

The Role of Farm Support in Wales' Livestock Supply Chains

Farmers' Union of Wales, November 2023

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Summary

For more than seventy years, agricultural support and associated policies in Wales have, by design, played a key role in supporting affordable food production, farming families and agricultural workers, as well as non-farming businesses that provide a broad range of services to the agricultural industry.

The UK's departure from the EU has led to the loss of the security previously provided through the Common Agricultural Policy budget and its legal objectives, resulting in significant threats to budgets and changes to the objectives of Welsh rural policies.

Over the coming years, the Welsh Government has committed to phase out the Basic Payment Scheme that has provided direct support to Welsh farmers since 2015, and replacing it with the Sustainable Farming Scheme, the objectives of which differ significantly to those previously in place.

Considerable uncertainty exists in terms of both the budget likely to be allocated to Wales by the UK Treasury to replace EU CAP funding, and what funding the Welsh Government and Senedd will in turn allocate to support farming.

Significant cuts to Wales' agriculture and rural affairs budget have already been made by the UK Government, in spite of commitments to maintain funding at pre-Brexit levels, and some politicians have openly advocated making far more stringent cuts.

The loss of funding for Welsh farms and significant policy changes that undermine the role that farm payments play in sustaining farm businesses will also have significant impacts on the non-farming businesses that provide a range of services to farms, and may significantly undermine Welsh food production.

However, assessing and quantifying the impact of such changes represents a major challenge, due to the complex nature of agricultural supply chains, the broad range of Welsh farm types and the diverse ways in which individual farm businesses may react to changes.

Nevertheless, the FUW has long emphasised the importance of assessing possible impacts of proposals and changes, such that economic, environmental, social and cultural dangers are recognised and inform policy developments and decisions.

Given the relative lack of such work to date, the FUW has used Welsh Farm Business Survey figures for the financial years ending 2018 to 2022 to assess the role of direct farm support in terms of livestock farm profits and expenditure on inputs.

This has been undertaken by considering how farms making no other changes to their farming practices, levels of production etc. would maintain farm profits at average levels through ether (1) increasing the profit received for livestock from the market, (2) increasing the profit received per hectare of land farmed or (3) reducing expenditure on inputs.

For the scenario where direct support is reduced by 50%, a required increased profit per ewe of between £18.09 (hill cattle and sheep farms) and £24.06 (lowland cattle and sheep farms) coupled with an increased profit per cow of between £120.63 (hill cattle and sheep farms) and £160.39 (lowland cattle and sheep farms) is required to maintain overall farm profits.

This equates to increases in profit per lamb of between £14.81 (hill cattle and sheep farms) and £18.03 (hill sheep farms), coupled with an increased profit per calf in the range £139.62 (hill cattle and sheep farms) to £178.21 (lowland cattle and sheep farms).

These figures are doubled for the scenario whereby direct support is removed altogether.

It is estimated, based on broad assumptions, that increases in market prices of between 35% and 43% for lamb and between 26% and 33% for finished cattle would be required to maintain farm profitability for the scenario whereby BPS payments are cut by 100%, highlighting the indirect role played by direct support in terms of maintaining domestic food production and affordable prices. However, it must be noted that these figures are illustrative only.

As expected, the increases in profit per hectare required to maintain farm profit for all farm types broadly reflect the current area-based direct support system adopted in Wales, with figures highest for upland and lowland cattle and beef farms - reflecting the generally smaller size and therefore larger contribution of redistributive payments for such farms.

The figures highlight the challenges of increasing profitability per hectare given reductions in support payments, and while some have rightly highlighted the role that investments in technology, equipment and infrastructure can play in improving profit per hectare, it is difficult to envisage scenarios whereby such investments increase profits per hectare by hundreds of pounds, as would be required to make up for the loss of part or all of the BPS or similar direct support.

In terms of farms coping with cuts to direct support by reducing expenditure, annual reductions for different categories ranging from £113 (*upland cattle and sheep* expenditure on *other contracting/ machinery hire* where BPS payments are cut by 50%) to £6,708 (*hill sheep expenditure* on *feeds* where BPS payments are cut by 100%) are calculated, emphasising a significant impact on non-farming businesses.

The areas of expenditure likely to come under the most scrutiny in terms of assessing where cuts *might* be made are found to be *feeds*, *general costs*, *fuel and repairs*, *other livestock costs*, *tack and grasskeep*, *fertiliser*, *veterinary and medicine costs* and *allocatable contracting*.

Significant cuts would inevitably have severe impacts for farm infrastructure, productivity, animal health and welfare etc. However, different farms and sectors would choose to make cuts in different areas depending upon circumstances, and while efficiencies might be found in all categories, costs in some would be deemed more expendable than others, and therefore be more vulnerable to cuts over and above the figures presented here.

The reductions in expenditure calculated highlight the impacts for the wider Welsh economy, and in particular the rural economy, and the potential impacts on businesses such as veterinary practices, agricultural merchants, garages etc. - with clear consequences for rural employment. Such impacts would also extend to those businesses that are not necessarily regarded as agricultural, but which rely directly or indirectly on farms for a proportion of their income.

In terms of illustrating such wider impacts across the whole of Wales, individual farm figures have been scaled up to calculate possible total reductions in expenditure on different types of inputs across Wales.

Possible reductions for the scenario where direct payments are reduced to zero include £38.87 million on feeds, £12.15 million on veterinary treatments and medicines, £9.83 million on paid labour, £10.56 million on contracting and £26.34 million on fuel and repairs.

However, such figures are calculated by reducing expenditure in each category by a fixed percentage, and it is highly unlikely that all reductions would in reality be reduced by the same proportion; rather, farms would decide to focus cuts in some areas more than others based upon business decisions.

Nevertheless, it is clear that such cuts would have a major knock on effect on many Welsh non-farming businesses, with some sectors potentially losing tens of millions in income, with inevitable impacts for business viability, employment etc.

The work represents a necessarily simplistic analysis of the impacts of cuts to the BPS or equivalent funding to Welsh agriculture, and the results are therefore not a precise prediction of what would happen in the event of such cuts; rather, they illustrate and attempt to quantify the role of direct support in livestock supply chains and various pressures that such cuts would bring for farms and other businesses, and ultimately the wider Welsh population.

It is also notable that a significant proportion of expenditure in the wider economy by the circa 6,000 farms not included in the FBS population is also derived from BPS payments - expenditure amounting to tens of millions which is not accounted for in this analysis.

In reality, the ways in which farms, farm types and sectors would react to the loss of part or all of the funding that, on average, makes up a vast proportion of livestock farm profits would vary significantly.

