

Prospects for UK Agriculture



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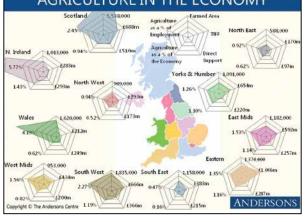
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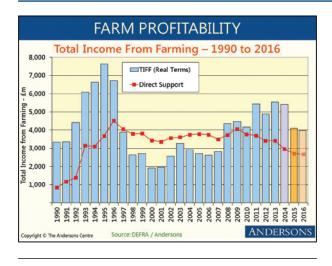
PROSPECTS FOR UK AGRICULTURE

FINANCIAL HEALTH OF UK FARMING

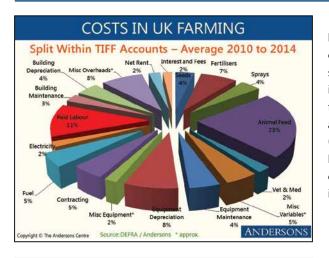


AGRICULTURE IN THE ECONOMY

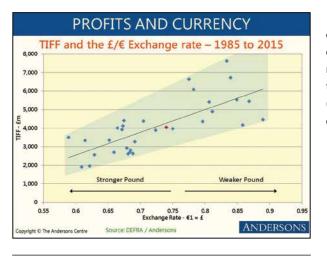
The first slide simply gives an overview of the agricultural industry in various regions of Great Britain. The farmed area for each region is shown in hectares. TIFF, or Total Income from Farming, is simplistically the profit from agriculture. Support payments under the Common Agricultural Policy are shown. These are on the same scale as TIFF and it can be seen that these comprise a high percentage of profit in many regions, and is more than TIFF in Wales and Northern Ireland. Agriculture's share of the economy (as measured by Gross Value Added) and employment complete the picture - both expressed in percentage terms. Usually, farming has a larger proportion of employment than economic activity, indicating it is a relatively labour-intensive industry (or put another way, does not produce very high returns to the labour input). The data is for the 2014 year or 2013 where the former is not available.



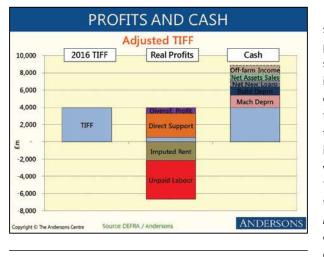
The main measure of the profitability of UK agriculture is Total Income from Farming (or TIFF). This is the aggregate return to all the entrepreneurs in UK agriculture and horticulture for their management, labour and their own capital in their businesses. The slide shows the better returns to UK farming during the last seven years. Profits in 2014 stayed surprisingly high after the record 2013 year. Although prices started to drop during 2014, averages over the year were often not greatly down on 2013. The figures for 2015 are Andersons' estimates and we forecast a 20%+ drop for the year (the first official DEFRA estimates come out in April). At present, the prospects for 2016 show little signs of change from 2015. It should be remembered that as the number of 'farmers' has declined over the years, TIFF per 'entrepreneur' has moved ahead of the aggregate figure. For the Seminars this year the level of Direct Support (SPS/BPS) being received has been included. It can be seen that this is an important component of profit. This level of support would be under review should 'Brexit' occur - covered later in the session.



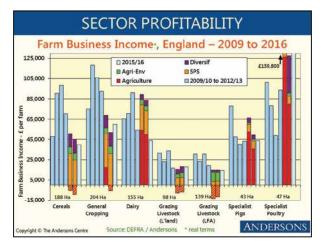
Although output prices have fallen in many sectors, it should not be forgotten that costs have also decreased substantially in many categories. Partly this is influenced by the fall in the oil price, but the strength of Sterling also makes imports cheaper and many inputs are imported. Some of the most 'high-profile' costs such as fuel and fertiliser have fallen the furthest. However, as this chart shows, they actually make up a relatively small share of overall UK farm costs (although the proportions vary between sectors). Some costs will not have fallen and will actually still be rising. For example, the introduction of the National Living Wage could push up paid labour costs especially in the horticultural sector.



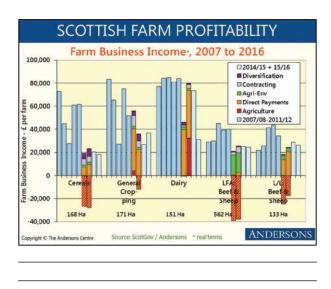
In previous presentations we have highlighted the importance of currency in determining farm profitability. This chart shows this graphically with TIFF being plotted against the average E/\in exchange rate for the year. It covers a 30 year period. The black line shows the trend – simplistically, as the Pound weakens against the Euro (approaches parity), then farm profits rise. The red marker is our estimate for the 2015 year – pretty much in the middle of the range.



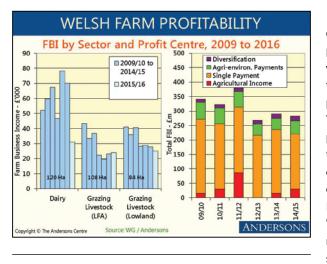
This chart undertakes some more analysis of the TIFF figures. The starting point is our forecast of profits for the current 2016 year. If the profits from Diversification are removed, and the income from direct support, the 'farming' profit is much reduced - almost negligible. TIFF includes the rent paid by tenants, but not owner-occupied farms. It is good practice to separate returns from owning land from the returns from farming it. If an imputed rent is included for all UK farmland then the TIFF becomes negative. TIFF is a return before farmers' time. Building in a value for the farmers' labour at the same rate as an average farm worker and standard hours, imposes a further level of costs and leaves 'true' returns at a very negative level. However, it needs to be recognised that these are notional costs, and that subsidy and diversification income is received. In terms of how businesses survive tough times there are other non-cash costs that are included in the TIFF accounts such as depreciation. Although this is a real cost to the business, a 'holiday' can be taken for a while. Additional cash can be injected into the business by extra borrowing and/or asset sales. Lastly, many farming families have income streams beyond the farm gate - notably off-farm employment.



This slide gives a breakdown of profitability by sector. It shows data for England, taken from the Farm Business Survey. The figures show farm-level profits – they are averages for part and full-time farms (any business with over half a Standard Labour Unit requirement). The measure is Farm Business Income (FBI). The changing fortunes of each sector can be seen since 2009/10 year (2009 harvest). The data for 2013/14 and 2014/15 have been split into the contribution from each of four profit centres. It shows how important subsidy income (SPS/ BPS plus agri-environmental income) is to the profitability of English farming. This is especially true of some sectors such as (hill) livestock farming. The final sets of columns are estimates for 2015/16 sector incomes (the year just ending). Included is the average farm size in each of the categories (for the 2014/15 year).



This chart shows the split of farm incomes for Scottish farms. The measure is Farm Business Income (FBI) and they are averages for part and full-time farms. The average farm size for each category is shown (and relates to the 2013/14 year). The arable sector in Scotland has suffered a run of quite poor years. Dairy profits had been relatively robust, but crashed in the past year. The data for 2012/13 and 2013/14 have been split into the profit contribution from each of five profit centres. It shows how important subsidy income (BPS/SPS plus agrienvironmental income) is to the profitability of Scottish farming. The Scottish Government data currently only goes up to 2013/14 year so the figures for both 2014/15 and 2015/16 are Andersons estimates.



The performance of the Welsh agricultural sector is shown in more detail on this slide. The first chart is average Farm Business Income (i.e. profit) for full time farms. In general, dairy farm returns are comparable with those in England. Beef and sheep farms do slightly better than their English counterparts - this may well be to do with higher support payments for these enterprises under the historic payment system. The figures for 2015/16 are our estimates as these have not yet been published by the Welsh Government. The second chart shows where the industry makes its profits. These are Farm Business Income for the entire industry rather than by sector; they show the clear contribution of the Single Payment and agri-environment money (i.e. Glastir). Diversification activities tend to make a relatively low contribution in Wales compared with England. In the 2012/13 year the Welsh industry made a very small loss from its farming activity (-£2m) which does not show up on the chart. Only a small profit was made in both 2013/14 and 2014/15. It seems very likely that Welsh agriculture will be loss-making again in 2015/16.

FARM PROFIT SUMMARY



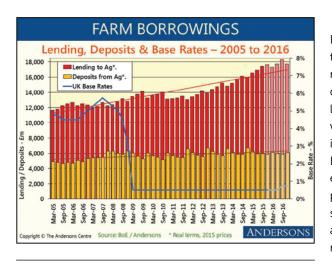
- Weather (El Nino)
- £/€ exchange rate shifts
- risk of 'Brexit' causes uncertainty
- performance of Eurozone improves

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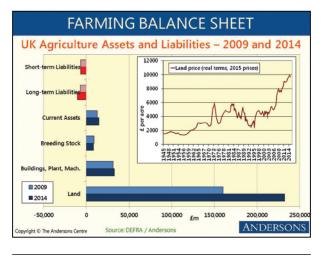
during the rest of the morning!

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When considering the financial situation of UK farming, a little perspective is useful (which is why our charts show a number of years). Certainly profits in 2015 will show a big drop compared to those in 2014, and 2016 does not seem likely to be better. But the years 2011 to 2014 could be considered unusually good. Profits are still only back down to the levels seen in 2008 to 2010, and well above the levels experienced in the late 1990's and early 2000's. Even so farmers will be looking for an improvement. This could come from a number of sources which are set out on the slide. As farm business consultants we believe that the industry should focus on efficiency improvements – the only factor on the list over which they have control.



Turning away from profitability to capital issues, this chart presents Bank of England figures showing total lending at the end of each quarter to agriculture (also including the hunting and forestry industries). It is real terms, so it can be seen that borrowing has increased over the decade shown. In 2011 and 2012 when farm profits were high there was little growth, but it has accelerated since then. Some of the borrowing will be to fund investment on farms, or land purchase. But a proportion is likely to be covering short-term shortfalls in cash. The arrival of SPS/ BPS payments means that the figures usually improve for the quarter ending December. This is not be the case in 2015 due to the delay in payments. The deposits from agriculture, hunting and forestry are also shown. These have grown, but by a lesser amount. Whilst interest rates are low the higher level of borrowings is unlikely to be a problem for most businesses.



This chart presents the aggregate balance sheet for UK farming in a graphical form. It compares real-term values at the end of December 2014 (latest available figures) with those five years earlier. In line with the previous chart, it can be seen that liabilities have grown. However, these are dwarfed by the various assets held by farm businesses. The stand-out change is the rise in the valuation of land (nearly £72bn of appreciation over 5 years in real terms). The inset chart shows the rise in land values on a very long-term basis. The last ten years have seen unprecedented growth in prices. The last few months has seen markets weaken somewhat however. It is likely that good land will continue to sell well. But there may be a greater divergence of values, with 'second quality' land not getting close to the £10,000 per acre mark.

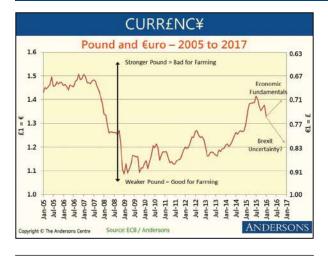
DO HIGH ASSET VALUES HELP?

- Only paper 'profits' produces no income - only realisable if land is sold (which few do)
- Far less useful than in the past for securing borrowings
- banks now looking at 'serviceability'
- risk rating focuses on trading business rather than assets
- higher risk = bank has to set aside more capital
- Impediment to development of farming?
- high capital cost of expanding or starting (although no need to *own* land to run a *farming* business)
- rising values suck in investment money fuelling further rises
- problems when passing business to next generation
- ownership of land and farming two different businesses

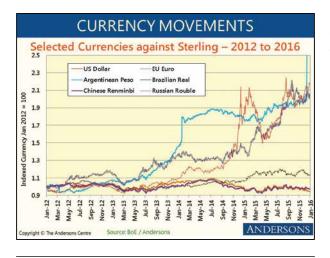
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We have always cautioned that high land values do not benefit everyone – most notably tenant farmers of course. However, do they actually benefit the industry as a whole? Any increase in value is only a paper profit unless the asset is sold. Very few landowners do this. It used to be the case that strong asset values could be used to borrow against. Since the Financial Crisis this is no longer so true. Lenders are far more focussed on the ability to service a loan rather than the assets that can be called in if it defaults. This is down to the new banking regulations on capital ratios. It can be argued that high land values actually hold back UK farming. It prevents sensible restructuring, and can cause problems when passing farms down a generation (particularly when assets have to be equalised between siblings when not all of them wish to farm). The model that UK farming has largely adopted is owner-occupation, but there has been an increasing trend (and perhaps a sensible one) for the ownership and the farming of land to split.

