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2020 European Union and United Kingdom FAPRI Baseline Briefing Book



Food & Agricultural
Policy Research Institute
University of Missouri

FAPRI UK

**AGRI-FOOD
& BIOSCIENCES
INSTITUTE**

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Forward

The 2020 Baseline projections that are presented here are generated as part of the FAPRI-UK project. The FAPRI-UK Baseline projections are generated annually and provide a medium-term outlook for the UK agricultural sector. Agriculture at the start of 2021 in Europe is in a period of unprecedented uncertainty for the sector. The implementation of the UK's withdrawal from the European Union (EU) has coincided with the COVID-19 outbreak which have impacted almost every part of the agri-food supply chain. It is always stressed that the Baseline is not a forecast given the many uncertainties that impact the sector each year, but for this year even short run projections presented here should be treated with caution as the full impacts of Brexit and COVID-19 play out.

The Baseline includes projections over a ten-year period for agricultural activity, production, trade, prices and consumption. Although it is hoped that Baseline projections provide an insight into emerging issues and market directions based on the continuation of current policy, its main purpose is as a point of comparison for impact analyses. The projections were based on information available in January 2021. Note that at that time many of the data sources that are used for the EU were changing as a result of Brexit and not as much updated data was available as there usually is. As data sources are updated the EU model will evolve to include them.

The UK model captures the dynamic interrelationships among the variables affecting supply and demand in the main agricultural sectors of England, Wales, Scotland and Northern Ireland. The model consists of a system of equations covering the dairy, beef, sheep, pigs, poultry, wheat, barley, oats, rapeseed and biofuel sectors. The UK model is embedded within an EU-wide modelling system (EU-GOLD model) and thereby takes account of interactions among the agricultural sectors in regional, EU and world markets.

The 2021 baseline uses global prices from the January simulation of the FAPRI-MU global system of models. The global models include policies that were agreed at that time and assumptions regarding the impact of COVID-19 that are analogous with those assumed for the AFBINI Baseline. The EU model does not include any estimate of the impact of new CAP policy in the form of Member State strategic plans as they were not available when these projections were estimated. It is not clear how the changes to EU policy will impact agricultural markets, but they will have an impact and this is an example where it is important not to treat the Baseline as a forecast.

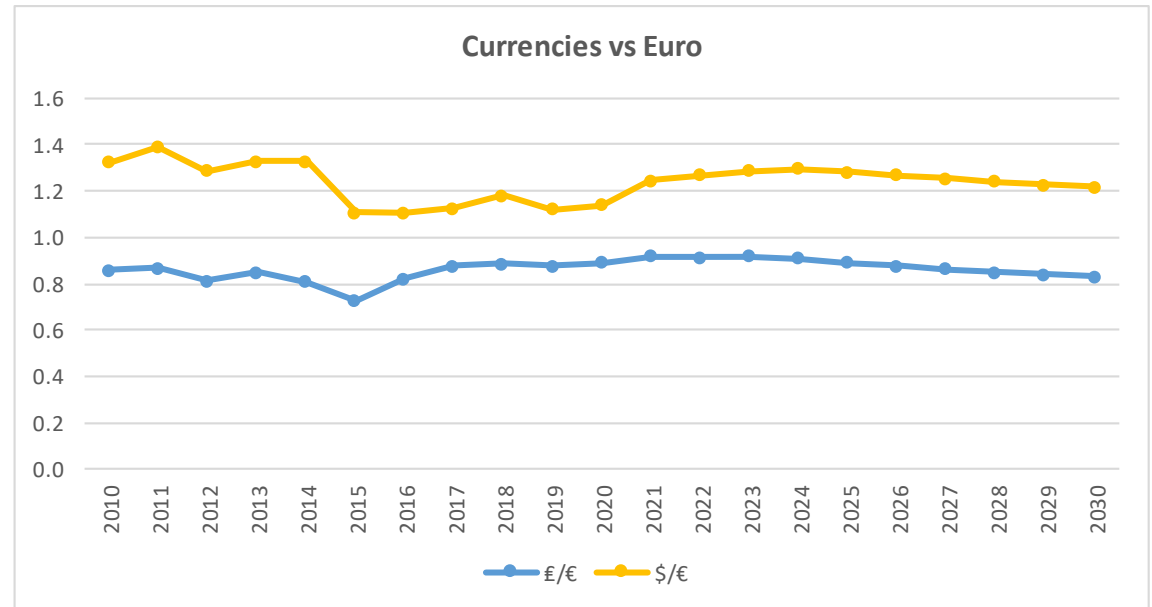
The baseline projections presented here are single annual point estimates for prices, livestock numbers etc, which are based on specific underlying conditions. A stochastic analysis incorporating uncertainty in the future paths of key variables, including macro-economic conditions and crop yields, is generated separately to provide a range of alternative market outcomes, reflecting the uncertainty of agricultural commodity markets.

The future path of COVID-19 is impossible to predict. For this baseline there is assumed to be a recovery in 2021 but that there is not a return to something like “normal” conditions until 2022. Details of the assumptions for the macroeconomic data and each of the sectors is included in the discussions below, as the impacts have differed considerably across sectors.

