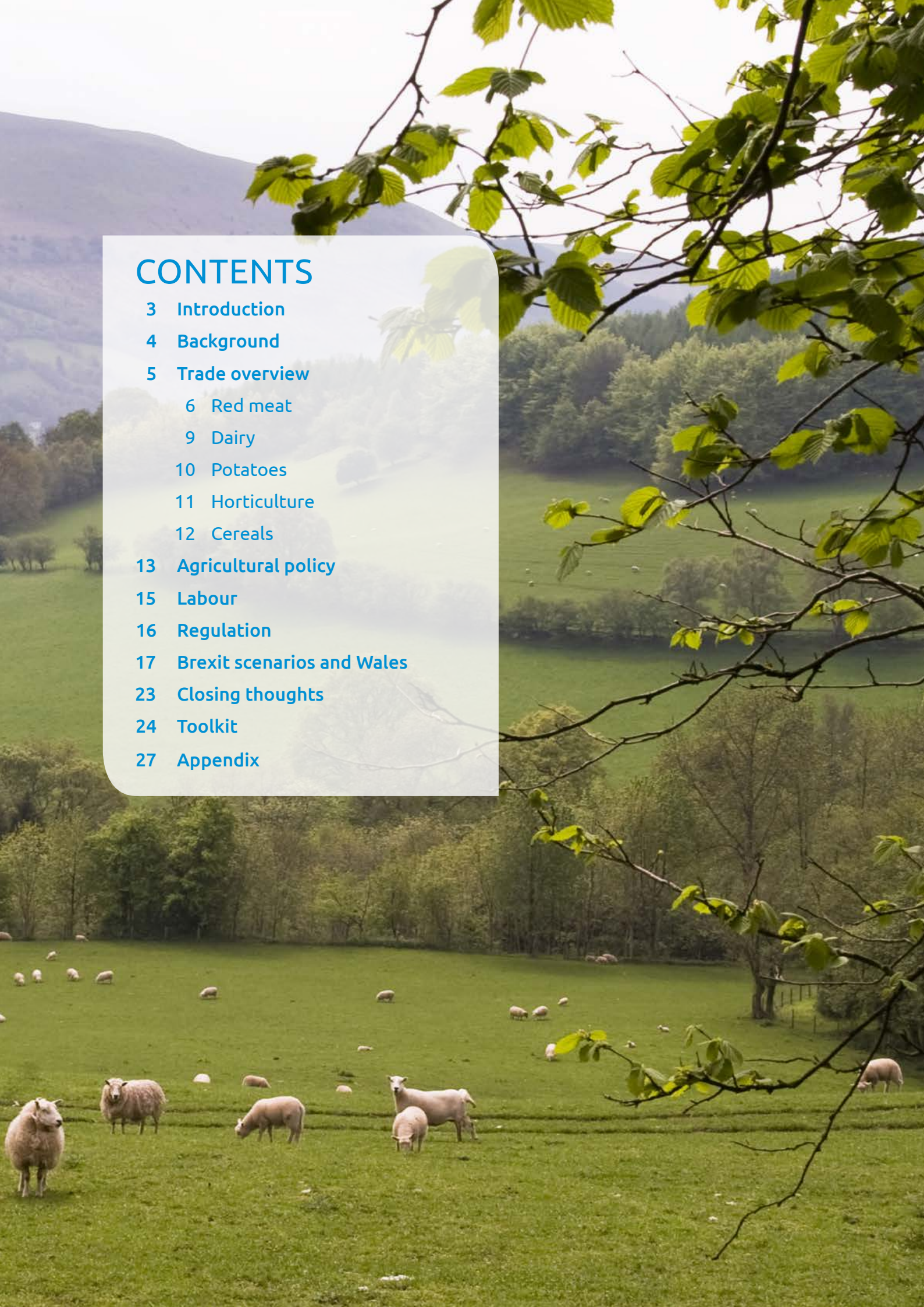
Market Intelligence June 2018

AHDB

HORIZON

Exploring the implications of Brexit for agriculture and horticulture in Wales

HYBU CIG CYMRU
MEAT PROMOTION WALES



CONTENTS

INTRODUCTION

Building on previous editions of Horizon, this report focuses specifically on what Brexit will mean for Welsh agriculture and horticulture. This report has been produced in conjunction with Hybu Cig Cymru – Meat Promotion Wales (HCC) and assesses the potential impact, risks and challenges that Brexit could present.

Brexit brings a great deal of uncertainty for the agricultural sector and wider food supply chain. Whilst we do not know all the details, it is possible to identify areas where Wales has both higher and lower exposure to Brexit challenges, when compared to other parts of the UK. There are three main areas which the report outlines:

1. International trade

Brexit will present Welsh agriculture and horticulture with both risks and opportunities. Even though Wales exports proportionately less to the rest of the EU than other parts of the UK, the future UK/EU trading relationship will still have a critical direct and indirect bearing on the industry.

What is more, the UK Government's future trade policy might exploit new opportunities for Welsh food and drink exports whilst at the same time potentially exposing the industry to greater competition from lower-cost imports.

2. Access to EU migrant labour

Restrictions on immigration will impact the food-processing sector in terms of both skilled and unskilled labour; labour shortages could threaten the future of some processing facilities in Wales.

3. Agricultural support

The evidence is clear that farm support is critical to the current financial viability of many farming businesses in Wales. It is not clear how agricultural policy will change post-Brexit, but Welsh agriculture would be exposed to reductions in direct support levels. Whilst the ultimate scale of the financial envelope available for support in Wales remains unclear, the issue of assuring financial viability whilst encouraging a more productive industry will be a particular challenge for policymakers in Wales in both the short/medium-term (up to five years) and long-term (five–ten years).

The report concludes that the agriculture industry, and other parts of the supply chain, need to start preparing for Brexit now. Whilst many of the factors relating to Brexit are out of the farmer's control, there are things which can be done to prepare. Of these, improving business competitiveness appears to be key, and this is something AHDB and HCC will support Welsh levy payers with.

BACKGROUND

The food and drink industry is a key part of the Welsh economy, employing more than 240,000 people, generating £19.1 billion turnover in 2016 (Food and Drink Wales). Economically, agriculture is a relatively small sector. The combined gross value added (GVA) of agriculture, forestry and fish is £435 million, representing just 0.7 per cent of Welsh GVA. However, this supports food and drink manufacturing and food service/accommodation sectors which contribute 2.4 per cent and 3.2 per cent, respectively.[1]

In a recent report,[2] Welsh Government highlighted a number of challenges for the agriculture sector, including:

- The large number of smaller farmers, with 21,200 farms (86 per cent of farms) producing 29 per cent of agricultural output
- The quality of land farmed, with 75 per cent of agricultural land in Wales categorised as disadvantaged (compared to only 17 per cent in England)[3]
- Farmers' distance from markets, which can reduce prices to farmers. For example, milk prices in Wales are between 1–2 pence per litre lower than the UK average.

As such, whilst Wales has some very productive farms and regions, when looking across the total agricultural area, it has a lower income generated per hectare compared to other parts of the UK.

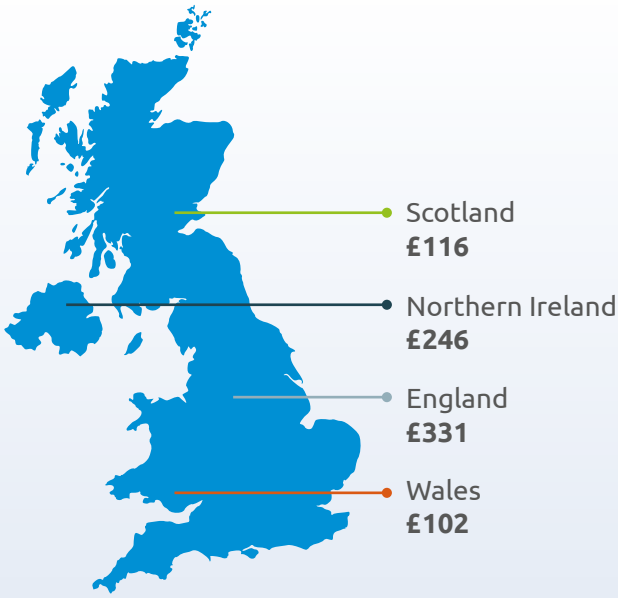


Figure 1. **Total income from farming (per ha)**

Source: Defra, three-year averages (2014–2016)

[1–2] Summary of EU Exit Scenario Planning Workshops, Welsh Government 2018
[3] **http://gov.wales/docs/statistics/2016/161213-welsh-agricultural-statistics-2015-ency.pdf**
[4] Welsh Government **http://gov.wales/statistics-and-research/welsh-exports/?lang=en**
[5] **http://www.jillevans.net/agriculture_eu_factsheet.pdf**

TRADE OVERVIEW

In previous Horizon reports, AHDB has assessed the role the EU plays in negotiating trade. The UK Government's Brexit trade strategy is to leave the customs union, agree a comprehensive Free Trade Agreement (FTA) with the EU and take control of domestic trade policy. A key question therefore will be the extent to which the UK Government's trade policy is supportive to the long-term interests of Welsh food and drink.

It is worth noting that the rest of the UK is Wales' biggest trading partner for goods and services. The total value of exports for Wales for the year ending June 2017 was £15.9 billion, up £2,391 million compared to the previous year.[4] When it comes to trade outside of the UK, the EU is Wales' biggest international export market. Exports to the EU accounted for nearly 60 per cent of Welsh exports, compared to 49 per cent for the UK as a whole.

Provisional data for the year ending December 2016 shows the value of food and drink exports from Wales rose to £337.3 million, a 20 per cent rise on the previous year. While the EU still remains the largest importer of Welsh food and drink, accounting for 72.4 per cent of exports, there have been increases in exports to the Middle East and North Africa.

Access to EU markets is important to the Welsh food and drink industry, particularly beef and lamb. Approximately 35–40 per cent of sheep meat produced in Wales is exported annually and, of this, over 90 per cent would be destined for the European Union. Although less in terms of absolute volumes, over 90 per cent of Welsh beef exports and 95 per cent of dairy exports are destined for EU countries.[5]

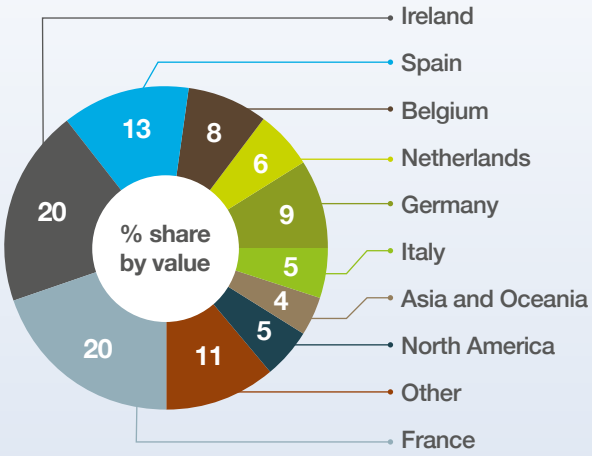


Figure 2. **Destinations of Welsh food and drink exports by value 2015**

Note: Figures may not add up to 100 per cent due to rounding errors

Red meat

Marketing the Welsh Brand

Wales has 14 food and drink categories with EU protected status, including:

- Welsh Beef (PGI)
- Welsh Lamb (PGI)
- Traditionally reared pedigree Welsh Pork (TSG)
- Pembrokeshire early potatoes (PGI)
- Carmarthen Ham (PGI)
- Traditional Welsh Caerphilly Cheese (PGI)

HCC considers PGI to be of enormous economic importance to the Welsh red meat industry, as it identifies the origin and unique qualities of both Welsh Lamb and Welsh Beef.[6]

The rest of the UK is the biggest market destination for red meat from Wales, with beef and lamb accounting for more than two thirds (£468 million) of sales by value in 2016.[7] Approximately 82 per cent of the beef produced in Wales is distributed to the rest of the UK, with around 13 per cent exported. Approximately 60 per cent of the sheep meat produced in Wales is consumed elsewhere in GB. Approximately 35 per cent) is exported.