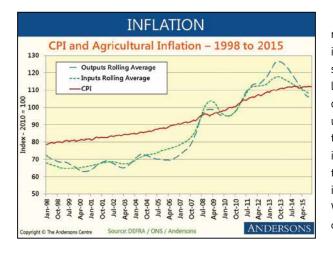
THE WIDER ECONOMY AND AGRICULTURE



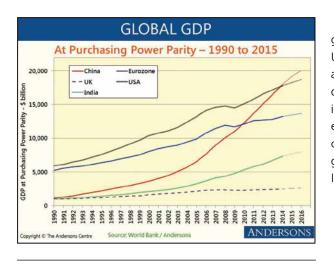
The relationship between the Pound and the Euro is fundamental for the fortunes of UK farming for two main reasons: Firstly, farmers' subsidies are calculated in Euros then converted into Sterling in September each year. The exchange rate at that point therefore affects the Sterling value of UK BPS payments. In addition, the majority of UK exports are made to the Eurozone. If the Pound is strong, UK exports cost more in foreign currencies and imports into the UK become cheaper in Sterling terms. If Sterling weakens, the opposite happens, supporting UK domestic prices. The direction of Sterling against the Euro over the next few months is even more difficult to call than usual. The UK economy is doing better than that of the Eurozone – this would usually see the Pound remaining strong. However, uncertainty over Brexit as the UK referendum on EU membership draws closer may see the Pound weaken as uncertainty undermines confidence (although some uncertainty is already factored-in to the market).



It should also be remembered that other currencies are also important when looking at (agricultural) commodity markets. This chart shows various currencies indexed against the Pound. Simplistically as any line gets higher on the chart, that country becomes more competitive when trading (with the UK). The weakening of the Euro against Sterling since mid-2013 is discernible. The Dollar has strengthened against the Pound over the last year to 18 months giving some assistance to UK exports on global markets priced in Dollars. The Russian Rouble, Argentinian Peso and Brazilian Real have all seen massive weakening over the last couple of years. The latter two are big agricultural exporters and this shift in currency has made their exports even cheaper to export. A devaluation of a currency leads to high inflation, so the benefit tends to be shortterm, but it is long enough to help export surpluses.



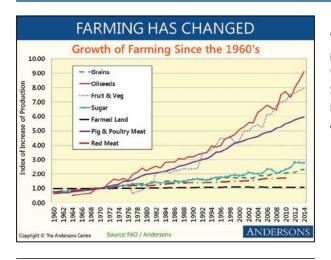
The Consumer Price Index (CPI) is now the Government's preferred measure of inflation in the general economy. Over the period shown it averages around 1.9% per year. Although there are 'blips' it is a fairly steady upwards progression. At present we are in a period of historically low inflation – the index has been flat for almost six months. This is due, in large part, to the fall in oil prices. Once this change starts to unwind from the figures, we would expect price growth to return closer to its long-term trend towards the end of 2016. At the moment low inflation is one of the factors keeping Base Rates low. It can be seen that agricultural inflation is much more volatile – both for outputs and inputs. This is because the goods concerned are often commodities. When input and output price inflation gets out of step we can see big changes in farm profitability.



Everyone in the agricultural sector (and indeed, economics generally) talks about China a lot. This chart helps to explain why. The United States is still the largest economy in the world if we look simply at GDP. However, a Dollar (or Renminbi) buys more in China than it does in the US. If we adjust for this difference (purchasing power parity in the jargon), China overtook the US in 2014 in terms of the size of its economy. However, the 2015 figures shows (just about) the slowing of the Chinese economy. Both the UK and the Eurozone continue to grow, but not at the pace of some of the other nations shown. Could India be the next global economic powerhouse?



China seems to be a massive importer of agricultural products, but that is because it is such a massive country in terms of population. As this chart shows, it is actually highly self-sufficient in agricultural goods apart from soybeans. The total height of the columns are total Chinese consumption in tonnes. The grey area is what Chinese agriculture produces, and the black portion imports. If we look at dairy for example, China seems a huge influence on the world market. But it only imports around 2.5% of the dairy products it consumes. Of course tonnages don't tell us about the value of imports (a tonne of milk products would be worth far more than a tonne of wheat). Therefore the value of imports for each category is shown as a figure on the chart. China has a small amount of net poultry exports.



This chart shows the evolution of global agriculture since the 1960's. Whilst the farmed area has only grown quite slowly, the amount produced from that land has grown by many times more. This shows the effect of the application of science and technology to agriculture. Some sectors have increased output quite dramatically. Oilseeds and intensive meat production have surged ahead. To some extent these are linked with large volumes of soya being used to raise pigs.

POLICY UPDATE

2015 BASIC PAYMENT SCHEME

England:

- 51% of claimants paid by end Dec ('majority')
- 66% by 19th Jan (57,700 out of 87,095 claimants)
- 54% of funds (£779m out of £1.45bn)
- Check payments some errors

· Balance payments in April

- Entitlement Statements February
- Scotland:
- Under 20% paid by end Dec; part payments -70% BPS
- All first payments by end March; balance in April (?)
- Wales:

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Part payments to 70% of businesses by 13th Jan

The 2015 year was always set to be a challenge with the introduction of a new scheme and new computer systems. In England the switch from online to paper based came late in the day. With the deadline extension and data entry requirements it was likely that payments would face delays. Those who will not be receiving payments prior to the end of January should have been informed in December. This group of 'late payments' included claimants with common land, those with probate or inspection issues and the super complex. The number of claimants paid is running ahead of the proportion of funds released showing the simpler, smaller claims have been paid first. The situation in Scotland and Wales is more complex as the phasing of payments from historic to regional also has to take place (plus a new grant of entitlements). Whilst the Scottish Government has started payments to the 21,000 claimants, the process is the least advanced of all the UK regions. Wales made an early decision to make part payments, and the first tranche of money has generally been delivered to most claimants.

2016 BPS RULES

- Rules largely the same as 2015
- Active Farmer, minimum claim size (5 Ha), Greening, land eligibility
- Some minor changes;
- 'Accountable Persons' back for 2016
- Greening (EFA) oilseed radish and buffer strips/hedges up to 5m from arable land
- Cross-compliance also largely unchanged
- National Reserve and Young Farmers Payment (YFP) available again
- Payment levels (in €s) very similar to 2015

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There are very few changes to the actual BPS scheme for the 2016 year. All the BPS rules that were in place last year remain. Therefore claimants will have to be Active Farmers, have a minimum claim of 5 Ha and abide by the Greening rules. Remember Greening is a yearly requirement, so as cropping changes then the calculations of Crop Diversification and Ecological Focus Areas (EFA) have to be done afresh. 'Accountable Persons' did make a brief appearance for 2015 but was quickly removed. This requires claimants to inform the RPA of details (name, National Insurance number and % share of business) of those that are 'in control and make decisions' about the business. Cross compliance remains largely the same with only two key changes; the no cutting period for trees does not apply for trees acting as a windbreak in a vineyard, hop yard or hop garden or orchard and cattle keepers do not need to record dam numbers for animals arriving on the holding.

2016 BPS APPLICATIONS

- · Mix of paper and online application
- Paper BP5 form will look very much like 2015
- Prepopulated, areas to 4 decimal places, longer list of codes
 Online system will be SITI Agri
 - this is the 'back-office' system that processed 2015 claims
 - some bits of 'Rural Payments' front end may be rescued
- entitlement transfers to go online from end Feb
- Full set of maps unlikely to be sent out by default
- online map viewer (LPIS)
- Application period from the end of February (?)
 - 16th May deadline (no extension)

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2016 is a stepping stone for a fully online system in 2017. Those who have previously completed applications online will not automatically get a paper form, although it is likely that the prepopulated form will be available to print from the RPA system. The RPA will target for around 60,000 claims to be completed online with a further 25,000 by paper. The computer system used is SITI Agri which is operated widely in Europe and has been used to process 2015 claims. Therefore it works and is stable, but is not especially user-friendly to input data onto. This is why the RPA commissioned the 'Rural Payments' front end last year but the map-based elements couldn't be made to interact with SITI Agri. Some bits of Rural Payments will continue to be used. It is unlikely that a full set of maps will be sent out and will need to be requested. It will be possible to view the maps online using the Land Parcel Information System (LPIS) however these maps will print only one parcel at a time. Changes to land parcels will not be possible on the system and a paper RLE1 form will need to be completed.

SCOTTISH BPS 2016

- Only 90% of entitlements granted in Regions 2 and 3 - still 'naked acres' under the BPS
- Rules largely the same as 2015
- Active Farmer, minimum claim size (3 Ha), Greening, land
- eligibility (minimum activity levels in Regions 2 & 3)
- Some (minor) changes to the Greening rules - Nitrogen Fixing Crops and associated margins
 - Buffer strips
 - Greening equivalence scheme?
- · Application likely to be online but no clear details
 - Scot Gov focussing on 2015 payments

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In Scotland there is a great deal of processing still required to get the 2015 BPS year completed. Some of the Indicative Statements sent out so far do not seem to have the correct allocation of entitlements – even taking into account the 10% reduction coefficient applied to Region 2 and 3 land. The detail behind the allocation is still required. In terms of rules for the 2016 BPS there is little change apart from some tweaks in the Greening requirements. However claimants should remember that Greening is a yearly requirement, so as cropping changes then the calculations of Crop Diversification and Ecological Focus Areas (EFA) have to be done afresh. It seems unlikely that the proposed Greening Equivalence Scheme will be implemented for 2016. In terms of the process of actually applying for the 2016 BPS, then details are still very sketchy. An online application system looks the most probable however.

WELSH BPS 2016

- All-Wales payment region now seems to be a 'done deal'
- large redistribution of aid; increasing through 2016→2019
- Rules largely the same as 2015
- Active Farmer, minimum claim size (5 Ha), Greening, land eligibility
- Some (minor) changes to the Greening rules
 - wooded strips, grass cover on fallow, leguminous crops etc.
- remember, Greening calculated afresh each year
- Application will be online

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The Welsh Government encountered problems in its plans for the implementation of the BPS. It's original proposal for a three-region model (like England and Scotland) was thrown out after a Judicial Review. The problem centred around the definition of the Moorland category. The result was just one region in Wales, but with the introduction of a 'Redistributive Payment' to offset some of the perceived problems of a single payment rate. This has the effect of shifting support from the lowland to the uplands, and from large farms to smaller ones. It was thought that another legal challenge might be forthcoming, but this has not yet materialised. The BPS rules in Wales for 2016 will be almost identical to those in 2015, although there are a few minor tweaks to Greening. Uniquely among the GB administrations the online application system used in Wales worked well, and will be the basis of claims again for 2016.

FUTURE OF THE CAP

- EU Farm Commissioner Phil Hogan CAP Simplification
- proposals in 2016 for changes to 2017 BPS
- focus on Greening measures EFA and CD
- Review of EFA in 2017 to increase to 7% from 2018
- Areas with Natural Constraints from 2018
- A more general 'Mid-term Review' in 2016 and 2017 to be implemented for 2018 \rightarrow
- Funding for BPS only last until 2019 claim year
- although it could be rolled forwards
 discussions on next CAP reform (and Budget) from 2018 for 2020 implementation

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One of the key aims of the new(ish) EU Farm Commissioner, Phil Hogan, is a simplification of the CAP. Some minor changes have already been put in place for 2016. However, a consultation has been undertaken on some more fundamental changes. Proposals, and possibly an agreement, will be seen in 2016. If this happens then there may be some larger BPS rule changes for 2017. This is likely to focus on the Greening rules but may also impact on other areas (such as Active Farmer). A number of reviews are already built into the current CAP legislation. If Mr Hogan is feeling radical, he may try to bundle these together with simplification to produce a greater 'mid-term' review of the CAP. Even if this does not occur, the BPS is only funded until the 2019 claim year (2020 EU budget year). Discussions on what come after the BPS are likely to start in 2018, if not before.

