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Forms of farm support/subsidy as operated in selected countries and associated conditions

1 Background and context

This paper looks at the methods of agricultural support that are available to farmers within a number of countries around the world. Where possible, the paper also identifies any associated regulation that farmers are required to comply with in order to avail of the support.

Under the current Common Agricultural Policy deal, which runs up until 2020, farmers within Northern Ireland have access to the so called Basic Payment Scheme which entitles them to a per hectare payment providing they meet certain criteria in areas including farming activity and environmental protection/enhancement. In financial terms, the Basic Payment Scheme is worth around £283 million per year (based on 2015 data[1]) and the average farmer here receives around €339 per hectare (based on 2013 data). Within this context, farmers in Northern Ireland are in a better position than

[1] CAP payments search website, DEFRA, 2nd August 2016

their equivalents in the rest of the UK where average payments per hectare are estimated to be as follows:

- UK as a whole - €229/ha;
- England - €265/ha;
- Scotland - €130/ha; and
- Wales - €247/ha.

Whilst Northern Ireland appears to fare well in terms of direct payments, the fact remains that based on 2014-15 data[2] direct payments represented 103% of the value of average Farm Business Income.

The paper is written within the context of the UK referendum decision to leave the European Union on the 23rd June 2016, which will have implications as to whether or how the UK will support agriculture when it leaves the EU.

2 Support available to farmers

Table 1 outlines the existing farm support mechanisms available in 11 non EU countries across the world. The table also includes the current mechanisms in use within the EU, and more specifically Northern Ireland, by way of comparison. Given the ‘Brexit’ context, the table includes data for Norway and Switzerland, which have been often cited as potential models for EU engagement that the UK may choose to follow post ‘Brexit’. The other nine countries randomly selected for the table represent different parts of the world with differing climate, differing forms of agricultural production and associated products and differing economies with variable emphasis on agricultural production, all of which means that they employ a wide and divergent range of mechanisms in support of their indigenous agricultural industries.

As well as highlighting policy and programme supports to agriculture, table 1 includes data that enables a direct comparison of a number of key indicators for the significance of agriculture to the country’s economy and the proportion of people employed in the sector. The relative value of support provided to the sector is also presented in the form of two key measures, namely the proportion of total country GDP committed to agricultural support (%TSE) (column 5 in table 1), and support given to individual farmers as a share of Gross Farm Receipts (%PSE) (column 6 in table 1).

[2] Farm Incomes in Northern Ireland, 2014/15, Policy and Economics Division, DARD, table 7 page 16

Table 1: Support mechanisms for agriculture utilised in a selection of countries[3]

Country/ Jurisdiction	Direct payments to farmers	Associated conditions	Additional forms of support	Total support estimate (TSE) as % of GDP	Producer Support Estimate as % of GFR (%PSE)	Agriculture as % of GDP	Agricultural employment
EU (Northern Ireland)	Yes - part of the CAP Basic Payment Scheme under Pillar 1	Farmers must be 'active' and are required to meet 'greening' and cross compliance requirements as they relate to environmental protection/enhancement and animal welfare	The EU can also utilise market-support measures in circumstances such as extreme weather. The EU has also intervened due to trade disruptions e.g. Russian Import Ban on EU products. In such instances available options include taking products into public intervention (national intervention agencies withdraw surplus produce from the market) or the use of private storage aid (to stabilise markets)[4]. Import tariffs and tariff rate quotas also protect certain products e.g. sugar, and, under certain market circumstances producers can avail of export subsidies[5] Pillar 2 of the CAP provides access to Rural Development funding for a range of activities including farm diversification, agri env schemes, modernisation, knowledge exchange and forestry. Farmers within 'Areas of Natural Constraint' can also avail of a per hectare payment in recognition of the challenges in farming certain land. Selective direct payment subject to meeting criteria for support.	0.7% (total EU estimate)	18.9% (total EU figure)	1.6% (total EU figure)	4.3% (total EU figure) (NI specific figure of 3.2%[6])