International exports of beef and lamb account for 24 per cent of sales by value, therefore, global export markets are paramount and play a key function in balancing the whole carcase, enabling processors to find markets for products which are not easy to sell in the UK. The EU is the main destination of these exports.

These figures are based on agricultural output values and will exclude value added later in the supply chain. The Welsh red meat slaughtering industry has for many years faced a continuing underlying problem of fluctuating, and at times low, profitability. The sector as a whole suffers from under-investment, especially amongst small and medium enterprises and margins are coming under increasing pressure.[8]

Table 1. **Distribution of Welsh red meat sales in 2016**

	Wales		Rest of UK		Exports	
	Value (£m)	% by value	Value (£m)	% by value	Value (£m)	% by value
Beef	19	5	308	82	49	13
Sheep meat	13	5	160	60	94	35
Total red meat	32	5	468	71	143	24

Source: HCC – Assessment of Capacity in the Welsh Red Meat Slaughtering Industry, March 2016

[6] **http://hccmpw.org.uk/marketing/pgi_welsh_lamb_beef/**
[7] Assessment of Capacity in the Welsh Red Meat Slaughtering Industry, March 2016, Hybu Cig Cymru – Meat Promotion Wales (HCC)
[8] Capacity in the Welsh Red Meat Slaughtering Industry, March 2016

There are currently 19 operational red meat abattoirs in Wales, of which, 16 slaughter cattle, 19 slaughter sheep and 12 slaughter pigs. The number of abattoirs in Wales has steadily declined and, in the last two years, three abattoirs have closed/suspended operation in Wales. The cattle and sheep slaughtering sectors are dominated by large abattoirs, whilst the pig slaughtering sector is dominated by small and medium-sized abattoirs.[9]

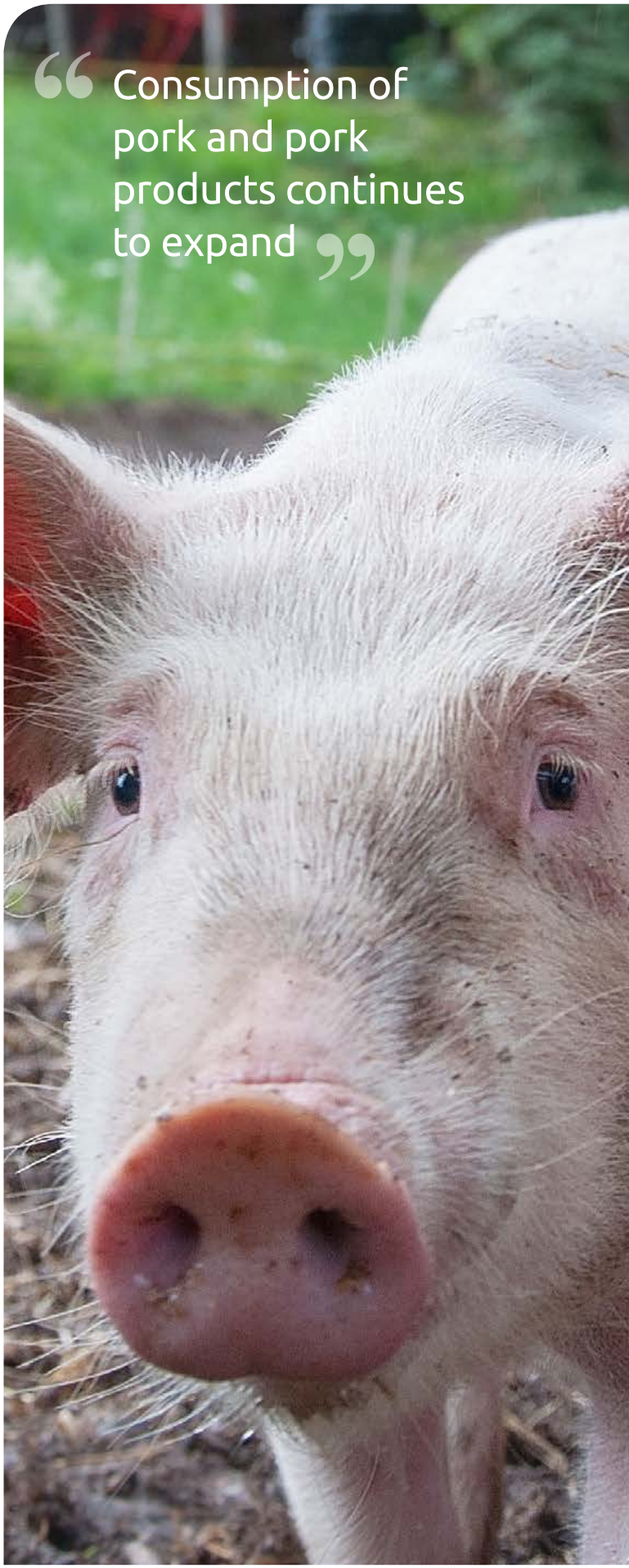
There are significant movements of live cattle, sheep and pigs and of meat products within Wales and cross-border between Wales and England. Livestock movements are for grazing and finishing purposes as well as for selling and slaughtering. Movements of meat products are for cutting, packing, distribution and retail. There are also movements of waste products for disposal.[10]

Whilst it is estimated that the combined capacity of the abattoirs slaughtering cattle, sheep and pigs in Wales is approximately 17 per cent, 41–72 per cent and 32 per cent, respectively, over current utilisation, the challenges the industry is facing will have a substantial impact on the future resilience, performance and profitability of the sector. These factors raise concerns over the long-term viability of many Welsh abattoirs without future investment in this sector.[11]

Welsh Pork

The pig sector in Wales is small, with less than 0.5 per cent of the UK pig population and contributing only 0.33 per cent of total value to Welsh Agricultural Output in 2016.[12] Wales is only five per cent self-sufficient in pig meat compared to 55 per cent in the UK. Unlike beef and lamb consumption, the majority of pork produced in Wales is consumed in the domestic market. This reflects the industry size and set-up, which is very small in nature and typified by a relatively small number of specialist producers and a relatively large number of enthusiastic small-scale producers operating as smallholders.[13]

Consumption of pork and pork products continues to expand; per capita consumption of pork exceeds lamb and beef combined. The UK is a net importer of pig meat; approximately 60 per cent of consumption is imported, virtually all of which is from the EU, with Denmark, Germany and the Netherlands accounting for over 60 per cent of this. Imports include substantial quantities of bacon, gammon, ham and sausages. Tariffs on pork and pig meat are high, preventing non-EU pig meat from entering the EU markets.



[9–11] Capacity in the Welsh Red Meat Slaughtering Industry, March 2016

[12] Source: Welsh Government Aggregate Agricultural Output and Income, 2016 Release date: 25 February 2016

[13] **https://seneddresearch.blog/2017/03/27/understanding-welsh-exports-a-look-at-the-latest-regional-trade-statistics/**

Welsh Lamb

Wales is a net exporter of lamb, with 30 per cent of UK sheep but only five per cent of the UK population. Lamb is an iconic Welsh product; Welsh Lamb has PGI status and is a well-recognised brand on UK and global markets, with up to 35 per cent being exported outside the UK. It is estimated that over 90 per cent of these exports are destined for the European Union single market.[14] For Welsh lamb exported to the EU, France, Italy, Germany, Spain, the Netherlands, Belgium and Scandinavia are the largest consumers. Exports outside the EU are comparatively small in volume but demand a premium. Non-EU exports are mainly destined for Switzerland, Canada, UAE and Hong Kong.[15]

Exports are key to helping with carcase balance. In 2016, over 40 per cent of lamb bought in GB retail was as leg roasting joints, but the leg accounts for just over 20 per cent of the lamb carcase. This potential lamb carcase imbalance problem is one of the biggest issues concerning the loss of the EU export market, as other member states have a preference for the loin and shoulder, complementing UK consumer demand.[16]

The light lamb trade has traditionally been associated with exports to the Mediterranean region, particularly Italy and Spain. Losing preferential market access would have a significant impact on prices for these types of carcases, which are largely associated with hill regions in Wales. If exports are exposed to tariffs, this would have a significant impact on many livestock products[17] and is likely to mean these exports will no longer be economically viable at current prices.

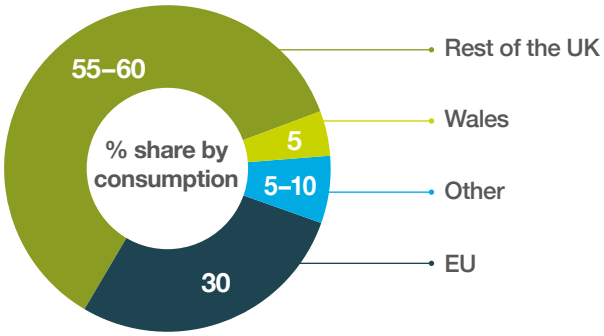


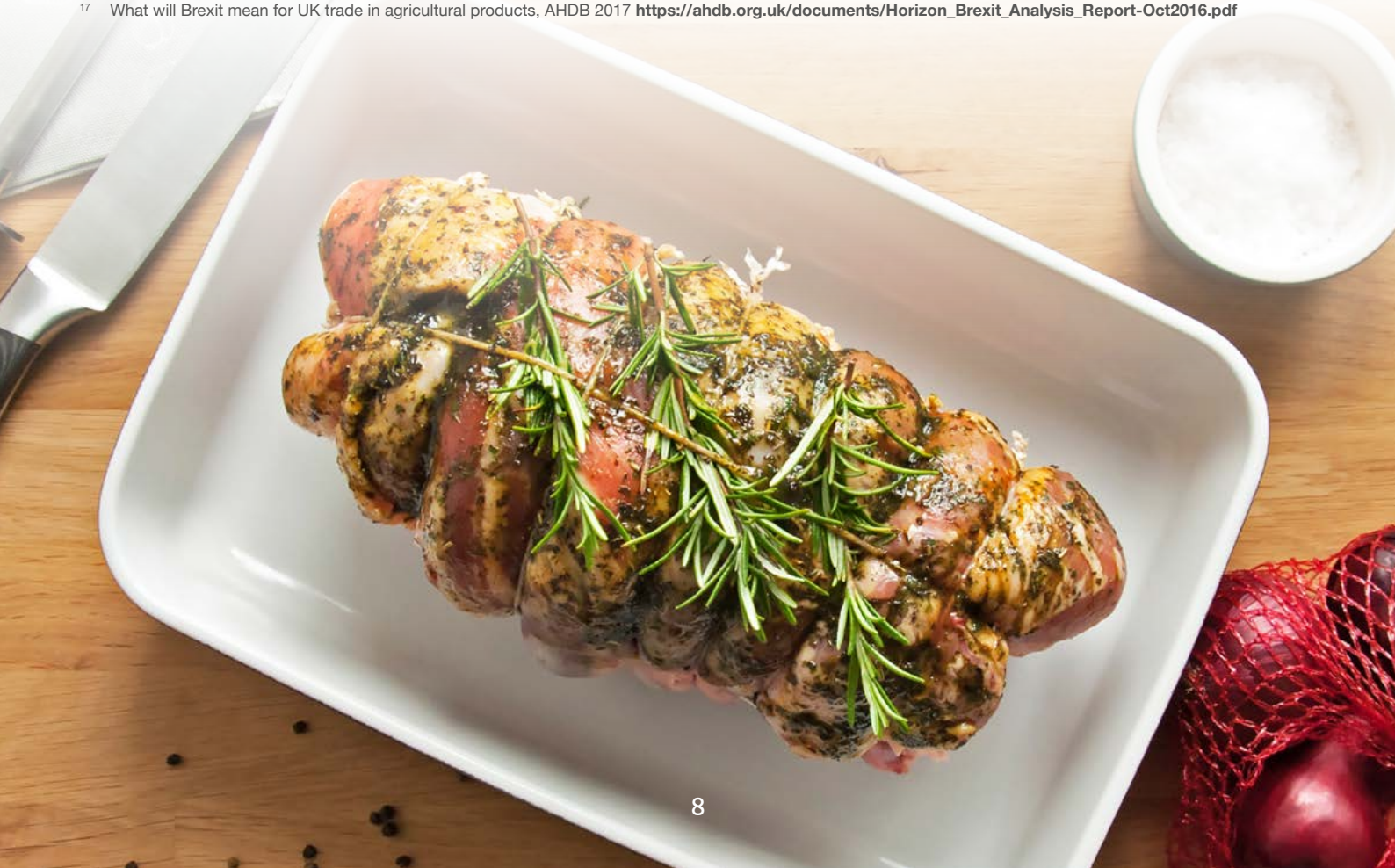
Figure 3. **Where is Welsh lamb consumed?**

Welsh Beef

Welsh Beef exports out of the UK equate to 13 per cent of total UK exports. In 2015, over 90 per cent of UK beef exports went to other EU countries. Ireland and the Netherlands are the most significant destinations, accounting for 55–65 per cent of all trade. The beef sector, like lamb, shares the carcase balance problem as the UK supply of lower value cuts and offal exceeds demand.