.5bn in the RDPE 2014-2020, s		
87% (£3.05bn)	5%	(£177m) -
Agri-environmental Schemes	Gro	wth Programme
Legacy Agreements – ELS /	40/	(140
HLS etc £2,150m	100000000	(£140m) - ntryside
	100 C 100 C 100	ductivity
New Agreements -	4%	(£140m) -
Countryside Stewardship Scheme - £900m	A CONTRACTOR OF A	DER
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Although the funding pot for Rural Development Programme for England (RDPE) seems relatively large, around a third of the funds are already allocated to existing agri-environment schemes (ELS/HLS). This leaves a relatively small amount of funding for the new Countryside Stewardship Scheme (CSS). The RDPE also provides capital funding through three other programmes. The Growth Programme is run regionally with Local Enterprise Partnerships setting priorities. The RPA administers the schemes and issues 'calls for projects' in specific areas. It is a question of keeping abreast of what is happening locally. See - www.gov.uk/european-structural-investment-funds?keywords= The Countryside Productivity Scheme (40% grants for innovative technology) is open in rounds and has been very popular (over-subscribed). At least one more round should be open in 2016. This fund is also meant to support training and skills, but little has been forthcoming on this so far. For 2015 there was little available under LEADER, as groups, funding priorities and administration were being set up. Most local groups are now operational though. The process of applying for many of these funds seems overly complex with the information not all available in one place, however many projects are being funded so they are worth considering.

COUNTRYSIDE STEWARDSHIP SCHEME

- Process undermined by lack of information / guidance
 'dual use' only decided on 21st September
- · Applicants also put off by;
- complexity 240+ options
- uncertainty competitive entry (make application but no agreement), plus scoring system and threshold unknown
 payments not generous; many agreements delivering
- lower payments than ELS
- NE target 4,000 agreements in 2015 2,314 applications
- · Can be useful in specific circumstances

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The first window for CSS applications saw just 2,314 Mid-tier applications made (around 8,000 had been expected). The move from the online system to paper based for the RPA hampered not only BPS but CSS too. It was expected that applications would be completed online. The system would show the priorities for each area and what options would suit this priority for each parcel. Without this available the application process became far more complicated. This was not helped by the timing of the application window; over many farmers' busiest period. Payments from the scheme were generally not as generous as under the ELS and HLS scheme with demands for record keeping more arduous. A number of issues arose with processing the applications, which required cross checking against BPS applications, this resulted in some successful applicants not having an agreement in place prior to the 1st January 2016 start date.

FUTURE CSS

- Scheme reopens in 2016
- March(?) for Mid-tier applications; Sept deadline remains for a 1st Jan 2017 start
- Hedgerows and Water Quality capital grants available in Feb
- Unlikely to be much change in options
- Guidance to be updated and clarifications made
- Still paper-based applications in 2016
- may be some online tools

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- Natural England will continue to target those coming out of HLS for 'Higher Tier' CSS agreements
 significant NE advisor input
- Mid-tier may be more popular, and thus competitive

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For 2016 (agreements starting 1st January 2017) it is unlikely that a full online system will be available and applications will once again need to be made on paper. Some more 'tools' may be made available to help farmers and advisors build their applications. The application window could open earlier although, due to the agreements all needing to be in place by 1st January, the September deadline date is expected to remain. Despite the problems of 2015, there is unlikely to be a wholesale review of the CSS – the scheme and its options will remain fundamentally the same. There may be 'tweaks' to certain options, or with associated rules like the record-keeping requirements. Better (more consolidated) guidance should be available. Stand-alone grant schemes for water quality and boundaries should be open in the spring – this may be attractive to those who do not wish to go into the full CSS.

SCOTTISH RURAL DEVELOPMENT

- Less Favoured Area Support Scheme (LFASS) continues to 2018 (35% of total SRDP budget)
- Agri-Environment Climate Scheme (27%) including organic – 60 options
- slurry store funding in 2016 (£10m)
- Other grant Schemes;
- Forestry (19%) creation, management and agro-forestry
- Small Farms (3-30Ha) and Crofting
- New Entrants and Young Farmers grants
- Other funding including knowledge transfer, beef efficiencies, LEADER and food processing
- Agricultural and Rural Advice Integrated Land Management Plans

ANDERSONS

The LFASS scheme will continue relatively unchanged until a fundamental review is carried out once the reclassification of LFAs as new 'Areas with Natural Constraints' occurs (planned for 2018). Another large element of support will be an agri-environmental programme. In 2016 this will offer capital funding for slurry stores which is likely to be popular with farmers. The New Entrants and Young Farmers Grants offering start-up and business development support have already proved popular. There is quite a focus on advice and training within the plans. The existing advisory support will be incorporated into the new SRDP. A co-ordinated Advisory Service will be created with a Scottish Government 'hub'. It will also accredit consultants who will deliver individual 'Integrated Land Management Plans' to farm businesses. Applications to the Scottish Rural Development Programme (SRDP) are predominantly made online.

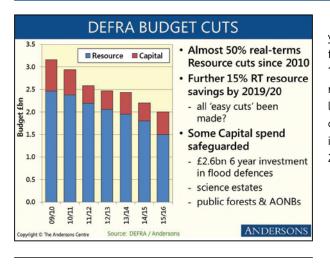
WELSH RURAL DEVELOPMENT

- Glastir continues to be key scheme (60% of WRDP)
 Entry, Advanced, Organic, Commons, Woodland and Small Grants available
- · Capital Grants also available;
 - Sustainable Production Grant Scheme but limited funding
- Food Business Investment Scheme and Co-operation
- Young Entrants Support Scheme (YESS)
- Farming Connect
- business focus, knowledge and training
- application window for training 1 April to 29 April 2016, and 1 June to 30 June 2016
- LEADER and Communities possibly more opportunities for farmers than in the past

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There are currently around 1,600 Glastir contracts in place and this is estimated to increase to more than 2,000 by 2017. However despite the well established Glastir scheme there have been a number of concerns over the pace of the Rural Development Programme rollout in Wales. The Sustainable Production Grant has been very attractive to farmers, offering 40% grants for facilities and equipment. But it has been vastly over-subscribed. With an estimated £2m budget it was expected to grant 40 full applications; just 12 farmers received funding in the first round. Young Entrants support continues with the successful YESS programme being retained with few changes. Also, Farming Connect continues from the previous programme. This will become fully available in 2016 after a pause in 2015 whilst the WRDP was being implemented.



DEFRA is facing cuts of 15% (resource spend) over the next four years; cuts of up to 30% had been expected. However having already faced large reductions in its funding, it is assumed that much of the 'easy savings' have already been made. The concern is that this next round of cuts will impact services on the ground. DEFRA will have to look at different ways of operating. An example is the establishment of the Single Farm Inspection Taskforce which is to streamline the inspection process saving £470m and cutting inspection numbers by 20,000. Some high-profile spending areas will be protected.

RENEWABLES

- · Government support for renewables is cooling
- updated UK energy policy sees 'decarbonisation' through gas and nuclear (renewables only if cost-competitive)
- 'subsidy should be temporary, not part of a permanent business model'
- Feed in Tariffs (FITs) support for electricity production
 - rates revised downwards (see following)
- deployment cap to limit new spending on FITs to £100m up to the end of 2018/19
- Renewable Heat Incentive (RHI) support for heat
 scheme survived Spending Review but is to be 'reformed'

ANDERSONS

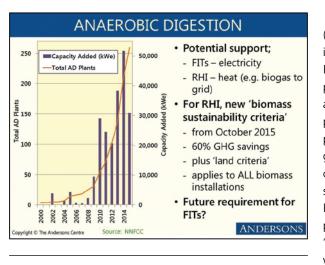
Biofuels – 5% inclusion rate under the RTFO

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With the election of the Conservative Government there has been a shift in energy policy. Renewables are no longer as favoured as they were under the coalition administration. The additional cost, both to the taxpayer and the consumer, is a key issue. The visual appearance of many of the technologies (solar farms, onshore windfarms) is another political issue. The direction of travel is that projects in the future will need to be viable without long term subsidy. However, support is still available at present, even if it has been cut. There have been a number of changes to the levels of Feed in Tariffs ('FITs'), the scheme that provides support for renewable electricity. There had been some thought that Renewable Heat Incentive (RHI) funding would be scrapped but the scheme will continue with an increased budget through to at least 2020/21. However the rules of the RHI will be reformed. A minimum inclusion rate supports the biofuels sector, although this is at low levels and shows little sign of being increased.

10-50kW 11.30 4.59 50-150kW 31.4 9.63 2.74 150-250kW 9.21 2.74 250kW-1MW 29.3 5.94 2.27 1MW-5MW 5.94 0.87 Anaerobic < 250kW 11.5 9.12 To be	Technology	Size	Original	At Oct 15	Current #
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Solar PV	< 10kW	36.1	12.47 / 11.30	4.39
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		10-50kW	ι	11.30	4.59
Anaerobic Digestion 250kW-1MW × 5MW 29.3 5.94 5.94 0.87 Anaerobic Digestion < 250kW × 500kW 11.5 9.12 8.42 To be reviewed early > 500kW 9.0 8.62 2016 Wind < 50kW		50-150kW	∫ 31.4	9.63	2.74
IMW-5MW 5.94 0.87 Anaerobic Digestion < 250kW				9.21	2.74
Anaerobic Digestion < 250kW 250-500kW 11.5 9.12 8.42 To be reviewed early Wind < 50kW			29.3	5.94	2.27
Digestion 250-500kW J 8.42 reviewed early > 500kW 9.0 8.62 2016 Wind < 50kW		1MW-5MW		5.94	0.87
> 500kW 9.0 8.62 2016 Wind < 50kW	Anaerobic	< 250kW	11.5	9.12	To be
Wind < 50kW 24.1-34.5 13.73 8.54 20-100kW 24.1 13.73 0.1-0.5MW 18.8 10.85 5.46 0.5-1.5MW 9.4 5.89 5.46 5.46 5.46	Digestion	250-500kW	1	8.42	reviewed early
20-100kW 24.1 13.73 0.1-0.5MW 18.8 10.85 0.5-1.5MW 9.4 5.89 } 5.46		> 500kW	9.0	8.62	2016
0.1-0.5MW 18.8 10.85 0.5-1.5MW 9.4 5.89 } 5.46	Wind	< 50kW	24.1-34.5	13.73	8.54
0.5-1.5MW 9.4 5.89		20-100kW	24.1	13.73	
		0.1-0.5MW	18.8	10.85	5.46
1.5-5MW 4.5 2.49 0.86		0.5-1.5MW	9.4	5.89	J
		1.5-5MW	4.5	2.49	0.86

This slide shows the Feed in Tariffs that have been available on some of the key technologies (hydro is not shown). FITs were originally introduced on the 1st April 2010. As can be seen the level of support was at very generous levels. This generated a surge of investment. The early installations will still be receiving this high level of support as payments for 20 years are fixed at the point of commissioning. FITs have gradually been reduced through to the much lower rates seen last autumn. Then there was a fundamental review of the system. This suggested that some technologies / sizes would receive no support at all. The proposals were watered-down but rates are still much reduced. The anaerobic digestion rates are still to be reviewed. For comparison, current retail electricity prices are around 10.3p/kWh. Whilst support has fallen, it should be remember that the cost of equipment (especially solar) has also reduced.



There has been a huge increase in the number of anaerobic digestion (AD) plants being deployed in the UK since the introduction of Feedin Tariffs in April 2010. AD plants may be able to claim both FITs and Renewable Heat Incentive (RHI) payments if there is a use for the heat produced, or the biogas is used for heating purposes. There has been a slow-down in the sector in 2015. Partly perhaps due to reducing FIT payments, but also due to more difficulty in sourcing feedstock for the plants at economic rates. In some areas short-term rentals for land to grow crops for AD plants have been at very high levels (e.g. in excess of £300 per acre). To gain RHI payments there is now a need to meet sustainability requirements on the feedstock. (Note this applies to all RHI payments so, for example, those using biomass boilers need to prove where their woodchip comes from.) This need to demonstrate 'sustainability' may be an indication of where the rules for FITs move as well.

