
Spray (£/ha)	0		0	
Other crop costs (£/ha)	1		1	
Total (£/ha)	7		10	
Unadjusted forage area excluding commons	29.90		24.74	
* excludes stock away on agistment				

Premium is weighted top third by gross margin after forage per adjusted forage hectare

Table 40 Upland SDA flocks

2019 lamb crop	Sample			Premium		
No farms in sample	94			40		
No farms	2959			979		
Production information						
Average ewe numbers	503			470		
Enterprise grazing livestock units *	63			62		
Lambs reared per ewe	1.40			1.67		
Flock replacement rate (%)	27%			25%		
Adjusted forage area (including commons)	87.0			75.0		
Stocking rate (ewes per adj. forage ha.)	5.8			6.3		
Stocking rate (GLUs per adj. forage ha.)	0.7			0.8		
Enterprise Output	Total	per ewe	per adj for ha	Total	per ewe	per adj for ha
	(£)	(£)	(£)	(£)	(£)	(£)
Lambs †	55650	111	639	66804	142	890
Wool	676	1	8	861	2	11
Less Flock Depreciation	7593	15	87	5533	12	74
Total Output (A)	48732	97	560	62132	132	827
Variable Costs						
Concentrates	9142	18	105	8266	18	110
Coarse fodder	1913	4	22	677	1	9
Vet and Medicines	4341	9	50	3960	8	53
Other livestock costs	6405	13	74	6222	13	83
Total Variable Costs (B)	21801	44	251	19125	40	255
Gross Margin before forage (A-B) = (C)	26932	53	309	43007	92	572
Forage Variable Costs (D)	2032	4	23	2051	4	27
Gross Margin after forage (C-D) = (E)	24900	49	286	40956	88	545
Prices	£/hd	% sales		£/hd	% sales	
Fat Lamb price	77	72		80	90	
Store Lamb price	57	20		62	5	
Ewe Lamb price	86	8		96	5	
Draft ewe price	88			93		
Cull ewe price (£/ewe)	56			67		
Wool price (£/kg)	0.60			0.71		
Replacement price (£/head)	95			98		
Forage Costs						
Fertilizer (£/ha)	18			23		
Seed (£/ha)	2			2		
Spray (£/ha)	1			1		
Other crop costs (£/ha)	2			2		
Total (£/ha)	23			27		
Unadjusted forage area excluding commons	102.5			82.2		
* excludes stock away on agistment						
† includes all enterprise output except wool						

Premium is weighted top third by gross margin after forage per head

Table 41 Hill SDA flocks

2019 lamb crop	Sample			Premium		
No farms in sample	67			28		
No farms	2274			790		
Production information						
Average ewe numbers	451			418		
Enterprise grazing livestock units *	46.0			48.0		
Lambs reared per ewe	1.12			1.39		
Flock replacement rate (%)	26%			25%		
Adjusted forage area (including commons)	84.6			68.0		
Stocking rate (ewes per adj. forage ha.)	5.3			6.1		
Stocking rate (GLUs per adj. forage ha.)	0.5			0.7		
Enterprise Output	Total	per ewe	per adj for ha	Total	per ewe	per adj for ha
	(£)	(£)	(£)	(£)	(£)	(£)
Lambs †	37050	82	438	45453	109	669
Wool	471	1	6	567	1	8
Less Flock Depreciation	7029	16	83	5154	12	76
Total Output (A)	30492	67	361	40865	98	601
Variable Costs						
Concentrates	7226	16	85	6393	15	94
Coarse fodder	2479	5	29	1401	3	21
Vet and Medicines	2865	6	34	1856	4	27
Other livestock costs	4423	10	52	4212	10	62
Total Variable Costs (B)	16992	37	200	13861	32	204
Gross Margin before forage (A-B) = (C)	13500	30	161	27004	66	397
Forage Variable Costs (D)	1066	2	13	1022	2	15
Gross Margin after forage (C-D) = (E)	12434	28	148	25983	64	382
Prices	£/hd	% sales		£/hd	% sales	
Fat Lamb price	76	57		79	72	
Store Lamb price	49	34		59	22	
Ewe Lamb price	74	9		81	6	
Draft ewe price	71			145		
Cull ewe price (£/ewe)	47			62		
Wool price (£/kg)	0.58			0.64		
Replacement price (£/head)	92			99		
Forage Costs						
Fertilizer (£/ha)	10			11		
Seed (£/ha)	1			1		
Spray (£/ha)	1			2		
Other crop costs (£/ha)	1			1		
Total (£/ha)	13			15		
Unadjusted forage area excluding commons	135.1			83.9		
* excludes stock away on agistment						
† includes all enterprise output except wool						