These conclusions tally with those reached in Gloucester University's 2022 Report Assessing the impact of Agricultural Transition in Cornwall & the Isles of Scilly, Devon, Dorset and Somerset: Research to inform future planning.

Background

Legislative changes to the objectives of agricultural support

The vote to leave the European Union in June 2016 and the UK's departure from the EU proper at the end of January 2020 meant that, for the first time in almost half a century, UK governments were free to formulate and ultimately implement agricultural policies outside the framework of the Common Agricultural Policy (CAP).

The CAP was required under EU legislation to "...ensure a fair standard of living for the agricultural community...stabilise markets...assure the availability of supplies... [and] ensure that supplies reach consumers at reasonable prices", replacing equivalent objectives under the 1947 Agriculture Act of "...producing such part of the nation's food and other agricultural produce as in the national interest it is desirable to produce in the United Kingdom, and of producing it at minimum prices consistently with proper remuneration and living conditions for farmers and workers in agriculture..."

Equivalent objectives relating to the provision of fair incomes and adequate food supplies at affordable prices are absent or largely absent in the UK Agriculture Act passed in 2020 and the Agriculture (Wales) Bill (expected to receive Royal Assent in August 2023) - legislation which effectively replaces the EU CAP framework in England and Wales respectively.

A turning point for agricultural policies

Agricultural policies are now at a major turning point, as new schemes designed within the frameworks of the UK Agriculture Act and Agriculture (Wales) Bill are implemented or imminent - with England already having implemented cuts to CAP payments that will mean an average reduction of 35% in direct support for English farms in 2023.

In Wales, despite proposals having originally been similar to those in England, policy objectives and timetables have changed significantly, and the Sustainable Farming Scheme (SFS) is now proposed to be introduced from 2025 onwards over a five year period while Basic Payments are phased out.

While the UK Agriculture Act and Agriculture (Wales) Bill are similar, particularly in terms of their focus on environmental outcomes, as already stated they are anything but robust in terms of protecting farm incomes and food supplies compared with the legislative framework that continues to operate in the EU.

Agricultural and rural development budgets

While under EU Regulations, the UK was allocated fixed annual CAP budgets every seven years under the EU's Multiannual Financial Framework

The UK's total CAP funding allocation from the EU was split into two budgets: Direct [farm] Support (Pillar 1) and Rural Development (Pillar 2 - European Agricultural Fund for Rural Development or EAFRD).

Rural Development funding could be increased through a 'pillar transfer' of up to 15% of the Direct Support budget to Pillar 2, while regions or Member States were also required to provide domestic co-funding to augment Rural Development funds.

Both Direct Support and Rural Development spending were governed by strict rules and thresholds, such that the Direct Support budget (after any pillar transfer) had to be paid in its entirety directly to farmers meeting certain eligibility criteria (through the Basic Payment Scheme (BPS) and related direct payments), and Rural Development funds had to be spent in strict accordance with an approved Rural Development Programme that met EU objectives - with administration costs for both schemes (notwithstanding certain limited allowances) having to be covered by domestic funds.

Wales was allocated budgets for the duration of the 2014-2020 CAP of €2.25 billion in Direct Support and €365 in Rural Development.

The Welsh Government chose to implement a pillar transfer at the maximum rate of 15%, meaning ultimately that circa 73% of the total CAP budget received from the EU (a minimum of 85% of the Pillar 1 budget) had to be paid directly to Welsh farmers through the Basic Payment and related schemes, in order to "...offer a basic layer of income support to farmers, to be topped-up by other direct payments targeting specific issues or specific types of beneficiaries..."

This equated to an average annual receipt of CAP funding from the EU of circa £332 million, based on an exchange rate of £0.89/€, which, combined with annual domestic Welsh co-funding at around £41 million, brought the total Welsh CAP budget to some £373 million a year, circa £240 million of which had to be provided as direct support for farmers, and £130 million of which had to be spent on rural development.

Receipts of funding from the EU's Pillar 1 and EAFRD budget came to an end following the UK's departure from the EU proper at the end of January 2020, meaning Welsh agriculture and rural development lost the stability afforded by the EU's seven year Multiannual Financial Framework, and became dependent upon replacement funding from the UK Treasury that could effectively be allocated annually.

The replacement of EU Regulations with domestic (Welsh and UK) legislation also brings with it the loss of the ring-fencing of budgets and strict spending rules and thresholds that ensured the majority of funding was paid directly to active farmers, and that rural

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¹ https://agriculture.ec.europa.eu/system/files/2018-10/basic-payment-scheme_en_0.pdf

development funds were allocated subject to strict objectives within Wales' Rural Development Programme.

As such, not only has Brexit led to the loss of the intermediate term stability provided by the EU's seven year Multiannual Financial Framework, and the risk that agricultural and rural development funding might be cut at relatively short notice by the UK Treasury; what funding is available is no longer ring-fenced for direct support for farmers and specific rural development objectives, nor regulated by strict spending criteria, meaning national Governments are in effect at liberty to reduce support and reallocate funding away from rural communities without regard for the social principles which were previously, from 1947 on, upheld through UK and EU legislation.

The former concerns were realised from late 2019 onwards: On 30th December 2019, the UK Government announced £243 million would be made available for Welsh Direct payments in 2020 - a figure which took no account of the circa £42 million usually transferred annually to the Pillar 2 budget through the 15% pillar transfer.

On 25th November 2020, despite an assurance in the 2019 Conservative manifesto that "...we will guarantee the current annual [Common Agricultural Policy (CAP)] budget to farmers in every year of the next Parliament", the UK Government announced that Wales' 2021-2022 financial year allocation for agriculture and rural development would be £242 million - some £90 million less than the average annual EU CAP allocation for the period 2014-2020.

On 27th October 2021, the UK Government announced that Wales would receive an average of £300 million a year for agriculture and rural development over the next three financial years, some £32 million less than the average annual EU CAP allocation for the period 2014-2020.

As such, by 2025, Wales will have received around £222 million less in funding for agriculture and rural development than could have been expected had the UK remained within the EU.

Such a reduction, despite repeated assurances that Brexit would not lead to funding cuts, is a significant concern for farmers, and suggests an aggressive appetite within the UK Government for reducing rural funding.

However, such a fall in Wales' funding allocation may not come as a surprise for those familiar with the cuts and policy changes advocated in EU negotiations by successive UK Governments since the beginning of the century, and it is noteworthy that the UK Government in particular is effectively now actively pursuing policies proposed under Tony Blair's Government in the 2005 publication *A vision for the Common Agricultural Policy* - which advocated the alignment of import tariffs for all agricultural sectors with other sectors of the economy; the abolition of production subsidies and direct income support; and taxpayer support only for producing societal benefits that the market cannot deliver ('public goods').