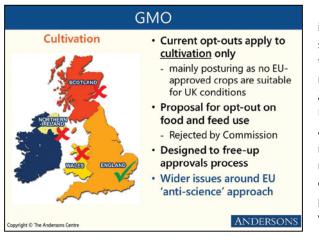
TRADE

- WTO deal made in December end export subsidies
- Transatlantic Trade & Investment Partnership (TTIP)
 - to be concluded before Presidential election, Nov 2016?
 - 'Fast-track' authority granted to July 2021 yes/no vote
- EU / Mercosur deal
- Trans-Pacific Partnership
- 12 countries, inc. US, Canada, NZ, Japan, Australia
- 40% of world trade (10x more agricultural trade than TTIP)
- still to be ratified, but increases pressure for TTIP deal
- Russian trade ban extended to 31st July 2016
 many commentators believe it will become a permanent feature

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ANDERSONS

A World Trade Organisation deal was struck at its conference in Nairobi in December. The deal will stop the use of subsidies and other schemes unfairly supporting agricultural exports and protect farmers in developing countries from export subsidies. It also aims to ensure that food aid for developing countries is given in a way which does not distort local markets. The end of export subsidies will be phased-in with cotton being fast-tracked. For European producers and exporters, the deal levels the playing field as the EU current makes little use of these. It is not clear whether the US / EU bilateral trade talks will be completed before the US Presidential election. If they are not, no deal may be done for some years. The Mercosur talks have received a boost with a new administration in Argentina. But any agreement is still some way away. The Russian trade ban continues to impact on the EU. EU farm income figures showed a stark drop in some areas which rely on exporting to Russia; Germany saw incomes fall by 37.6% in 2015. Although this slide represents the key trade deals for agriculture a number of other trade talks are also going ahead such as the EU-Japan trade deal.



There has been some confusion over the opt-out and GM rules in the EU, this is because there were two proposals running almost simultaneously. The first allows countries to opt out of permitting the cultivation of GM crops. The idea is that Member States will allow more approvals at European level as approved crops are then banned at national level. 19 Member States chose to enact this option. In the UK only England will permit the cultivation of GM crops, Germany will allow cultivation for research purposes whilst in Belgium the Wallonia region opted out, but GM cultivation will still be allowed in the Flanders region. The second proposal was also to provide for national optouts on import of GM feed and food (i.e. products). This Commission proposal was rejected by the European MEPs with many suggesting it would fracture the Single Market.

BREXIT -LEAVING THE EU?

BREXIT ~ BRITAIN'S EU EXIT

How / When?

- In / Out referendum by the end of 2017
- Renegotiation focus on four main areas:
 - 1. Single Market protection for UK & Non-Eurozone
 - 2. Exemption from an 'ever closer union'
 - 3. Boosting competitiveness
 - 4. Restrictions on in-work benefits for EU migrants
- Outcome a critical determinant of support for In/Out
 If 'Out' two-year negotiation on terms can be
- extended if unanimously agreed by all parties
- If 'Out' likely exit by 2020

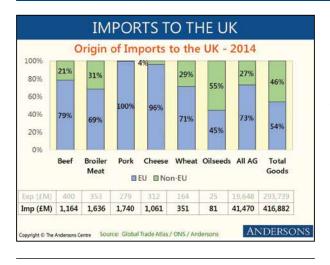
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In November 2015, the UK Government outlined four key areas where it is seeking reform of the terms of its EU membership. At December's European Council meeting, the negotiating parties claimed that significant progress has been made on three of the four areas, namely, protection of the Single Market for Britain and non-Eurozone members, boosting competitiveness and exempting Britain from an 'ever closer union'. However, major hurdles remain in terms of the UK's aim to restrict EU migrants' access to in-work benefits. Since then, the parties have claimed further progress and are aiming to agree a set of 'mutually satisfactory solutions' in all four areas at the European Council meeting on 18-19 February. If an agreement is reached in February or during the early part of 2016, the referendum is likely to take place during 2016. In the event of an exit, Article 50 of the Treaty of European Union states that there would be a two-year negotiation on the exit terms due to the complexities involved. This could be extended if unanimously agreed by all parties. This point may become relevant in the event of a 2nd Scottish independence referendum for example.



When examining the EU referendum question from an agricultural perspective, it is important to view the UK's trade relationships with the EU. This chart shows the percentage breakdown of UK exports to EU and non-EU destinations. Total exports of goods, estimated at almost £294 billion, is split evenly between EU and non-EU countries. For crops, the UK exports proportionally more to the EU, particularly for oilseeds. Furthermore, within some livestock sectors, notably beef & pork, exports to the EU account for 80% or more, with Ireland accounting for a significant proportion of this amount. For agriculture generally, Ireland is the leading export destination representing 18% of total exports. France (10%), US (9%), Netherlands (8%) and Germany (7%) are also important destinations. Some commodities are not traded in great quantities, so the table below the chart shows the **value** of exports of each of the categories.



The previous chart focused on exports, whilst this one looks at imports. In 2014, the UK imported almost £417 billion in total, of this approximately 54% came from the EU. In agriculture, total imports were estimated at £41.5 billion with 73% of those coming from the EU. In both agriculture, and goods generally, the UK runs a sizeable trade deficit with the EU (although services show the opposite pattern). The EU accounts for virtually all of pork and cheese imports and also accounts for the majority of all other agricultural commodities except for oilseeds. Ireland accounts for 62% of beef and 35% of cheese imports. Denmark is the largest pork importer representing 26% of the UK total. Taking all agricultural products together, Netherlands is the largest individual importer representing almost 15% of the UK's agricultural imports.

WHY LEAVE? WHY STAY IN? Get trade deals outside EU; Avoid tariffs & red-tape in EU; Trade Largest global market - scale No longer bound to EU law benefits UK contributes £350m/wk: UK pays EU £340/household/yr: EU Budaet Better spent elsewhere Yearly benefit of £3.000 Subsidies Inhibits agricultural Provides stability to farmers; innovation Level playing-field vs other EU Member States Regulation More legislative freedom; Most EU legislation collapses 28 Reduce bureaucracy national standards into 1: Still potentially bound by EU rules even after exit ANDERSONS

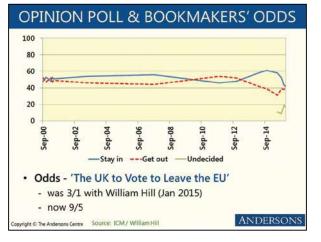
ARGUMENTS FOR & AGAINST

The arguments for and against Brexit are diverse, and strongly held opinions exist on both sides. Some of the key issues are briefly summarised here. Those advocating leaving believe that doing so would give the UK much more freedom to secure trade deals elsewhere, pursue innovation, reduce inward immigration whilst also believing that it will be possible to secure a more favourable relationship with the EU from the outside. On the other hand, those campaigning to stay in claim that the UK is heavily dependent on trade with the EU and that being part of the largest single market globally makes the UK a more attractive investment destination. They also claim that if the UK leaves, Scotland would vote for independence whilst also causing issues in other UK nations (e.g. Northern Ireland).

ARGUMENTS FOR & AGAINST

AREA	WHY LEAVE?	WHY STAY IN?
Immigration	More control of borders; Reduce "Benefits Tourism"	Leaving won't stop migration Immigration rates higher in non-EU EEA
Influence	UK – little influence on EU; Increased global influence outside EU	UK can fight for better regulation from inside; UK represented twice at global summits
Other	Tailored British policies (e.g. environment, agriculture)	Integrity of UK (Scottish independence); Labour impacts in agriculture (e.g. horticulture)

This slide continues to set out the arguments that will be put forward in the debate. In general, referendums tend to favour the 'status quo' option particularly if the terms of the alternative are not clear (which may be the case under Brexit). However, the 'leave' campaign might be considered to have a more resonant message – appealing to the 'heart', whilst the 'stay' campaign is based on a more technical message based on economics and costs versus benefits.



Both the Opinion Polls and Bookmakers' odds are suggesting that the possibility of 'Brexit' have increased significantly in the last year. The fact that the Conservatives won the election in May, making the EU referendum a certainty, has contributed to a narrowing of the odds. However, as the opinion polls show, the momentum is clearly with those campaigning to leave the EU. That said, opinion polls still suggest that the UK is marginally in favour of remaining in, but the decisions of the 'undecided' voters (estimated at just under 20%) will be critical. As with the Scottish Referendum, there are likely to be several 'twists and turns' in opinion polls before the referendum takes place.

FUTURE RELATIONS WITH EU

1. Stay in After Renegotiation Options post-Brex	Some changes to membership terms but little to effect farming. Minimal impact on subsidies or regulation it
2. EEA/EFTA (e.g. Norway)	UK's relationship to EU likely to be similar to Norway. Most EU regulations remain in place, major change to subsidies, less immigration
3. EFTA & Free Trade <i>(Switz)</i>	EU won't be keen to offer this option – legislatively cumbersome. Impacts similar to Option 2.
4. Free Trade Deal (e.g. Chile)	Difficult to achieve in limited timescale (and with limited goodwill). Impacts similar to Option 2, but more scope to restrict impact of EU regs.
5. Customs Union (e.g. Turkey)	Not discussed as frequently as other options. UK not in Single Market but trade legislation aligned.
6. WTO Rules (e.g. NZ)	UK may be faced with this initially. Subsidies significantly impacted. Some EU regulations to apply. Lower immigration.

The Andersons Centre has identified six potential options available to the UK with respect to its future relationship with the EU. It must be emphasised that at the time of writing, the renegotiation process is still underway. Therefore the Government has been very reluctant to set out its 'Plan B' of what might happen should the referendum vote for Brexit. In fact the referendum may occur without any clear indication of what the post-Brexit alternative is. Some believe that this uncertainty is deliberate, in order to make the 'leave' option uncertain and unattractive. But the final relationship could probably only be resolved after a protracted period of negotiation. The Andersons Centre has put forward its view on what each of the options might involve. As the outcome of the renegotiation process and the associated detail becomes clearer, these views will be updated.

BRITISH AGRICULTURAL POLICY

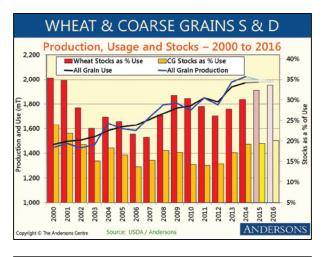
- Will a clear alternative be set out before the vote?
- UK net contribution to EU £8.6bn (1.2% of total spend);
 could replicate CAP of £3.3bn and still have extra £8.6bn
- Unlikely, in our view, that BAP = CAP
 - Health, Education, Defence etc. more politically attractive once 'shackles' of EU are removed
- Future under a Brexit scenario?

wight © The Andersons Centre

- phased withdrawal of support; 80% of CAP funds down to 30-40% over 5 years
- support for hill farming and environmental actions only
- other priorities flood prevention, innovation, productivity
- effects on profitability and rents (and land prices?)

ANDERSONS

It may not be made clear, prior to the referendum, what a British Agricultural Policy might look like if the UK were free to set its own support rules. (We refer to a British Agricultural Policy (BAP) because it makes a better acronym than UKAP.) UKIP pledged to create a system that pays a similar amount, in a similar way, to the current BPS, but no other parties have set out their plans so far. Whilst funds may be available to recreate the CAP, we believe the temptation of a 'pot' of £3bn of public money going to a relatively small sector of the economy would be too great for politicians to leave alone. The change in support may well be phased, but within 5 years of Brexit (2025) support could be at around a third of CAP levels. The support would be far more targeted. It would go to hill farming, and those providing some sort of public benefit - chiefly environmental, but this may be widened to include such things as flood prevention. There could be a large upheaval in UK farming in the short-to-medium term.



ARABLE SECTOR

The slide tracks production and use of all grains (excluding rice) over the last 16 years. These are shown by the black and blue lines. The 2015 figures are provisional at this point and the 2016 ones our projections. It can be seen that the 2013 and 2014 grains harvest were large ones globally. Despite production falling back in 2015 (and possibly 2016), it remains above usage. Demand has been sluggish due to slower global economic growth (and falling oil prices). The chart also shows, on the right axis, the total stock levels at the end of each season split into wheat and coarse grains. *Coarse grains are basically feed grains, and the category is dominated by maize ('corn' in the US) which comprises two-thirds of all coarse grains.* Wheat, especially, is not in short supply and looks unlikely to be after harvest 2016. It may even now take two 'bad' harvest to tighten stock levels are also at levels that leave buyers relaxed.

