

Moving away from Direct Payments

Agriculture Bill: Analysis of the impacts of removing Direct Payments September 2018 Department for Environment Food & Rural Affairs



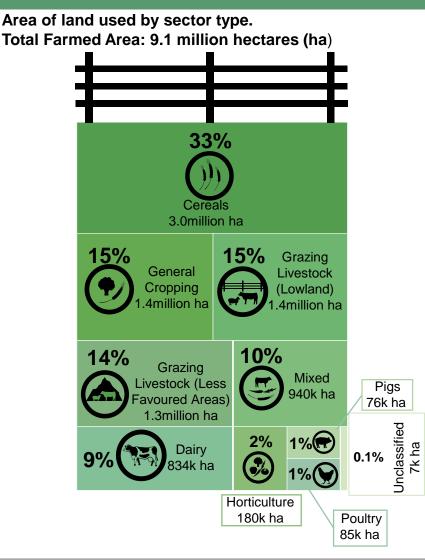
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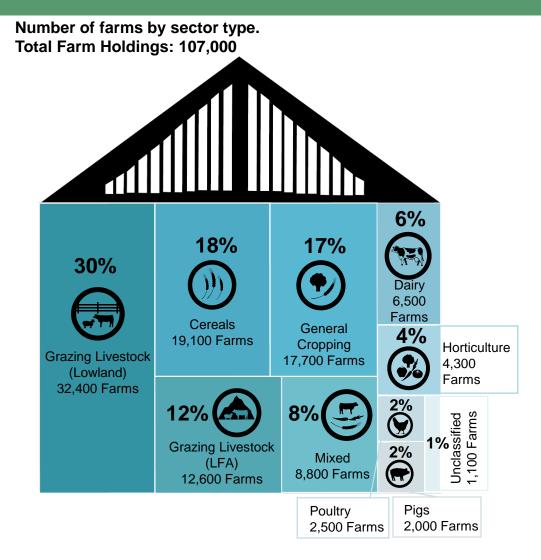


Section 1

How are farms structured in England?

In England in 2016, cereals farms used the largest amount of farmed area (33% of total), and grazing livestock in lowland areas had the greatest number of farms (30% of total).





The Future Farming and Environment Evidence Compendium (February 2018)

In England in 2016, a small number of economically large farms (7%) produced over half (55%) the agricultural output using just 30% of the total farmed land area.

Economic Size Classification	Very Small	Small	Medium	Large	Very Large
Standard Output	Under €25K	€25K to €125K	€125K to €250K	€250K to €500K	At least €500K
% total Farm Businesses	42%	30%	11%	9%	7%
Number of farm businesses	41,200	29,600	11,200	8,900	7,000
% total Output (€ million)			ADN/ FBS	coverage	
(emmor)	2%	11%	12%	19%	55%
% total Farmed Area (thousand Hectares)	8%	23%	19%	21%	30%

Standard Output measures 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.

Note - the chart excludes businesses classified as 'specialist horse'



Section 2

Why remove Direct Payments?

Evidence suggests that Direct Payments offer poor value for money and introduce distortionary incentives, which inhibit the development of a productive and competitive agricultural sector that delivers optimal environmental outcomes.

Untargeted Income Support

Direct Payments provide income support, but lack a system of means testing. Instead, the amount received is largely dependent on the land area of the farm, providing support to many high income households.

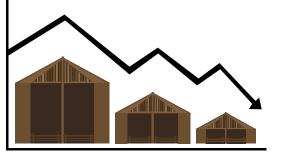
Undermine efficiency and productivity growth

Direct Payments can dampen the focus of some farm businesses to seek out and adopt best practice to optimise performance. Direct Payments can also hold back structural change and exert upward pressure on land prices and rents.

Fail to deliver optimal environmental outcomes

Around 30% of the Direct Payment depends on Greening, however a report into Greening from the European Court of Auditors concluded that the mechanism was unlikely to significantly enhance environmental and climate performance.







From 2012/13 to 2014/15, farm households with incomes over £45,000 received an average Direct Payment of £24,400, 37% higher than the average subsidy paid to farm households with household incomes of £15,000 or less, who received an average Direct Payment of £17,800.

Some low income farm households are supported by the current system

From 2012/13 to 2014/15, those with a collective farm household income of less than £15,000 had an average income of -£1,200 without Direct Payments. The farm businesses associated with these households received an average Direct Payment of £17,800, pushing their average household income up to £16,600.

However, many of the lowest income farm households are also among the least profitable farms. Improvements in the farm business may therefore improve household income.

Average Direct Payment received by household income band (excluding Direct Payments), 2012/13 to 2014/15



Direct Payments lack any system of means testing/ targeting

Direct Payments are paid to farms based on the amount of agricultural land they maintain and are not targeted in any way. Farm households with incomes over £45,000 received an average Direct Payment of £24,400, 37% higher than the average subsidy paid to farm households with household incomes of £15,000 or less.

If an income support scheme is to improve equity, payments should go to farm households with an income lower than the average UK household income. However, a significant amount of Direct Payments go to households with incomes above average UK household incomes.

Means testing would also take into account wealth or assets, including ownership of property, when assessing eligibility. However Direct Payments do not take this into account. On average, between 2014/15-2016/17 the wealth of those who received Direct Payments was higher than that of the average GB household.



Across all farms types in England in 2016/17, the average performance of the top 25% of farms was 1.8 times better than the bottom 25%. The largest gap was among horticulture and grazing livestock farms, and smallest within poultry and dairy.