Premium is weighted top third by gross margin after forage per head

Appendix 8. Reports in this series

Organic Farming in England

Crop Production in England

Dairy Farming in England

Hill Farming in England

Horticulture Production in England (Horticultural Business Data)

Lowland Grazing Livestock Production

Pig Production in England

Poultry Production in England

Details available at www.ruralbusinessresearch.co.uk

Appendix 9. References

Defra 2019 - structure-england-farm_type_series_15oct20a.xlsx - Farm type breakdown for commercial holdings

Appendix 10. Definition of Terms

1. Accounting years: To ensure consistency in harvest/crop year and commonality of subsidies within any one FBS year, only farms which have accounting years ending between 31 December and 30 April inclusive are included in the survey.

Aggregate results are presented in terms of an accounting year ending at end-February, the approximate average of all farms in the FBS. Thus the results relate, on average, to March - February years

Business Outputs, Inputs, Costs and Income

2. Farm business income for sole traders and partnerships represents the financial return to all unpaid labour (farmers and spouses, non-principal partners and directors 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. Note that prior to 2008/09 directors remuneration was not deducted in the calculation of farm business income. It is used when assessing the impact of new policies or regulations on the individual farm business. Although Farm Business Income is equivalent to financial Net Profit, in practice they are likely to differ because Net Profit is derived from financial accounting principles whereas Farm Business Income is derived from management accounting principles. For example in financial accounting output stocks are usually valued at cost of production, whereas in management accounting they are usually valued at market price. In financial accounting depreciation is usually calculated at historic cost whereas in management accounting it is often calculated at replacement cost.

3. Farm corporate income represents the return on own capital invested in the farm business, to risk and to entrepreneurship. It is derived by deducting unpaid labour, both manual and managerial, from Farm Business Income. This allows the profitability of sole traders and partnerships to be compared directly with that of companies. Currently we are able to deduct an estimate of unpaid manual labour but not of unpaid managerial labour and so the data are only approximate. However, we plan to undertake a research project to produce a method for deriving an estimate of unpaid managerial labour, so that we can produce better data for this measure in future.

4. Farm investment income represents the return on **all** capital invested in the farm business **whether borrowed or not**, to risk and to entrepreneurship. It is a general measure of the profitability of farming as an activity rather than of a particular business. It is derived by adding net interest payments to Farm Corporate Income. Since currently the data for Farm Corporate income are only approximate, so too are the data for Farm Investment Income.

5. Net Farm Income (NFI) is intended as a consistent measure of the profitability of tenant-type farming¹² which allows farms of different business organisation, tenure and indebtedness to be compared. It represents the return to the farmer and spouse alone for their manual and managerial labour and on the tenant-type capital¹³ invested in the farm business.

To represent the return to farmer and spouse alone, a notional deduction is made for any unpaid labour provided by non-principal partners and directors, their spouses and by others; this unpaid labour is valued at average local market rates for manual agricultural work.

To confine the measure to the tenant-type activities and assets of the business, an imputed rent is deducted for owner-occupied land and buildings and for landlord-type improvements made by the tenant. No deduction is made for interest payments on any farming loans, overdrafts or mortgages; interest earned on financial assets is also excluded.

6. Cash income is the difference between total revenue and total expenditure. Revenue is: receipts adjusted for debtors; and expenditure is: purchases adjusted for creditors. It is assumed, therefore, that all end of year debtor and creditor payments are settled in full, even though this may happen beyond the end of the accounting year. Cash income represents the cash return to the group with an entrepreneurial interest in the business (farmers and spouses, non-principal partners and directors and their spouses and family workers) for their manual and managerial labour and on all their investment in the business.

7. Family farm income is a measure of farm income used by the European Commission. It is based upon actual tenure and indebtedness. However, it is a broader measure than net farm income in that it represents the return to all unpaid labour (farmers and spouses, non-principal partners and directors and their spouses and family workers). It also includes breeding livestock stock appreciation although it cannot be realised without reducing the productive capacity of the farm.