ARABLE MARKETS

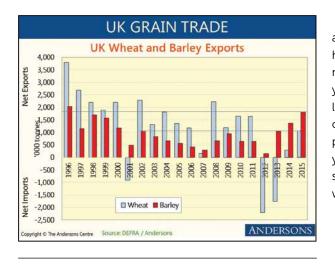
Negative

- Plenty of grain in the world stocks high. Also in UK;
- 2.5mt wheat carry-over ... 3mt exportable surplus
- 2mt barley exportable surplus, a 20-year high
- Strong Pound reducing UK grain prices
- Oil price low biofuels not currently viable
- Concerns over world (Chinese) economic growth
- Global plantings to be largely unchanged for 2016?
 Positive
- Weather no major 'weather event' for three harvests - 'El Nino' ?

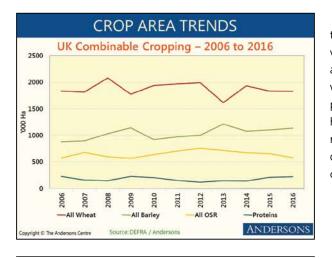
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This slide sets out some thoughts on the current grain market – there is enough grain of most specifications to keep the consumer supplied with the right delivery dates and locations for the short term. The only bullish factor on the slide is simply a suggestion and the weather is not yet affecting global grain growing areas massively. We don't know what tomorrow's news will bring, but one has to think that there is little reason for prices to rise by much this season. Stock, economy and oil price information should be largely built into the price already; it would take another big shift of these factors to push prices substantially. Of course, that is all currency dependant!

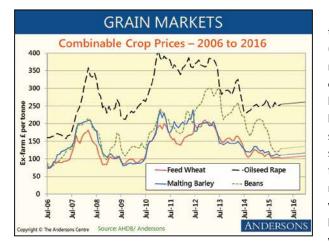
ANDERSONS



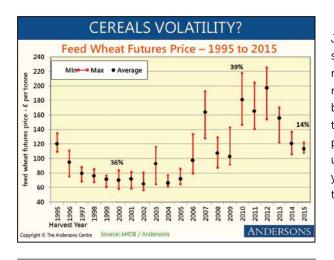
This chart shows the net trade position for the last 20 years for wheat and barley for the UK. Where blue is below the line, that year the UK has been a net wheat importer. The figures for 2015 harvest (2015/16 movement year), assume the highest grain carry-over stocks for the 20year period at the end of this season. It still demonstrates the highest level of barley exports since 1996 are required. The strong Pound has come at the wrong time for barley this year; no wonder the feed barley price fell to sub £100 per tonne for some locations and positions this year. The domestic position is better for wheat, although much of the surplus is milling wheat and so the premium for full specification bread wheat has fallen to less than £10 in some periods and locations.



This chart demonstrates the changes to the national rotation of the main four combinable crop types in the UK. It demonstrates the variation of wheat area, and, often opposite impact on the (spring) barley area. Also, the relationship between oils and pulses can be picked out; where one falls, the other tends to rise. This is largely regardless of prices as break crops are necessary, and when one declines, the other has a gap to fill. We can see that happening this year with a fall in oilseed rape area and a second year of increased pulses (which is mostly beans) despite the price premium of beans over other combinables has shrunk considerably as the following chart explains.



Here we see how the UK combinable crop price 'matrix' has moved in the last decade. It includes a line representing cereals (wheat), oilseeds (OSR), pulses (feed beans), and a premium crop (malting barley). Each represents a different part of the marketplace; cereals being starch or energy, oilseeds being oils and fats and pulses as protein and malting barley a specialist market. Wheat is the most important grain in the UK being the largest by both tonnage and value, however, its price is largely set by the abundance of feed grains, maize in particular on the global stage. The malting barley price, despite some traders moving away from premiums and discounts for wheat and feed barley, is still closely related to wheat. Oilseed rape price is traditionally double that of wheat, and bean price which has been similar to grain prices in the past has lifted substantially since 2012. Pulse prices have fallen significantly within the price matrix as can be seen.



The graph shows the average price over the selling period (August to July) for the harvest indicated on the horizontal axis. The red bars each side of the average show the range that prices moved in during that marketing season. Range is only an indication of market volatility, not a measure (technically there could be almost no volatility if prices changed by the same amount each day). As the average prices have increased, the ranges have also grown as demonstrated on the chart. However, the percentage change from the average has not shifted substantially, that is until 2015, when price movement was smaller than it has been for many years (we note the 2015 harvest year is not yet finished). It is not volatility that is hurting farming just now, it is simply low prices.

LOAM FARM MODEL

 600 Ha of combinable cr 240 owned, 360 FBTs; ow 	•			
£ per Ha	2013	2014 [®]	2015°	2016 [®]
Output	1,204	1,132	1,091	1,034
Variable Costs	457	425	431	424
Gross Margin	747	707	660	610
Overheads	404	407	404	398
Rent and Finance	194	218	243	242
Drawings	73	75	75	77
Margin From Production	76	7	(62)	(107)
BPS / SPS + ELS	243	226	204	172
Business Surplus	319	233	142	65
Copyright © The Andersons Centre Source: Andersons	1 Result	② Provisional ③ Budget	ANI	DERSONS

To illustrate trends in cereals profitability we use our 'Loam Farm' model. This is a notional business which has been running since 1991 and tracks the fortunes of combinable cropping farms. It comprises 600 hectares in a simple rotation of milling wheat, oilseed rape, feed wheat and spring beans, and is based on real-life data. Output and variable costs have both fallen over this 4-year period, and gross margins fallen a long way. Overheads have remained relatively static, but for 2014 and 2015, there was a significant rise in rental costs as the farms two FBTs came up for renewal. For the current (2015 crop) year and budget for 2016, a loss is expected before subsidy payments are accounted for. This is typical in the arable sector.

LOAM FARM MODEL – SCOTLAND

 600 Ha (W. Barley, W. W 240 owned, 360 SLDTs; d 				
£ per Ha	2013 [®]	2014 [®]	2015°	2016 [®]
Output	1,051	943	942	932
Variable Costs	395	368	373	369
Gross Margin	656	576	569	563
Overheads	402	406	400	394
Rent and Finance	187	202	203	203
Drawings	73	75	75	75
Margin From Production	(5)	(107)	(110)	(109)
BPS / SPS + ELS	251	202	171	167
Business Surplus	246	95	61	58
Copyright © The Andersons Centre Source: Andersons	s © Result @	Provisional @ Budg	et AND	ersons

This shows the results of our Scottish version of Loam Farm. This is a notional Scottish cereals business which tracks the fortunes of combinable cropping farms. It comprises 600 hectares in a simple rotation of spring barley, winter wheat, winter barley/oats and winter oilseed rape. It is based on real-life data. In 2013 the farm was not far off break-even for its farming activity. Since then falling market prices have reduced output. Although variable costs have declined the gross margin is still substantially lower. One major change in 2015 is the shift from the SPS to the BPS. This has significantly reduced the level of support to this business. There will be further declines through to 2019 by which time the BPS will be worth around £155 per Ha (at current exchange rates).

LOAM FARM OPPORTUNITIES

- · Rents falling, when are the next negotiations due?
- Alternative rotations? spring cropping, unusual niche crops? small contracts?
- · Re-examine labour and machinery profiles
- Complete a 5-year budget, is it viable in the long term with average input and output prices?
- Postpone investments such as building purchases, if existing facilities will suffice 1 more year
- Refocus on the costs that affect yield or quality i.e. output
- Diversify?

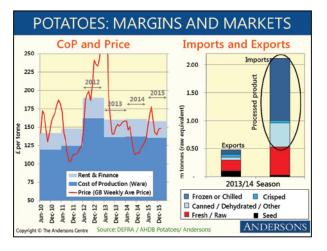
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ANDERSONS

It is often difficult to see the opportunities when profits are scarce and markets very low. However, this situation often leads to falling resource costs. Rents have started to fall from their recently high levels. When profitability is low, business efficiency rises; it is a necessary time to reflect on what can be done better. This might include changing crop mixes and connecting with niche crop processors for example. Resource utilisation profiles should be scrutinised, and harder times often encourages farmers to make good decisions in terms of sharing labour and equipment. A non-profitable business this year is not necessarily unviable. Completing a 5-year budget will answer how good the overall business model is. Machinery manufacturers will report how good farmers are at postponing their machinery replacement plans when times are tough. Possibly higher maintenance costs rarely exceeds the depreciation savings, not to mention capital taken from the cash position. Refocussing on all costs and farm systems might highlight new opportunities and diversification, whilst not for many, takes the business away from the dependency of unpredictable commodity markets.

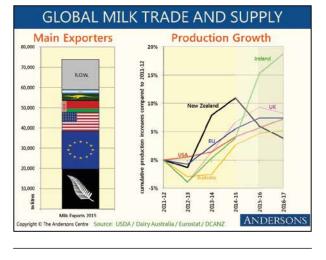
SUGAR BEET								
Crop year -	2014	2015	2016	2017?	Future?			
CTE volume	CTE volume full -9% full <i>ish full -20%</i>							
CTE Price - f per t	£31.67	£24.00	£20.30	£22.00	£24.00			
'C' Price - £ per t	£25.00	£5.00	£15.00	£15.00	£15.00			
Area '000ha	116	90	85?		80/115?			
• EU Sugar quota	as end 30	Oth Septe	mber 201	L7				
- 2016 crop last	under cu	rrent regin	ne					
- tariff barriers a	nd impor	t restrictio	ons remain	n				
 UK pricing med 	hanisms	under d	iscussion	1				
- longer-term contracts, risk sharing etc.								
- medium-term			-	nne				
Still supply mai		0						
- BS committed	-			AND	ersons			

The EU sugar sector has been on a rollercoaster over the last few seasons. This looks unlikely to stop soon, as further uncertainty will be caused by the end of EU sugar quotas on 30th September 2017. This means that the 2016 crop will be the last grown under the present regime. After quotas, the internal EU sugar market will still be protected from imports by tariffs and quotas, but there will be no restrictions on how much sugar the European industry can produce. The fear is that production will increase leading to more competition and lower prices (at least in the short-term). There is likely to be considerable market disruption in the short-term as the major EU processors fight for position, and it may be a number of seasons before a new equilibrium is found. Growers may have to accept that prices for sugar beet will be in the low twenty pounds per tonne for the foreseeable future. Alternative pricing mechanisms are likely to be introduced. In terms of volumes of beet, British Sugar has stated that it is committed to maintaining (and even growing) the size of the sector.

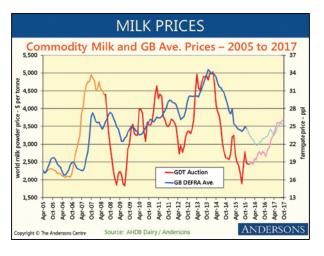


This first chart shows the estimated average cost of producing ware potatoes in Great Britain. Overlaid is the average price for potatoes by month. It shows the volatility in prices on the potato market. But it can also be seen that this translates into seasons when the crop is highly profitable (e.g. 2012), but then other season where an average producer could lose a large amount (like 2014). Many producers do not grow for the 'standard' ware market but focus on growing for a specific end use. Consumer trends have moved sharply away from the purchase and consumption of loose, bagged potatoes. Other countries in Northern Europe have a far greater focus on the processed market and thus efficient supply chains and factories. Imports are increasingly supplying the growing processed potato market.