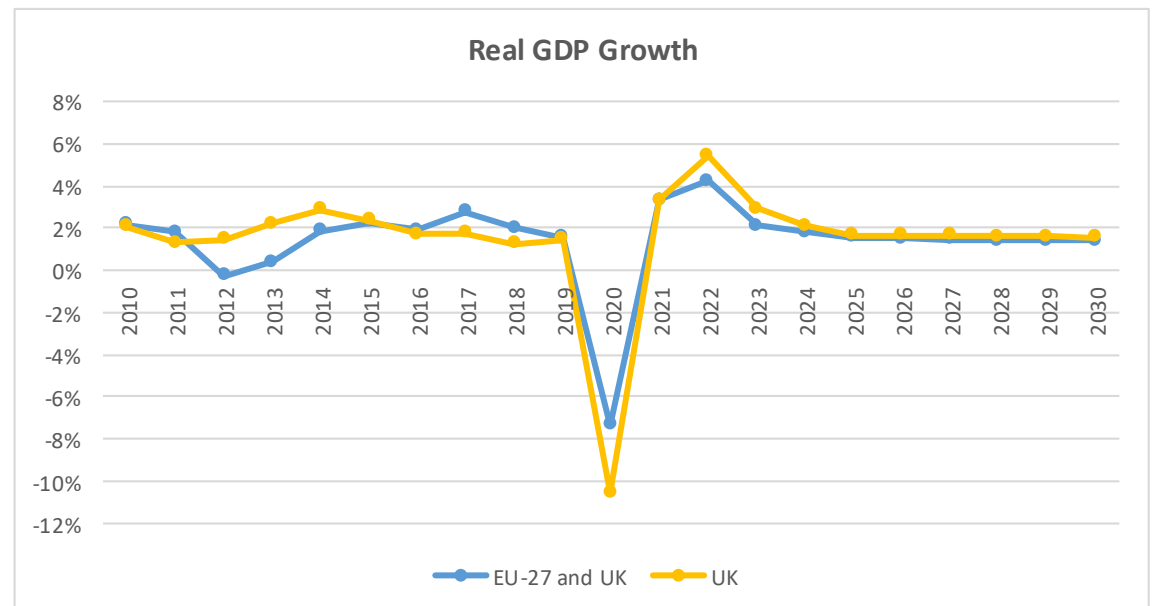
This Baseline was simulated in January 2021 using data that were available at that time. Macroeconomic projections are from IHS Markit from January. Historical data for biofuels are from *Strategie Grains* and Renewable Transport Fuel Obligation (RTFO) Statistics by Department of Transport (UK). Agricultural sector data are taken from EUROSTAT, European Commission, *Strategie Grains*, *COCERAL*, and the USDA’s PS and D database from that available early in 2021. Figures for 2020 are official statistics where available, but as most were not available at the time of generating the baseline estimates have been used based on markets and the model where appropriate. The world prices that are used here are generated from the results of the FAPRI-MU 2021 Outlook.

Macroeconomics

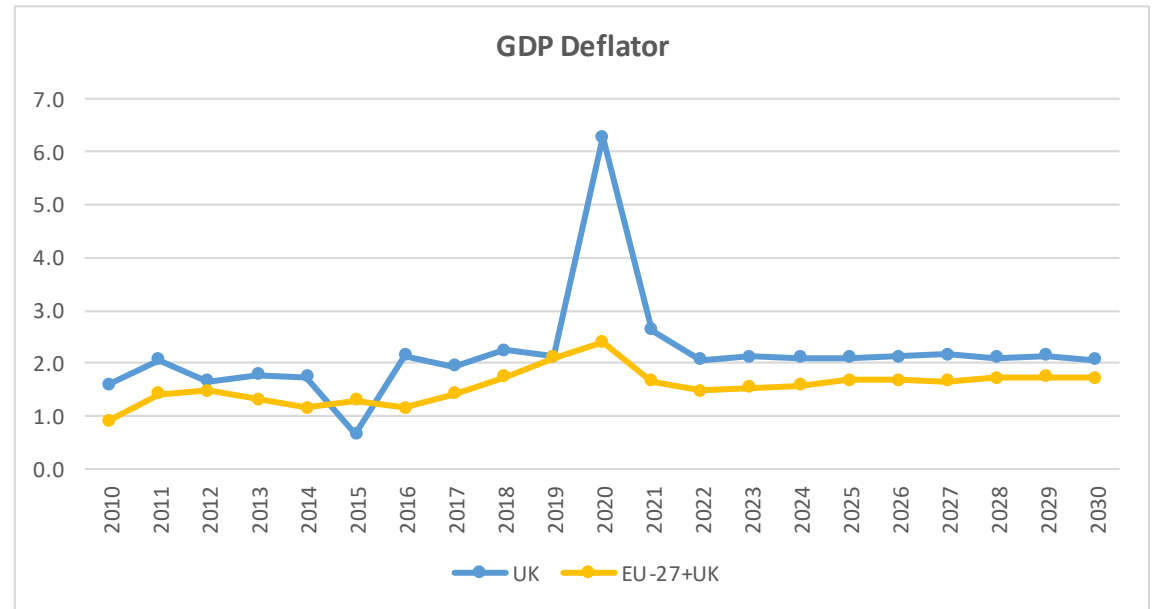
Macroeconomic data used in the model comes from IHS Markit's forecast from January 15th, 2021. The path of the major economies is far from clear at the time of writing given the continued impact of COVID-19. A key uncertainty for the projections for the agri-food sector are the exchange rates. In 2021, the euro is projected to strengthen in relation to the dollar and then remain at around \$1.3 per euro for the remainder of the forecast. The pound weakens against the euro slightly in the short run. In reality, exchange rates are expected to continue to be volatile.



National income contracted significantly in 2020 as a result of the fall in economic activity as COVID-19 restrictions were enforced. UK growth is estimated to have fallen 10.6% and EU+UK by 7.3% (EU-27 fell 6.7%). Positive growth rates are projected for 2022 and 2023 of above the 2% that has been the average in recent years. However, given the magnitude of the drop in 2020, it takes until 2023 for the UK to return to levels of real GDP seen in the projections.



Inflation rates had been relatively stable in recent years. 2020 GDP deflator rates are projected to peak in 2020 as a result of Brexit and COVID-19. Differences in approaches adjusting GDP to changes in public sector economic activity between the UK and EU contribute to the relatively large departure in 2020. Projections for inflation for 2022 and after are forecast to be stable at 2% for the UK and around 1.7% for the EU-27.



The oil price is an important driver of both agricultural costs and the demand for biofuels. The oil price has dropped significantly after starting the last decade at \$100 per barrel. COVID-19 saw a collapse in demand and an end to the slight rally in 2018 and 2019. A recovery in the major economies and a return to normal fuel usage levels is expected to result in higher oil prices over the period, although it is not expected to exceed \$80 per barrel.