Cropping, Stocking and Labour

8. Utilised agricultural area (UAA) is the crop area, including fodder, set-aside land, temporary and permanent grass and rough grazing in sole occupation (but not shared

¹² Tenant-type farming was never conceived of as including non-agricultural activities on farm (using farm resources) except perhaps for value added activities such as small-scale food processing, e.g. sales of farm produced butter and cream and retail sales of farm produced liquid milk. However, recent research has revealed that many of the more varied non-agricultural activities which have been increasing on farms over the years have been inadvertently included in the calculation of NFI, with the result that about three-quarters of non-agricultural activities on farm by value are currently included and one-quarter excluded, without any clear basis for this division. Although this means that the definition of NFI has become untenable on the current basis, it has been decided to continue with historical practice for reasons of continuity, rather than to change the definition, pending the introduction of a wider measure to include all on-farm business activities.

¹³ Tenant-type capital comprises livestock, machinery, crops in store, stocks of consumables, work in progress, orchards, other permanent crops, glasshouses, cash and other assets needed to run the business. It does not include land and buildings.

rough grazing) i.e. the agricultural area of the farm. It includes bare land and forage let out for less than one year.

9. Total area of farm is the utilized agricultural area plus woodland and other areas of the farm not used for agriculture (e.g. buildings, roads, water, household gardens).

10. Total tillage comprises the utilised agricultural area, plus bare land and forage hired in from others in the accounting period, minus temporary and permanent grass and rough grazing in sole occupation (but not shared rough grazing).

11. Total area farmed comprises the total area of the farm minus woodlands and buildings, etc. plus net land hired in.

12. Adjusted utilised agricultural area comprises the utilised agricultural area with rough grazing in sole occupation converted to a permanent pasture equivalent.

(See the end of this appendix for further information on adjusted area calculations).

13. Stocking figures are the average annual level of stocking based on estimated average livestock numbers on the farm for the year, including fractions for livestock on the farm for less than a year.

14. Total livestock units are used as an approximate measure of stocking intensity and are based on the estimated energy requirements of different species and ages of livestock. The factors used are set out in Appendix 2 of 'Farm Incomes in the United Kingdom 1999/00'.

15. Annual labour units (ALU) are the estimated number of full time worker equivalents of persons working on the holding during the year. Part-time workers are converted to full-time equivalents in proportion to their actual working time related to that of a full-time worker. One ALU represents one person employed for 2,200 hours. [1 SLR = 1,900 hours]

Outputs, Inputs and Farm Business Income

16. Agricultural output is the main measure of individual crop and livestock output.

It comprises:

(a) Crop enterprise output, which is the total value of crops produced by the farm (other than losses in the field and in store). It includes crops used for feed and seed by the farm business and those consumed in the farmhouse and by farm labour. Crop enterprise output is calculated on a "harvest year" as distinct from an "accounting year" basis; that is, it refers only to those crops (with the exception of certain horticultural crops) wholly or partly harvested during the accounting year and excludes any crop carried over from the previous year. Thus valuation changes (between the previous and current crops) are not relevant and the total harvested yield of the crop is valued at market prices (plus any subsidies). However, any difference between the opening valuation of any stocks of previous crops and their ultimate disposal value (sales, used on farm and any end-year stocks) is included in total farm output.

(b) By-products, forage and cultivations, which cover the value of output of the by-products of agricultural activity, sales of fodder, valuation changes for fodder and cultivations. It also covers revenue from the letting of bare land or forage on a short-term lease.

(c) Livestock enterprise output comprises the total sales of livestock and livestock products including direct livestock subsidies and production grants received, part of the valuation change (see below), produce consumed in the farmhouse and by labour and the value of milk and milk products fed on the farm (excluding direct suckling) adjusted for debtors at the beginning and end of the year (except for direct livestock subsidies) and transfers between enterprises; less purchases of livestock and livestock products from outside the farm business. Stock appreciation for breeding livestock (cattle, sheep and pigs - see paragraph 18) has been excluded from individual livestock enterprise outputs. However, changes in the numbers of breeding livestock between the opening and closing valuation and the total valuation change of trading livestock are included. Unlike crop enterprise output, livestock enterprise output is calculated on an accounting year basis.