For the top 25% of farms across each sector, cereal farmers had the best average performance with outputs 40% higher than their inputs in 2016/17.

Comparing average economic performance of the top 25% of farms to the bottom 25% of farms shows the largest performance gap was among horticulture and grazing livestock farms.

If the bottom 25% of farms improved to become more in line with the average then productivity for the whole sector would increase.

Ratio of economic performance of top 25% vs bottom 25%

Ratio of the average output costs and average input costs for whole farm business for the top 25% of farms, middle 50% (25%-75%) and bottom 25% of farms, 2016/17



Farm Business Income (FBI) is calculated as the **difference** between Farm Business Outputs and Farm Business Inputs. It does not deduct the cost of unpaid labour. When calculating **farm economic performance**, **unpaid labour is included as a cost**. This allows a fairer comparison between farms with employees and those that use unpaid (often family) labour.

Agricultural land prices have risen significantly faster than other land prices over the last decade, although they have fallen back in the last couple of years.

Agricultural land values have increased faster than Greenfield Development land

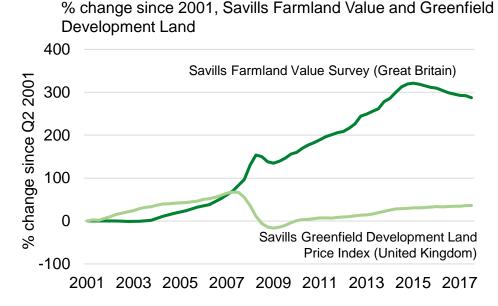
The Savills Farmland Value Survey showed an increase of more than 300% between 2001 and 2015, although prices have fallen back a little since.

This increase in agricultural land prices outstrips growth in some other land values, such as the Savills Greenfield Development Land Price Index, which only rose by 36% between 2001 and 2017and was in part impacted by falls during the financial crisis in 2008-09.

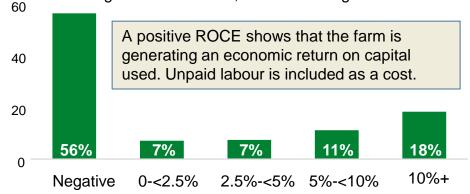
Only a small area of agricultural land changes ownership each year. In England and Wales in 2016 only 0.25% of the utilised agricultural area was sold. This tightness of supply, as well as Direct Payments, both act to maintain high demand and prices of agricultural land.

Direct Payments may encourage sub-optimal investment

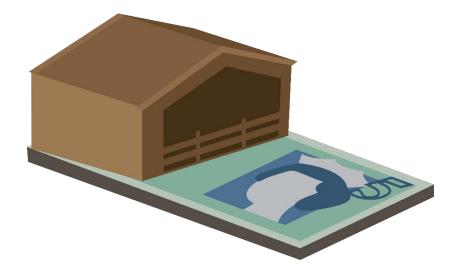
Direct Payments increase farmers' cash-flow, giving them greater opportunity to invest in items such as machinery. In 2016/17 after excluding land value, more than half of farms (56%) in the Farm Business Survey (England) showed a negative overall return to capital. This suggests that Direct Payments are facilitating a substantial amount of investment, which is worsening not improving farmers' returns.



% of farms and their Return On Capital Employed (ROCE) excluding the value of land, 2016/17 in England



The Future Farming and Environment Evidence Compendium (February 2018)



Section 3

How much do Direct Payments contribute to farm revenue and profits?

Direct Payments are allocated based on land area. In 2016, the top 10% of recipients in England received almost half (47%) of the £1.65bn total payments, while the bottom 20% received 2%.

The total Direct Payment paid in England in 2016 was £1.65bn and the largest recipients were located across the country.

Of the top 50 recipients in 2016, 37 had mostly arable crops (e.g. wheat, oilseed rape) or legumes (e.g. peas/beans) and 9 had mostly permanent grass.

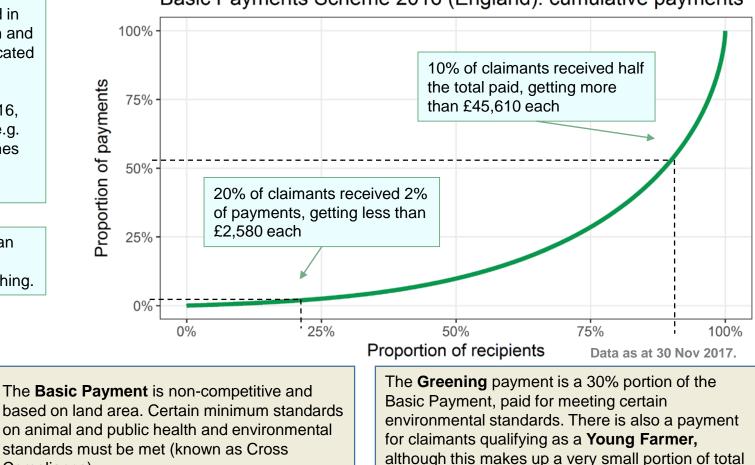
Only farms over 5 hectares can apply for Direct Payments, so many small farms receive nothing.

Direct Payment

Basic Payment

Greening

Young farmer payment



payments.