Following publication of the 2005 proposals, the UK Food and Agricultural Policy Research Institute (FAPRI) was commissioned by the Welsh Assembly Government and other administrations to model the impact of these key reform proposals on agriculture in Wales and the other devolved regions. The results, published in July 2009, revealed significant adverse impacts for Welsh agriculture and rural communities.

Analysis and modelling of proposed policies

When proposed post-Brexit policies in both England and Wales were consulted upon in 2018, the Farmers' Union of Wales responded making it clear that the impact on food production and security, farming families and rural businesses should be thoroughly investigated.

Specifically, the FUW responded to Defra's February 2018 Health and Harmony: the future for food, farming and the environment in a Green Brexit consultation stating that "...little more than lip-service has been paid to the wellbeing of individuals, farming families, rural businesses and the rural and wider economy, as well as others involved in agricultural and food supply chains...we oppose any intermediate or long term plans to reduce direct payments in the absence of the introduction of properly investigated policies which will mitigate the otherwise severe consequences of abandoning direct support for family farms and rural businesses...[farm support systems are needed] which provide protection for farming families, secondary and tertiary businesses which are wholly or partially reliant on agriculture, and rural economies..."

Similarly, the FUW responded to the Welsh Government's July 2018 Brexit and our Land: Securing the future of Welsh farming consultation stating that "...any such major changes to rural policies should be informed by... detailed and thorough analysis, modelling and piloting to investigate likely impacts of policies on individual farm businesses, sectors, regions and those involved in upstream and downstream agricultural supply chains."

Modelling in England

Despite England having already started to cut direct support for farmers and implement elements of its Environmental Land Management (ELM) scheme, their investigations of the impacts of these major changes prior to implementation were cursory at most, despite having assured the National Audit Office in 2021 that they would be "...undertaking further analysis to support the business case for the Future Farming and Countryside Programme" and would "...incorporate forecasts of the impact of other factors in addition to the phasing out of direct payments, including profits from new agri-environment and productivity schemes, potential rent reductions and the least productive farm businesses leaving the sector."

Assessing the impact of the English policy in the Great South West region

While Defra has not conducted any significant assessment of the impacts of the policies it is already implementing, an independent study concluding in a 2022 report entitled *Assessing the impact of Agricultural Transition in Cornwall & the Isles of Scilly, Devon, Dorset and Somerset: Research to inform future planning*², has been conducted by Gloucester University's Countryside and Community Research Institute (CCRI), with the results, published in May 2022, marking the first ever quantitative assessment of the impact of Defra's plans for English agriculture.

The conclusions of the report are particularly pertinent to Wales, as before the English transition started in 2021, the direct farm payment budget in the Great South West (GSW) (the region studied) region (£242 million) was close to the equivalent budget in Wales (£238 million); the farm structures and types of agriculture carried out in Wales and in the GSW region are similar; the number of farms in the GSW region claiming the BPS are both close to 17,000; and average farm sizes in the GSW region are comparable to those in Wales.

Key facts highlighted in the report were that:

- The removal of the BPS over the English transition period would equate to a loss of £883.7 million by the end of 2027;
- Current Agri-environmental Scheme (AES) agreements will bring in just under £70 million in 2022 and this is rising;
- About 40% of farm businesses in the area have an agri-environmental scheme agreement, worth about £10,000 per farm a year;
- Under the then Sustainable Farming Initiative (SFI) proposals, a best guess suggests about £33 million, or 14% of the annual BPS total, could be paid to farmers in the GSW region;
- A very rough estimate across all eligible SFI standards suggests about £100 million could be claimed by farms in the area each year by the time the English BPS ends in 2027;
- To surpass existing AES amounts, the Local Nature Recovery (LNR) scheme (the successor to the Countryside Stewardship scheme in England) would need to both attract more farm businesses and secure activities that exceed existing agri-environmental scheme agreement levels;

The summary of key points from official stats analysis highlights the following about farms in the GSW region:

- Farms in the GSW region are an average of 63 hectares in size, smaller than the English average by about 20ha (the average size in Wales is around 50 hectares)
- Farm businesses across the GSW area are more likely to be livestock orientated and be based around family workers
- Small livestock farms have higher labour costs, smaller revenue and are more reliant on support payments, meaning BPS reductions will hit hard and early in the transition

² https://heartofswlep.co.uk/wp-content/uploads/2022/05/GSW-agricultural-tranistion-report.pdf

- The presence of family labour might make them more resilient but the livestock sector is also the least likely to seek out business advice and guidance
- The role of the dairy sector has declined in terms of the number of holdings by 50% but number of dairy livestock and levels of production have remained the same, pointing towards an intensification of the sector
- The proportion of permanent grassland has remained the same over the same period indicating little landscape change in the past 15 years

The report found that "It's easy to assume that withdrawing farming support will only impact unprofitable businesses. When a farm business ceases to trade, more than the business is lost as there is a wider impact, like the ripples in the water when a stone hits, across the rural economy.

"Farming in the GSW is very much embedded in the wider regional economy, from the agricultural supply sector, business support on diversification, the ancillary industry, food produce supply chains and the tourism sector. The many potential knock-on effects for the rural fabric are hard to model, not least as discussions will vary from one business to the next.

"The Food and Drink Federation have over 1,100 members, employing almost 30,000 people and calculate that the sector is worth over £2 billion to the SW economy in 2019 (FDA 2019).

"The link between farming and the food and drink sector is not direct but it is estimated that 61% of food produced in the UK is consumed in the UK (SWRPC 2017b)

"The revenue coming into farming is at least partly spent in the rural economy, assuming that 25-50% of the £883M is spent on the businesses supporting the farming sector this is a hit of between £220-440M in the next 5 years for feed merchants, machinery retailers, contractors, vets, solicitors and many others. This too will reduce their own spending power in the rural economy and so the impact of the agricultural transition goes on."

Modelling in Wales

Agriculture (Wales) Bill Regulatory Impact Assessment

In sharp contrast to the position in England, the Welsh Government has committed "...to undertaking an economic analysis of the proposed SFS. This analysis will consider different options for scheme delivery in terms of value for money and the upstream and downstream economic impacts of final proposals", and in the September 2022 Agriculture (Wales) Bill Explanatory Memorandum³ included the outcome of modelling of three scenarios undertaken using its Integrated Modelling Platform.