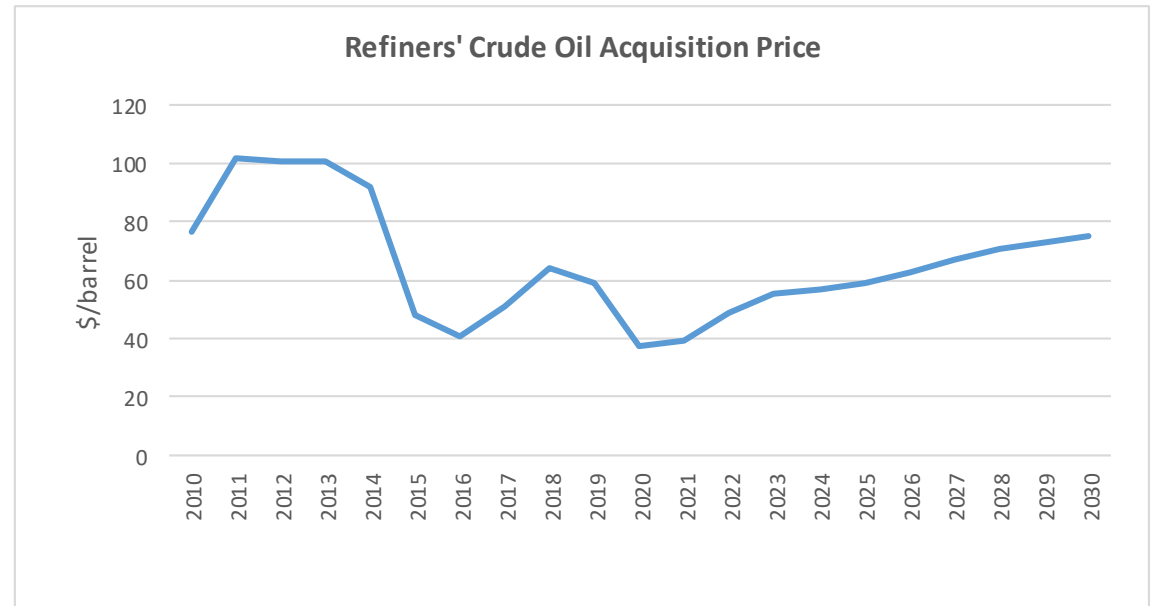
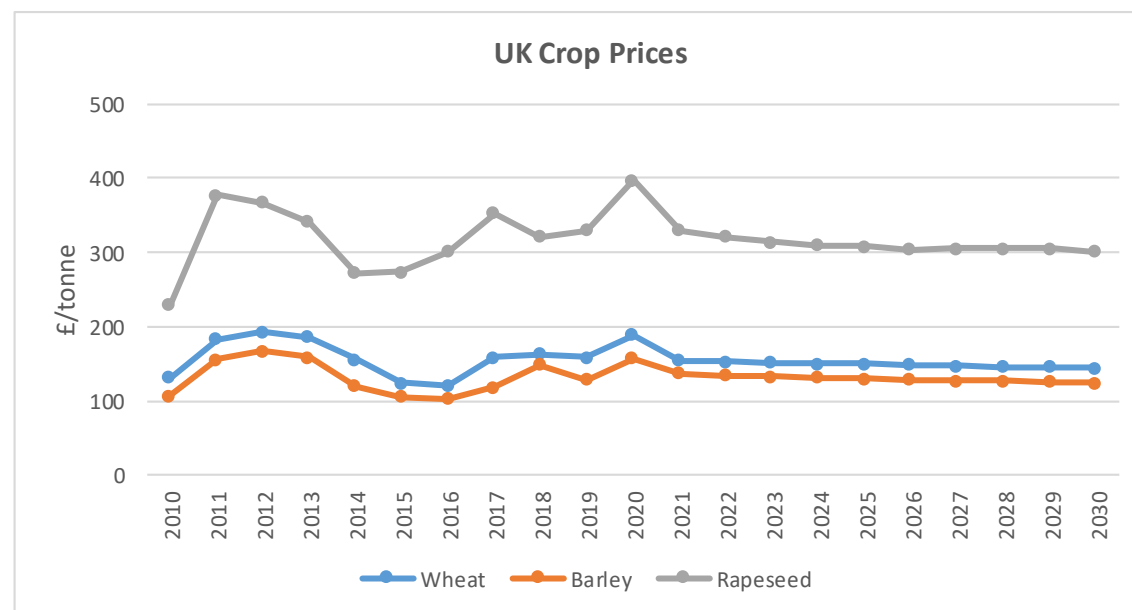