Basic Payments Scheme 2016 (England): cumulative payments

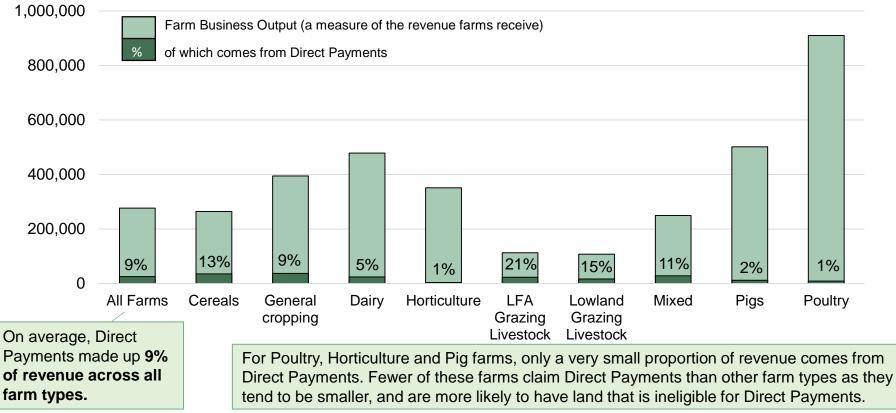
Compliance).

On average, over the period 2014/15 - 2016/17, Direct Payments made up 9% of revenue across all farm types. Direct Payments were a greater factor in revenue for some sectors, such as Less Favoured Area Grazing Livestock farms, where they made up an average of 21% of total revenue.

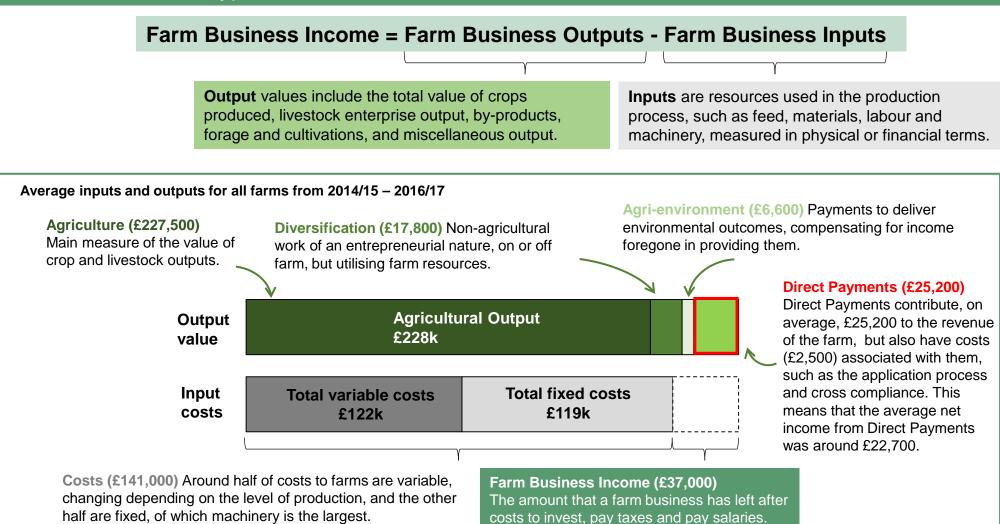
Revenue (Farm Business Output) is the total sales generated by a farm business.

The importance of Direct Payments varies across sectors: Direct Payments made up the largest proportion of revenue for Less Favoured Area Grazing Livestock farms (21%) and Lowland Grazing Livestock farms (15%), Cereals (13%) and Mixed Farms (11%).

Average Farm Business Output and the proportion that comes from Direct Payments by 2016 farm type (based on 3 year matched dataset 2014/15 to 2016/17

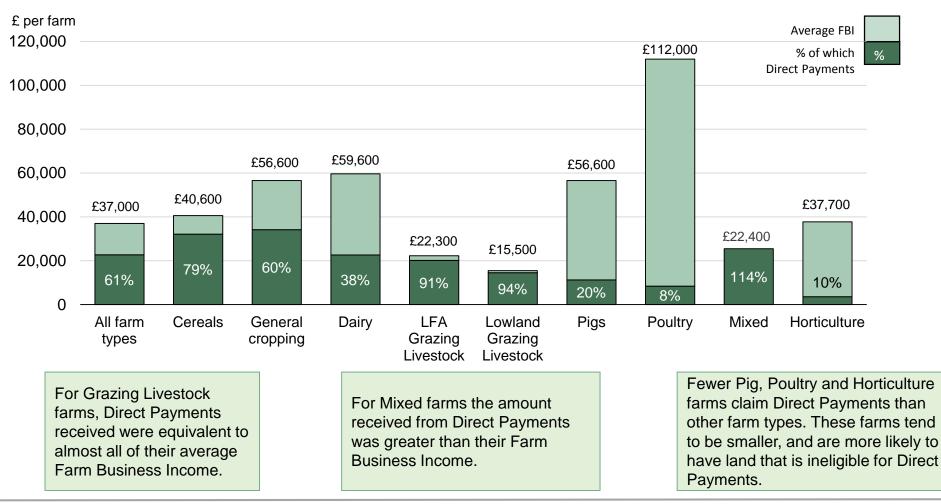


Farm Business Income (FBI) is a measure of net profit, calculated as Farm Business Outputs (revenue) minus Farm Business Inputs (costs). Between 2014/15 to 2016/17 the average profit across all farm types was £37,000.