[3] Derived from Agricultural Policy Monitoring and Evaluation 2016, OECD, June 16, 2016
[4] he common agricultural policy (CAP) and agriculture in Europe – Frequently asked questions, Press Release, European Commission, 26 June 2013
[5] ibid
[6] Statistical Review of Northern Ireland Agriculture, 2015, Policy and Economics Division, DARD, page 1

Country/ Jurisdiction	Direct payments to farmers	Associated conditions	Additional forms of support	Total support estimate (TSE) as % of GDP	Producer Support Estimate as % of GFR (%PSE)	Agriculture as % of GDP	Agricultural employment
Norway	Yes – appear similar to CAP mechanisms as they include area and headage payments (based on numbers of livestock). Also a production based payment for meat. Payments appear to differ by region and farm size	Suggestions that there is cross compliance but potentially more limited in scope –only one programme[7]	Market price support, in the form of wholesale target prices, is provided for milk, pork, grains, some fruits and some vegetables. These target prices and the budgetary framework for payments to farmers, are negotiated annually between the government and farmers' organisations. Export subsidies of processed products to the EU and marketing activities for horticultural products are financed directly by the government	0.91%	62%	1.6%	1.8%
Switzerland	Yes - payments per area to secure food supplies, payments to maintain farming in less favoured conditions and in the form of payments to farmers who voluntarily apply stricter farming practices related to environmental and animal welfare objectives.	Environmental cross-compliance conditions and animal welfare conditions.	Market price support (MPS) resulting from important trade barriers applied at the border Export subsidies for selected processed products	1.27%	62.4%	0.8%	3.9% (2013)
Australia	Not as such – no guaranteed annual payment but can receive targeted direct support in	-	**No market price support**, with domestic and international prices aligned. There are Federal programmes to facilitate structural adjustment, temporary assistance during	0.12%	1.3%	2.5%	2.8%

[7] Environmental Cross Compliance in Agriculture, OECD Joint Working Party on Agriculture and the Environment of the Committee for Agriculture and the Environment Policy Committee, OECD, 2010, page 19

Country/ Jurisdiction	Direct payments to farmers	Associated conditions	Additional forms of support	Total support estimate (TSE) as % of GDP	Producer Support Estimate as % of GFR (%PSE)	Agriculture as % of GDP	Agricultural employment
	certain circumstances (see 3rd column in table).		droughts, and for natural resource and environmental management Research and development (R&D) programmes are a major component of Australian support to agriculture. Rural research and development corporations (RDCs) are the Australian Government's primary vehicle for supporting rural innovation and drive agricultural productivity growth. Some direct targeted payments in particular to deal with issues relating to drought include: • Farm Household Allowance (FHA) provides up to three years of income support for eligible farmers and their partners; • Managing Farm Risk Programme encourages farm businesses to take up insurance to cover against drought and other production and market risks; • Tax measures designed to reduced cash flow concerns.				
Brazil	No	All forms of support have environmental conditions attached but lack of detailed data.	Regionally set minimum guaranteed prices, which cover a broad range of crops from rice, wheat, maize, cotton, soybeans, to regional crops like cassava, beans, açaí, guaraná, sisal, and a few livestock products like cow and goat milk and honey.	0.29%	2.6%	5.6%	13.7% (2013)

Country/ Jurisdiction	Direct payments to farmers	Associated conditions	Additional forms of support	Total support estimate (TSE) as % of GDP	Producer Support Estimate as % of GFR (%PSE)	Agriculture as % of GDP	Agricultural employment
			Government implements several price support mechanisms, including direct government purchases (AGF programme); premiums to commercial buyers who pay minimum prices to supply producers; and public and private options contracts backed by private risk premium options Producers also receive various reduced-interest marketing loans which enable them to withhold the sale of a product in anticipation of a higher market price. Agricultural credit is the major policy instrument for the sector and it is provided to both commercial and small-scale family farms. The National Rural Credit System (SNCR) directs credit to farmers at preferential interest rates. Agricultural insurance is another important area for the government. There are four main programmes providing support either in the form of insurance premium subsidies or by compensating farmers for production losses due to natural disasters.				
Canada	Not as such – no guaranteed annual payment but can receive targeted direct support in	-	Farmers can avail of support under the Growing Forward 2 Initiative[8] that includes provisions for the following: • Developing and commercialising new products and technologies;	0.38%	9.4%	1.6% (2010)	2.0%