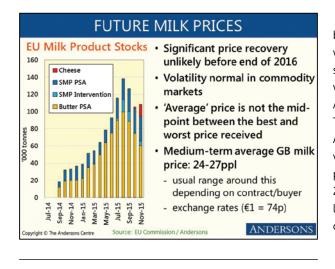
DAIRY SECTOR



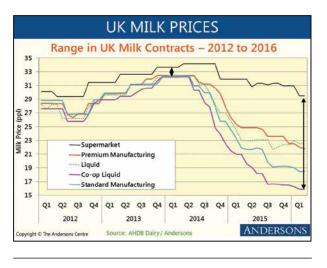
The first chart shows the statistics for milk and milk product exports in 2015. There is almost no trade in raw milk, it is all manufactured milk products such as butter, skim milk powder and cheese. The figures are converted to litres of raw milk for comparison purposes though. It can be seen that NZ is the biggest exporter and therefore influence on world markets, very closely followed by the EU. The second chart then shows cumulative growth in milk output from a base year of 2011-12. The four largest exporters, plus the UK and Ireland are shown. It can be seen that output from the main exporters actually fell in 2012-13 which helped drive the high prices seen at that point. But there have been big production increases thereafter. This has been in response to the high milk prices seen in 2013, and, in the EU, the end of quotas on the 31st March 2015. The figures for 2015-16 and 2016-17 are estimates. The decline in New Zealand, the largest exporter, could help firm world milk prices, but it probably requires US and EU output to reduce as well.



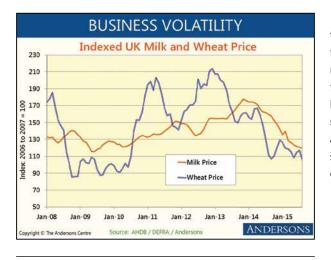
The 'world price' for milk is taken to be the Global Dairy Trade (GDT) auction price (dominated by the large New Zealand co-op, Fonterra). It can be seen that the market for milk is inherently volatile. This is because only around 5% of global milk production is ever traded, but it is this element that sets the price for the whole market. Small changes in supply from major exporters, or demand from importers can cause large shifts in price. Since the last boom in 2013 and early 2014 the global market has slumped. At the time of writing, prices are still in a 'trough' and appear rather directionless. Once the Northern hemisphere 'spring flush' is past, it may be clearer whether a price improvement will happen sooner or later. Prices in Great Britain (the DEFRA average farmgate monthly GB price excluding N.I.) are heavily influenced by the world market. This is despite the fact that over half of the milk produced goes into the domestic liquid market rather than competing with imported milk products.



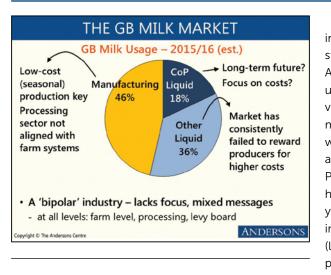
'There is nothing more bearish than a high price'. This should have been the mantra when prices were at 35ppl; it was inevitable that they would fall. Equally, when prices hit the floor they will go up again. At some point. With plentiful global supply it seems unlikely that there will be a significant price recovery before the back end of this year. As the chart shows stock levels have been built up in milk products. The reappearance of these on markets is likely to keep prices subdued. As many contracts are priced according to global supply and demand, volatility should be expected. When doing medium term planning a price in the range 24-27ppl might be prudent (rather higher than the 21-22p currently being received). This medium-term forecast looks low when compared to the highs seen early in 2014, but they should be considered unusual.



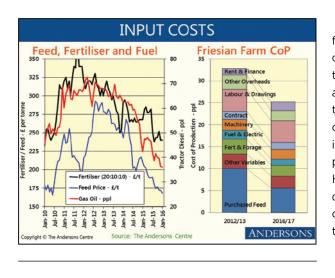
The price range under milk contracts has become substantial over the last 24 months. This chart shows the prices from five categories of milk purchasers in Great Britain. These range from a dedicated supermarket cost of production (CoP) contract, to that for a milk coop which is primarily brokering its milk or putting it into manufacturing uses. Obviously, farmers will have very different profitability prospects depending on which contracts they are on. It should be noted that selling price is not everything when it comes to profits though. Over the top of this range in output prices can be overlaid a huge range of costs of production. Producers on a 'good' contract may not be making much return if they are not operating efficiently. Conversely, farmers on a contract that does not look the best may be able to make profits if their business is structured correctly and run well. With a large quantity of milk available 'supply management' will remain key to buyers through 2016 – this could see a growth in 'A' and 'B' pricing arrangements.



The average annual spot price for wheat (AHDB) is plotted against the average annual milk price (DEFRA). Although dairy producers have faced a rapid drop in prices, arable producers have seen comparatively more, the chart shows that wheat price has been more volatile. Cereals farmers do have methods to manage this through forward selling and hedging mechanisms. Unlike dairy farmers, they also have the option of storing their output in the belief that the market will turn. The idea of a futures market for milk at a EU level has been widely touted, but has struggled to get off the ground. Part of the volatility in UK prices also comes through exchange rate effects.



This pie chart estimates what use milk produced in Great Britain in 2015/16 is used for. Northern Ireland is excluded as its industry is structured more like the Republic of Ireland with far more manufacturing. Around 54% of GB production goes into the liquid market. This figure used to be nearer two-thirds, but as milk output has grown, the liquid volume has stayed relatively static, with the extra production going into milk products. (Note that 10-15% within the Manufacturing segment will be high-value products - yoghurts, territorial cheeses etc.) There are issues in all parts of the market - even in the favoured 'Cost of Production' (CoP) liquid segment. Overall, it can be argued that we have two dairy sectors operating side-by-side. A high cost and high yield, all-year round system devoted to the liquid portion, and a low input, grass based system for manufacturing. Too often, producers, (like Friesian Farm) fall between the two, possibly pulled from their ideal position by the bi-polarity of the industry. This causes confusion for the R&D and knowledge exchange sectors too, with no real direction for the industry and therefore knowledge development.



The first chart shows some key input costs. There have been big falls in the price of the three 'Fs' - feed, fertiliser and fuel – all key inputs on dairy farms. They follow similar trends as they are all closely linked to energy prices (even cereals and oilseed now track the oil price to an extent due to the biofuels market). An illustration of the effect of this on-farm is shown by the second chart. This compared the cost of production for two years on our Friesian Farm model (introduced in more detail on the following slide). It can be seen that the cost of production has dropped by circa 7½p since the 2012/13 milk year. However, it must be noted that this was a particularly high-cost year due to the wet weather and the need to purchase additional feed. These cost reductions are helping the sector, although the falls will not offset the drop in income for many.

 150 cows plus followers on 100 Ha (part rented) Year-round calving, liquid contract. Owner + worker 							
ppl 2	013/14°	2014/15®	2015/16	2016/17			
Milk	32.4	29.4	22.6	22.1			
Total Output	35.3	32.1	25.2	24.8			
Variable Costs	14.7	13.2	12.0	10.7			
Overheads	11.3	11.0	9.7	9.3			
Rent, Finance & Drawing	s 4.7	4.7	4.8	5.1			
Total Costs of Production	30.7	28.9	26.5	25.1			
Margin From Production	4.6	3.2	(1.3)	(0.3)			
BPS/SPS + ELS	2.2	1.9	1.6	1.5			
Business Surplus	6.8	5.1	0.3	1.2			
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FRIESIAN FARM MODEL

Here we see the latest profitability figures from Andersons' Friesian Farm model. This is a notional 150 cow business in the Midlands with a non-aligned liquid milk contract. The farm made record profits in the 2013/14 milk year as a result of high prices. The 2014/15 year saw prices fall continuously through the year, but, because prices were reasonable at the start of the year, the average drop was not huge. A far bigger effect has been seen this year - with prices starting low, and then falling, the average for the year is well down. Some relief comes through lower costs. Part of the reduction is due to capital spending being postponed. Looking to 2016/17 the milk price is budgeted down slightly again. Even if markets start to improve at the end of the year, this is too late to move the average greatly. Some relief comes through more cost reductions. The farm is still reliant on support payments for profitability, as it was in 2015/16. These have reduced in recent years. Partly as a result of currency effect on the BPS, but also the ending of the farm's ELS agreement in mid-2015.

FRIESIAN FARM - SCOTLAND

 150 cows plus fol 	owers on 100 Ha (part rented)
Year-round calvin	g, liquid contract. Owner + worker
ppl	2013/14 [®] 2014/15 [®] 2015/16 [®] 2016/17 [®]

	2020/21	2014/15	2013/10	2010/1/
Milk	32.1	29.0	22.2	21.7
Total Output	35.1	31.8	24.9	24.4
Variable Costs	15.2	13.5	12.2	10.8
Overheads	11.5	10.6	9.9	9.5
Rent, Finance & Drawin	ngs 4.7	4.7	4.8	5.1
Total Costs of Production	on 31.3	28.8	26.9	25.4
Margin From Production	n 3.8	3.0	(2.0)	(1.0)
BPS/SPS + LMO	2.7	2.1	1.6	1.5
Business Surplus	6.5	5.1	(0.4)	0.5
			ANT	DEDCONIC.
Copyright © The Andersons Centre Source: Ander	sons @ Result	© Estimated ^③ B	udget AINI	DERSONS

Our Scottish version of Friesian Farm is a notional 100 hectare holding in central Scotland running 150 cows. The figures differ from the English model in that milk prices are slightly lower, beef prices are higher, and the farm does not grow maize. In general, however, the profitability story is much the same over the four years shown. One big difference over the coming years will be in support payments however. In the past, due to the historic payments system, support in Scotland has been higher than that in England (for example the English Single Payment for 2013/14 was 2.2ppl). The phasing to a fully regional rate would see the Scottish payment fall to 1.30ppl by 2019 (lower than the English rate at that point).

FRIESIAN FARM - WALES

150 cows plus followYear-round calving, I				er
ppl	2013/14°	2014/15°	2015/16*	2016/17
Milk	32.4	29.4	22.6	22.1
Total Output	35.3	32.1	25.2	24.8
Variable Costs	14.7	13.2	12.0	10.7
Overheads	11.3	11.0	9.7	9.3
Rent, Finance & Drawin	ngs 4.7	4.7	4.8	5.1
Total Costs of Production	on 30.7	28.9	26.5	25.1
Margin From Production	n 4.6	32	(1 3)	(0.3)
BPS/SPS	2.7	2.1	1.7	1.6
Business Surplus	7.3	5.3	0.4	1.3
Copyright ID The Andersons Centre Source: Ander	sons ① Result 《	Estimated ③ Bu	idget AND	DERSONS

We have used the same Friesian Farm figures in our Welsh example. This may be slightly misleading with a greater proportion of the milk in Wales going to manufacturing uses, and a greater proportion of seasonal, rather than year-round calving systems. However, the point that we wish to highlight is the support situation. When compared to equivalent English farms, it can be seen that Welsh businesses have received more support (e.g. 2.7ppl in 2012/13 against an English 2.2ppl). This is due to the historic system operated in Wales. For 2014 there was a sizeable drop in support due to EU budget changes and the high Pillar Transfer used in Wales. A further fall occurred in 2015 as the BPS comes in, but payments for both this year and 2016/17 are still slightly above the English levels. However, by 2019 when the regional rate is fully phasedin, the Welsh payment will be only 1.20ppl. This is below the English level, and a substantial change on the amounts being received under the SPS. The Welsh dairy industry will need to adjust to these lower support levels.

RESILIENCE AT LOW PRICES

- · Farmers should not chase marginal litres
- prices1 temptation to produce more to keep revenue level
 but high-cost (loss-making) litres
- Cost control, cost contro
- Not exciting; but it separates the best from the average
- how? negotiate, challenge, postpone (within reason), benchmark, analyse (proportional), co-operate
- Short-term; budget (realistically) for next 12 months - farms need to communicate any shortfall to lenders
- Longer-term; quantify requirements (drawings, RoC etc.)
 if not sufficient then businesses will need to CHANGE

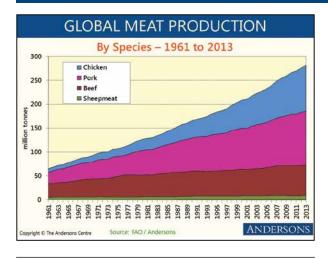
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Times are undoubtedly tough in the UK dairy sector. But there are still producers who are making a return on capital of 5-10%; and not all of them have the most remunerative milk contracts. They are simply very good at managing a dairy farm. This slide sets out some of the things that producers can do to ensure they are resilient. One of the traps in times of low prices is to try and make up a shortfall in income by producing more. The marginal litres tend to be expensive to produce, and, for any farmer on a 'A' and 'B' pricing model especially, will not provide a return. There is no great secret to building resilience into a dairy business - it is about focusing on low costs of production. This simply means the farm remains profitable at a wider range of milk prices (and loses less money if prices are very low). In the short-term dairy farmers will need to manage their cash flows and ensure they have a open dialogue with their lenders. In the longer-term it is a question of whether the business, as it is currently set up, can meet the proprietors' objective at realistic future milk prices. If it cannot, then it should look to change.