The UK is a net importer of beef, as it is not close to self-sufficiency. The UK currently imports around 35 per cent of the beef and veal consumed annually. The dominant supplier has always been Ireland, with a market share of almost 70 per cent. Collectively, the EU supplies over 90 per cent of beef imports.

[14] **http://gov.wales/newsroom/environmentandcountryside/2017/171009-boost-for-red-meat-export-plans-announced/?lang=en**
[15] **https://seneddresearch.blog/2017/03/27/understanding-welsh-exports-a-look-at-the-latest-regional-trade-statistics/**
[16] Brexit Scenarios: an impact assessment, AHDB 2017 **https://ahdb.org.uk/brexit/documents/Horizon_BrexitScenarios_Web_2017-10-16.pdf**
[17] What will Brexit mean for UK trade in agricultural products, AHDB 2017 **https://ahdb.org.uk/documents/Horizon_Brexit_Analysis_Report-Oct2016.pdf**



Dairy

The dairy sector in Wales produces 1.8 billion litres of milk, according to AHDB estimates, coming from over 1,700 dairy producers.[18] Collectively, milk and milk products account for 29 per cent of Welsh agricultural output, compared to 14 per cent in the UK as a whole. Raw milk production in Wales outstrips processing capacity. Analysis of milk intakes from Wales- and England-based milk processors suggests that around 51 per cent of milk produced in Wales is processed in dairy factories located in Wales, the remaining 49 per cent is transported to England for processing.[19]

The majority of Welsh milk retained in Wales for processing (an estimated 90 per cent) is processed into cheese.[20] Cheddar and mozzarella cheese are two of the main cheese products produced, with Cheddar and other hard-pressed cheese amounting to 60 per cent of Welsh cheese production.

The relatively small local population and the distances to large consumer centres such as London or Birmingham have been identified as reasons for the prevalence of cheese processors. There is no 'large-scale' liquid milk processor in Wales capable of supplying the major supermarkets.[21]

According to a Rabobank report, the UK dairy industry is 77 per cent self-sufficient. The sector is reliant on a balance of imports and exports that vary with product, although it is still a net dairy importer. Ireland is by far the dominant EU player when it comes to UK imports (followed by France and Germany). Ireland exported 65,000 tonnes of butter and dairy and 139,000 tonnes of cheese into the UK in 2015, including 85 per cent of Cheddar imports. While it is expected Ireland will try to maintain access to the UK market, any interruption could allow UK-based producers to increase their domestic market share.

Should the UK negotiate a tariff-free trade deal with the EU, then the likelihood is that it will be business as usual for the industry. However, if this trade deal is not agreed, UK dairy producers could be faced with tariffs for exports into the EU. As such, the main trade-related opportunities of Brexit will focus on displacing imports into the UK. Any situation where tariffs are imposed on EU products imported to the UK will provide a significant price advantage to Welsh products over imports.

The other key opportunity is the ever-growing global population, with increased numbers of middle-class consumers seeking dairy products. The UK may be better able to agree favourable trade arrangements with some of these emerging markets, notably in the Asia-Pacific region, compared to the EU. AHDB has published a Horizon report assessing the prospects for global dairy (and other livestock product) exports.[22]

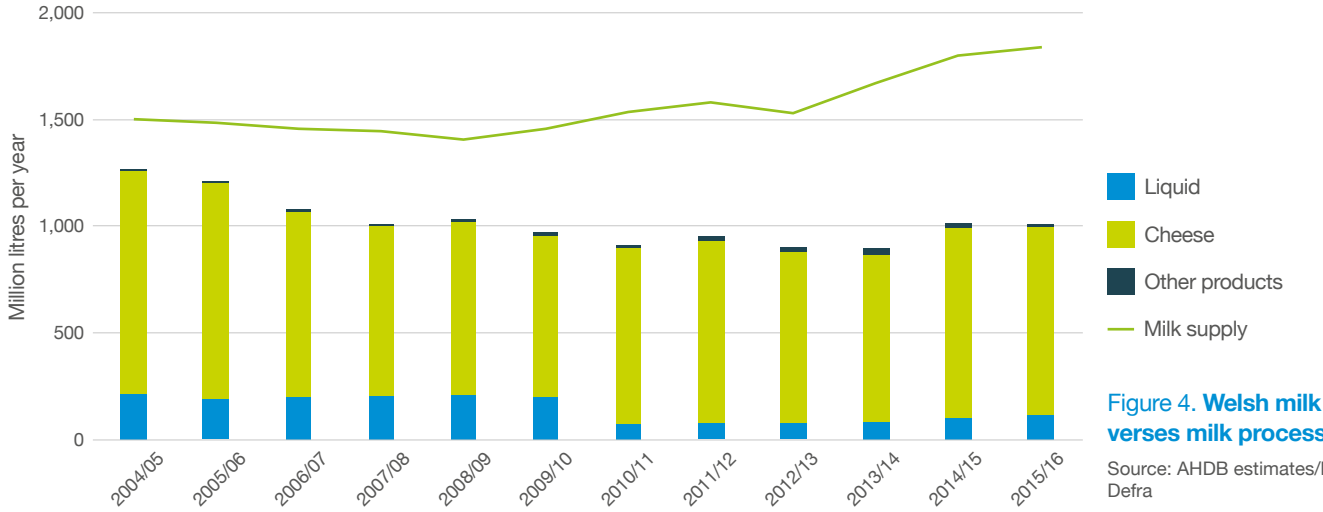


Figure 4. **Welsh milk supply verses milk processed**

Source: AHDB estimates/Processors/Defra

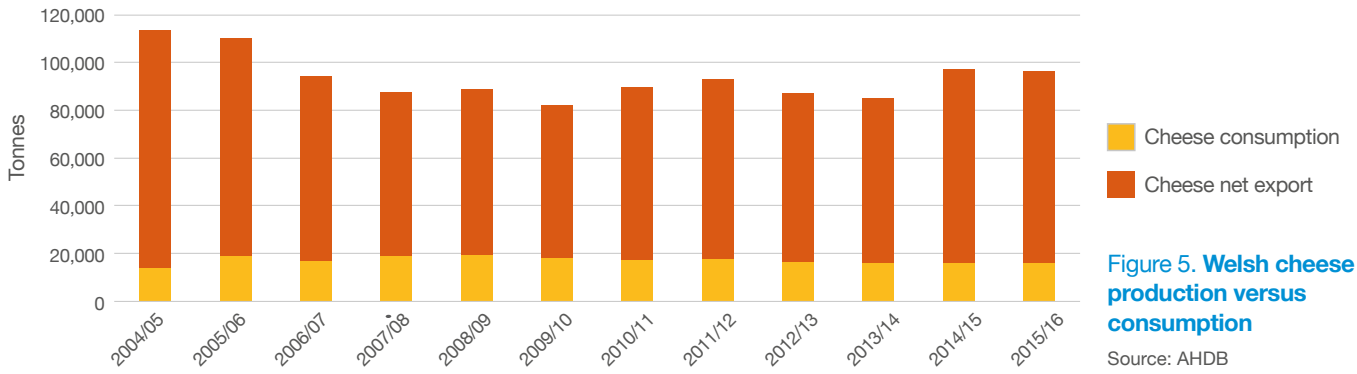


Figure 5. **Welsh cheese production versus consumption**

Source: AHDB

18 **http://www.assembly.wales/Research%20Documents/17-28/17-028-Web-English.pdf**

19 Scoping study of the Welsh dairy-processing sector

20–21 **http://www.assembly.wales/Research%20Documents/17-28/17-028-Web-English.pdf**

22 Meat and Dairy: Our prospects in the global marketplace, AHDB 2017: **https://ahdb.org.uk/documents/Horizon_meatanddairy_Sept2017.pdf**

Potatoes

More than 1,700 hectares of potatoes were grown in Wales in 2017.[23] However, potatoes contribute to a relatively low proportion of the agricultural output, accounting for just over one per cent in 2016.[24] Production is dominated by the pre-pack market sector, a sector which has gained momentum over the last six years, shown in Figure 6.

A relatively low share of production goes to the seed and processing potato market sector, as outlined below:

Table 2. **Welsh potato production by intended market sector**

Planting area (ha)	Wales (%)	GB (%)
Fresh bags	3	5
Fresh chipping	7	12
Fresh pre-pack	73	38
Processing	12	29
Other ware	1	2
Seed	5	14
Total	100	100

Source: AHDB 2017

Brexit opportunities and risks

If no trade deal has been agreed with the EU, potatoes and potato products would be subject to tariffs. With the main trade flow for potatoes being in the form of imports of processed potato products (such as frozen chips) from the EU to the UK, this may provide opportunities for import substitution. This is to say that the UK supply chain may be able to produce domestic products at a price advantage to imported products.

The main Brexit risk for the potato industry is ongoing preferential market access for seed exports to non-EU markets. There are a number of existing trade agreements between the EU and other countries that benefit the potato sector. These include important seed export destinations, such as Egypt and Morocco. If preferential access is lost to these markets, the seed industry would be at a disadvantage compared to EU competitors. While Egypt has a standard seed potato tariff of only two per cent, Morocco levies 40 per cent outside any trade agreements, which could make seed exports there unviable.