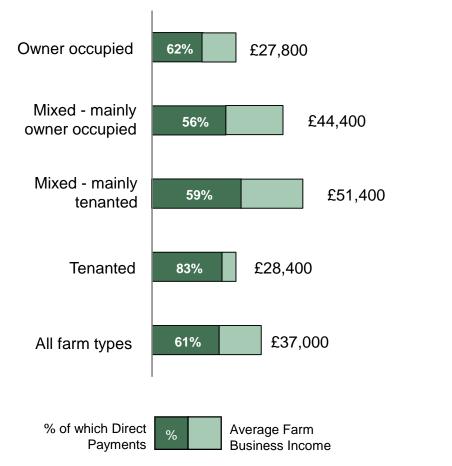
Across all farm types, over the period 2014/15 to 2016/17, Direct Payments were equivalent to 61% of Farm Business Income (profit), but this varies greatly by sector, being most significant for Grazing Livestock and Mixed farms.

Direct Payments as a proportion of the Average Farm Business Income (FBI) by 2016 farm type, based on 3 year matched dataset 2014/15 to 2016/17

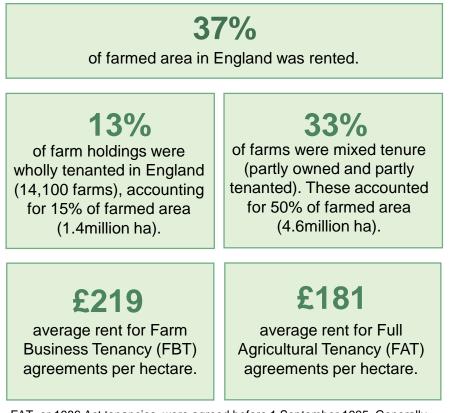


Over the period 2014/15 to 2016/17 Direct Payments were equivalent to 83% of Farm Business Income for tenanted farms, more than all other land ownership groups.

Average Farm Business Income (FBI) and the proportion that comes from Direct Payments by tenancy type, based on 3 year matched dataset 2014/15 to 2016/17



In 2016...

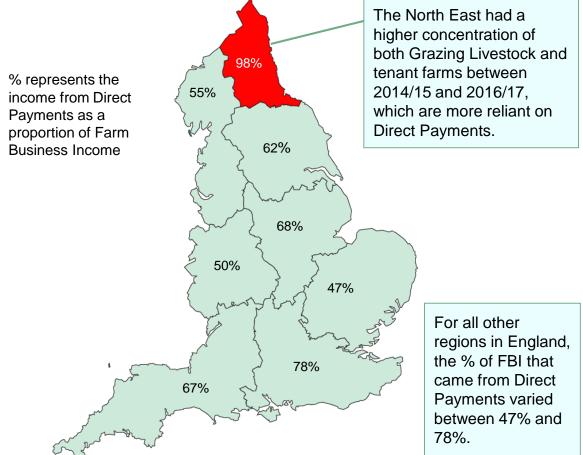


FAT, or 1986 Act tenancies, were agreed before 1 September 1995. Generally, these tenancies have lifetime security of tenure.

FBTs are those agreed since 1 September 1995 under the Agricultural Tenancies Act 1995. These can be formal and informal.

Direct Payments were equivalent to 98% of Farm Business Income in the North East over the period 2014/15 to 2016/17, the highest of any region. This is due to farm characteristics, such as a high prevalence of grazing livestock and tenant farms, rather than the location itself.

Proportion of Farm Business Income (FBI) that comes from Direct Payments, based on 3 year matched dataset 2014/15 to 2016/17



Certain farm characteristics can determine reliance on Direct Payments

Over the period 2014/15 to 2016/17, farms in the North East had Direct Payments equivalent to 98% of Farm Business Income, the highest of any region in England.

However analysis of farm characteristics showed that region was not a statistically significant factor when assessing the reliance on Direct Payments, but tenant farms and Grazing Livestock were found to be more reliant. The North East has a high proportion of Grazing Livestock and tenant farms and it is these characteristics that explain the higher reliance, not the location itself.



Section 4

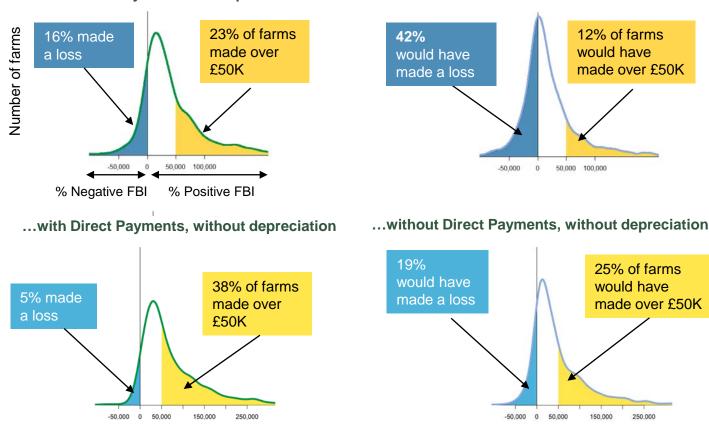
What are the potential impacts of removing Direct Payments without a transition?

...with Direct Payments and depreciation

Over the period 2014/15 to 2016/17, 16% of farms had costs exceeding their revenue including Direct Payments, and without them this rises to 42%. However, costs include the depreciation of assets which in the short term do not need to be paid out. Excluding both Direct Payments and depreciation, only 19% of farms would not have been able to cover production costs.