[8] Growing Forward 2, Infographic, Agriculture and Agri-Food Canada website, 2nd August 2016

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	certain circumstances (see 3rd column in table)		• Increasing industry adoption of food safety and traceability systems and seizing new markets; • Increasing profitability in domestic and global markets. Business Risk Management Programmes also exist to help farmers deal with market volatility and disaster situations. Also support in the form of the Advance Payments Program (APP), the federal loan guarantee programme that gives producers easier access to credit through cash advances for their produce. Supply-managed sectors (dairy, poultry and eggs), which are protected by high custom tariffs and oriented towards the domestic market.				
China	Yes – but only for grain producers and paid at a flat rate per hectare	Lack of available data	Market price support is the main channel for providing support to Chinese farmers. It is provided through tariffs, tariff rate quotas (TRQ) and state trading, combined with minimum guaranteed prices for rice and wheat and ad hoc interventions on other agricultural commodity markets. Farmers also receive state subsidies for chemicals and seeds and can avail of state subsidised agricultural insurance schemes.	3.15%	21.3%	9.5%	31.4%

Country/ Jurisdiction	Direct payments to farmers	Associated conditions	Additional forms of support	Total support estimate (TSE) as % of GDP	Producer Support Estimate as % of GFR (%PSE)	Agriculture as % of GDP	Agricultural employment
			Payments for returning farmland to forests and for exclusion of degraded grassland from grazing reflect environmental concerns. Wide variety of programmes supporting development of agricultural infrastructure, including irrigation and drainage facilities.				
Iceland	Yes - based on payment entitlements, directly or indirectly coupled with production factors. Direct payments are provided to cattle (mainly dairy) and sheep producers, and on a smaller scale to certain greenhouse producers.	In relation to sheep - Keeping a minimum of winter-fed sheep on the farm is, however, required for being eligible to receive the payments.	Market price support, maintained by border measures. Market price support is provided for all livestock products and some horticultural products. Wholesale prices continue to be managed for approximately half of the dairy products. A government-chaired committee, representing both the Farmers' Association and – on behalf of the consumer side – the labour union, annually determines guaranteed minimum prices for milk delivered within production quotas. Agricultural revenues are subject to a levy which is distributed within and between various agricultural bodies. Among these bodies is the Emergency Relief Fund: it grants compensation payments to farmers who suffer major financial losses after natural disasters or because of extreme weather conditions, animal diseases or accidents for which there are no insurances available on the market.	1.22%	56.3%	6.9% (2013)	4.5%
New Zealand	No guaranteed annual payment since 1984, but	-	**No direct market price support** as prices are aligned with world market prices due to open	0.28%	0.7%	6.9% (2011)	6.3%

Country/ Jurisdiction	Direct payments to farmers	Associated conditions	Additional forms of support	Total support estimate (TSE) as % of GDP	Producer Support Estimate as % of GFR (%PSE)	Agriculture as % of GDP	Agricultural employment
	can receive targeted direct support in certain circumstances (see 3rd column in table).		trade. Exceptions are due to New Zealand's Import Health Standards which effectively prevent fresh poultry, eggs and some bee products from being imported under current economic conditions, thus generating some indirect market price support for these sectors. Government support provided mainly in the context of: • animal disease control; • relief in the event of natural disasters; • the agricultural knowledge and information system – to improve efficiency of industry. In the case of natural disaster relief including drought support can include: • Tax credits • Childcare assistance • Accommodation supplement • Emergency benefit payment • Unemployment benefit				
South Korea	Yes – since 1997 and include: • early retirement payment; • rice income compensation;	Lack of data	Tariffs and a wide range of tariff rate quotas (TRQs) continue to be the main instruments to support domestic prices. A public stockholding scheme for rice is maintained in the form of a purchase and release mechanism operated to reduce price fluctuations	1.66%	48.9%	2.3%	5.5%