Table 1. Macroeconomics

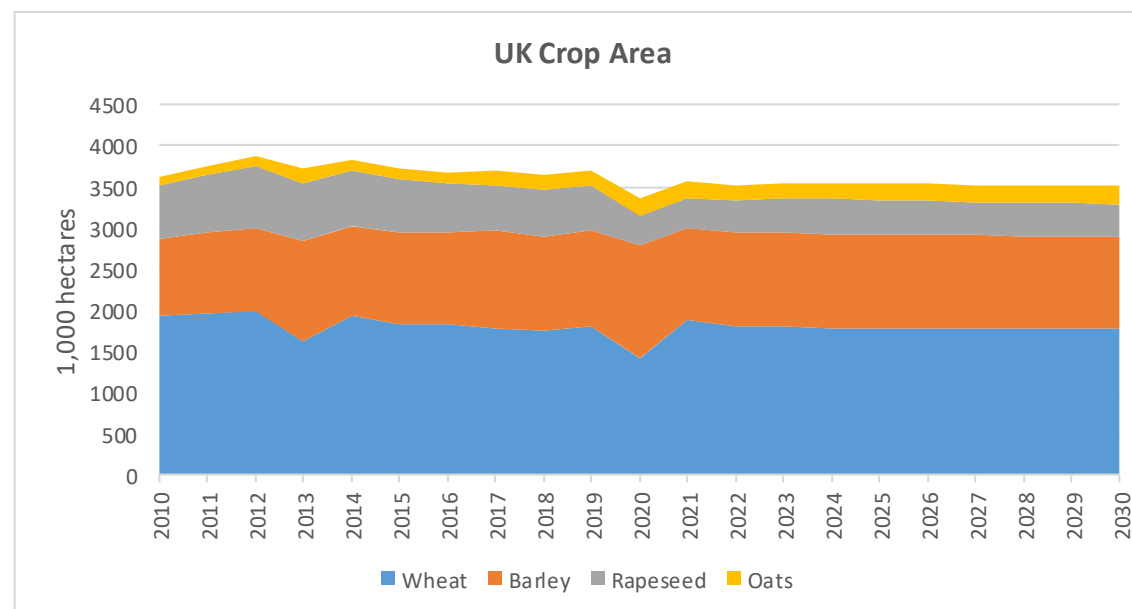
Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Real GDP Growth																					
EU-27+UK	2.16%	1.82%	-0.28%	0.37%	1.84%	2.28%	1.92%	2.77%	2.00%	1.55%	-7.35%	3.31%	4.25%	2.12%	1.81%	1.57%	1.49%	1.45%	1.42%	1.41%	1.41%
France	1.85%	2.23%	0.38%	0.61%	0.98%	1.03%	1.03%	2.42%	1.81%	1.49%	-9.11%	4.11%	3.90%	1.91%	1.52%	1.34%	1.36%	1.36%	1.35%	1.34%	1.31%
Germany	4.04%	3.99%	0.62%	0.55%	2.21%	1.24%	2.14%	2.91%	1.30%	0.59%	-5.35%	2.78%	3.98%	1.69%	1.41%	1.28%	1.18%	1.13%	1.11%	1.10%	1.15%
Italy	1.67%	0.84%	-3.01%	-1.86%	0.07%	0.66%	1.41%	1.73%	0.82%	0.34%	-8.99%	3.59%	3.78%	1.48%	1.10%	0.82%	0.72%	0.67%	0.63%	0.60%	0.54%
UK	2.07%	1.28%	1.43%	2.19%	2.86%	2.36%	1.72%	1.74%	1.25%	1.43%	10.55%	3.31%	5.42%	2.94%	2.13%	1.63%	1.66%	1.65%	1.62%	1.58%	1.58%
Poland	3.76%	4.79%	1.42%	1.09%	3.35%	4.21%	3.17%	4.85%	5.37%	4.55%	-3.29%	2.95%	4.78%	2.67%	2.79%	2.80%	2.56%	2.37%	2.41%	2.50%	2.44%
Hungary	1.07%	1.95%	-1.24%	1.89%	4.14%	3.77%	2.10%	4.46%	5.44%	4.58%	-6.00%	3.96%	4.00%	1.92%	2.62%	3.20%	2.76%	2.10%	1.82%	1.97%	2.29%
Inflation (GDP Deflator)																					
EU-27+UK	0.92%	1.42%	1.49%	1.31%	1.15%	1.29%	1.15%	1.42%	1.74%	2.10%	2.40%	1.66%	1.48%	1.53%	1.59%	1.68%	1.68%	1.66%	1.71%	1.73%	1.71%
France	1.07%	0.94%	1.16%	0.78%	0.58%	1.14%	1.14%	1.14%	1.14%	1.14%	1.14%	1.14%	1.14%	1.14%	1.14%	1.14%	1.14%	1.14%	1.14%	1.14%	1.14%
Germany	0.64%	1.08%	1.49%	1.96%	1.87%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%
Italy	0.44%	1.61%	1.55%	1.15%	0.91%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%
UK	1.61%	2.07%	1.66%	1.78%	1.73%	0.66%	2.15%	1.94%	2.25%	2.11%	6.28%	2.63%	2.06%	2.13%	2.11%	2.10%	2.13%	2.16%	2.11%	2.14%	2.07%
Poland	1.67%	3.21%	2.35%	0.39%	0.56%	0.86%	0.45%	1.78%	1.21%	3.11%	4.16%	3.28%	3.20%	1.96%	2.05%	3.07%	2.26%	1.85%	2.24%	2.11%	2.01%
Hungary	2.55%	1.98%	2.87%	2.75%	3.76%	2.73%	1.41%	3.78%	4.77%	4.86%	3.74%	1.80%	3.35%	2.89%	2.35%	1.19%	1.52%	1.80%	1.82%	1.79%	1.81%
Exchange Rate																					
\$/euro	1.32	1.39	1.28	1.33	1.33	1.11	1.11	1.13	1.18	1.12	1.14	1.25	1.27	1.29	1.30	1.28	1.27	1.25	1.24	1.23	1.22
UK pounds/euro	0.86	0.87	0.81	0.85	0.81	0.73	0.82	0.88	0.88	0.88	0.89	0.92	0.91	0.92	0.91	0.89	0.88	0.86	0.85	0.84	0.83
Zloty/euro	3.99	4.12	4.18	4.20	4.19	4.18	4.36	4.26	4.26	4.30	4.44	4.47	4.33	4.21	4.14	4.08	4.02	4.03	4.03	4.03	4.02
Florin/euro	275	280	289	297	309	310	311	309	319	325	351	356	362	368	372	377	381	386	387	387	387
Population																					
	million																				
EU-27+UK	498.3	499.6	500.8	501.9	503.0	504.0	505.1	506.2	507.2	508.1	508.8	509.2	509.4	509.4	509.4	509.3	509.2	509.0	508.8	508.6	508.4
France	62.9	63.2	63.6	63.9	64.2	64.5	64.7	64.8	65.0	65.1	65.3	65.4	65.6	65.7	65.9	66.1	66.2	66.3	66.5	66.6	66.7
Germany	80.8	80.9	81.0	81.2	81.5	81.8	82.2	82.7	83.1	83.5	83.8	83.9	83.9	83.8	83.6	83.5	83.4	83.3	83.3	83.2	83.1
Italy	59.3	59.6	59.9	60.2	60.4	60.6	60.7	60.7	60.6	60.6	60.5	60.4	60.3	60.1	60.0	59.9	59.7	59.6	59.4	59.2	59.0
UK	63.5	64.0	64.5	65.0	65.4	65.9	66.3	66.7	67.1	67.5	67.9	68.2	68.5	68.8	69.0	69.3	69.5	69.8	70.0	70.3	70.5
Poland	38.3	38.3	38.2	38.2	38.1	38.0	38.0	38.0	37.9	37.9	37.8	37.8	37.7	37.7	37.6	37.5	37.4	37.3	37.2	37.1	36.9
Hungary	9.9	9.9	9.9	9.8	9.8	9.8	9.8	9.7	9.7	9.7	9.7	9.6	9.6	9.6	9.5	9.5	9.5	9.4	9.4	9.4	9.3
Refiners' crude oil acquisition price																					
	US\$ per barrel																				
	76.7	101.8	101.0	100.5	92.2	48.4	40.6	50.7	64.5	59.4	37.4	39.0	49.1	55.1	56.6	59.1	63.0	66.8	70.5	73.1	75.1