Distribution of all farms by Farm Business Income (FBI) (2014/15 to 2016/17)

The area under the curve represents the total number of farms and how they are distributed by FBI.



...without Direct Payments, with depreciation

50,000 100,000

25% of farms

made over £50K

250 000

would have

150,000

declines in value of tangible assets, by allocating it a cost over its useful life. It does not alter the day to day cash flow of 12% of farms a business. would have made over £50K

Therefore in the short term, when looking at the impact of instantly removing Direct Payments, depreciation costs can be excluded, and so only 19% of farms would not have been able to cover their production costs.

Long term vs. short term impacts of

Depreciation is used to account for

removing Direct Payments

In the long term farm businesses need to consider their depreciation costs as they will need to replace and maintain machinery and buildings. We therefore consider the necessary adjustments for the 42% of farms that make a loss on their accounts without Direct Payments but with depreciation.

The total depreciation cost of assets for England was £3bn in 2016, greater than the amount farms paid out in wages, rent and interest on loans.

The bottom 10% of farms who would have made the greatest losses received £69 for every £100 spent on inputs over the period 2014/15 to 2016/17. To break even these farms would need to reduce costs by 31% to £69, or increase output as well as reducing costs.

Farm Profitability (profit for every £100 inputs)

Profitability groups are defined by lining up farms in order of profitability from 1-100 (with 1st position being least profitable and 100th position being most profitable) and dividing these up into 10 groups, meaning that 10% of all farms fall within each group.

Unlike farm performance, this measure does not include unpaid labour as a cost. On average across all farms, for every £100 spent, farms received £106 in outputs, making a profit of £6.

Most farms have the potential to be profitable. However, when looking at farm profitability by farm characteristic (such as farm type, economic size, land ownership status and farmer age), some characteristics are more prevalent in the bottom 10% than the top 10%. For example, 65% of farms in the bottom 10% are Grazing Livestock or Mixed farms compared to 36% in the top 10%.

Farm characteristics of the top 10% and bottom 10%



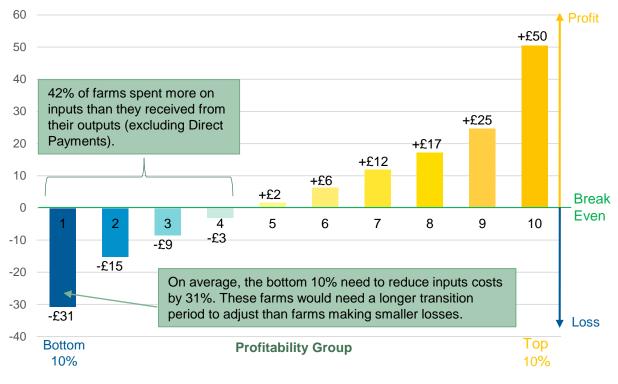


£100 spent

every

Average profit for

Average profit for every £100 spent by profitability group (2014/15 to 2016/17) excluding Direct Payments.



are wholly

tenanted

5%

are aged at

43%

least 65 (farmer)

Loss making Less Favoured Area Grazing Livestock farms have the biggest challenge in reducing costs to break even. Half of these farms require cost reductions of less than 16% and half require cost reductions of more than 16%, based on the period 2014/15 to 2016/17.

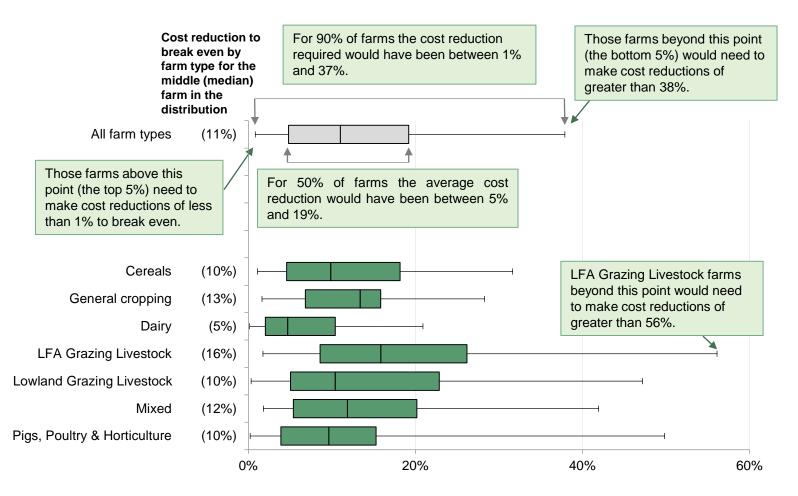
This chart shows the wide range of cost reductions required to break even by those farms that would have made a loss without Direct Payments over the period 2014/15 to 2016/17.

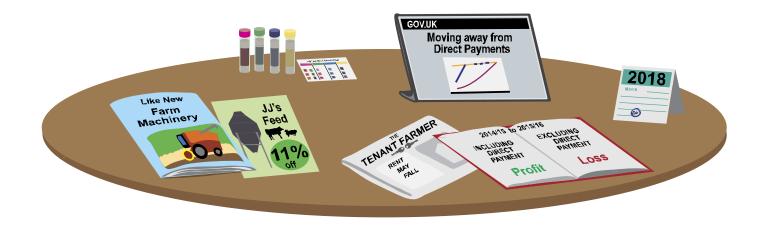
The line within the middle of each box shows the cost reduction required by the middle (median) farm: half of farms require a cost reduction less than this value and half require a greater cost reduction.