(d) Miscellaneous output covers the value of output from those activities which are still within the agricultural cost centre but do not fall within either livestock or crop enterprise output. These will include revenue from wayleaves, agricultural hirework, sundry woodland sales, contract farming rent, miscellaneous insurance receipts and compensation payments.

17. Agricultural costs comprise payments and the estimated value of non-cash inputs, including home-grown feed and seed, adjusted for changes in stocks and creditors between the beginning and end of the year.

<i>Total variable costs</i>	These are taken to be costs of feed, veterinary fees and medicines, other livestock costs, seeds, fertilisers, crop protection and other crop costs.
<i>Purchased concentrate feed and fodder</i>	This represents expenditure on feeds and feed additives, including charges for agistment.
<i>Home-grown concentrate feed and fodder</i>	This includes ex-farm value of all home produced cereals, beans, milk (excluding direct suckling) etc. fed on the farm both from the current and previous years' crops.
<i>Veterinary fees and medicines</i>	This consists of veterinary fees and the cost of all medicines.
<i>Other livestock costs</i>	This comprises straw bought specifically for bedding materials, breeding costs (including AI and stud fees) miscellaneous dairy expenses, disinfectants, marketing and storage costs of animal products, milk levies and other livestock costs not separately identified.

<i>Purchased and home-grown seeds</i>	This comprises expenditure on purchased seeds, plants and trees adjusted for changes in stocks. Home-grown seed from the previous crop is included and charged at estimated market price: any seeds from current crops and sown for a succeeding crop are excluded, but are included in the closing valuation of the crop and hence in enterprise output. This enables the value of home-grown seed used in the production of the current crop to be identified.
<i>Fertilisers</i>	This includes lime, fertilisers and other manures, and is adjusted for changes in stock. Fertilisers sown for next year's crops are treated as if they were still in store and are included in the closing valuation.
<i>Crop protection</i>	This includes costs of pre-emergent sprays, fungicides, herbicides, dusts and insecticides and other crop sprays.
<i>Other crop costs</i>	These comprise all crop inputs not separately specified, e.g. marketing charges, packing materials, crop levies, baling twine and wire (though not fencing wire).
<i>Total fixed costs</i>	These are the costs of labour, machinery, contract work, land and buildings, other general farming costs and depreciation.
<i>Labour (excluding farmer and spouse)</i>	This comprises wages and employer's insurance contributions, payments in kind, and salaried management. To calculate net farm income an imputed charge for unpaid labour is made, excluding that of the farmer and spouse, valued at the rate of comparable paid labour. The value of the manual labour of the farmer and spouse is not charged as an input in calculating net farm income (i.e. it is a component of net farm income).
<i>Contract costs</i>	These costs include expenditure on work carried out by agricultural contractors, including the costs of materials employed, such as fertilisers, unless these can be allocated to the specific heading. Costs of hiring machines to be used by the farm's own labour are also included. Expenditure on contract labour is only included here if it is associated with the hiring of a machine. Otherwise it is entered under (casual) labour.

<i>Machinery running costs</i>	These represent the cost of machinery and equipment repairs, fuel and oil and car mileage expenses. It excludes depreciation.
<i>Land and building inputs</i>	For the calculation of farm business income these comprise any rent paid, insurance, rates and repairs to land and buildings incurred by the whole business. In the derivation of net farm income land and building costs also include an imputed rental charge for owner occupiers but exclude those costs associated with land ownership such as the insurance of farm buildings, and landlord-type repairs and upkeep.
<i>Depreciation of machinery, glasshouses and permanent crops</i>	Depreciation provisions in respect of machinery, glasshouses and permanent crops (e.g. orchards) are shown on a current cost basis. The rates of depreciation used (generally on a diminishing balance basis for machinery and straight line for glasshouses and permanent crops) are intended to reflect the degree of deterioration of the assets.
<i>Other general farming costs</i>	These consist of electricity, heating fuel, water for all farming purposes, insurance (excluding labour and farm buildings), bank charges, professional fees, vehicle licences, and other miscellaneous expenses not recorded elsewhere.
<i>Interest payments</i>	Interest charges on loans taken out for business purposes, net of interest receipts on monies invested temporarily outside the business, are deducted in the calculation of farm business income.
<i>Depreciation of buildings and works</i>	This is calculated on a current cost basis (generally on a straight line basis over 10 years) with an adjustment to allow for the effect of capital grants.