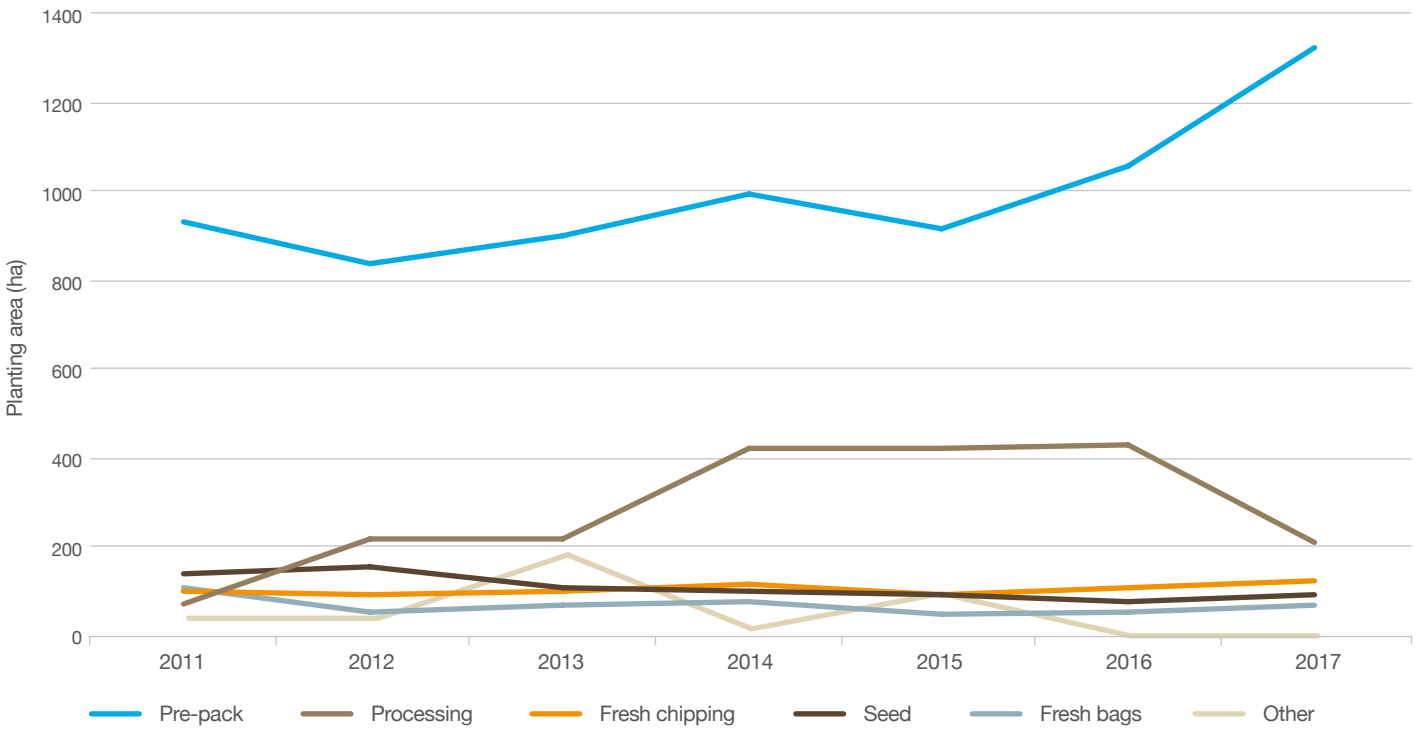


Figure 6. **Planting area (ha) of potatoes by intended sector in Wales**

Source: AHDB 2017

[23] Potato data centre – planted area by region, AHDB 2018

[24] Welsh Government **http://gov.wales/statistics-and-research/aggreagate-agricultural-output-income/?lang=en**

Horticulture

The horticulture industry includes a broad spectrum of crop enterprises, including fruit and vegetable production, ornamental plant production (including floriculture), novel crops, landscaping and turf. Horticulture contributes £45 million to the total agricultural output in Wales, three per cent of the total in 2016.

However, the Welsh Government estimates that up to 70 per cent of the fruit and veg industry business activity is not recorded, largely because not all horticultural businesses are registered.[25]

Despite having many natural attributes (a favourable climate, fertile soils and demand from nearby heavily populated centres) which favour the sector, just 0.08 per cent of all the agricultural land in Wales is currently used for horticulture.[26] The small size of the field-scale horticulture sector in Wales is limited by geographical factors such as altitude and weather conditions which limit the land area suitable for commercial horticultural crop production.[27]

Most of the Welsh and wider UK horticulture sector is focused on the domestic market, so its exports are minimal. Total UK exports of fruit and vegetables were valued at just £199 million in 2015, less than four per cent of the value of exports (Welsh-specific figures are not available). UK self-sufficiency in vegetables has fallen from 83 per cent to 58 per cent.[28] The UK decline in output from vegetables has increased our reliance on imports, which have increased sharply, largely driven by demand for out-of-season vegetables and for products that cannot be grown in the UK.

Brexit opportunities and risks

Assuming the UK leaves the single market and customs union, Brexit will result in greater trade friction and costs of trade. There could also potentially be tariffs imposed on trade. This would effectively increase the price of imported products and it is likely the UK consumer market will absorb any price rises, which should mean that domestic produce becomes more competitive and could allow UK production to expand and displace some imports.

The biggest risk to horticulture with Brexit appears to be the availability of labour and costs. Horticulture is a labour-intensive industry with many employed seasonally or casual workers, which means the industry is particularly reliant on migrant workers. In the longer term, automation of picking and packing may help mitigate the availability of labour and the increases in labour costs.

[25] Welsh Government **https://businesswales.gov.wales/foodanddrink/horticulture**
[26] Horticulture in Wales, Farming Connect **https://businesswales.gov.wales/farmingconnect/posts/horticulture-wales**
[27] Welsh Government **http://gov.wales/docs/drah/publications/100416-horticulture-action-plan-en.pdf**
[28] Summary of EU Exit Scenario Planning Workshops, Welsh Government 2018

Cereals

The arable sector in Wales is small and occupies 4.7 per cent of the total land area of Wales. Wheat and barley are the predominant crops by area, accounting for 50 per cent of the arable area. There are 260 farms classed as arable holdings, with an additional 92 classified as general cropping, a further 398 are classified as mixed (cropping with various types of livestock enterprise). The area of arable crops in Wales has increased since 2008 when the CAP rule, which required some land to be set aside, changed.[29]

In Wales, the most significant market is animal feed. Trade for livestock products between the EU and UK will have an important bearing on Welsh grain demand. If trade costs rise, as a result of customs checks and/or tariffs, this will affect livestock production, which will in turn affect domestic feed demand. The impacts of different trade scenarios are discussed later, but if Brexit leads to a smaller livestock sector in Wales, the demand for feed will fall.

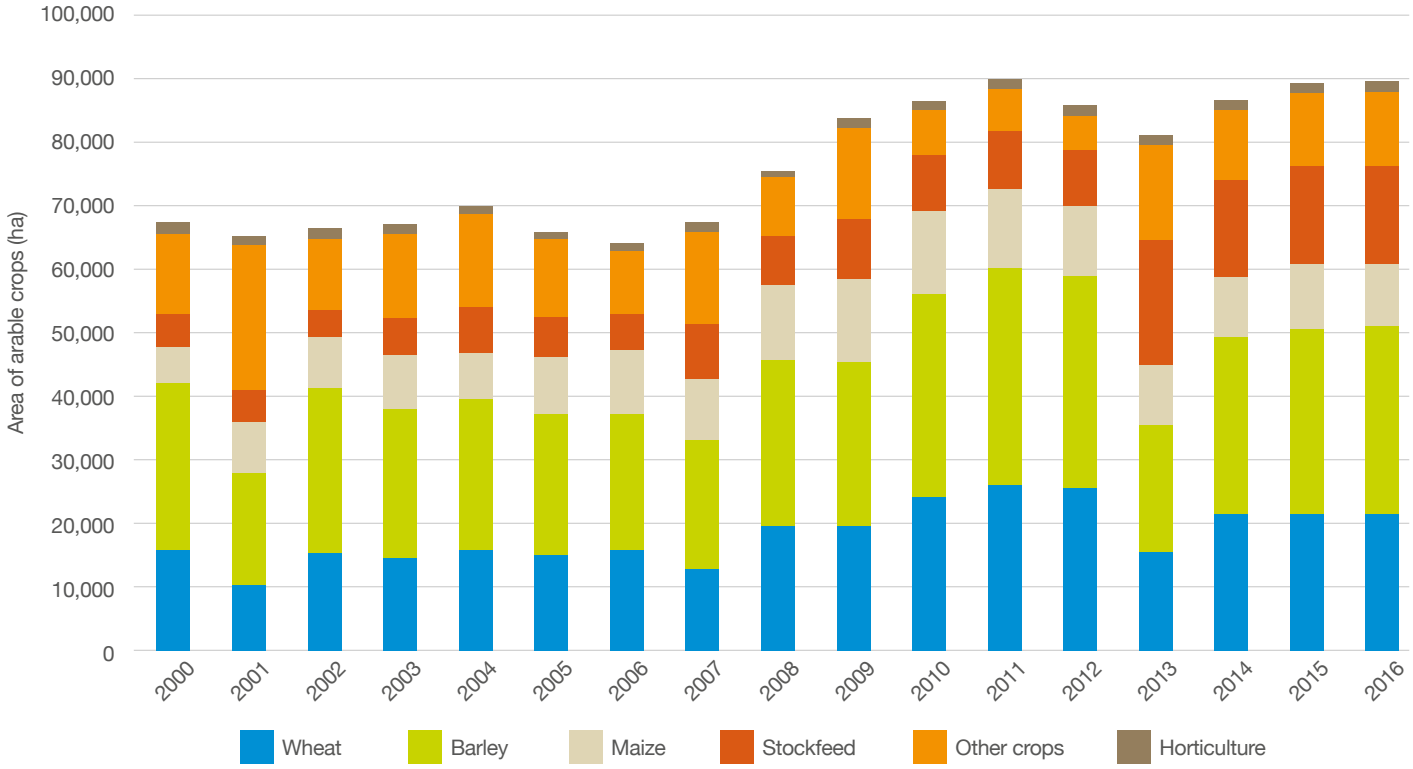


Figure 7. **Area of arable crops and horticulture in Wales 2000–2016**

Source: Welsh Government[30]

[29–30] Welsh Government **http://gov.wales/docs/statistics/2016/161124-survey-agriculture-horticulture-june-2016-en.pdf**

AGRICULTURAL POLICY

In the UK, agricultural policy is a devolved matter. Regulation of agricultural activity and the administration of CAP funds in Wales fall under the responsibility of Welsh Ministers. The Welsh Government has a high degree of flexibility in how it chooses to implement CAP. For instance, there is flexibility in how funds are allocated between Pillar 1 and Pillar 2, with a tailored rural development programme.

- **Pillar 1** – the Basic Payment Scheme – 100 per cent funded by the EU but managed by Welsh Government in Wales
- **Pillar 2** – is administered through the Rural Development Programme. Projects under Pillar 2 are co-financed with non-EU public or private funding sources

Around 80 per cent of Wales' farmland is classified in European terms as less favoured. These areas have been designated because of the presence of infertile land with limited potential that produce economic returns appreciably lower than the national average. Within the UK, it is well established that within this broad label there is variation, which has led to the long-recognised sub-classifications, Severely Disadvantaged Area (SDA) and Disadvantaged Area (DA). The agricultural land outside of these regions is termed lowland.

Pillar 1 – Direct support

Wales receives a Pillar 1 allocation of around €2.2 billion overall (ten per cent of the UK total), or €320 million per annum, and €355 million overall under pillar 2. Two hundred and sixty million pounds a year of single farm payments are paid to roughly more than 17,000 farm businesses in Wales through the CAP, with average subsidies to a Welsh dairy farmer £22,965 p.a. and £19,289 p.a. to Welsh sheep farmers. More than 80 per cent of farming income in Wales derives from EU funding, which is far in excess of the UK average figure of 35–56 per cent of farming gross income and means the CAP accounts for the largest amount of most farms' profitability.[31] In the period 2014–2020, Wales will receive £957 million of funding from the Rural Development Programme – £555 million of which comes from the EU.[32]

Table 2. **CAP spending by nation of the UK**

	Wales	Scotland	England	Northern Ireland
CAP total spending (£m)	353	614	2,184	317
Current share of spending (%)	**10**	**17**	**63**	**10**
Number of holdings as a % UK	16	24	49	11
Utilised Agricultural Area UAA (HA) as a % of UK	6	32	52	10
Population as a % UK	5	8	84	3

[31] http://sites.cardiff.ac.uk/wgc/files/2016/07/AGRICULTURE.pdf
[32] http://www.jillevans.net/agriculture_eu_factsheet.pdf

The Importance of CAP Support

EU funds are proportionately more important to Wales than the rest of the UK for grazing livestock (LFA and lowland), but not in the dairy sector, based on an average taken over the last three years.

The largest part of Wales' pre-allocated EU funds comes from CAP Pillar 1, with support to farmers' income provided in the form of direct payments and market-support measures. Figure 8 shows the make-up of income for key agricultural sectors in Wales compared to England.