The median values are shown in brackets for all farms and for each farm type. Across all farms, half of those effected would require a cost reduction of less than 11% and half above 11%.

Farms can also reduce costs in conjunction with increasing their output.







Section 5

How can farm businesses offset the removal of Direct Payments during the transition period?

Removal of Direct Payments may be offset in a number of ways, including farm efficiency improvements (reducing inputs or improving outputs) and diversification, although this will vary by type and location of farm.



Efficiency Improvements/Reducing Input Costs

There are often large variations in input costs for farms. In some circumstances, they can work together to create a purchasing cooperative for greater buying power.

Cash flow will impact on the ability to do this as some farm businesses may not have the capital to buy in advance. Also transport costs are higher for farms in more remote areas, impacting both on costs of inputs and delivery of their outputs.

Diversification

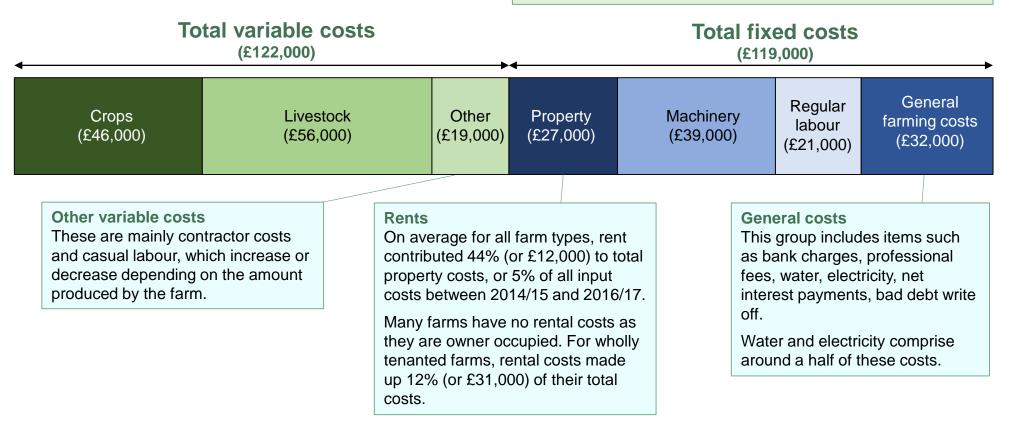
Between 2014/15 to 2016/17, 70% of farms undertook some diversified activity. Around a quarter of all farms made a greater income from diversified enterprises (e.g. such as running an onfarm B&B) than from the rest of their business.

improvements.

The ability to diversify will depend on the characteristics and location of the farm. However, if more farms diversify, for example into tourism, this would increase the supply and thus in turn may lower the return to the farmer.

By reducing costs, less profitable farms can adjust to the removal of Direct Payments. Around half of costs to farms are variable, changing depending on the level of production, and the other half are fixed, of which machinery is the largest.

Variable costs change as the level of output varies. For example if a farmer plants more crops they need to purchase more seed or might need more casual labour for harvesting. Fixed costs are constant in the short term meaning they are the same regardless of how much the farmer produces. In the longer term these can vary, for example, through negotiation of lower rent or purchasing of cheaper machinery.



Crop and livestock inputs represent 84% of variable costs to farms. Costs can be reduced by practices such as improving feed efficiency, selective breeding of animals and/or following a detailed crop nutrient management plan developed with a qualified advisor.

Reducing livestock costs

Feed Efficiency

Animal feed is expensive for farmers, and inefficient conversion to a product for human consumption (meat, eggs and dairy) is costly. The feed conversion ratio (FCR) is the amount of feed required to produce 1kg of live weight. Since 2010, FCR has improved for poultry and pigs, indicating greater feed efficiency and increased productivity in these sectors.

Choosing the most appropriate feeds and ensuring the right balance of protein and nutrients can help farmers reduce costs and optimise production.

Reducing crop costs

Nutrient Management

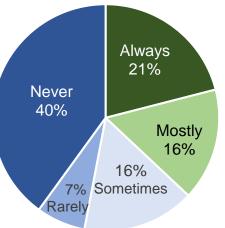
Farmers need to make decisions on input use in advance, without having information on the conditions, future yield, or the price that the product will be sold at. Because of this, farmers may input standardised amounts, or apply excessive amounts to try and secure a better yield.

However, excessive use of inputs reduces profits because the cost of inputting more than is optimal will exceed the revenue gained. Farmers can optimise inputs so every unit of input increases profit made.

Breeding

Selecting traits in livestock can improve productivity and efficiency. Estimates from the Beef Feed Efficiency Programme suggest profits could increase by 39% if feed efficiency was incorporated into breeding programmes.