18. Breeding livestock stock appreciation represents the change in market prices of breeding cattle, sheep and pigs between the opening and closing valuations. It is not included in the calculation of farm business income but is shown separately within tables.

Balance Sheet Tables

19. Total fixed assets includes land, buildings, breeding livestock, and machinery and equipment. For tenanted farmers, assets can include the tenant's component of farm buildings, cottages, etc., where these are owned by the landlord.

20. Liquid assets comprise cash and sundry debtors.

21. Bank term loans and other long and medium term loans are loans which exceed 12 months.

22. Net Worth represents the residual claim or interest of the owner in the business. It is the balance sheet value of assets available to the owner of the business after all other claims against these assets have been met.

Yields and Implied Output Prices

23. Crop yields are calculated as total production divided by crop area.

24. Implied output prices are average unit returns excluding direct subsidies. For crops they are calculated by dividing the value of sales, closing stocks, farm house consumption, benefits in kind and own-produced feed by total production. Sales are valued at prices actually received at the farm gate before the deduction of marketing charges paid direct by the farmer such as drying and cleaning costs. More detailed information about sales volumes is collected for livestock and, in this case, the unit returns refer to sales of livestock including casualties. In both cases, any compensation payments or insurance payouts for output produced in the current year and destroyed are included.

Adapted from: DEFRA – Farm Accounts in England Results from the Farm Business Survey 2015/2016

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/483835/fbs-farmaccountsengland-10dec15.pdf

Standard Output (SO)

SOs are representative of the level of output that could be expected on the average farm under “normal” conditions (i.e. no disease outbreaks or adverse weather). Different SOs are calculated for North England, East England, West England, Wales, Scotland and Northern Ireland to allow for the differences in output in different areas. Standard outputs measure the total value of output of any one enterprise - per head for livestock and per hectare for crops. For crops this will be the main product (e.g. wheat, barley, peas) plus any by-product that is sold, for example straw. For livestock it will be the value of the main product (milk, eggs, lamb, pork) plus the value of any secondary product (calf, wool) minus the cost of replacement.

Up until 2010, Standard Gross Margins were used for the classification of farms. The difference between standard outputs and standard gross margins is that no variable costs are deducted in the derivation of standard outputs. A Defra note looking at the effects on the population by farm type as a result of the change from SGMs to SOs is available at:

(http://webarchive.nationalarchives.gov.uk/20130123162956/http://www.defra.gov.uk/statistics/files/defra-stats-foodfarm-farmmanage-fbs-reviseclass_111221.pdf)

SOs are calculated from rolling five-year averages – this in order to lessen the impact of yearly fluctuations on calculated SOs. The SOs used for the presentation of data for the period 2009/10 to 2011/12 are based on the 2007SOs, the data for the period 2012/13 to 2015/16 are based on the 2010SOs, and the data for the period 2017/18 to 2018/19 are based on the 2013SOs.

The 2007, 2010 and 2013 SOs for England can be seen on Annex 1 under UK Farm Classification on the above site.

Source: <https://www.gov.uk/farm-business-survey-technical-notes-and-guidance>

Adjusted Forage hectares (adj. for. ha)

The adjusted forage area allows an area of rough grazing to be equated to an equivalent area of flat mowable land on the basis of effective stocking capacity. This therefore reflects the true stock carrying capacity of a parcel of land and allows meaningful comparisons on true farm stocking rates to be presented. This measure is particularly important for LFA farms with large tracts of poor quality land including those with areas of common grazing.

Farm performance ratio

Farm performance is measured as the ratio of farm business output to farm business costs. An imputed value for unpaid manual labour, including that of the farmer and spouse is added to farm business costs. The value of paid managerial input is subtracted. The farms are ranked in descending order according to this ratio and allocated to quartiles with the top quartile (25 percent) representing the high performance band (Premium Group). Note that the farm weights are used to allocate farms to quartiles so the number of farms in a quartile will not necessarily be equivalent to a quarter of the sample.

Front cover photograph courtesy of a Hill Sheep farm in England