Country/ Jurisdiction	Direct payments to farmers	Associated conditions	Additional forms of support	Total support estimate (TSE) as % of GDP	Producer Support Estimate as % of GFR (%PSE)	Agriculture as % of GDP	Agricultural employment
	• promotion of environmentally-friendly agriculture; • maintaining agriculture in less-favoured areas; and • rural landscape conservation		in the domestic market and to face emergency situations such as natural disasters. Agricultural insurance scheme, introduced for apples and pears in 2001, has increased its product coverage to 62 items including 46 crops and 16 livestock - government subsidises 50% of insurance premium. Development and maintenance of infrastructure and agricultural knowledge and innovation system – example is the 'Smart Farm' concept: greenhouses and cattle sheds that can be remotely controlled using smart phones and PCs, and is starting to develop improved farm production management models based on big data analysis.				
Turkey	Yes – focussed on commodity-specific deficiency payments and payments based on current area or animal number – coupled support. With regards to deficiency payments, producers of oilseeds, olive oil, cotton, cereals and tea (since 2005) benefit from such	A number of regulations control water and soil pollution, and provide protection to wetlands, but unclear if these are direct payment conditions.	Most farmers are exempt from income tax (mainly due to small size of farms). Input subsidies are provided mainly in the form of interest concessions and payments to improve animal breeds and farm production capacity (e.g. field levelling, drainage, soil improvement and protection, land consolidation and research and development). Region specific programmes and investment support to improve dairy and beef farm structures are in place.	2%	19.8%	8%	21.1%

Country/ Jurisdiction	Direct payments to farmers	Associated conditions	Additional forms of support	Total support estimate (TSE) as % of GDP	Producer Support Estimate as % of GFR (%PSE)	Agriculture as % of GDP	Agricultural employment
	payments. Hazelnut producers receive payments based on area. Payments are also provided for fodder crops, organic farming, certified seeds, gasoline and fertiliser use implemented on the basis of area.		Government financing for the development and maintenance of infrastructure, especially for irrigation. Four state owned marketing boards for agricultural products: the Turkish Grain Board, the Meat and Milk Board, Sugar Authority, and Tobacco and Alcohol Market Regulatory Authority - influence the determination of prices in the market by providing price support through commodity purchasing and stockpiling, disbursing subsidies, procuring and supplying input to farmers, or importing and exporting agricultural commodities.				
USA	No - had until 2014 when the Farm Act repealed Direct Payments, the Countercyclical Payments Program and the Average Crop Revenue Election (ACRE) Program. The repeal of direct payments, which were a decoupled form of support, constituted a major shift in US agricultural policy.	Direct agricultural budgetary support and rural development payments were subject to cross compliance requirements. Cross compliance required individual farm-based conservation plan to protect highly erodible cropland and wetlands – less clarity now given removal of direct payments.	Direct payments have been replaced by a move towards crop insurance support. Minimum pricing and border tariffs for a range of different agricultural products. Also marketing loans available for certain products. Additional support schemes and programmes as follows: • specialty crops; • organic farmer; • bioenergy; • rural development; and • new/young farmers and ranchers.	0.42%	9.4%	1.4% (2013)	2.3%

Table 2 provides a ranking for each of the 11 countries and EU in terms of each of the directly comparable statistical data components, with a rank of 1 representing the highest figure within each category, and a rank of 12 indicating the lowest figure.