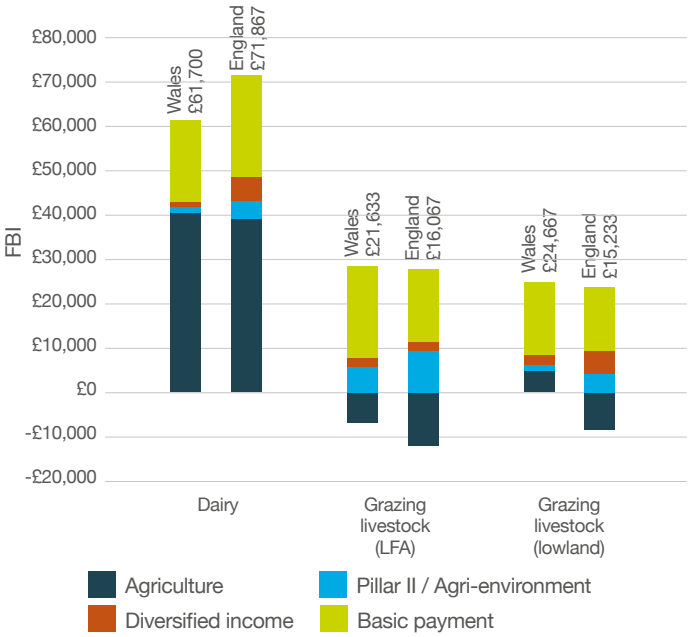


Figure 8. **Comparisons of Farm Business Income (FBI) for Wales and England by sector, 2014–2016**

Source: Rural Farm Business Survey/Farm incomes in Wales 2015, 2016, 2017

Recent market volatility across key Welsh agricultural sectors means that direct payments remain as important as ever in helping to compensate farmers for potential market failure, to help manage price volatility and to reward high standards of farming. The average net farm business income in Wales will have fallen 25 per cent in the year up to March 2016, according to figures from the Welsh Government. CAP helps to address the failures of agricultural markets to deliver a fair level of income for farmers.[34]

The basic payment to farmers in Wales – the Pillar 1 Basic Farm Payment – is administered under CAP Basic Payment and Support Scheme (Wales) Regulations 2015. Funding is also administered through the Rural Development Programmes Wales Regulations 2014. Projects under Pillar 2 are co-financed with public or private funding sources. Wales additionally receives specific allocations from the EU under Cohesion Policy and through other financial programmes (eg Horizon 2020) which Welsh organisations can apply for directly to the European Commission.[35]

Pillar 2 – Rural development

Rural development is the second pillar of the CAP, providing member states with an envelope of EU funding to manage co-funded programmes. Each of the UK nations sets its own priorities for targeted support, under six economic, environmental and social programmes outlined in the EU rural development regulation for the period 2014–2020.

The 2014–2020 Rural Development Programme for Wales focus is on:

- Competitiveness (on-farm and through the supply chain)
- The environment (agri-environmental work, woodland, renewable energy)
- Community (access to service and the LEADER approach)[36]

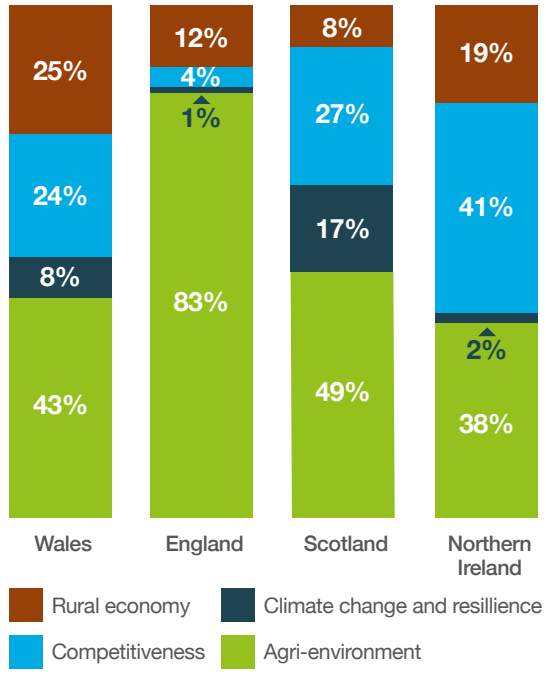


Figure 9. **Rural Development Funding 2014–2020**

Source: European Commission

Without the framework of the CAP distribution, significant questions remain both about the size of the overall Welsh funding envelope and the type of policy measures that Wales will put in place. Agricultural policy is fully devolved and whilst a post-Brexit UK national framework for agricultural support is being discussed, it is possible that a post-Brexit world could see greater divergence in policy measures pursued across the UK.

[34–35] **http://www.jillevans.net/agriculture_eu_factsheet.pdf**

[36] **http://gov.wales/topics/environmentcountryside/farmingandcountryside/cap/ruraldevelopment/wales-rural-development-programme-2014-2020/?lang=en**

LABOUR

AHDB has published a Horizon report on the impact of Brexit on labour.[37] If there is no longer free movement of workers between the UK and the rest of the EU, post-Brexit, availability and the cost of labour will change.

Horticulture is the most dependent sector on migrant workers, and given the relatively low proportion of the industry within horticulture, Wales appears to be less exposed to this risk than other parts of the UK.

However, restrictions on immigration will create issues for the meat- and food-processing sectors in particular.

Restrictions on immigration may leave Welsh and UK abattoirs and meat-processing plants without sufficient labour to operate. There is some evidence that EU labour is already declining following the leave vote. This is mainly because of the weaker pound against the euro and the uncertainty around the status of EU workers when the UK leaves the EU.

A recent Welsh Government Brexit[38] report also highlighted there were issues regarding the requirement for vets on the slaughter line in abattoirs. In Wales, 80 per cent of the vets in abattoirs are from the EU.

[37] Brexit Scenarios: an impact assessment, AHDB 2017: **https://ahdb.org.uk/documents/Horizon_Brexit_Analysis_20September2016.pdf**
[38] Summary of EU Exit Scenario Planning Workshops, Welsh Government 2018

REGULATION

The EU currently sets the regulatory framework governing agricultural production, environmental protection, food safety and food labelling, along with other areas. However, beyond this framework, many aspects are devolved.

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UK businesses will remain bound by current EU regulation until the UK formally leaves the EU. Even then it looks likely that most rules and regulations will remain in place, with the UK Government seeking to adopt most EU laws into UK law within the EU Withdrawal Bill.

Brexit is seen by many as an opportunity to regain control of regulatory affairs, providing greater flexibility to set regulation across the UK and within devolved administrations. However, regulatory standards play an important role in facilitating cross-border supply chains and, therefore, if the UK wishes to continue trading with the EU or with other countries requiring EU compliance, flexibility may be limited. Furthermore, if UK standards were different or lower than current EU standards, it is possible UK produce would come to be associated, rightly or wrongly, with lower standards, (eg consumer safety or carbon footprints), which could affect demand for UK goods.

The question of regulation post-Brexit is further complicated by devolution. For those areas that are not reserved to Westminster (for example, environmental protection, aspects of food safety and labelling, as well as agriculture), there is a prospect in the long-term of some greater divergence between Wales and other parts of the UK in the absence of common EU standards and regulations.

Two key sets of regulations affecting agriculture are those governing plant protection products and animal welfare. AHDB has published a Horizon report focusing on plant protection products.[39]

[39] What will happen to Plant Health and Plant Protection Product regulation after Brexit? AHDB 2017: **https://ahdb.org.uk/documents/Horizon_Brexit_Analysis_january2017.pdf.**

BREXIT SCENARIOS AND WALES

With negotiations between the UK and EU ongoing, and with details of how domestic policy will change in many areas unclear, it is difficult to assess how Brexit will affect Welsh agriculture and horticulture. AHDB has published a Horizon report on Brexit Scenarios: an impact assessment[40]. This report aimed to map out the range of possible post-Brexit situations and quantify their impact on farming.

The three chosen illustrative scenarios, summarised in Table 4, are not intended to predict or describe actual outcomes of the Brexit negotiations. Their purpose is to capture the range of possible repercussions and isolate the effect of Brexit from other factors such as exchange rates, interest rates and economic growth, which are assumed to remain unchanged.

Table 4. **The Brexit Scenarios**

	Scenario 1: Evolution	Scenario 2: Unilateral Liberalisation	Scenario 3: Fortress UK
Public support	Direct Payments (DPs) and agri-environment payments are maintained at current levels	Direct Payments (DPs) removed, agri-environment and other payments under Pillar II are increased to equal 50% of current overall support	Direct Payments (DPs) removed, agri-environment payments reduced to 25% of current levels of overall support
	Pillar I and Pillar II payments remain the same	Pillar I payments reduced to 0%, Pillar II payments (and associated costs) increased by 259% to disburse 50% of total PI+PII funds	Pillar I payments reduced to 0%, Pillar II payments (and associated costs) increased by 130% to disburse 25% of total PI+PII funds
Labour	Retained at the current level	Non-UK regular labour restricted to 50% of current levels Retained at the current level for seasonal (casual) workers	Non-UK regular labour restricted to 50% of current levels Non-UK seasonal (casual) labour restricted to 50% of current levels
	No change to labour costs	50% increase in regular labour cost, no change in casual labour cost	50% increase in regular labour cost, 50% increase in casual labour cost
Trade relationship with the EU	Comprehensive Free Trade Agreement (FTA) enabling tariff-free trade between the UK and the EU	No trade deal between the UK and the EU is agreed UK–EU trade relationship the same as with the rest of the world	No trade deal between the UK and the EU is agreed UK–EU trade relationship the same as with the rest of the world
	Increase of 5% in UK prices to reflect the cost of trade friction in an FTA	Increase of 8% in UK prices to reflect the cost of trade friction without an FTA, no tariff applied	Increase of 8% plus cost of WTO tariff in UK prices
Trade relationship with the RoW	WTO rules apply UK has access to a share of the EU's existing WTO Tariff Rate Quotas (TRQs) and agrees FTAs with third countries that already have FTAs with the EU	WTO rules apply, although UK unilaterally reduces import tariffs to 0% for all agricultural products within set quotas	UK adopts the same common external schedule of tariffs as the EU and retains a proportion of its existing WTO TRQs, including for New Zealand and Australian lamb and the Hilton Beef quota
	Increase of 8% in UK prices to reflect the costs of trade friction with the RoW	Increase of 8% in UK prices to reflect the cost of trade friction, no tariff applied	Increase of 8%, plus cost of WTO tariff in UK prices – exceptions for lamb and beef in line with existing quotas
Regulatory environment	All existing EU regulations adopted into UK law, meaning no change to regulatory costs	All existing EU regulations adopted into UK law, with the regulatory burden reduced over time	All existing EU regulations adopted into UK law, meaning no change to regulatory costs
	No change to costs	5% decrease in costs of seeds, fertilisers, crop protection, other crop costs, veterinary fees and medicines, plus other livestock costs	No change to costs

[40] Brexit Scenarios: an impact assessment, AHDB 2017: **https://ahdb.org.uk/brexit/documents/Horizon_BrexitScenarios_Web_2017-10-16.pdf**

AHDB's modelling goes further than other studies which have sort to quantify Brexit impacts as four different aspects of Brexit have been assessed. The model assesses the impact of changes to trade arrangements, levels of agricultural policy support, regulation and labour. Having said this, findings from the research are broadly consistent with those found elsewhere. For instance, trade impacts were assessed by the Agri-food and Biosciences Institute (AFBI) using the FAPRI model and trade and support were explored by Wageningen University in a study funded by the NFU.

A detailed methodological note on the approach taken can be found on the AHDB website.

Results for Wales

In order to provide more Welsh-specific evidence, AHDB commissioned analysis of some Welsh-specific farm types using data from the Farm Business Survey in Wales. The analysis shows how Farm Business Income (FBI) might change from a baseline position, based on an average of the three years ending 2016/17. Results from this analysis are discussed within this section.

SDA Sheep in Wales

The baseline FBI for SDA sheep farms is £24,600 (Figure 10). Under ***Scenario 1: Evolution***, this falls by six per cent to £23,000, under ***Scenario 2: Unilateral Liberalisation***, FBI falls by 85 per cent to £3,800, while under ***Scenario 3: Fortress UK***, FBI becomes negative after falling by 136 per cent to -£8,800. It is important to note that there are significant differences in impacts for farms of different performance levels. Graphs showing this can be found in the Appendix. These show that farms that are in the top 25 per cent of performance, in terms of FBI size, are able to remain profitable under all the scenarios. This is also a finding for all other sectors which have been analysed.