UK Crops

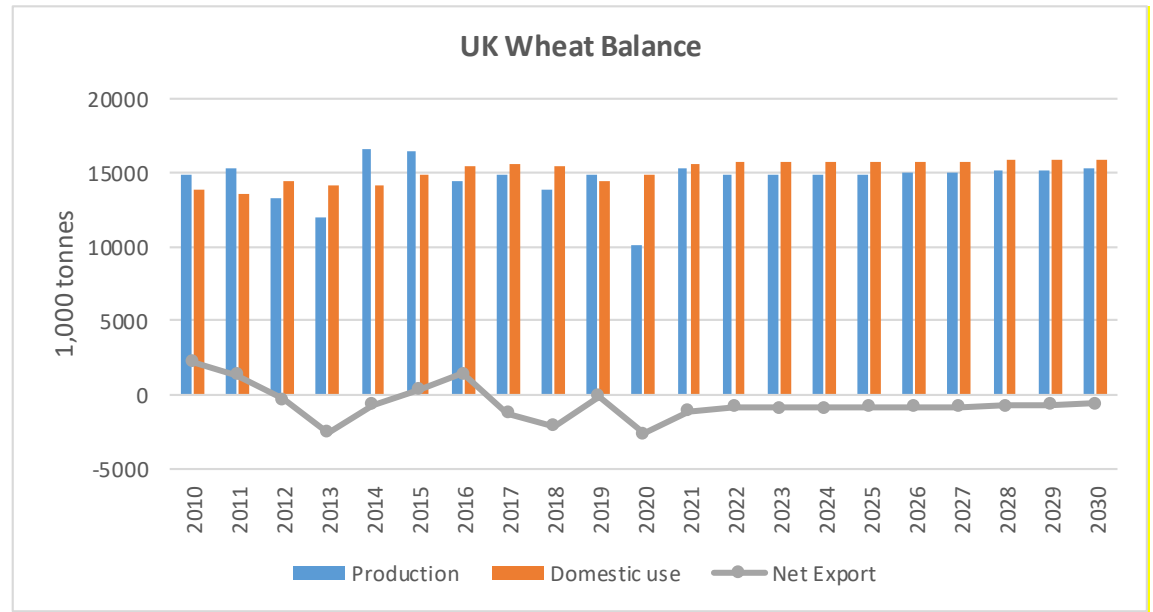
Crop prices in the UK were generally high in 2020 largely due to low yields caused by bad weather conditions and new pesticide restrictions. Looking forward, wheat and barley prices are not expected to change significantly over the projection period (setting aside short-term influences) with prices in 2030 £144 per tonne and £124 per tonne respectively, remaining above the recent low experienced in 2016. Rapeseed prices follow a similar trend, with the projected price averaging £310 per tonne over the ten-year projection period to 2030.



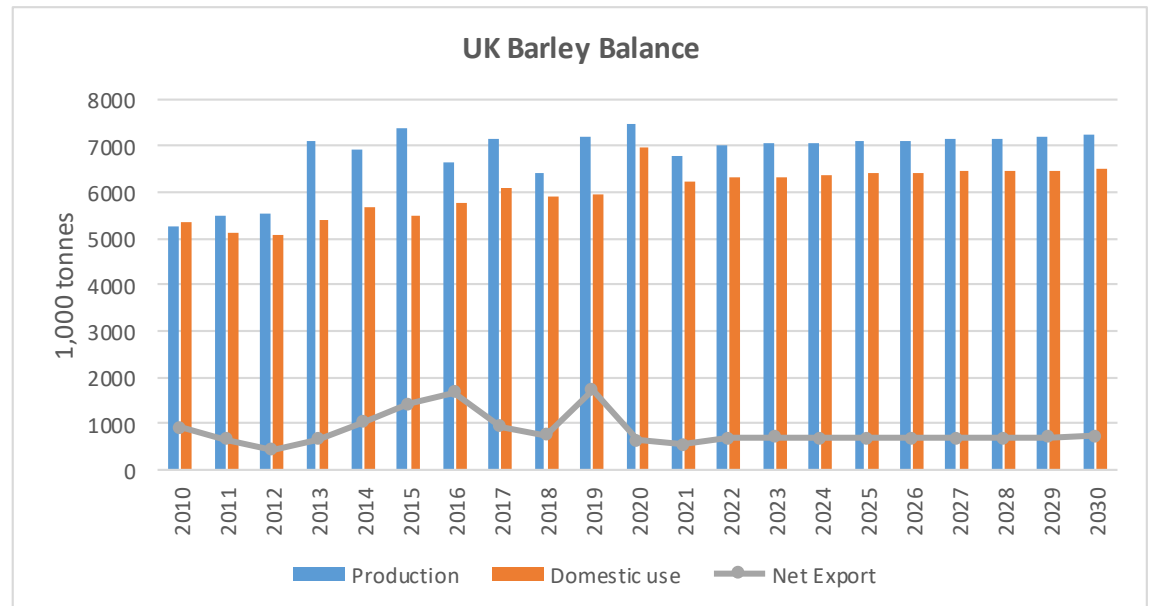
Crop area in the UK is 9% lower in 2020 than the preceding ten-year average. Rapeseed area declined 7% from 2015 to 2019, and a further 43% in 2020, likely related to revised regulations on pesticide use. Land has been shifting into barley and oats production. Rapeseed area recovers somewhat in the projection period, but does not get back to pre-2020 levels, assuming average weather conditions and availability of pest resistance varieties. Land in oats trends upwards, but remains the smallest share. Total UK crop area declines 5% between 2019 and 2030.



Wheat production has been variable in the 10 years to 2020 due to a succession of short-term factors. In 2020, wheat production in the UK faced a very bad season and production was 30% below that in 2019. Wheat domestic use has remained relatively stable, meaning the UK has been a net importer from 2017. Assuming average weather conditions wheat production stays close to 2% higher than the ten-year average leading up to 2020.