Table 2: Comparison of 12 Countries for individual agricultural measures

Country	Total support estimate as % of GDP – variable ranking	Producer Support Estimate as % of GFR – variable ranking	Agriculture as % of GDP – variable	% in Agricultural employment
Northern Ireland/EU	7	7	7	6
Norway	6	2	6	10
Switzerland	4	1	8	12
Australia	12	11	4	7
Brazil	10	10	3	11
Canada	9	8	9	9
China	1	5	1	1
Iceland	5	3	11	5
New Zealand	11	12	10	3
South Korea	3	4	5	4
Turkey	2	6	2	2
USA	8	9	12	8

3 Analysis of data

The data in tables 1 and 2 reveals a number of interesting themes in relation to the level and types of agricultural support available to farmers in the selected countries (and collection of countries in the case of the EU).

3.1 Levels of and reliance on support

The data in columns 5 and 6 of table 1 reveals both the amount that individual countries spend on agricultural support as a proportion of national GDP and how reliant farmers are on this support as calculated by considering the percentage of Gross Farm Receipts accounted for by this support. Columns 7 and 8 within table 1 also provide some context for the support provided to agriculture, by highlighting its significance to the country in terms of national GDP contribution and overall employment.

Looking at the data it is apparent that there is a wide variation in these figures across the countries included within this paper.

With regards to the data on total agricultural support (TSE) as a proportion of national GDP, there appear to be three positive correlations with, total support as a proportion of GDP, agricultural employment and contribution of agriculture to GDP. Notable examples here include China and Turkey which had high levels of agricultural employment and the highest recorded figures for total support to agriculture as a percentage of national GDP. There are however countries where this trend does not hold, with Switzerland ranking highly in terms of total support as a percentage of GDP but having the lowest percentage in agricultural employment of the countries looked at in this paper.

On the specific issue of support to individual farmers, as indicated by Producer Support Estimate (PSE) as a percentage of Gross Farm Receipts (GFR), it is clear that this data shows the greatest variation across all the countries considered. The actual range for this data set highlights this variation, with the highest figure being recorded in Switzerland at 62.4% and the lowest being found in New Zealand at 0.7%. In terms of what this means it is clear that some countries are putting a greater effort into agricultural support than others. It is not clear from the available data however if this reflects the state of agriculture within a country and an apparent need to protect it in instances where it is struggling, or the fact that farming could be doing well and does not require direct support. Additionally, the data could reflect variations in the agricultural activity carried out in each of the identified countries/jurisdictions.

Within the context of 'Brexit', the PSE as a percentage of GFR figures are particularly interesting. The OECD data in table 1 reveals an overall EU figure of PSE equating to 18.9% of GFR which is considerably lower than the equivalent figure in many of the other countries identified, as evidenced by table 2 which shows the EU ranked 7 out of 12. Interestingly, the highest PSE as a percentage of GFR figures are recorded for those countries which utilise direct payments to farmers.

The situation within Switzerland and Norway which ranked first and second on this measure with values of 62.4% and 62% respectively provides particular food for thought given the fact that both of these countries have been cited as possible models for the UK's relationship with the EU. Based on this data, and whilst recognising that the OECD does not provide UK and Northern Ireland specific comparable data, there must be questions around whether adopting either the Norwegian or Swiss model could result in increased direct support for farmers within the UK and Northern Ireland? Additionally, it would be useful but challenging to establish if Norway and Switzerland have either had, or have voluntarily chosen, to adopt this high level of support for agriculture as a result of their EU relationship and their efforts to gain access to this market.

At the other end of the PSE as a percentage of GFR scale, and still focussed on 'Brexit' impacts, could local farmers find themselves facing a situation similar to that in Australia and New Zealand where producer support accounts for less than 1.3% and 0.7% of Gross Farm Receipts respectively? This would constitute a radical departure from the existing EU system with its direct payments and PSE as percentage GFR figure of 18.9%. This does raise the question as to how successful and profitable farming is within countries such as New Zealand and Australia where the level of direct support appears to be low? Furthermore, if these farmers are successful and profitable could there be lessons to learn for our local industry, pending any changes to either the provision or nature of direct payments post ‘Brexit’?