Those scenarios were:

Option 1: Withdrawal of farm support

Option 2: Legislate to maintain the status quo (Basic Payment Scheme and other

land-based schemes)

Option 3: Legislate to introduce support consistent with the Welsh Government's

Sustainable Land Management objectives

The modelling estimated that the "withdrawal of [all] support...shows a substantial decrease of 30% of aggregate Farm Business Income (FBI) over the longer term. Specialist sheep farms are particularly affected with an 83% reduction in aggregate FBI," and highlights that "The [Welsh] BPS contributes public expenditure of around £238m to Welsh agriculture on an annual basis. Data from the Farm Business Survey (FBS) suggests that...around half of the farms making a profit of at least £10 per £100 costs," but that this figure would fall to "around 15%" with no public support, and that the circa 33% of farms currently making a loss would increase to around 75% with no public support..."the BPS contributes to the financial resilience of a farm business. Under this policy option this contribution would no longer continue."

The Explanatory Memorandum goes on to state that "The policy option of removing BPS would represent a major shift in policy and is likely to generate farm type transitions over the longer term. These transitions are likely to have significant additional impacts on the range of environmental outcomes, as well as likely negative social effects on farming and farming communities, due to the impact on farming income...A 2014 study from Scotland notes that...economic and social resilience are not separate components of resilience but are complementary. Strengthening economic resilience enables increases in social resilience...if economic resilience declines, social resilience is also likely to decline."

However, it concludes that maintaining the status quo will not address the current vulnerability of many Welsh farms, and nor is it likely to realise statutory targets such as those relating to carbon and emissions.

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³ https://senedd.wales/media/mbcn2e21/pri-ld15330-em-e.pdf

As such (and as might be expected, given it is a key objective of the Welsh Government's Agriculture (Wales) Bill) it concludes that Option 3 - "supporting farmers to produce food in a sustainable manner alongside supporting farmers to take actions which respond to the climate and nature emergencies will support both the agricultural sector and help the Welsh Government meet its statutory commitments."

However, given that the details of the Welsh SFS which will operate under an Agriculture (Wales) Act are still being finalised, accurate modelling of the impacts of Option 3 is difficult or impossible, with outcomes depending largely on scheme design, even where it is assumed that the current available budget is fixed.

As such, no analysis of the economic impacts of the SFS for Welsh farms or the wider rural economy has been undertaken, and the conclusions presented in the Agriculture (Wales) Bill Explanatory Memorandum are to a large extent speculative, and their accuracy will depend upon the final scheme design, payment rates and the budget made available for the scheme - as well as external factors beyond the control of the Welsh Government.

Moreover, significant uncertainty exists in terms of the future budget allocations for agricultural and rural affairs that will be made available to Wales by the UK Treasury, and the proportion of the Welsh budget that the Welsh Government and Senedd may allocate to fund the SFS, given the loss of protections previously in place and that there are no longer any domestic co-funding requirements.

Modelling the impacts of significant falls in direct farm support in Wales

While it might have been hoped that agricultural and rural development budgets would be maintained, in line with assurances given by those campaigning to leave the EU, as already highlighted, Wales' CAP replacement funding has already been cut significantly, while in October 2023 the Welsh Government announced a £37 million cut to the 2023-24 Rural Affairs budget.

By considering how further, more extreme changes might be coped with by farmers and the food and agricultural supply chains which rely on them it is possible to gain insights into the full range of impacts significant cuts may have.

Moreover, as already indicated, the FUW has long argued that such work should be undertaken such that policy changes and changes to funding are informed by detailed analyses rather than mere statements reflecting outcomes that policy makers might hope for or claim to be likely.

As indicated and reflected in the Welsh Government's Agriculture (Wales) Bill Regulatory Impact Assessment, modelling the full range of factors that can influence farm business behaviour is impossible, given the diverse influences that farms are subject to and how different farms might respond by changing their business structures.

Nevertheless, considering simplistic analyses based on the most recent data relating to direct support, farm incomes and expenditure can provide important insights not only in terms of the challenges farm businesses may face in different scenarios, but also how changes might influence the food prices necessary to maintain profits and how non-farming businesses involved in agricultural supply chains might be affected.

Fixing certain variables while analysing the impacts of changing key values is a standard and necessary approach to modelling such complex systems in order to glean possible insights and outcomes, and provides an important baseline and insights for further analyses of proposed changes.

To this end, the FUW has used recent Welsh Farm Business Survey data for Wales' most vulnerable farm types to consider scenarios whereby direct farm support (through the Basic Payment) or equivalent support is cut, and farm expenditure and receipts from the marketplace are adjusted in order to maintain farm incomes while no other business changes occur.

The vulnerable farm types considered in this analysis, which are defined by the Welsh Farm Business Survey, are:

- Hill cattle and sheep
- Hill sheep

- Upland cattle and sheep
- Lowland cattle and sheep

A selection of average input and output costs and farm profit for these farm types over the five financial years 2017-18 to 2021-2022 is shown in *Table 1*

	Average over five years up to and including 2021-22						
	Hill cattle and sheep	Hill sheep	Upland cattle and sheep	Lowland cattle and sheep			
<u>OUTPUTS</u>							
BPS	£26,388	£33,356	£17,723	£17,884			
Sheep outputs	£44,600	£63,132	£33,888	£28,598			
Beef outputs	£40,019	£11,446	£37,896	£49,372			
Crops and forage outputs	£2,582	£1,627	£7,141	£15,541			
<u>INPUTS</u>							
Feeds	£19,279	£14,875	£13,395	£12,415			
Tack and grasskeep	£4,240	£7,882	£3,022	£3,050			
Vet and meds	£5,283	£5,229	£3,979	£3,246			
Other livestock costs	£8,479	£6,495	£6,813	£7,451			
Fertiliser	£6,456	£5,141	£6,766	£6,713			
Other crop costs	£2,034	£1,446	£2,296	£4,347			
Allocatable contracting	£4,330	£3,696	£4,586	£4,847			
Paid labour	£3,844	£4,118	£3,445	£3,507			
Other contracting/machinery hire	£946	£651	£873	£1,220			
Fuel and repairs	£11,675	£10,094	£9,501	£10,245			
General costs	£11,174	£10,394	£9,463	£10,550			
Land expenses	£4,788	£3,943	£4,121	£4,428			
PROFIT AFTER RENT AND FINANCE	£23,388	£33,269	£19,905	£25,618			
UNPAID LABOUR	£7,443	£4,963	£4,432	£4,929			

Table 1: Average inputs, outputs, profit after rent and finance and unpaid labour costs for livestock farm categories for the financial years ending 2018 to 2022

Methodology

In order to assess possible impacts on costs and prices for the farm types listed above, we have considered two scenarios, whereby BPS payments are:

- A. Reduced by 50%, and
- B. Removed altogether

We have then calculated how, where farms make no other changes to their farming practices, levels of production etc., farm profits for each farm type might be maintained at average levels through:

- 1. Increases in profit received for livestock from the market
- 2. Increases in profit received per hectare of land farmed or
- 3. Reductions in selected input costs

Model 1: Increases in profit received for livestock

In order to assign increases in profit received for livestock required to maintain farm profit in light of cuts to support, values were assigned to different categories of animals relative to the average number of livestock units (LSUs) associated with each type of breeding animal (cattle and sheep), based upon the standard figures of 0.15 LSU/ewe and 1 LSU/cow. Figures for average stock numbers and associated LSUs for each farm type considered, as well as other data, are provided in *Table 2*.