The estimated breeding value (EBV) measures the genetic worth of an animal for traits like meat production. However, in 2018 nearly half of holdings rarely or never used bulls with high EBV when breeding beef cattle. % holdings using bulls with high EBVs when breeding beef cattle in 2018



Nutrient management practices such changing the timing/application of fertiliser could reduce the amount of fertiliser needed, reducing costs. However, nearly

1/2

of holdings do not have a nutrient management plan. The majority of holdings spread manure, slurry or fertilisers, and limiting the use of nitrogen rich fertilisers to economically efficient levels can save money. However,

1/3

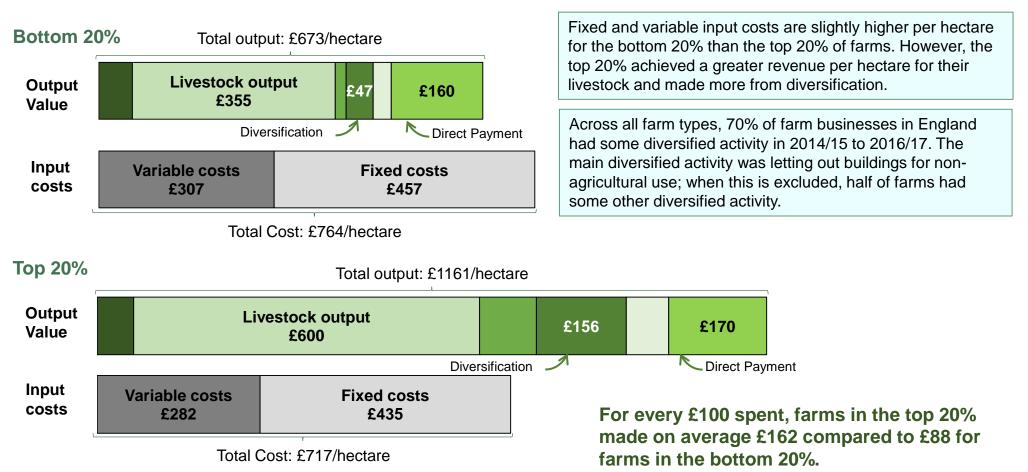
of relevant holdings do not have a manure management plan. Measuring soil fertility allows farmers to determine the type and amount of fertiliser that needs to be applied, minimising unnecessary fertiliser application. However, nearly

1/3

of relevant farms do not test the nutrient content of their soil.

The bottom 20% of Lowland Grazing Livestock farms spent £764 per hectare for £673 of total output whilst the top 20% had slightly lower costs to produce £1161 of output, showing a large productivity difference.

Difference in input costs and output values per hectare for Lowland Grazing Livestock Farms between the top and bottom 20% by profitability.



How do farm business management practices vary between the top and bottom performing farms?

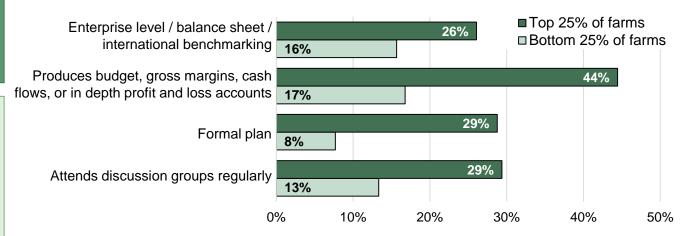
To maximise farm inputs and outputs, it is important to undertake management practices. In 2016/17, only 1/3 farms undertook practices such as producing budgets, gross margins, cash flows or in depth profit and loss accounts. The top 25% of farms were 2.5 times more likely to engage in such management practices compared to the bottom 25%.

Whilst reducing inputs and maximising outputs can help to offset the reduction of subsidies, business management practices can also be used to make improvements.

Farms with higher economic performance are more likely to engage in farm business management practices such as business planning and benchmarking.

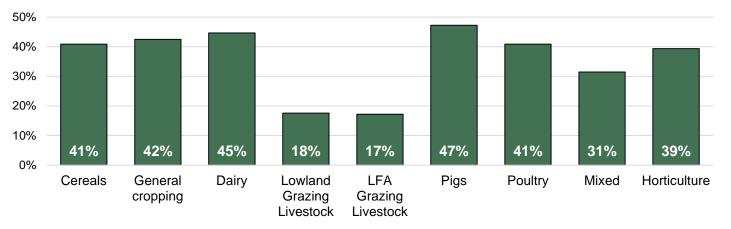
However, even for the most profitable farms, the majority still do not engage in farm management practices, suggesting room for more improvement across the sectors.

Grazing Livestock farms were the least likely to produce budgets and in depth profit and loss accounts. These farms also tended to have the lowest Farm Business Income.



% of farms carrying out various farm management practices by farm economic performance, 2016/17

% of farms that produce budgets, gross margins, cash flows, or in depth profit and loss accounts by farm type



In 2014/15 to 2016/17, half of farms (55%) in the bottom 10% by profitability undertook a diversified activity, compared with three quarters (73%) in the top 10%. Of those farms who had a diversified activity, the bottom 10% made, on average, £26/ha, compared with £161/ha for farms in the top 10%.

What are Diversified activities?

Diversified enterprises are non-agricultural work of an entrepreneurial nature on or off farm, but which utilise farm resources. This includes letting buildings for non-farm use, the processing or retailing of farm produce, sport and recreation, tourist accommodation and generating renewable energy.

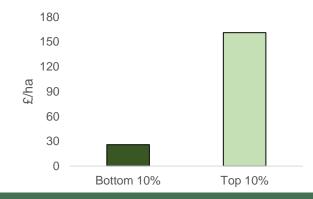
£540m Total income from diversified activities	26% Equivalent contribution of diversified activities to total farm business income
70% Of farms undertook some diversified activity	48% Of farms let out farm buildings for non farm use, generating on average £13,500

Averaged over 2014/15 – 2016/17

For those farms with diversified activities, the income from that activity was the equivalent to almost a third (32%) of profit. For around a quarter (24%) of businesses, the income from diversification was higher than the income from the rest of the farm business.