Barley production has been relatively high in recent years, as the early harvest for winter barley and decline in rapeseed area has made it more popular. Domestic use has also been increasing, however there has been a consistent surplus, positioning the UK as a net exporter. Looking forward, area increases to 4% above the ten-year average leading up to 2020. Despite an increase in domestic use, the UK continues to be a net exporter of barley throughout the projection period.



UK rapeseed production averaged over 2 million tonnes per year between 2010 and 2019. The year 2020 saw the lowest production level since 2010, with factors such as changes to pesticide regulations and weather conditions contributing to a reduction to both area and yield. Looking forward, upward pressure on price brings production levels back up, but it remains below pre-2019 levels, averaging close to 1.7 million tonnes per year. Domestic use is consistent with the historic average, meaning the UK continues to be a net importer of rapeseed throughout the projection period.

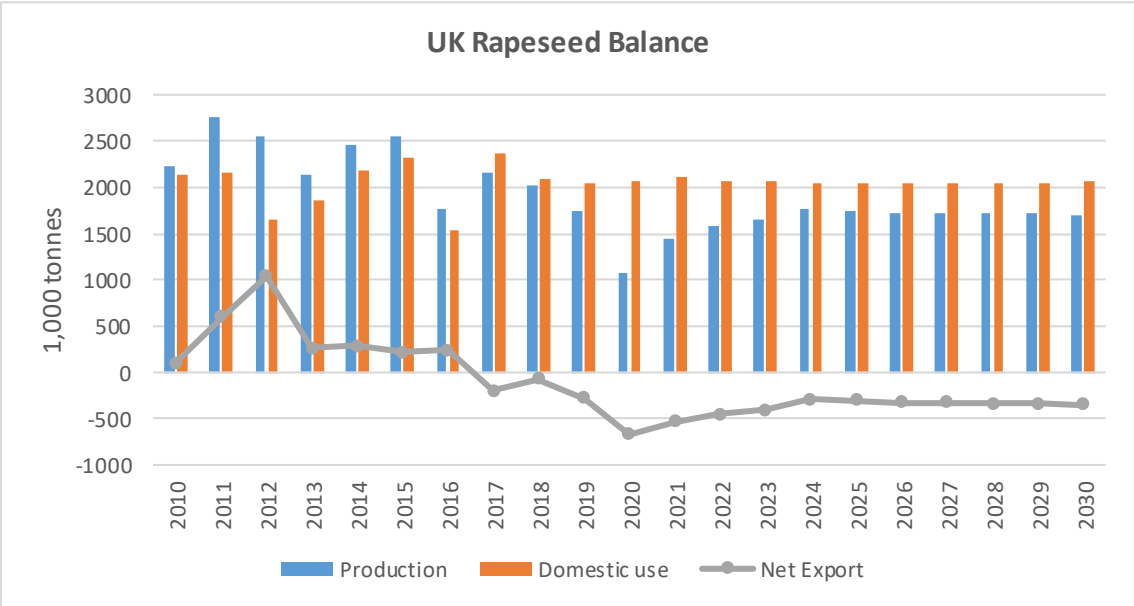


Table 2. UK Wheat

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	thousand hectares																				
Area harvested	1,939	1,969	1,992	1,615	1,936	1,835	1,828	1,786	1,753	1,809	1,416	1,879	1,807	1,804	1,787	1,784	1,780	1,774	1,770	1,766	1,764
	thousand tonnes																				
Production	14,878	15,257	13,261	11,921	16,606	16,444	14,384	14,837	13,886	14,856	10,056	15,253	14,801	14,861	14,846	14,932	14,991	15,038	15,093	15,163	15,253
Domestic use	13,885	13,513	14,392	14,142	14,132	14,906	15,405	15,610	15,479	14,417	14,828	15,567	15,682	15,707	15,720	15,743	15,774	15,799	15,813	15,827	15,844
Net Export	2,224	1,385	- 282	- 2,517	- 681	350	1,453	- 1,247	- 2,133	- 109	- 2,589	- 1,060	- 834	- 858	- 875	- 822	- 796	- 771	- 730	- 677	- 605
	£/100 kg																				
Prices	13.11	18.26	19.32	18.64	15.57	12.35	12.03	15.90	16.36	15.90	18.83	15.45	15.26	15.14	15.06	15.02	14.86	14.72	14.62	14.52	14.42
	thousand hectares																				
Area Harvested																					
England	1,792	1,817	1,856	1,505	1,797	1,693	1,684	1,652	1,619	1,677	1,289	1,740	1,670	1,667	1,650	1,648	1,645	1,640	1,636	1,634	1,632
Wales	24	26	26	15	21	22	21	21	21	21	20	21	21	21	21	21	21	20	20	20	20
Scotland	111	115	101	87	109	112	114	104	106	103	98	108	107	107	107	106	106	105	105	104	104
Northern Ireland	11	12	9	8	8	8	9	9	7	8	9	9	9	9	9	9	9	9	9	8	8
	tonnes/hectare																				
Yield																					
England	7.6	7.7	6.7	7.4	8.6	9.0	7.9	8.3	8.0	8.2	7.1	8.1	8.2	8.2	8.3	8.4	8.4	8.5	8.5	8.6	8.6
Wales	7.1	7.5	5.8	6.5	7.6	8.0	7.3	7.4	7.7	8.5	7.1	8.0	8.1	8.2	8.3	8.3	8.4	8.5	8.6	8.6	8.7
Scotland	8.6	8.3	6.7	7.5	9.1	9.1	8.1	8.6	6.7	8.2	7.1	8.2	8.3	8.3	8.4	8.5	8.5	8.6	8.6	8.7	8.8
Northern Ireland	8.2	7.8	6.0	7.3	7.5	8.0	7.0	7.7	7.0	7.5	7.5	7.6	7.7	7.7	7.8	7.9	7.9	8.0	8.0	8.1	8.1
	thousand tonnes																				
Production																					
England	13,664	14,040	12,383	11,111	15,389	15,185	13,241	13,722	12,964	13,768	9,155	14,121	13,676	13,728	13,708	13,791	13,849	13,895	13,948	14,016	14,103
Wales	172	193	148	99	164	176	157	158	162	179	142	171	169	171	172	172	173	173	174	174	175
Scotland	953	957	673	653	989	1019	926	889	713	848	695	890	884	893	897	900	901	902	903	905	908
Northern Ireland	89	90	56	58	64	64	60	67	48	61	64	72	71	70	70	69	69	68	68	68	67