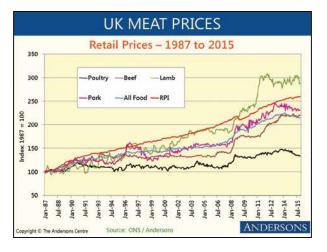
STRU	JCTUR	AL CH/	ANGE	
GB Dai	ry Indust	ry – 2005	5 to 202	0
Year -	2005	2010	2015	2020
Producers (June)	16,255	12,519	10,680	6,000-7,500
Dairy Herd ('000)	1,711	1,549	1,550	1,500
Ave. Herd Size	105	124	145	230
GB Milk Productio billion litres	n 11.7	11.4	12.5	12.7
Increased segregat low input/low outp				
opyright © The Andersons Centre \$0	urce: AHDB (Dair)	y) / Andersons	1	Andersons

Where is the UK dairy industry going? The number of producers has been declining for decades and the trend is likely to continue. However the exits from the industry will not necessarily be the smaller farms but those who are the least efficient or profitable. Segregation of the industry is already apparent with ever more producers at either end of the spectrum (high input/output or low/input output) rather than sitting in the middle. Seasonal calvers are well-placed, as are those with a retailer-aligned milk contract. Those with all-year-round systems, but lacking the support of a high-price contract, will be under the most pressure, and probably the first to exit.

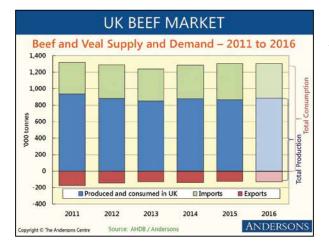
LIVESTOCK SECTORS



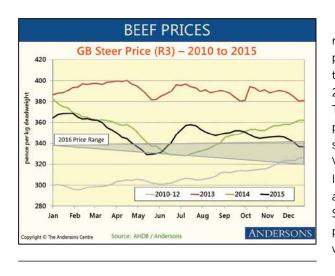
This first chart shows the production of meat across the world. Both beef and sheep-meat have seen modest growth over the period, with the last decade seeing almost no increase at all. This is in stark contrast to the trend in pig and poultry meat. Pork and chicken production increased significantly over the same period, as demand from both developed and developing nations grew. Generally pig and poultry meat are cheaper to produce and require less resources (land/feed/ labour). The perceived health benefits of 'white' meat over red have also played a role in demand.



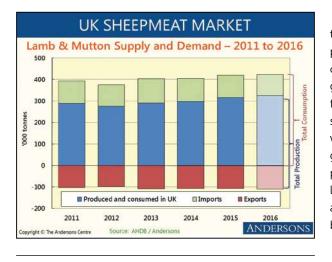
It is useful to see how the retail price of meat has changed over the past generation. The increase in general price levels in the UK is shown by the red RPI (Retail Price Index) line. It can be seen that lamb prices have out-paced this, certainly in the last few years. Hence lamb has become relatively more expensive over time. For many it is now reserved for a special occasion. The price of other meats has risen slower than inflation, making them relatively cheaper over time compared to other goods. This is especially true of poultry meat – the cost is not very different from 20 years ago in actual prices. This makes it good value and it is considered a cheap 'everyday' meat. As indicated by the blue line food inflation has risen slower than RPI over the period. The past two years have seen a marked fall in most food prices.



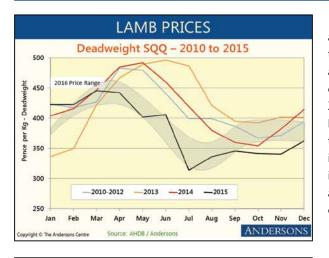
This chart shows the market balance for beef. Exports (below the axis) have remained relatively static across the period (except for 2011). The beef exported tends to be different cuts than those popular in the UK. Production has also remained relatively constant across the period although it has been creeping up since the recent low-point of 2013. Latest AHDB forecasts suggest a 2% increase in domestic production for 2016. Although difficult to see on the chart, even a relatively small shift like this can result in a supply and demand imbalance. With an increase in imports, the total consumption of beef has been increasing, albeit slowly. Beef tends not to be favoured in the increasing drive for convenience.



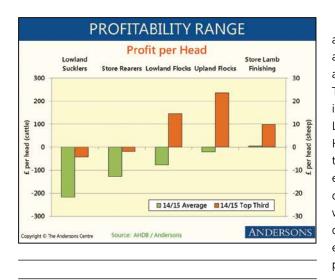
Beef prices were historically high in 2013. Partly this was due to reduced supply (as seen on the previous chart). But they were also, perversely, boosted by the horsemeat scandal, giving extra attractiveness to UK-produced beef with a robust supply chain. Prices dipped sharply in 2014 with increased domestic supply meeting weak consumer demand. There was also more competition from imports. 2014 saw the biggest price spread of the last 5 years of around 55p per kg. Prices dipped sharply in the 2015 spring before tightening supply helped them recover. Values have since been sliding with plentiful availability. The effect of Irish beef imports are always important on the UK market. Irish supplies are forecast to increase in 2016. Unless there is a big weakening of Sterling against the Euro there seems little reason to expect markets to pick up much in 2016. Store prices through 2015 have held remarkably well compared to finished stock prices, but this may start to change.



This chart shows the market balances for lamb (and mutton). Note the axis compared to that of beef in the earlier slide; beef is a far more popular meat in the UK than lamb with over three-times more being consumed. It can be seen that domestic lamb production has been going up since the 2012 year. This is due to a recovery in the national flock – which has increased by almost a million ewes since 2011. 2015 saw a large number of lambs carried over from the 2014 crop. Exports were sluggish in 2015 due to the strong Euro. There has been some growth in volumes consumed in the UK in the latter part of 2015 – possibly because of lower prices. Exports are key for the balance of the lamb market with the 'British Lamb' brand playing a key role. For 2016 another large lamb crop looks possible – although ewe numbers are back slightly, conditions at tupping were mostly good.



The lamb price shows a clear seasonal trend, although the extremes appear to be becoming less marked. 2015 prices barely demonstrated the usual spring peak. This coincides with strong Easter demand and a reduced supply as only the tail-end of the previous crop and very early lambs are available. The 2015 year saw high imports from New Zealand in March and April (but lower during the rest of the year) which kept prices low during the spring. Values remained subdued through the latter part of 2015 with export conditions tough. If the trends in improving consumer demand continue this could help values. Lastly, import competition may be reduced as New Zealand is forecast to have a smaller crop this year. Whilst these factors provide a little cause for optimism on prices, it is difficult to see values rising significantly.



This chart shows the profitability per head beef and sheep producers achieved in 2014/15 (beef enterprises are on the left axis, with sheep against the right). The figure includes all variable and fixed costs as well as depreciation and imputed rent, finance and unpaid labour charges. The figures do not include support incomes from the BPS/RDP. The data is for the 2014/15 year, but is unlikely to have changed much in 2015/16. Likewise, although the data is for England, similar surveys undertaken by HCC in Wales and QMS in Scotland tell an almost identical story. For the average producer just store lambs are making a margin. Worryingly, even the top third of beef producers are falling short of break-even. The difference between the average and those at the top is increasing. As we have already said in the dairy sector, the level of costs tends to be the difference between the average and the best. For all of the Stocktake enterprises the top performers were not only achieving better physical performance but had marked savings in depreciation and labour.

MEADOW FARM MODEL					
 154 Ha mixed lowland farm (114 Ha owned, 40 Ha FBT) Beef (suckler cows, finished bulls, sheep and arable) Proprietor, 1FT family worker & casual 					
£ per Ha	13/14°	14/15 [®]	15/16°	16/17°	
Livestock Gross Margin	569	520	530	539	
Crop Area Gross Margin	726	650	655	580	
Total Gross Margin	662	602	613	605	
Overheads	508	497	506	493	
Rent, Finance & Drawings	310	314	314	315	
Margin From Production	(156)	(209)	(207)	(204)	
SPB/BPS and ELS	244	229	194	179	
Business Surplus	88	20	(13)	(25)	
apyright © The Andersons Centre Source: Andersons © Result © Estimated © Budget ANDERSONS					

notaling in the Matanas. It consists mostly of grassiand, with some wheat
and barley grown mainly for livestock feed. There is a 60 cow suckler
herd with all progeny being finished, a dairy bull beef enterprise and a
500 ewe breeding flock. The 2015/2016 financial year sees little change
in margin from production but the finishing of the ELS scheme and
the reduction in BPS payment moves the business into a loss-making
position. The situation worsens for 2016/17. Overall, the business is
forecast to lose just under £4,000. There are many farm businesses
of this type, size and vulnerability to policy change or low prices. The
viability of many of these farms is based on either system change or
asset value appreciation, something that is not guaranteed.

'Meadow Farm' is a notional 154 hectare (380 acre) beef and sheep holding in the Midlands. It consists mostly of grassland with some wheat

SCOTTISH MEADOW FARM MODEL

- 154 Ha mixed lowland farm (114 Ha owned, 40 Ha SLDT)
- Beef (suckler cows, finished bulls, sheep and arable)
- · Proprietor, 1FT family worker & casual

£ per Ha	13/14°	14/15°	15/16°	16/17 [®]
Livestock Gross Margin	595	579	603	593
Crop Area Gross Margin	579	585	604	447
Total Gross Margin	655	642	668	625
Overheads	508	494	504	494
Rent, Finance & Drawings	310	314	315	315
Margin From Production	(164)	(165)	(152)	(184)
BPS / SPS (+ Beef Scheme)	289	225	200	196
Business Surplus	125	60	48	12
Copyright © The Andersons Centre Source: Andersons	1 Result 2	Provisional ⁽³⁾ Budget	AND	ersons

Scottish 'Meadow Farm' is a notional 154 hectare (380 acre) beef and sheep holding in the Scottish lowlands. Despite the changes in prices and costs over the past three years, the performance of this business in terms of Margin from Production has been quite stable. Unfortunately this has been stability at a loss-making position. The outlook for 2016/17 is for a deterioration with crop margins particularly dropping as yields return to normal levels and prices remain weak. It can be seen there has been a substantial decline in support payments since the 2013/14 year. Partly this is the ending of an LMO contract, but mostly it due to the shift to the BPS and currency changes. By 2019 the business will be receiving a BPS of £157 per Ha plus Beef payments of £28 per Ha (£185 in total).

WELSH MEADOW FARM MODEL

- 154 Ha mixed lowland farm (114 Ha owned, 40 Ha FBT)
- Beef (suckler cows, finished bulls, sheep and arable)
- Proprietor, 1FT family worker & casual

£ per Ha	13/14°	14/15 [®]	15/16°	16/17 °	
Livestock Gross Margin	564	509	520	535	
Crop Area Gross Margin	726	668	657	589	
Total Gross Margin	658	597	604	603	
Overheads	509	497	504	493	
Rent, Finance & Drawings	s 310	314	331	315	
Margin From Production	(160)	(213)	(231)	(205)	
BPS / SPS + Glastir	278	227	206	193	
Business Surplus	120	13	(25)	(12)	
Copyright © The Andersons Centre Source: Andersons	① Result ② P	rovisional @ Budget	AND	ersons	

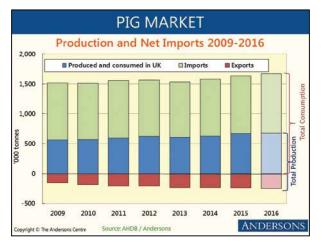
Welsh 'Meadow Farm' is a notional 154 hectare (380 acre) beef and sheep holding, based in a lowland area of south Wales. Whilst the business has always been loss-making from its farming, support payments have allowed it to produce a positive Business Surplus in the past. The large drop in support for the both the 2014 SPS, then 2015 and 2016 BPS is evident. This pushes the business as a whole into a loss-making position. It is likely that reducing support payments will stimulate many similar farm businesses to restructure to get a positive margin from production, or at least closer to break even.