Diversified activities by farm profitability

A greater proportion of farms in the top 10% by profitability (73%) undertook a diversified activity compared to the bottom 10% (55%) between 2014/15 and 2016/17. Of farms in the top 10% and bottom 10% who did diversify, there was little difference in the type of diversified activity they undertook. However, farms in the bottom 10% made on average £26/ha, compared with £161/ha for farms in the top 10%.



There may be scope for the bottom 10% to improve profitability by undertaking more diversified activity. However, the ability to diversify will depend on the characteristics and location of the farm. Supply and demand may also affect the profitability of the activity. For example, if more farms diversified into tourism this would increase the supply and may in turn lower the return to the farmer. The majority (86%) of the most profitable farms (top 20%) made a positive return on their investment. Almost all farms in the bottom 20% made a loss on their investments. However, differences in what farms are investing in varies by sector and size, rather than by profitability.

In good years, farm businesses will invest, for example in machinery (such as tractors), buildings or land. This investment should help to generate future profit.

Return on Capital Employed (ROCE) is a measure of return on investments. ROCE increases as profitability increases. It is calculated using the following equation:

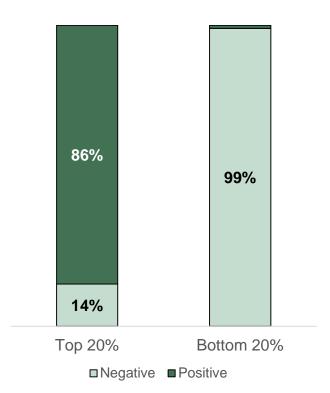
ROCE = <u>Earnings before Interest and Tax</u> Assets (minus land value) excluding Debt

Almost all (99%) of farms in the bottom 20% by profitability had a negative ROCE, indicating that these farms are not achieving an economic return on the capital employed.

Almost all (86%) of those farms in the top 20% by profitability had a positive ROCE.

However, an analysis of machinery investment for 2016/17 suggests that sector, farm size and farmer age were greater determinants of a farms likelihood to buy machinery than farm performance.

Distribution of ROCE minus land value, by profitability decile (excluding Direct Payments and unpaid labour), 2016/17.



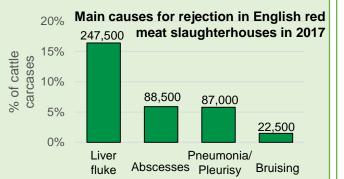
(a) The data used for this chart is only from those farms that had complete returns for their assets and liabilities.

Farms can maximise their outputs by responding to the market. Knowing processor safety requirements and quality specifications can reduce wastage and increase prices achieved.

Safety requirements

Farm businesses can maximise their returns by minimising the loss of saleable products.

Livestock sold for slaughter must be fit for human consumption. Anything that doesn't meet safety requirements will be rejected, resulting in reduced returns and possible non-payments to farmers. Many losses are avoidable through disease management and welfare practices. For example, liver fluke (parasitic worms) can be avoided through vaccination programmes and bruising avoided through taking greater care of animals during transit.



Losses can also be avoided in other sectors. For example, knowing the hygiene requirements of a dairy contract can avoid hygiene deductions, and following protocols to ensure mycotoxin levels are low enough in cereals can ensure standards are met.

Understanding the market

Meeting quality specifications can maximise the price of the product.

Abattoirs require animals that satisfy certain fat and weight specifications to meet consumer demands. However, **49% of prime beef fails to meet target market specifications**. Knowing the market means that cattle of the appropriate breed, weight and specification can be reared to maximise returns.

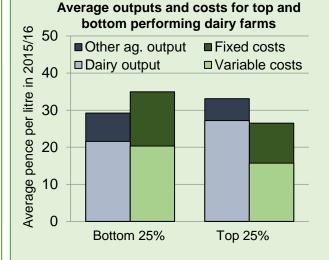
Dairy contracts can have different standards for fat and protein levels, affecting the price by up to 0.75p/litre.

Crop loss at harvest, out-graded material and spoilage in storage accounts for 2-25% of yield. Losses can be avoided by investing in machinery to minimise potato damage, or ventilation systems to improve grain drying.

Greater transparency in the food chain increases information flow, enabling farms to better respond to market signals and increase efficiency. This could be through **vertical integration**, where a farm business becomes involved in the processing, retailing or catering of their produce. Alternatively, seeking feedback from processors can help farms monitor and improve.

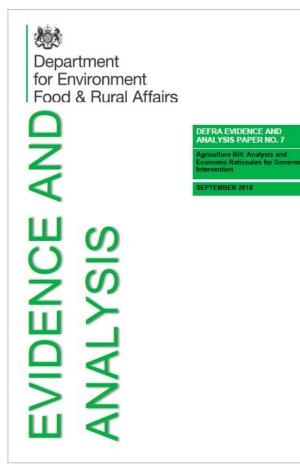
Contracts

Top performing dairy farms have lower input costs and achieve higher milk prices.



Securing more favourable contracts may help maximise prices paid or highlight problematic clauses, to ensure the farmer gets the best deal. 12 month notice periods can also make it difficult to leave a contract. Researching how new or unfamiliar processors treat their farmers before signing contracts can help avoid these situations.

Want to know more?



https://www.gov.uk/government/publications/thefuture-for-food-farming-and-the-environmentpolicy-statement-2018



https://assets.publishing.service.gov.uk/governm ent/uploads/system/uploads/attachment_data/file /683972/future-farming-environmentevidence.pdf