Table 3. UK Barley

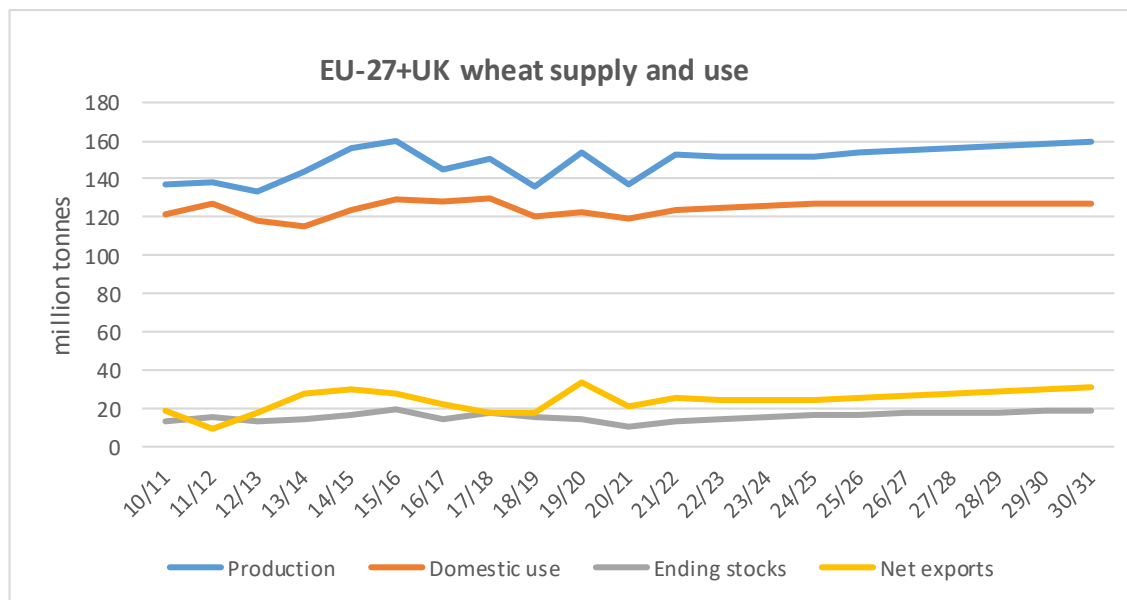
Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
UK																					
	thousand hectares																				
Area harvested	921	970	1,002	1,213	1,080	1,101	1,122	1,177	1,138	1,162	1,370	1,115	1,147	1,147	1,138	1,136	1,134	1,132	1,130	1,128	1,128
	thousand tonnes																				
Production	5,252	5,494	5,522	7,092	6,911	7,370	6,655	7,169	6,426	7,204	7,467	6,802	7,033	7,069	7,063	7,099	7,123	7,144	7,167	7,198	7,239
Domestic use	5,373	5,112	5,055	5,405	5,670	5,482	5,745	6,095	5,893	5,937	6,969	6,245	6,306	6,341	6,373	6,398	6,424	6,445	6,462	6,477	6,492
Net Export	915	671	428	668	1,030	1,431	1,672	928	749	1,725	625	536	677	711	682	693	686	688	694	710	734
	£/100 kg																				
Prices	10.63	15.52	16.74	15.80	12.00	10.46	10.21	11.78	14.82	12.88	15.64	13.73	13.42	13.23	13.09	13.04	12.89	12.75	12.61	12.49	12.37
Area Harvested																					
	thousand hectares																				
England	586	615	623	828	709	748	791	842	807	832	981	785	823	825	818	820	820	821	821	822	824
Wales	20	23	22	20	21	22	22	22	23	20	23	22	22	22	21	21	21	21	21	21	21
Scotland Northern	290	308	332	339	327	308	287	291	288	291	343	285	281	279	277	274	272	270	267	265	263
Ireland	24	24	26	26	24	23	22	21	21	20	23	22	22	21	21	21	21	21	20	20	20
Yield																					
	tonnes/hectare																				
England	5.5	5.6	5.7	5.9	6.5	6.9	6.0	6.1	5.7	6.1	5.4	6.2	6.2	6.2	6.3	6.3	6.3	6.4	6.4	6.4	6.5
Wales	5.4	5.7	4.9	5.6	5.6	6.0	5.6	5.3	5.1	6.4	5.6	5.8	5.8	5.9	5.9	5.9	5.9	6.0	6.0	6.0	6.0
Scotland Northern	6.0	6.1	5.2	5.9	6.3	6.3	5.7	6.1	5.6	6.3	5.6	6.0	6.0	6.1	6.1	6.1	6.1	6.2	6.2	6.2	6.3
Ireland	5.7	5.7	5.0	5.4	5.8	6.2	5.6	5.4	5.1	6.4	5.6	5.8	5.8	5.8	5.8	5.9	5.9	5.9	5.9	5.9	6.0
Production																					
	thousand tonnes																				
England	3,247	3,428	3,565	4,844	4,583	5,171	4,782	5,154	4,560	5,102	5,292	4,836	5,090	5,129	5,128	5,170	5,203	5,233	5,264	5,301	5,346
Wales	109	130	106	115	116	132	123	115	115	126	131	127	126	126	126	126	126	126	126	126	126
Scotland Northern	1,756	1,867	1,723	1,994	2,076	1,927	1,625	1,785	1,611	1,836	1,904	1,711	1,692	1,689	1,685	1,680	1,672	1,664	1,657	1,651	1,648
Ireland	139	138	127	140	136	140	125	114	105	126	131	128	125	124	124	123	122	121	121	120	119