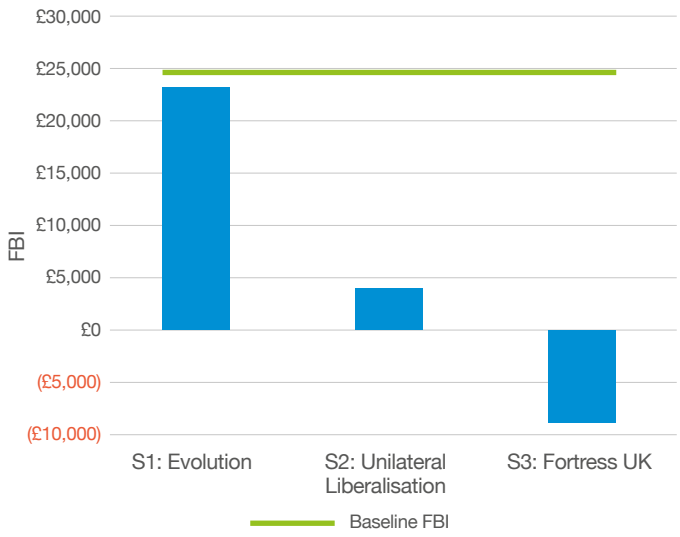


Figure 10. **Impacts of scenarios on FBI: SDA Sheep in Wales**

Figure 11 shows the components of FBI for each scenario and the baseline; comparisons between them give the explanation why FBI differs between scenarios.

- The six per cent decrease in FBI seen under ***Scenario 1: Evolution*** is driven by decreases in the output value of sheep, caused by the loss of export potential
- The 85 per cent decrease in FBI under ***Scenario 2: Unilateral Liberalisation*** there is due to a removal of Pillar I payments (£27,500 per business), which is not offset by the increase in Pillar II payments (from £10,200 to £29,000). Decreases in the value of production output and increases in fixed costs also have an impact, though reductions in variable costs provide some marginal relief for these changes
- Under ***Scenario 3: Fortress UK***, the negative FBI results from a smaller increase in Pillar II support (£10,200 to £14,500), which does not fully offset for the loss of Pillar I support and an increase in fixed costs. The value of production output also decreases relative to the baseline by £9,700. There is likely to be severe pressure on less efficient farmers and downward pressure on farm size, in order to reduce costs of paid labour

Figure 11. **Components of changes to FBI: SDA Sheep in Wales**

LFA sheep and beef (excluding specialist sheep in the SDA)

- The baseline FBI for LFA grazing is £17,600 (Figure 12). Under ***Scenario 1: Evolution***, this rises by four per cent to £18,400, under ***Scenario 2: Unilateral liberalisation***, FBI falls by 109 per cent to £1,700, while under ***Scenario 3: Fortress UK***, FBI falls by 100 per cent to -£100.

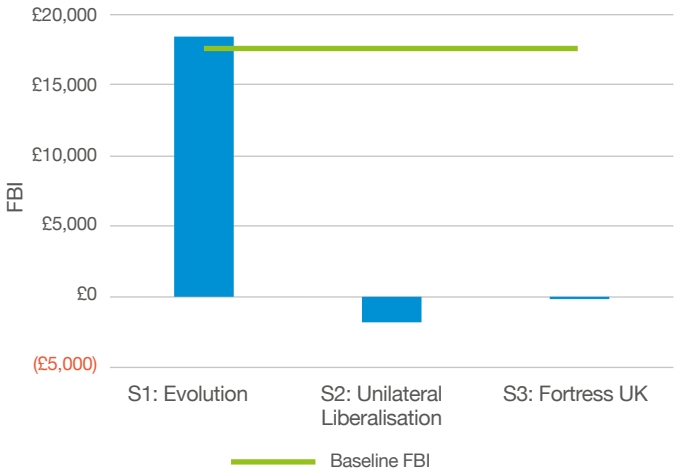


Figure 12. **Impacts of scenarios on FBI: LFA grazing in Wales**

Figure 12 shows the components of FBI for each scenario and the baseline; comparisons between them give the explanation why FBI differs between scenarios

- The five per cent rise in FBI seen under ***Scenario 1: Evolution*** is driven by a slight increase in the production output of cattle caused by loss of export potential. This is not offset by a decreased value of sheep
- The 110 per cent decrease in FBI under ***Scenario 2: Unilateral liberalisation*** is due to a removal of Pillar I payments (£20,100 per business), which is not offset by the increase in Pillar II payments (from 3,500 to £10,000). A slight decrease in the value of production output and increases in fixed costs also have an impact, though reductions in variable costs provide some marginal relief for these changes
- Under ***Scenario 3: Fortress UK***, the 101 per cent decline in FBI results from a smaller increase in Pillar II support (from £3,500 to £5,000) which does not fully offset for the loss of Pillar I support and an increase in fixed costs. The value of production output increases relative to the baseline, but there is likely to be severe pressure on less efficient farmers and downward pressure on farm size, in order to reduce costs. Graphs showing this can be found in the Appendix

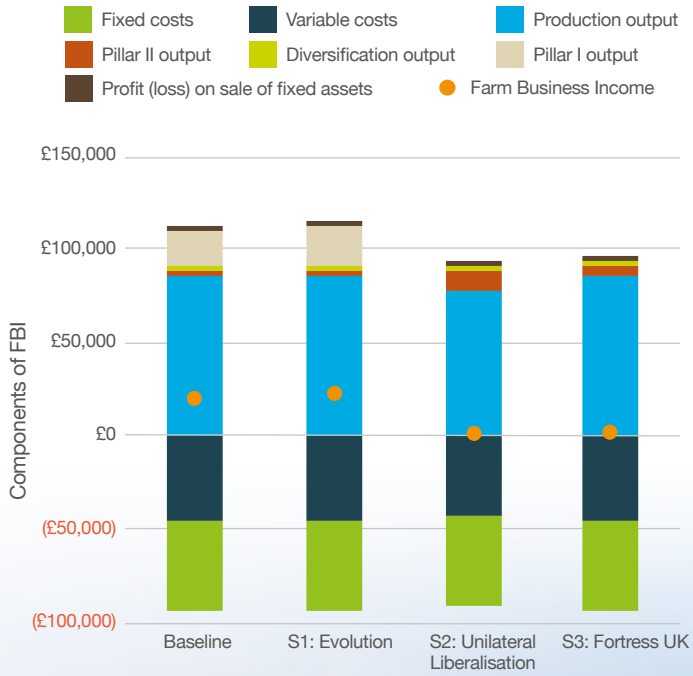


Figure 13. **Components of changes to FBI: LFA grazing in Wales**

Lowland sheep and beef (ie non-LFA)

The baseline FBI for specialist cattle farms is £24,200 (Figure 14). Under ***Scenario 1: Evolution***, this rises by four per cent to £25,100, under ***Scenario 2: Unilateral liberalisation***, FBI falls by 84 per cent to £3,900, while under ***Scenario 3: Fortress UK***, FBI falls by 65 per cent to £8,400.

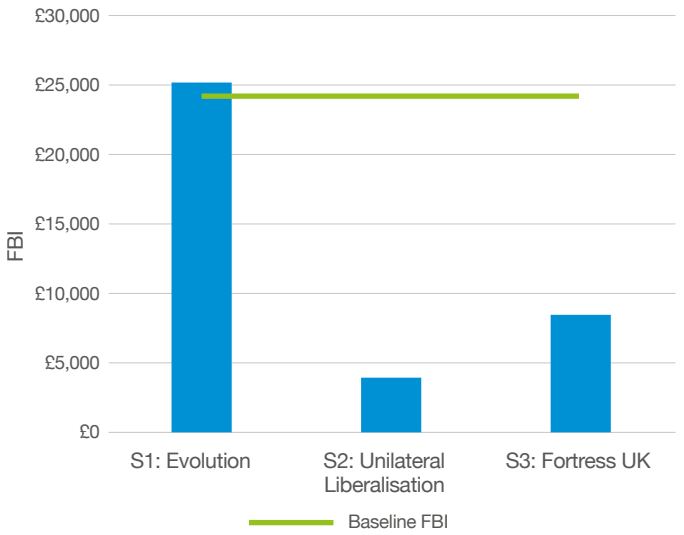


Figure 14. **Impacts of scenarios on FBI: Lowland grazing in Wales**

Figure 15 shows the components of FBI for each scenario and the baseline; comparisons between them give the explanation why FBI differs between scenarios.

- The four per cent rise in FBI seen under ***Scenario 1: Evolution*** is driven by an increase in the production output of cattle, caused by a loss of export potential. This is not offset by a decrease in the value of sheep
- The 84 per cent decrease in FBI under ***Scenario 2: Unilateral liberalisation*** is driven by a removal of Pillar I payments (£18,900 per business), which is not offset by the increase in Pillar II payments (from £1,700 to £4,900). A decrease in the value of production output and a slight increase in fixed costs also have an impact, though reductions in variable costs provide some marginal relief for these changes
- Under ***Scenario 3: Fortress UK***, the 65 per cent decline in FBI results from a smaller increase in Pillar II support (from £1,700 to £2,500) which does not fully offset for the loss of Pillar I support. The value of production output increases relative to the baseline, but there is likely to be severe pressure on less efficient farmers and downward pressure on farm size, in order to reduce costs. Graphs showing this can be found in the Appendix

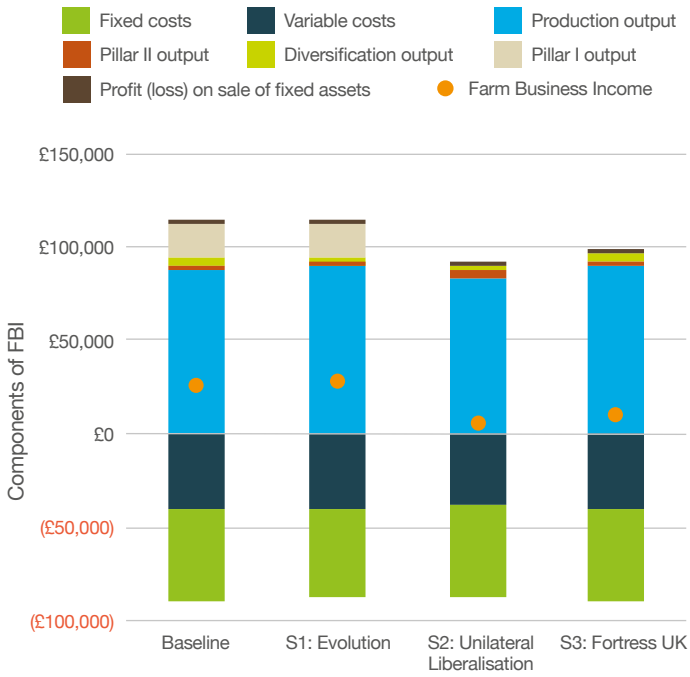


Figure 15. **Components of changes to FBI: LFA grazing in Wales**

Dairy in Wales

The baseline FBI in Wales for specialist dairy farms is £60,600 (Figure 16). Under ***Scenario 1: Evolution***, this rises by 23 per cent to £74,800, under ***Scenario 2: Unilateral liberalisation***, FBI falls by 27 per cent to £44,000, while under ***Scenario 3: Fortress UK***, FBI rises by 29 per cent to £78,300.

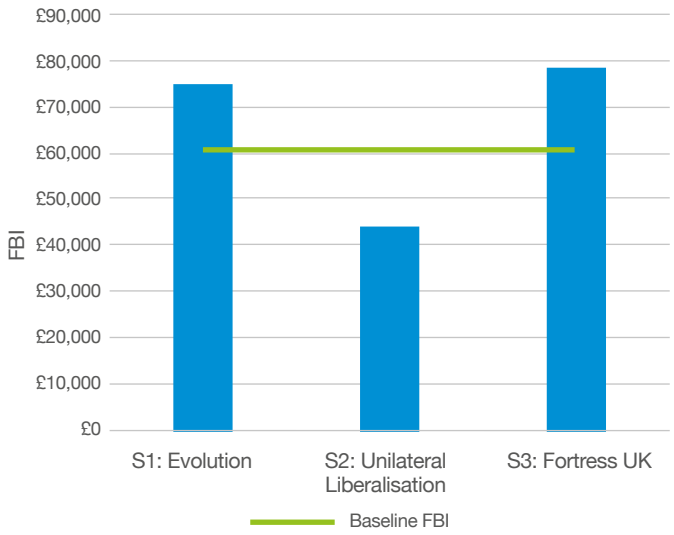


Figure 16. **Impact of scenarios on FBI: Dairy in Wales**

Figure 17 shows the components of FBI for each scenario and the baseline; comparisons between them give the explanation why FBI differs between scenarios.