	Average over five years to and including 2021-22							
	Hill cattle and sheep	Hill sheep	Upland cattle and sheep	Lowland cattle and sheep				
No breeding sheep	591.40	926.20	372.20	288.60				
No ewes (excluding ewe lambs)	463.84	726.43	291.92	226.35				
Ewe LSUs (at 0.15 per ewe)	69.58	108.96	43.79	33.95				
No lambs	566.82	825.23	395.85	312.82				
No sucklers	39.80	13.20	27.40	21.80				
Suckler cows LSUs (at 1 per cow)	39.80	13.20	27.40	21.80				
No calves	34.39	11.38	24.11	19.62				
Actual hectares	159.82	194.22	105.76	101.33				

Table 2: Average livestock numbers for livestock farm categories for the financial years ending 2018 to 2022. Note that the number of ewes is calculated based upon the fact that FBS breeding sheep numbers include rams, ewes and ewe lamb replacements, with replacement rates of 20% and a ram to ewe ratio of 1:50

Model 2: Increases in profit received per hectare of land farmed

Increases in profit received per hectare of land farmed required to maintain farm incomes in the event of cuts to support were based on FBS figures for *actual hectares*, as opposed to *effective hectares* (which are also recorded for the purposes of the survey).

Figures for actual hectarages associated with each farm type considered are provided in *Table 2*.

Model 3: Reductions in selected input costs

In order to simplify the model, the input categories selected for the purpose of the model were those provided in *Table 1*, and therefore exclude input categories associated with building and machinery depreciation, which are also included in FBS figures.

For the purposes of calculating the reductions in selected input costs required to maintain farm profits for each selected farm type (in the absence of other changes, such as increases in the value of livestock sales), reductions were considered that were proportionate to the expenditure for each input category; for example, where a reduction of x% of the sum of the selected inputs costs was required in order to maintain farm proffit, expenditure in *each* category was reduced by x%.

Results

The changes required to maintain average farm incomes for the farm types considered in the scenarios described above are presented in *Tables 3, 4* and *5*.

Model 1: Increases in profit received for livestock required to maintain farm income		Hill cattle and sheep	Hill sheep	Upland cattle and sheep	Lowland cattle and sheep	
	Increase in required profit	Increase per ewe	£18.09	£20.48	£18.67	£24.06
50% reduction in BPS	per head of ewes/sucklers proportionate to LSUs	Increase per suckler cow	£120.63	£136.52	£124.48	£160.39
	Increase in required profit per offspring proportionate to LSUs	Increase per lamb	£14.81	£18.03	£13.77	£17.41
		Increase per calf	£139.62	£158.37	£141.45	£178.21
	Increase in required profit	Increase per ewe	£36.19	£40.96	£37.34	£48.12
100% reduction in BPS	per head of ewes/sucklers proportionate to LSUs	Increase per suckler cow	£241.26	£273.04	£248.95	£320.78
red pe pro	required profit	Increase per lamb	£29.61	£36.05	£27.54	£34.82
	per offspring proportionate to LSUs	Increase per calf	£279.23	£316.75	£282.90	£356.42

Table 3: Increases in the profit per head for different categories of livestock required to maintain farm income in the absence of other changes, if BPS payments are reduced by 50% and 100%

Model 2: Increases in profit received per hectare required to maintain farm income	Hill cattle and sheep	Hill sheep	Upland cattle and sheep	Lowland cattle and sheep
50% reduction in BPS	£82.55	£85.87	£83.78	£88.25
100% reduction in BPS	£165.11	£171.74	£167.57	£176.49

Table 4: Increases in profit received per hectare required to maintain farm income in the absence of other changes if BPS payments are reduced by 50% and 100%

Model 3: Reductions in input costs required to maintain farm income		Hill cattle and sheep	Hill sheep	Upland cattle and sheep	Lowland cattle and sheep
	Feeds	£3,082.18	£3,354.08	£1,738.87	£1,541.45
	Tack and grasskeep	£677.80	£1,777.40	£392.27	£378.67
	Vet and meds	£844.54	£1,179.00	£516.56	£403.03
	Other livestock costs	£1,355.56	£1,464.60	£884.43	£925.15
	Fertiliser	£1,032.14	£1,159.20	£878.38	£833.54
50% reduction	Other crop costs	£325.24	£325.97	£298.11	£539.78
in BPS	Allocatable contracting	£692.18	£833.46	£595.36	£601.83
	Paid labour	£614.58	£928.52	£447.26	£435.48
	Other contracting/machinery hire	£151.27	£146.75	£113.38	£151.50
	Fuel and repairs	£1,866.58	£2,276.05	£1,233.32	£1,271.98
	General costs	£1,786.42	£2,343.70	£1,228.38	£1,309.94
	Land expenses	£765.50	£889.06	£534.99	£549.76
	Feeds	£6,164.37	£6,708.15	£3,477.73	£3,082.91
	Tack and grasskeep	£1,355.59	£3,554.81	£784.55	£757.33
	Vet and meds	£1,689.09	£2,358.00	£1,033.12	£806.05
	Other livestock costs	£2,711.12	£2,929.21	£1,768.85	£1,850.29
	Fertiliser	£2,064.28	£2,318.40	£1,756.75	£1,667.08
100% reduction	Other crop costs	£650.49	£651.94	£596.21	£1,079.55
in BPS	Allocatable contracting	£1,384.37	£1,666.91	£1,190.71	£1,203.66
	Paid labour	£1,229.16	£1,857.05	£894.53	£870.96
	Other contracting/machinery hire	£302.54	£293.50	£226.76	£303.00
	Fuel and repairs	£3,733.15	£4,552.11	£2,466.63	£2,543.95
	General costs	£3,572.83	£4,687.40	£2,456.77	£2,619.89
	Land expenses	£1,531.00	£1,778.13	£1,069.98	£1,099.52

Table 5: Reductions in input costs (proportionate to average input costs for the financial years ending 2017 to 2022) required across all selected categories required to maintain farm incomes if BPS payments are reduced by 50% and 100%

Discussion

Model 1: Increases in profit received for livestock required to maintain farm income

As expected, in the absence of other changes to farm businesses, the increases in profit received for livestock enterprises required to maintain farm incomes, where BPS payments are reduced by 50% and 100%, are significant for all farm categories considered.