MEADOW FARM MODEL RESTRUCTURE

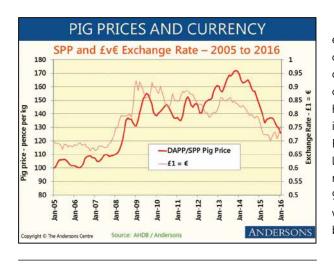
154 Ha mixed lowland farm (114 Ha owned, 40 Ha on FBT)
 Beef sold as stores, increase sheep and arable contracted

£ per Ha	14/15°	15/16°	16/17°	Restructure 16/17 [®]
Livestock Gross Margin-	520	530	539	579
Crop Area Gross Margin-	650	655	580	614
Total Gross Margin	602	613	605	648
Overheads	497	506	493	375
Rent, Finance & Drawings	314	314	315	330
Margin From Production	(209)	(207)	(204)	(56)
Basic Payment and ELS	229	194	179	179
Business Surplus	20	(13)	(25)	123
* Per hectare return for the area the enterprises occ Copyright © The Andersons Centre		Estimated 3 Bud	get AN	DERSONS

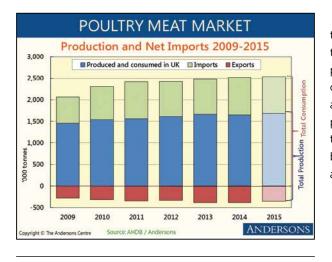
Meadow Farm has alternatives it could take to improve its business prospects. In the restructured format a number of steps have been taken; the dairy beef enterprise is discontinued and suckler progeny are sold as stores at 15-18 months, rather than as finished beasts. The sheep enterprise is increased from 500 ewes to 700 ewes and the arable land is fully contracted out. Although there is still no margin made from agricultural activity the business does make an overall profit of around £19,000. However this change is not an overnight shift. Key to the success of this restructure is careful cost management.



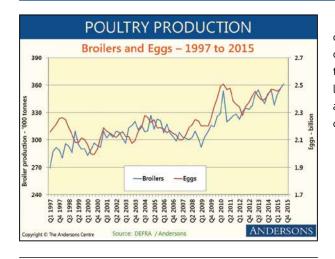
Despite falling breeding pig numbers over this period (down 7% to around half a million animals) production has increased. Domestic output in 2015 was around 4% higher than the year earlier. Total consumption remained relatively static through to 2014, although is increased in 2015 and is expected to do so again in 2016. The number of pigs (breeding sows) kept outdoors has also risen substantially to about 40% of the herd. Exports have increased by 75% between 2007 and 2014 and are expected to continue to rise. These tend to be the cuts that UK consumers do not wish to eat. Imports of fresh, frozen and bacon have all decreased over the period, but a 90% increase in processed pork has been seen between 2007 and 2014.



The Standard Pig Price (SPP) closely tracks the Pound / Euro exchange rate. Due to the large volume of pigmeat imports (illustrated on the previous slide) the UK market is influenced by what is going on in continental markets. The UK price is consistently above that achieved by other European producers – in simplistic terms British pigmeat is used in higher-value markets and imports for lower-cost products. The decline in continental prices through 2014 and 2015 has been driven by the Russian import ban upsetting normal trade flows, and high production levels. Prices have fallen by such an extent that, in January 2016, pig meat storage aid was opened and subsequently closed with almost 90,000 tonnes stored. At some point this will come to the market and will delay any market recovery. Falls in the EU price have been amplified by the strengthening Pound over the past two years.



Poultry exports have remained relatively static over the period and tend to be the parts of the bird that are not consumed in the UK. Over the period shown the UK has been around 75-80% self-sufficient in poultry. Poultry meat production has also risen sharply, by around 13% over the six years 2009 to 2014, with the majority of the new supply being absorbed by higher levels of domestic consumption. Consumption of poultry meat has increased by nearly 20% in the period; it is cheaper than its red meat alternative and has a number of perceived health benefits. The figures for 2015 are Andersons estimates as official figures are not yet available.



Many sectors of UK agriculture have shown a decline in output levels over the past decade. This is not the case with the poultry sector. The chart shows strong upwards growth in both the egg and broiler sides of the industry. There was a 'spike' after 2009 – perhaps with consumers looking for cheap protein in their diets with incomes being squeezed after the financial crisis. With output still increasing there is concern over whether markets will become over-supplied at some point.

PIG AND POULTRY PROFITABILITY

- Low output prices means pig profitability is struggling
- negative margin seen for much of 2015 (average producer)
- break-even for 2016 with falling feed prices
- Prices to remain flat in 2016 (at least until mid-year)
- falling feed prices could see producers at break even
 Poultry sector profits also being helped by feed falls
- Poultry sector profits also being helped by
- Egg market returns still generally good

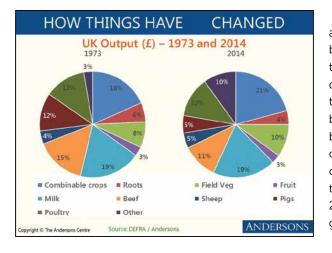
pyright © The Andersons Centre

- tougher in colony market prices have declined
- free range still robust but due a 'correction'?
 Broiler market also looks a little 'over-heated'
- a lot of investment in new facilities in recent times
- supply and demand to get out of balance?

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At the end of 2015 the pig price had fallen to its lowest level since May 2008 (123ppkg d/w). This has had a predictable effect on profitability. According to AHDB figures the average cost of production in the sector was above the selling price in 2015. For 2016 prices make not recover quickly (if at all). The better news for the pig sector is that falling feed prices should lower costs and return the sector close to a break-even position. Lower feed prices also helps the poultry sector (where up to 80% of the total cost of production can be feed). Until now egg and broiler prices have bucked the trend seen in many other agricultural markets and stayed reasonably firm. Rising supply levels may see markets move downwards unless consumer demand continues to grow strongly.

SUMMARY AND CONCLUSIONS



Change is continuous, and in that, agriculture is no different from any other industry. The last four decades have undoubtedly seen some big shifts in UK farming. However, this chart shows that, in terms of the balance of output between sectors, the industry now is not that different from that in the early 1970's. Some trends can be discerned though; the relative decline of the beef and, especially, pig sectors can be seen. There has been big growth in the 'Other' category – perhaps best thought of as diversification. If we went into more detailed analysis other large changes would emerge – for example the combinable cropping output in 1973 would have almost no oilseeds in it. In real terms (2014 prices) the total output in 1973 was around £36.7bn. In 2014 it was £23.8bn. Reversing this decline should be one of the key goals for UK farming over the medium to long term.

UNCERTAINTY . . .

- Output prices in many sectors down compared to 2 or 3 years ago
- commodity markets well-supplied (domestic, EU and world)
 currency effects
- 'recovery' moving further into the future (beyond 2016?)
- Much talk about volatility but low prices the issue
- Government support changes
- BPS introduction (especially phasing in Scotland and Wales)
- less backing for renewables
- 'Brexit' could see large upheaval if it happens
- Asset base less of a crutch for faltering farm businesses
- Wider economy less robust

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The final two slides summarise the themes that have emerged through this morning's presentation. At the moment there is much uncertainty in the industry; driven by both economic and political factors. A lot of farming businesses are in wait-and-see mode, carrying-on in much the same way as before and seeing if the downturn is going to be sustained or if it is just a 'blip'. If we are right, and there is little upturn in the coming year, then this passive strategy will become increasingly untenable through 2016.

... AND OPPORTUNITY

- · Extent of 'downturn' easy to overstate
- · Input prices much lower
- Still vast scope for efficiency improvements
 - what are the top 10% doing?
 - co-operation between farmers and along the supply chain
 restructuring and investment borrowing still cheap, but
 - rent levels need to be at sensible levels
- Strong underlying businesses in many cases
- a launch-pad for true entrepreneurship
- a series of incremental improvements can rapidly improve profitability
- A positive outlook for the best producers

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Whilst the business environment is tougher than it was just a couple of years ago, it is by no means a disaster. Lower costs help offset some of the drop in output prices. Farmers can still control their own performance by striving to make their businesses operate as efficiently as possible. A downturn will inevitably see some casualties, but this can provide opportunities for others. The farming industry is fundamentally robust and well placed to ride-out the downturn and emerge stronger and more profitable in the long run.

Please call if there are any questions from this presentation.

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GLOSSARY OF ACRONYMS

AD	Anaerobic Digestion
AHA	Agricultural Holdings Act (Tenancy)
AHDB	Agricultural and Horticultural
	Development Board
AMPE	Actual Milk Price Equivalent
AONB	Area of Outstanding Natural Beauty
AwNC	Areas with Natural Constraints
BAP	British Agricultural Policy
BoE	Bank of England
BPS	Basic Payments Scheme
BREXIT	British Exit (from the EU)
BRIC	Brazil, Russia, India, China
BS	British Sugar
CAP	Common Agricultural Policy
CD	Crop Diversification
COP	Cost of Production
CPI	Consumer Price Index (Inflation)
CSS	Countryside Stewardship Scheme
CTE	Contract (sugarbeet) Tonnage Entitlement
DA	Disadvantage Area
DAPP	Deadweight Average Pig Price
DEFRA	Department for Environment Food & Rural Affairs
ECB	European Central Bank
EEA	European Economic Area
EFA	Ecological Focus Areas
EFTA	European Free Trade Association
EIA	Environmental Impact Assessment
ELS	Entry Level Stewardship Scheme
EP	European Parliament
ERDF	European Rural Development Fund
ES	Environmental Stewardship
EU	European Union
FAO	Food & Agriculture Organisation of the United Nations
FBI	Farm Business Income
FBS	Farm Business Survey
FBT	Farm Business Tenancy
FD	Financial Discipline
FIT	Feed-In Tariff
FT	Full Time

GAEC	Good Agricultural & Environmental Condition (cross compliance)
GDP	Gross Domestic Product
GDT	Global Dairy Trade
GHGs	Green House Gases
GM	Genetically Modified
GMOs	Genetically Modified Organisms
HCC	Hybu Cig Cymru (Meat Promotion Wales)
HLS	Higher Level Stewardship Scheme
ΗT	Higher Tier (CSS)
IMPE	Intervention Milk Price Equivalent
KPI	Key Performance Indicator
LAG	Local Action Group
LEP	Local Enterprise Partnership
LFA	Less Favoured Area
LFASS	Less Favoured Area Support Scheme (Scotland)
LMO	Land Managers Options
LPIS	Land Parcel Information System
MFF	Multi-annual Financial Framework (EU Budget)
MS	Member States (of the EU)
MT	Middle Tier (CSS)
NC	National Ceiling
NE	Natural England
NFI	Net Farm Income
NFU	National Farmers Union
NI	National Insurance
NR	National Reserve
NVZ	Nitrate Vulnerable Zone
OECD	Organisation for Economic Co-operation & Development
OELS	Organic Entry Level Stewardship Scheme
PV	Photovoltaic (Solar)
QMS	Quality Meat Scotland
RAP	Regional Area Payment
RD	Rural Development
RDC	Rural Development Contracts
RDPE	Rural Development Programme for England
RHI	Renewable Heat Incentive
RICS	Royal Institute of Chartered Surveyors

GLOSSARY OF ACRONYMS (continued)

RLR	Rural Land Register	Т
ROC	Return on Capital	Т
RPA	Rural Payments Agency	Т
RPI	Retail Price Index (Inflation)	
RTFO	Renewable Transport Fuel Obligation	L
SBS	Scottish Beef Scheme	L
SDA	Severely Disadvantaged Area	L
SLDT	Short Limited Duration Tenancy (Scotland)	V
SMP	Skimmed Milk Powder	V
SP	Single Payment	V
SPP	Standard Pig Price	V
SPR	Soil Protection Review	V
SPS	Single Payment Scheme	Y
SRDP	Scottish Rural Development Programme	Y
ТВ	(Bovine) Tuberculosis	Y

TIFF Total Income From Farming TFP **Total Factor Productivity** TTIP Transatlantic Trade and Investment Partnership UAA Utilisable Agricultural Area UELS Uplands Entry Level Scheme USDA United States Department of Agriculture WG Welsh Government WFD Water Framework Directive WMP Whole Milk Powder WRDP Welsh Rural Development Programme WTO World Trade Organisation YESS Young Entrants Support Scheme YFP Young Farmers Payment YFS Young Farmers Scheme



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