- The 23 per cent rise in FBI seen under ***Scenario 1: Evolution*** is driven by an increase in the output value of raw milk, caused by a rise in import costs
- The 27 per cent decrease in FBI under ***Scenario 2: Unilateral liberalisation*** is mainly due to a removal of Pillar I payments (£21,400 per business), which is not offset by the increase in Pillar II payments (from £1,700 to £4,800). Increases in variable costs also have an impact, though reductions in fixed costs offset these changes
- Under ***Scenario 3: Fortress UK***, the 29 per cent rise in FBI results from a smaller increase in Pillar II support (from £1,700 to £2,400) which does not fully offset for the loss of Pillar I support and an increase in both variable costs. The value of production output increases by £40,722 relative to the baseline due to the rising cost of dairy imports providing upward pressure to domestic prices

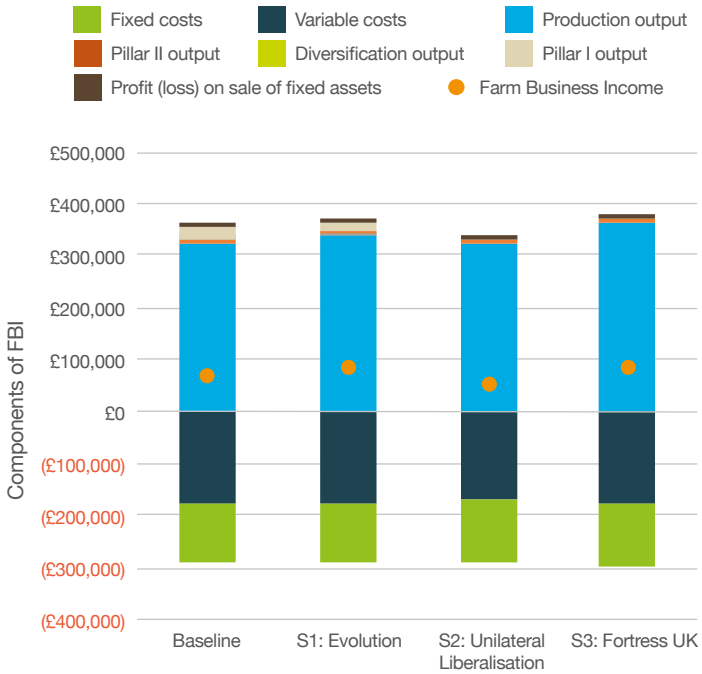


Figure 17. **Components of changes to FBI: Dairy in Wales**

Other sectors

The farm businesses assessed in **Brexit Scenarios: an impact assessment** were developed using data from the Farm Business Survey in England. Many of the farm types outlined provide a relevant starting point for Welsh businesses to understand the possible impacts of Brexit. Full details can be found within **Brexit Scenarios: an impact assessment**, but headline results are shown below.

Cereals

The baseline FBI for cereal farms is £43,796 (Figure 18). Under ***Scenario 1: Evolution***, this falls by nine per cent to £39,788, under ***Scenario 2: Unilateral liberalisation***, FBI falls by 81 per cent to £8,216, while under ***Scenario 3: Fortress UK***, FBI becomes negative after falling by 103 per cent to -£1,341.

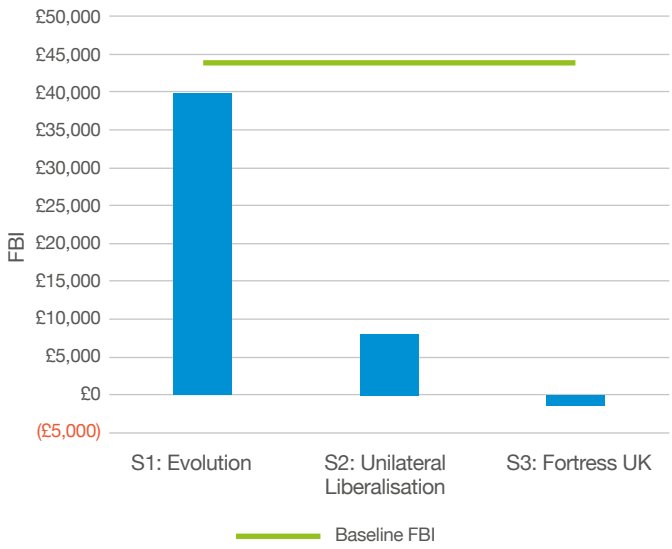


Figure 18. **Impact of scenarios on FBI: Cereals**

General cropping

Figure 19 shows that the baseline FBI for general cropping farms[41] is £61,231. ***Under Scenario 1: Evolution***, FBI rises marginally, but FBI falls to around one third of this level under ***Scenario 2: Unilateral liberalisation***. FBI also declines under ***Scenario 3: Fortress UK*** but only to £24,710.

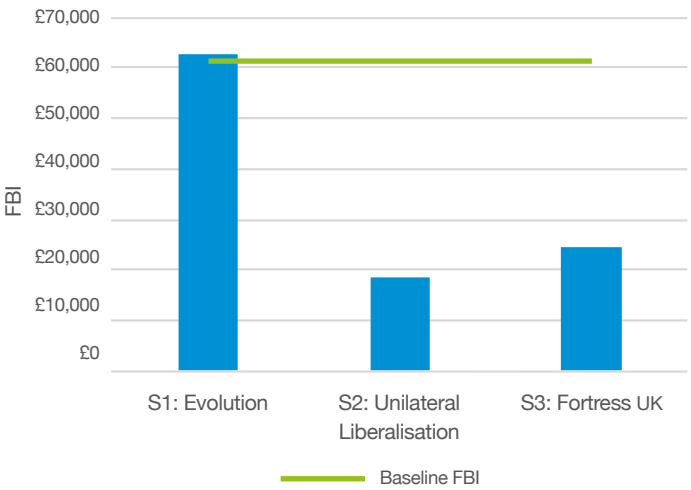


Figure 19. **Impact of scenarios on FBI: General cropping**

Horticulture

The horticulture classification includes a broad remit. We have, therefore, chosen specific crops as representative of the sector, including onions, tomatoes and strawberries. Full details of our methodology for modelling crops where data was limited may be found in the technical report.[42] Figure 20 compares the baseline FBI (£33,517) to that under the three scenarios. FBI increases by approximately £15,000 under ***Scenario 1: Evolution*** but falls under both ***Scenario 2: Unilateral liberalisation*** and ***Scenario 3: Fortress UK*** to £29,632 and £30,890, respectively.

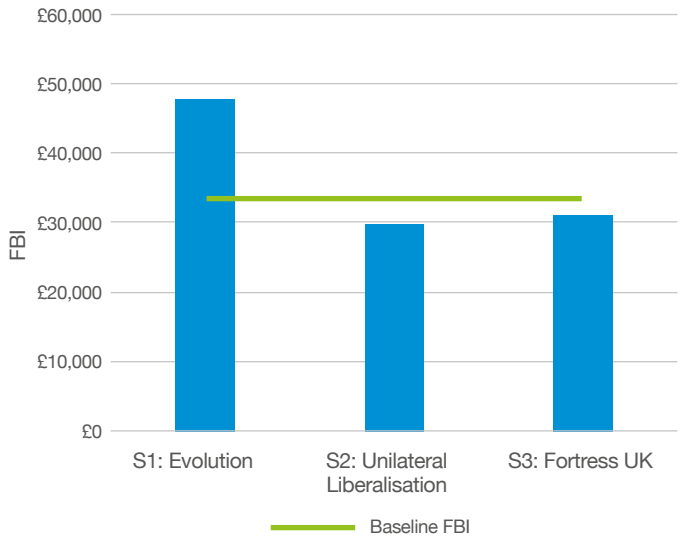


Figure 20. **Impact of scenarios on FBI: Horticulture**

Pigs

Figure 21 shows that the baseline FBI for pig farms is £46,067. This increases under all three scenarios to £68,708 under ***Scenario 1: Evolution***, £57,418 under ***Scenario 2: Unilateral liberalisation*** and £205,354 under ***Scenario 3: Fortress UK***.

It should be noted that the carcase balancing trade is very important in the pig sector, and while higher prices are likely to be possible for cuts in demand, an inability to extract value from cuts for which there is no domestic demand would mean that the price rises seen here, and the consequential large increases in FBI, would be reduced, possibly considerably.

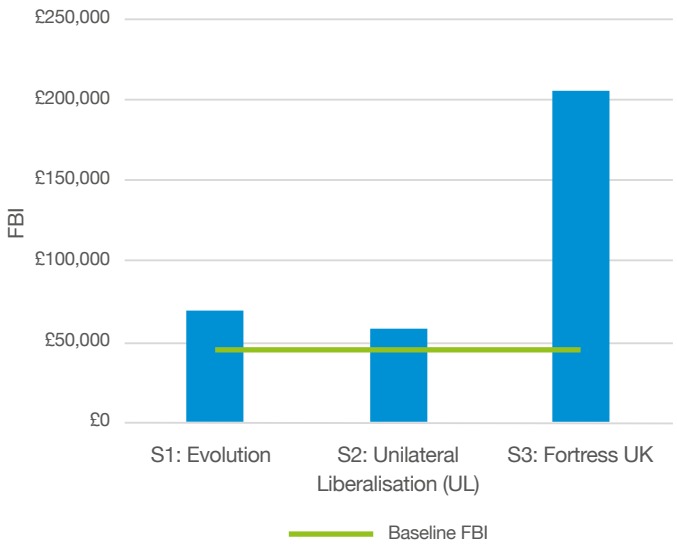


Figure 21. **Impact of scenarios on FBI: Pigs**

[41] Holdings on which arable crops (including field-scale vegetables) account for more than two thirds of their total standard output (SO), excluding holdings classified as cereals; holdings on which a mixture of arable and horticultural crops account for more than two thirds of their total SO, excluding holdings classified as horticulture; and holdings on which arable crops account for more than one third of their total SO and no other grouping accounts for more than one third.

[42] Available at **www.ahdb.org.uk/brexit**

CLOSING THOUGHTS

It is clear that Brexit brings a great deal of uncertainty for the agricultural sector and wider food supply chain. While we do not know all the details, it is possible to identify areas where Wales has both higher and lower exposure to Brexit challenges, when compared to other parts of the UK.

The scenarios analysis highlights that significant change could result from Brexit, indicating that farmers and growers, as well as other parts of the supply chain, need to start preparing for Brexit now. While many of the factors relating to Brexit are out of the farmers' control, some steps can be taken to prepare.

On international trade:

Brexit will provide Welsh agriculture and horticulture with both risks and opportunities. In the short term, the nature of future UK/EU trade relationships will be a critical issue. Due to the lower level of EU exports, Welsh agriculture as a whole is less exposed to this risk than other parts of the UK. However, it is clear this will still affect the industry and there is an obvious interdependence with the agri-food sector elsewhere in the UK, with greater friction in UK/EU trade boosting farming incomes in some sectors (notably dairy and pigs) and shrinking them in others (notably cereals and sheep).

On agricultural support:

The evidence is clear that support payments are important to maintaining farm business incomes for many businesses. It is not clear how agricultural policy will change post-Brexit, but there is likely to be increased scrutiny of the degree to which agriculture provides public benefits for public money. Welsh agriculture would be more exposed to any reductions in support levels, given that support contributes a higher proportion of farm business income. Future decisions on the level of agricultural budgets and how this funding is allocated will be important.

TOOLKIT

Is your business Brexit ready?