For the scenario where the BPS is reduced by 50%, these range from a required increased profit per ewe of between £18.09 (hill cattle and sheep) and £24.06 (lowland cattle and sheep) coupled with an increased profit per cow of between £120.63 (hill cattle and sheep) and £160.39 (lowland cattle and sheep).

The increases in profit per lamb required under such a scenario is between £14.81 (hill cattle and sheep) and £18.03 (hill sheep), coupled with an increased profit per calf in the range £139.62 (hill cattle and sheep) to £178.21 (lowland cattle and sheep).

For the scenario whereby BPS payments are removed completely, these figures are doubled.

Translating such figures into required increases in the sale values of livestock is difficult, given the range of animals sold by farms (store animals, finished animals, cull animals etc.) and the range of farming systems, livestock types etc. within each and across all farm type categories.

However, it is useful, for illustrative purposes, to consider the increases in market values required if all offspring (i.e. lambs and calves) are ultimately sold as finished animals, increases in profits required to maintain income are derived purely from sales of offspring and all offspring and all finished animals meet set standards.

For this purpose, if such assumptions are made, and an arbitrary assumption is made that all lambs are sold finished weighing 32kg and all calves are (ultimately) sold finished weighing 480kg, then, based on the Welsh Government's 2021 liveweight prices of £2.65/kg for lamb and £2.23/kg for finished cattle, market prices would have to rise by between 16% and 21% for lamb and by between 13% and 17% for finished cattle under a scenario whereby BPS payments are cut by 50% in order to maintain farm incomes.

This equates to increases in market prices of between 35% and 43% for lamb and between 26% and 33% for finished cattle for the scenario whereby BPS payments are cut by 100%.

It must once again be emphasised that such figures are, by necessity, based on a range of broad assumptions, and can therefore only be illustrative. However, they provide a clear indication that in the absence of schemes that replace any cuts to direct support without adding to production costs, or major changes that increase profitability per animal kept/reared, market prices would have to increase significantly if what are already low livestock farm profits were to be maintained.

Such increases would necessitate either farmers receiving a far greater share of the profits made by processors and retailers further along the supply chain, an increase in the prices paid by consumers, or a combination of both.

Such changes may be difficult to sustain given pressures on processors' margins and household incomes as well as increased competition from cheaper imports from countries that continue to benefit from significant farm support (for example EU countries) or lower production standards and economies of scale (for example Australia).

Model 2: Increases in profit received per hectare of land farmed

As might be expected, given the area-based and redistributive elements⁴ of BPS payments, the increases in profit per hectare required to maintain farm profit for all farm types were similar, with figures highest for upland and lowland cattle and beef farms - reflecting the generally smaller size (and therefore larger contribution of redistributive payments) of such farms.

While all figures are broadly aligned with the average BPS (including redistributive payments) paid on farms with areas that correspond to the average areas for each farm type, the figure for hill sheep farms is higher than might be expected - an anomaly that may reflect smaller hill sheep farms in the sample distorting the overall figures.

While Model 2 reflects obvious impacts per hectare of reductions in an area based payment scheme, the figures do highlight the challenges of increasing profitability per hectare given reductions in support payments.

Moreover, while some have rightly highlighted the role that Government supported investments in technology, equipment and infrastructure can play in improving, for example, productivity and animal health and welfare, it is difficult to envisage scenarios whereby such investments increase profits per hectare by hundreds of pounds, as would be required to make up for the loss of part or all of the BPS or similar direct support.

This is particularly the case given that, while such investments on more productive/intensive (for example arable) farms might be expected to increase profits per hectare by tens or scores of pounds, such increases are far more difficult to realise on the far less productive (i.e. Disadvantaged and Severely Disadvantaged) land that makes up around 80% of Welsh farmland.

Model 3: Reductions in selected input costs

The results for Model 3 highlight the significant savings that would have to be made for all farm types if farm profits were maintained purely by reducing expenditure on key inputs, with annual reductions for different categories ranging from £113 (*upland cattle and sheep*

⁴ Under Wales' Redistributive Payment system, around £110 is paid on the first 54 hectares of eligible land, in addition to a payment of around £115 for all eligible hectares (up to the progressive capping rates introduced at £150,000)

expenditure on *other contracting/ machinery hire*) where BPS payments are cut by 50% to £6,708 (*hill sheep expenditure* on *feeds*) where BPS payments are cut by 100%.

While it is clearly unrealistic for such significant cuts to be made without severe impacts for farm infrastructure, productivity, animal health and welfare etc., and that different farms and sectors would choose to make cuts in different areas depending upon circumstances, by apportioning cuts proportionately to current expenditure the model provides useful insights into the potential direct and knock-on effects of cuts.

In terms of those areas of expenditure likely to come under the most scrutiny in terms of assessing where cuts *might* be made, based on the FBS figures these are *feeds*, *general* costs, fuel and repairs, other livestock costs, tack and grasskeep, fertiliser, veterinary and medicine costs and allocatable contracting (Figure 1).

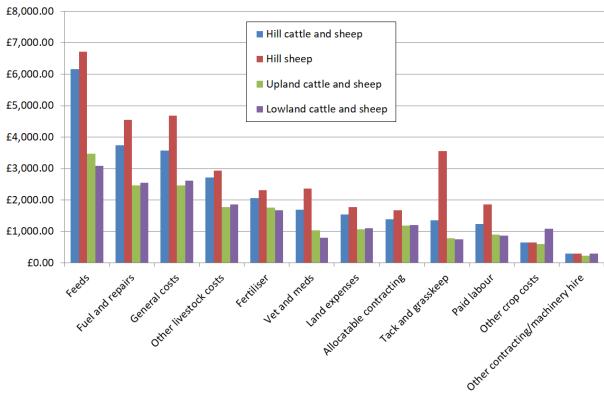


Figure 1: Reductions in expenditure proportionate to current expenditure required to make up for the loss of the BPS or equivalent funding for different livestock farm types if no other changes occur

However, as already stated, different farms and sectors would choose to make cuts in different areas depending upon circumstances, and while efficiencies might be found in all categories, costs in some would be deemed more expendable than others, and therefore be more vulnerable to cuts, irrespective of the scale of these.