3.2 Direct payments – utilisation and nature

At a very basic level it is clear that the **majority of the countries (seven to be precise), namely China, the EU, Iceland, Norway, South Korea and Switzerland, currently make annual direct payments to their farmers**. Of the remaining five countries, Australia, Canada and New Zealand, despite not making annual direct payments, do have mechanisms that enable them to make direct payments to farmers in particular circumstances, most particularly linked to drought or natural disaster alleviation. In terms of the countries identified, only the United States of America and Brazil currently have no direct payments to farmers, although it is worth noting that the USA did up until 2014 and the passing of the Farm Act.

In terms of the types of direct payments that are made to farmers, the systems employed in the EU, Norway and Switzerland are broadly similar with an emphasis on area payments, although Norway also includes a production based payment for meat. Turkey, Iceland, South Korea and China employ a similar headage/area based system but the emphasis is more restrictive and appears more focussed on particular commodities such as grain and hazelnuts.

The systems employed in South Korea and Turkey are also notable for the fact that they provide direct payments to farmers for additional elements of their activity. In the case of South Korea this includes an early retirement payment and similarly to support under CAP, payments for environmentally friendly agriculture, and maintaining agriculture in less favoured areas. Within Turkey, farmers can access direct payments for certified seeds, gasoline and fertiliser. Whilst in China there are state subsidies for the purchase of seeds and chemicals.

3.3 Associated conditions for agricultural support

In general terms the data within table 1 reveals a range of conditions for the receipt of agricultural support.

With specific regards to direct payments, based on the available data, environmental protection or enhancement conditions apply within the EU (NI included), Norway, Switzerland and Turkey, but there is some suggestion that the scope of these conditions may be more limited in Norway. Whilst there is no specific data in this regard for South Korea, the nature of the direct payments used, such as the promotion of environmentally friendly agriculture and rural landscape conservation suggest that environmental protection is a policy priority. There is a lack of data around the use of environmental conditions for direct payments in China and Iceland.

Other conditions utilised in relation to direct payments include the use of the ‘active farmer’ conditions within the EU, and a similar model in Iceland which requires the keeping of a minimum number of winter fed sheep.

Whilst the emphasis within table 1 is on associated conditions for direct payments, the evidence also highlights the fact that other forms of support come with associated conditions with notable examples being environmental conditions for all support mechanisms in Brazil, and responses to natural disasters/extreme weather in Australia, Canada, New Zealand and the USA.

3.4 Additional forms of agricultural support – features

Table 1 highlights that regardless of whether they make use of direct payments all of the jurisdictions identified within this paper make use of additional mechanisms that provide support to the agricultural sector and individual farmers.

Common approaches include various market price supports based on measures such as border tariffs, and guaranteed minimum pricing (although New Zealand and Australia stand apart as the only countries not employing any direct market price support mechanisms). As an additional form of marketing support a number of countries, namely Norway and Switzerland, provide export subsidies for selected processed products.

The funding of farm/crop insurance support schemes in Australia, Brazil, South Korea and the United States represents a mechanism that can reduce farmer costs, particularly in countries where extreme weather can have a potentially devastating impact on crops.

Investment in physical agricultural infrastructure is clearly a government priority in South Korea, China, and Turkey, whilst Australia, New Zealand, Canada and South Korea also focus on knowledge and technology development to improve farming practice.

In terms of unique supports, a number of features stand out, as follows. Within Turkey, the majority of farmers are exempt from income tax, although this may owe more to their small size, than a deliberate policy decision to benefit farmers. Farmers in Canada have access to an Advance Payments Programme which gives farmers easier access to credit by giving them cash advances for their produce, whilst Brazil operates a National Rural Credit System that specifically directs credit to farmers at preferential interest rates. Whilst the provisions are unique to drought conditions/disaster relief, Australia and New Zealand also operate a number of unique schemes including tax credits, childcare assistance, accommodation supplements and, in the case of Australia, a Farm Household Allowance that provides up to three years of income support for eligible farmers and their partners.