The following questionnaires consist of ten questions that refer to different aspects of practice. For each question, score yourself between 1 and 5, where 1 is no – not at all, and 5 yes – I am fully implementing this. Be honest: understanding your strengths and areas for development will help you to capture opportunities to improve your businesses resilience.

Review of farm business:

1 Do the business owners have a clearly set out vision and accompanying objectives?

1 2 3 4 5

2 Do you have a clear succession plan in place and is this communicated to all involved?
If not, do you have an exit plan?

1 2 3 4 5

3 Do those involved in the management of the business routinely (eg every 3-6 months) meet to take a hands off view of the business to discuss objectives, performance etc?

1 2 3 4 5

4 Has the business made an assessment of additional or alternative farming and non-farming enterprises that it could embark upon in the future?

1 2 3 4 5

Profit and performance:

5 Does the business have sufficient grasp of production costs and know where improvements can be made?

1 2 3 4 5

6 Have you considered and tested a 5 year business plan to understand your longer term income, expenses and ability to meet the expectations of farm partners?

1 2 3 4 5

Brexit scenario planning

7 If direct payments are reduced/removed, do you understand the impact this will have on the viability of the business? In such a scenario does the business have a plan in place?

1 2 3 4 5

Individual farm performance – technical change

8 Has the business considered and even explored collaboration with other local businesses?

1 2 3 4 5

9 Is the business testing out new technical innovations/ideas eg through split field comparisons and discussion groups?

1 2 3 4 5

Getting the most from the marketplace

10 Do you know the underlying consumer trends behind your produce?

1 2 3 4 5

Your score

	Benchmark score	Your score
Review of Farm Business	12	
Profit and Performance	6	
Brexit scenario planning	3	
Individual farm performance – technical change	6	
Getting the most from the marketplace	3	

If your score is below the benchmark you may wish to consider the resources over page.

Tools and resources for farmers

A selection of tools and resources which can help your business prepare for Brexit are below. Please contact or visit websites for AHDB, HCC or Farming Connect for upcoming information and events.

Review of farm business

Tool	What it does	Where to find it
Farming Connect	Business planning guide, one-on-one surgeries, advisory service, measure to manage and discussion groups	businesswales.gov.wales/farmingconnect 08456 000 813
Strategy setting webinar	A webinar that will take you through some of the risks our businesses face and how we might mitigate them along with looking at your business in terms of setting a vision and strategy	Webinar: www.youtube.com/watch?v=LlKNxDY-Yu4 Worksheets: dairy.ahdb.org.uk/planning-wheel dairy.ahdb.org.uk/risk-management dairy.ahdb.org.uk/risk-register

Profitability & performance

Tool	What it does	Where to find it
Farmbench for Beef, Lamb, Potatoes, Cereals and Oilseeds	Farmbench helps you to understand and compare your full costs of production at both enterprise and whole-farm level.	farmbench.ahdb.org.uk 07815 600240
Profit and loss account template	A profit and loss account template; describes the business's financial transactions and the resulting profit (or loss) for the trading period.	dairy.ahdb.org.uk/account-template
Cashflow with VAT calculator template	A template for a cashflow spreadsheet; a good way of showing future anticipated peaks and troughs in the money coming into the business and the costs which the business will have to cover during that time.	dairy.ahdb.org.uk/cashflow-cal

Brexit scenario planning

Tool	What it does	Where to find it
Crop Carbon Footprint decision tool	Calculate the carbon footprint of a particular crop	cereals.ahdb.org.uk/carbon-footprinting-tool
Stocktake What If for Beef and Lamb	Use either the sliders or type a number in the 'Adjust by' boxes to amend your base figure to produce a scenario ie to see the impact on Gross Margin should the price of feed go up.	beefandlamb.ahdb.org.uk/returns/tools/stocktake-lite
Dairy Decision tool	A decisions tree has been developed to help you look at options for you and your business. It will take you through a series of questions with answers that will either take you to the next step or to information and support in particular areas. The decisions tree will also take you through non-dairy and non-agriculture options for your business.	dairy.ahdb.org.uk/business-decisions

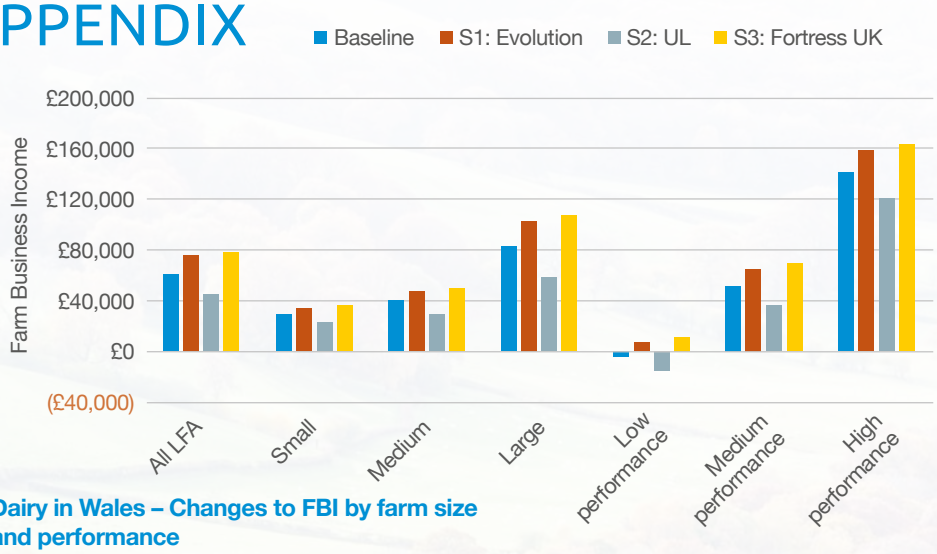
Individual farm performance – technical change

Tool	What it does	Where to find it
Beef and lamb KPI calculators	These Key Performance Indicator (KPI) calculators have been developed to help producers collect key measurements and identify strengths and weaknesses in herd or flock performance.	beefandlamb.ahdb.org.uk/returns/tools/kpi-calculators
Dairy KPI Benchmarking Tool	This online calculator enables dairy farmers to enter their own performance and financial figures to see how they benchmark with others. The KPI calculator breaks the measures down into two areas: • Enterprise key performance indicators for both AYR and block calving systems • Three key business measures that every business should know, understand and benchmark their performance against including full economic costs of production.	dairy.ahdb.org.uk/kpi-calculator

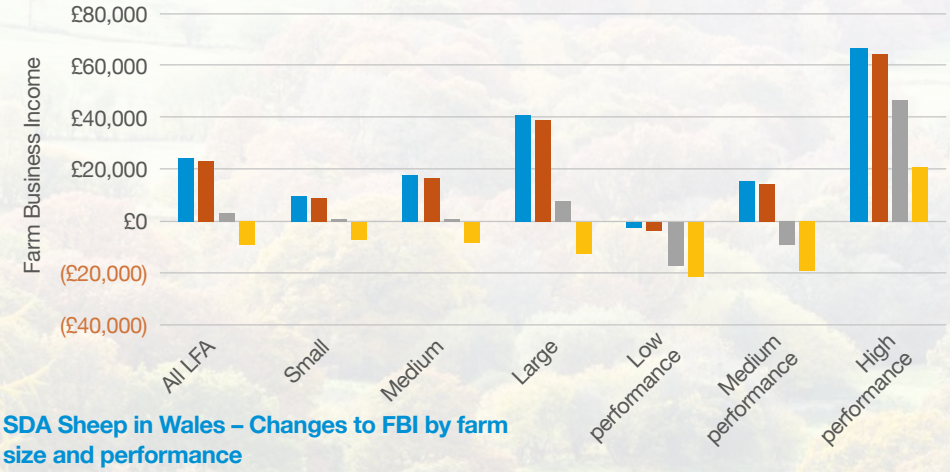
Getting the most from the marketplace

Tool	What it does	Where to find it
Virtual beef and lamb programmes	The Better Returns Programme (BRP) virtual programmes explain the selection message by using dissolving techniques. They allow producers to see a computer-generated animal change conformation and fat class from every angle. The programmes also take producers through different carcase cuts, yield data and a number of other topics related to selection.	beefandlamb.ahdb.org.uk/returns/tools/virtual-beef-lamb-programmes
Milk price calculator	The calculator can be used to help you achieve the best milk price possible. By inputting farm-specific data, it provides a way to see where changes can be made to improve the milk price on your current contract.	dairy.ahdb.org.uk/milk-calculator
Cattle and Sheep Selection for Slaughter Training Programme	These training events are free and provide practical demonstrations and 'hands on' experience at an abattoir, assessing live animals through to assessment of carcass. Each event is held at an abattoir with up to a dozen farmers on each course. There is detailed instruction on handling points and factors to be considered when selecting cattle and sheep for slaughter.	hccmpw.org.uk/farming/carcase_selection1 Contact HCC on 01970 625050
HCC Market Bulletins	As well as latest information on livestock market prices for sheep, cattle and pigs, the monthly Market Bulletins provide analysis of trends behind the headline figures which help inform business planning. These include consumer consumption patterns, abattoir throughput and trade (import/export) data.	hccmpw.org.uk/publications/corporate/market_bulletins1

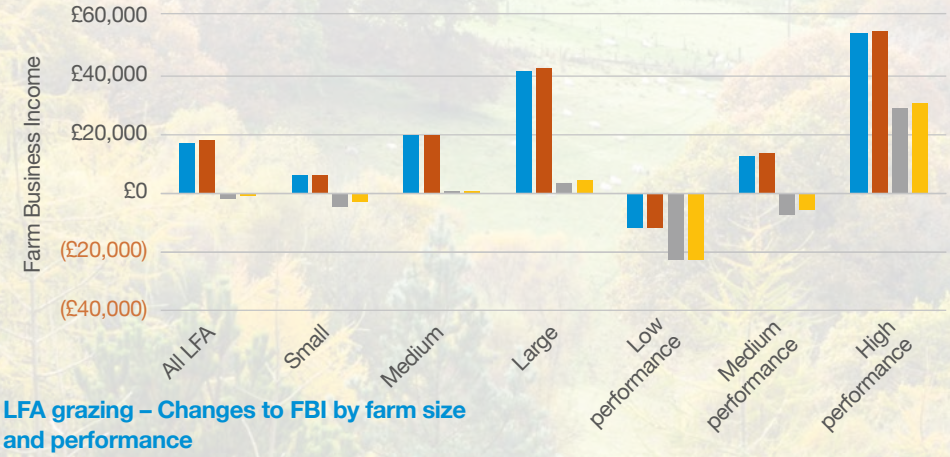
APPENDIX



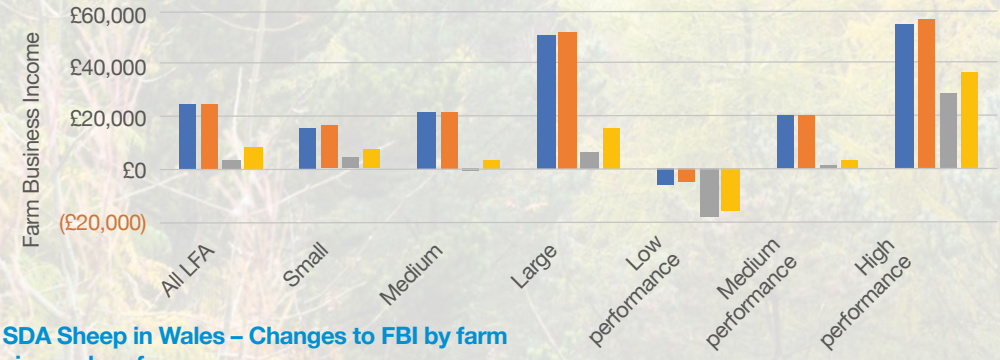
Dairy in Wales – Changes to FBI by farm size and performance



SDA Sheep in Wales – Changes to FBI by farm size and performance



LFA grazing – Changes to FBI by farm size and performance



SDA Sheep in Wales – Changes to FBI by farm size and performance

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