For example, while expenditure directly related to production, such as feed and fertiliser costs, might remain relatively unchanged on an individual farm in order to maintain levels of production (at least in the short term), this would necessitate major cuts in other areas, such

as those relating to the more general maintenance of the farm (fences, hedges etc.) and farm machinery (machinery repairs and maintenance) and/or animal health and welfare (reductions in vet visits, vaccination programmes etc.). While such cuts might make up for the loss of payments in the short term, above relatively modest levels they would inevitably have long term implications for farm productivity.

Perhaps above all else, the reductions in expenditure presented under Model 3 highlight the impacts for the wider economy, and in particular the rural economy, and the potential impacts on businesses such as veterinary practices, agricultural merchants, garages etc. - with clear consequences for rural employment. Such impacts would extend to those businesses that are not necessarily regarded as agricultural, but which rely directly or indirectly on farms for a proportion of their income.

In this context, it is worth highlighting that employment in the Office for National Statistics' 'agriculture, forestry and fishing' category represented 3.2% of workforce jobs in Wales in 2018⁵ (almost three times higher than the UK average), this figure is significantly watered down by non-agricultural employment in Wales' large, heavily populated urban areas.

As such, agricultural employment in rural Local Authority areas is far higher than the Welsh average; for example, in 2017 employment in the category in Ceredigion, Powys, Pembrokeshire and Carmarthenshire made up circa 12%, 12%, 8% and 7% of workforce jobs respectively (*Figure 2*), while in 2011 across vast areas of rural Wales between 15% and 27.4% of workers main work was in agriculture (*Figure 3*).

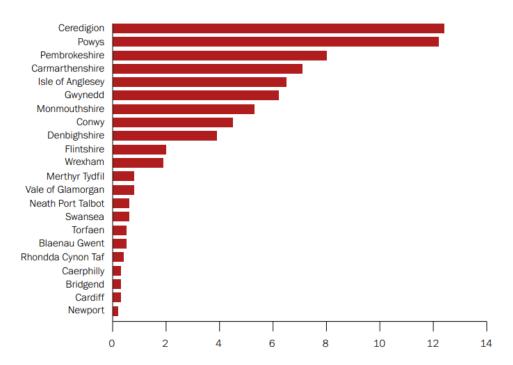


Figure 2: Workplace jobs in agriculture, forestry and fishing by Welsh local authority, 2017 (source: Welsh Government)

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⁵ It should be noted that, based on available Welsh employment figures, circa 98% of employment in the ONS 'agriculture, forestry and fisheries' category comprises agricultural employment

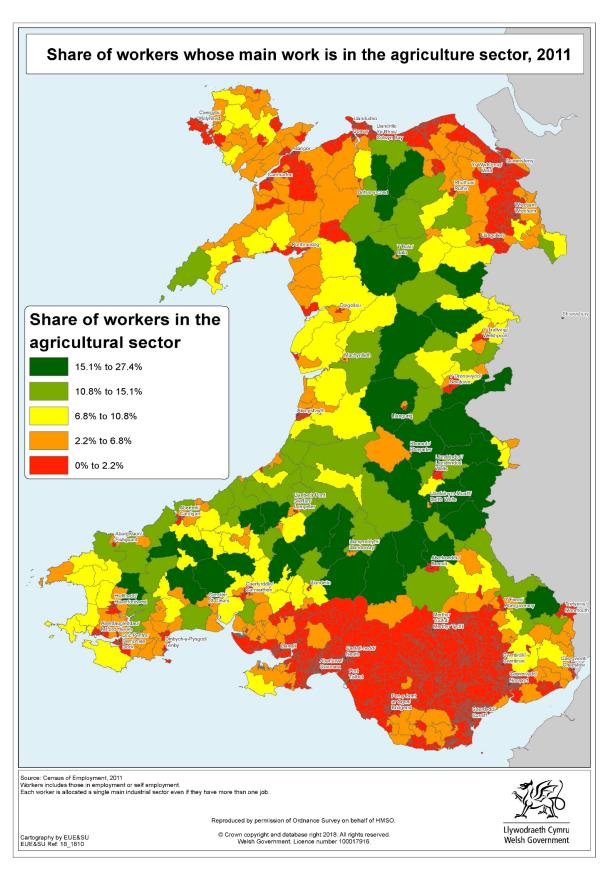


Figure 3: Share of workers in the agricultural sector, 2011 (source: Welsh Government)

In terms of illustrating such wider impacts across the whole of Wales, it is possible to scale up the individual farm figures presented in *Table 5* using Welsh Government estimates of the numbers of farms across the whole of Wales that fall into each of the four FBS categories considered. The justification for using such an approach is provided in *Appendix 1*.

The numbers of Welsh farms falling into each FBS category are presented in *Table 6*.

	Hill cattle and sheep	Hill sheep	Upland cattle and sheep	Lowland cattle and sheep	Dairy	Total	Total Welsh busines ses claiming BPS (2022)
Number of farms estimated to be in each category	1709	2659	1982	1168	1419	8937	16323

Table 6: Average number of Welsh farms that fell into the main FBS categories in the financial years ending 2018-2022 (including dairy farms). (Note that the Hill cattle and sheep category numbers include the Welsh Government's figure for SDA cattle farm numbers)

Table 7 shows the results, in £millions, of such a scaling up of the figures provided in *Table 5*, based on the FBS population figures (*Table 6*).

As has already been emphasised, variations in reductions in different expenditure categories are impossible to assess, and it is highly unlikely that such reductions would be directly proportionate to the calculated average expenditure, as presented here.

Nevertheless, extrapolated as these figures are, they provide a useful illustration of the total falls in income for businesses linked directly and indirectly with agriculture that *might* be experienced in the scenario considered.

Moreover, given that the reductions in *Tables 5* and 7 represent only a proportion of the total expenditure in those categories (for example, reductions of 25% and 45% for lowland cattle and sheep and hill sheep farms expenditure respectively where BPS is reduced 100%), it should be noted that the figures in *Table 7* by no means represent maximum possible reductions: For example, while a total reduction of £12.15 million for veterinary and medicine expenditure is given in *Table 7*, total expenditure in that category for all farms in the FBS livestock categories is estimated to be £34.61 million.

As such, while it is impossible to precisely model the impacts of cuts to BPS or equivalent funding on those who rely directly or indirectly on expenditure by farms, it is clear that such cuts would have a major knock on effect on many Welsh non-farming businesses, with some

sectors potentially losing tens of millions in income, with inevitable impacts for business viability, employment etc.