4 Key observations and potential questions

- The distinction between direct payments and other types of support to agriculture is not as clear cut in other parts of the word as it is within the EU. Within this context the distinction between annual direct payment and conditional direct payments may be more appropriate and by taking such an approach, ten of the twelve countries/jurisdictions identified within this paper do or can directly provide cash to individual farmers providing they meet certain conditions;
- Whilst it would be wrong to assume that the twelve selected countries are wholly representative of global agriculture, the data does nonetheless support the thesis that direct payments to farmers are commonplace and not restricted to the EU. This is a significant finding as it may highlight the fact that 'Brexit' need not mean an end to direct payments for local farmers, although they could well be different to the current CAP provisions;
- Based on the data for the twelve countries/jurisdictions the EU effectively appears to be broadly mid ranking in terms of agricultural support to farmers. Whilst recognising that the EU data covers all 28 Member States and cannot be broken down for either the UK or Northern Ireland (save for percentage in agricultural employment) it does suggest that more or less could be done within the UK to support agriculture based on the data from other countries. With regard to doing more, Norway and Switzerland appear to be the most generous whilst the approach taken in Australia or New Zealand could be seen as doing the least;
- The critical point here is that the outcomes for local farmers, particularly in the short to medium term could be very different, depending on whether the UK decides to provide direct support and how it would be done (either by direct payment or other means). The current Northern Ireland farm income reliance on EU direct payments could suggest that a sudden drop in support of this nature from the current levels, even if it was replaced by other support mechanisms, could be catastrophic for certain farms or sectors, but more work would need to be done to explore this impact. There may be value in this context of looking in greater detail at the impacts that the decision to end direct payments and move to other forms of support in 1984 had on New Zealand agriculture;
- Based on the available data it seems clear that all the identified forms of support require varying conditions to be met, and as such it would seem unlikely that any future post 'Brexit' UK supports for farmers would be any different. There may however be scope for tailoring future support conditions to either make them more effective to operate or more tangible in the benefits they provide to the environment or producers, but all of this will be subject to the terms of any trade deals with the EU and the rest of the world that the UK negotiates;
- The data within this paper raises key questions around the efficiency, profitability and sustainability of agriculture in countries with differing agricultural support regimes. The data highlights that the countries utilising direct payments have the highest producer support estimate as a percentage of gross farm receipts, but the

data also reveals that a higher producer support estimate as a percentage of gross farm receipts is not directly linked to the national proportion of people in agricultural employment.

- This does raise the question as to whether agriculture in places such as New Zealand, Brazil or Australia is more efficient than other countries, as agricultural employment is relatively high but support is comparatively low in terms of both percentages of GDP and PSE as a percentage of GFR, and if so why is this case? Are the other forms of support available in these countries more effective than direct payments and if so could this be the case in other countries too? Do other farmers in other countries simply need more direct support, and if so why, or is it simply a case that dependency has been built on these payments?

Appendix 1 – Definitions of key terms utilised within the paper

Producer Support Estimate (PSE) – the annual monetary value of gross transfers from consumers and taxpayers to agricultural producers, measured at the farm gate level, arising from policy measures that support agriculture, regardless of their nature, objectives or impacts on farm production or income. It includes market price support, budgetary payments and budget revenue foregone i.e. gross transfers from consumers and taxpayers to agricultural producers arising from policy measures based on: current output, input use, area planted/animal numbers/receipts/incomes (current, non-current), and non-commodity criteria.

Market Price Support (MPS) – the annual monetary value of gross transfers from consumers and taxpayers to agricultural producers arising from policy measures that create a gap between domestic market prices and border prices of a specific agricultural commodity, measured at the farm gate level. MPS is also available by commodity.

Total Support Estimate (TSE) – the annual monetary value of gross transfers from taxpayers and consumers arising from policy measures that support agriculture, net of the associated budgetary receipts, regardless of their objectives and impacts on farm production and income, or consumption of farm products.

Percentage PSE (%PSE) – PSE transfers as a share of gross farm receipts (including support in the denominator).

Percentage TSE (%TSE) – TSE transfers as a proportion of GDP.