Model 3: Reductions in input costs required to maintain farm income (all farms in FBS population) (£millions)		Hill cattle and sheep	Hill sheep	Upland cattle and sheep	Lowlan d cattle and sheep	Total
	Feeds	£5.27	£8.92	£3.45	£1.80	£19.43
	Tack and grasskeep	£1.16	£4.73	£0.78	£0.44	£7.10
	Vet and meds	£1.44	£3.13	£1.02	£0.47	£6.07
	Other livestock costs	£2.32	£3.89	£1.75	£1.08	£9.04
	Fertiliser	£1.76	£3.08	£1.74	£0.97	£7.56
	Other crop costs	£0.56	£0.87	£0.59	£0.63	£2.64
50% reduction	Allocatable contracting	£1.18	£2.22	£1.18	£0.70	£5.28
in BPS	Paid labour	£1.05	£2.47	£0.89	£0.51	£4.91
	Other contracting/machinery hire	£0.26	£0.39	£0.22	£0.18	£1.05
	Fuel and repairs	£3.19	£6.05	£2.44	£1.49	£13.17
	General costs	£3.05	£6.23	£2.43	£1.53	£13.25
	Land expenses	£1.31	£2.36	£1.06	£0.64	£5.37
	Feeds	£10.53	£17.84	£6.89	£3.60	£38.87
	Tack and grasskeep	£2.32	£9.45	£1.55	£0.88	£14.21
	Vet and meds	£2.89	£6.27	£2.05	£0.94	£12.15
	Other livestock costs	£4.63	£7.79	£3.51	£2.16	£18.09
	Fertiliser	£3.53	£6.16	£3.48	£1.95	£15.12
100%	Other crop costs	£1.11	£1.73	£1.18	£1.26	£5.29
reduction in	Allocatable contracting	£2.37	£4.43	£2.36	£1.41	£10.56
BPS	Paid labour	£2.10	£4.94	£1.77	£1.02	£9.83
	Other contracting/machinery hire	£0.52	£0.78	£0.45	£0.35	£2.10
	Fuel and repairs	£6.38	£12.10	£4.89	£2.97	£26.34
	General costs	£6.11	£12.46	£4.87	£3.06	£26.50
	Land expenses	£2.62	£4.73	£2.12	£1.28	£10.75

Table 7: Reductions in input costs required to maintain farm income for all farms in the FBS population (£millions)

Conclusions

The work presented here represents a necessarily simplistic analysis of the impacts of cuts to the BPS or equivalent funding to Welsh agriculture.

As such, and as with all such models, the results are not a precise prediction of what would happen in the event of such cuts, but rather attempt to illustrate and quantify the current role of direct support, and the various pressures that such cuts would bring for farms and other businesses, and ultimately the wider Welsh population.

In reality, the ways in which farms, farm types and sectors would react to the loss of part or all of the funding that, on average, makes up 96% of livestock farm profits (without taking account of unpaid labour costs) would vary significantly.

For example, some may be able to change to what have over recent years been more profitable agricultural sectors, such as dairy or poultry production, while others may successfully diversify into tourism or other sectors.

However, as well as being limited for many by affordability, land topography and fertility etc. and restrictions such as landscape designations - not to mention environmental restrictions - the scope for diversification into any area is also limited by ceilings relating to market saturation, as experienced recently by many farms that have diversified into certain types of holiday accommodation.

It should also be noted that the skillset of a vast proportion of those who may attempt to diversify their income by working off-farm will be primarily in agriculture - a sector that, by definition, would be far less able to afford the services of those with such a skillset in the advent of such cuts to support.

As such, policy makers and others must be sober and realistic about the limited scope for diversification to make up significantly for losses imposed as a result of such changes.

It should also be noted that a significant proportion of expenditure in the wider economy by the circa 6,000 farms not included in the FBS population is also derived from BPS payments - expenditure amounting to tens of millions which is not accounted for in this analysis.

The conclusions reached by Gloucester University² that reductions in receipts from farms by "...feed merchants, machinery retailers, contractors, vets, solicitors and many others" would, in turn, "...reduce their own spending power in the rural economy and so the impact of the agricultural transition goes on" are also relevant in terms of the outcome of this work, as is the Welsh Government's conclusion that "...if economic resilience declines, social resilience is also likely to decline".

Given the focus of the Welsh Government's SFS proposals on environmental outcomes, it should be noted that agri-environmental payments made from the rural development budget have not been factored into this analysis.

This is justified on the grounds that under EU Regulations, and in line with World Trade Organisation rules, payment rates were calculated based on the costs incurred and income foregone of compliance with agri-environment scheme rules, and therefore should not, on average, have contributed directly to profits.

In this context, it is worth noting that while the Cross Compliance rules associated with the Basic Payment Scheme (*Statutory Management Requirements* and *Good Agricultural and Environmental Conditions* rules) will generally have costs associated with them, and therefore undermine the contribution of the BPS to farm profit, any replacement regime that has far more stringent restrictions will significantly undermine overall farm profitability, thereby requiring either higher associated scheme payments, or increases in returns or cuts to expenditure as described in Models 1 to 3 to maintain current levels of farm profit.

This is a factor already exemplified by the fact that many dairy farmers have stated that participating in the SFS would not make economic sense for their businesses based upon current proposals (most notably the 10% tree cover proposal) and anticipated budgets/payment rates (although these have not been published). Such valid business decisions should naturally raise concerns in terms of any future scheme attracting sufficient numbers of farms to ensure a critical mass of Welsh land is entered into the scheme such that desired economic, environmental, social and cultural aspirations are met.

Appendix 1

Farms with Standard Outputs of under circa £22,250 (derived from the EU's €25,000 threshold) are excluded from the Farm Business Survey population, such that the sum of all Welsh farms that fall into each FBS farm type category is significantly lower than the total number of Welsh businesses claiming BPS (see *Table 6*), and represents 55% of all BPS claimants.

The sum of all average BPS payments (*Table 1*) for all farms considered in this analysis is therefore circa £190 million, representing 80% of total Welsh BPS payments (£238 million). When equivalent Welsh Government and FBS dairy farm BPS payments and numbers (*Table 6*) are included, this total rises to £219 million, representing 92% of the Welsh BPS budget.

An analysis of all 2022 Welsh BPS payments shows that the top 55% of BPS claimants (those receiving circa £9,730 or more) received 86% of the total Welsh BPS budget. This is within 7 percentage points of the equivalent figure derived from the FBS data. Similarly, the average BPS payment received by the top 55% of BPS claimants in 2022 was £22,635 compared with a weighted average for all FBS farms and data of £24,427 - a difference of circa 7%.

The fact that these figures are closely aligned (within 7 percentage points and 7%), and that the majority, but not all of the farms that meet the £22,250 Standard Output threshold used for the FBS are likely to be the recipients of larger Basic Payments, provides confidence in terms of using total FBS farm numbers to expanding the analysis in order to provide indicative figures at a Welsh level.