Table 4. UK Rapeseed

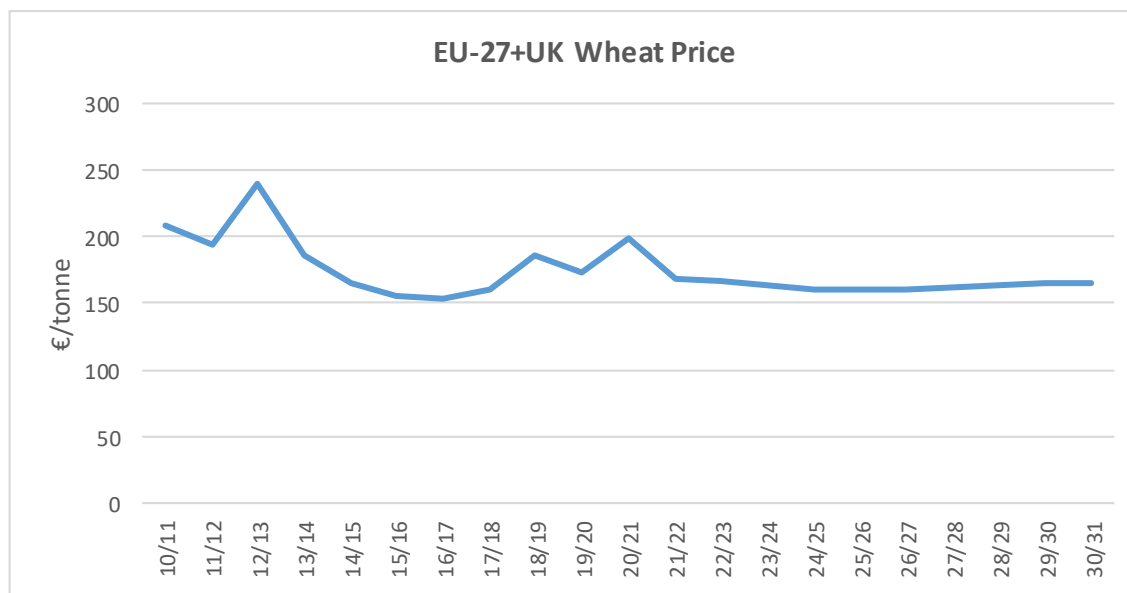
Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
UK																					
									thousand hectares												
Area harvested	642	705	756	715	675	652	579	562	583	530	356	353	383	399	425	419	414	410	407	404	400
									thousand tonnes												
Production	2,230	2,758	2,557	2,128	2,460	2,542	1,775	2,167	2,012	1,752	1,069	1,452	1,577	1,649	1,762	1,747	1,731	1,723	1,716	1,712	1,705
Domestic use	2,134	2,164	1,658	1,867	2,176	2,322	1,539	2,369	2,083	2,032	2,069	2,109	2,076	2,057	2,047	2,050	2,052	2,049	2,051	2,054	2,055
Net Export	96	595	1,039	262	284	220	236	-203	-71	-280	-672	-528	-454	-410	-287	-303	-322	-326	-335	-341	-350
									£/100 kg												
Prices	22.94	37.70	36.71	34.12	27.24	27.44	30.18	35.37	32.19	33.00	39.82	32.95	32.11	31.40	30.96	30.84	30.36	30.54	30.52	30.49	30.20

EU-27+UK Crops¹

The impact of the weather on 2020 crop area was huge. Wheat area fell by more than 2 million hectares. Some of this area was offset by higher barley and other crops but overall crop area was still down. Wheat area is projected to increase again in 2021 to above 26 million hectares for EU-27+UK. Production in 2021 is projected to be higher as yields recover. Net exports are projected to increase over the period, as demand does not grow as fast as yield growth.

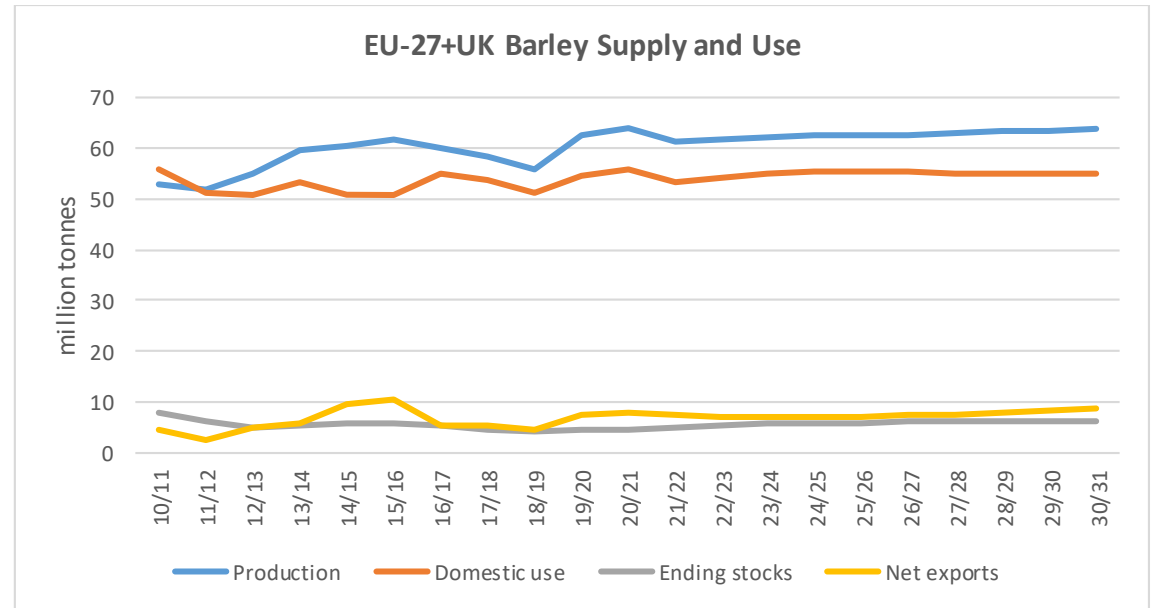


Prices are based on information available in January 2021. In the years following the commodity price spike in 2007 cereal prices exhibited several years of high volatility, peaking again in 2012 as drought hit the Midwest of the U.S. Since then prices have been less volatile and settled at lower levels as global yields have exceeded trends. Short crops are expected to boost prices in the 20/21 crop year. Thereafter an assumption of normal yields results in prices level at just over 150 euro per tonne on average for the region.

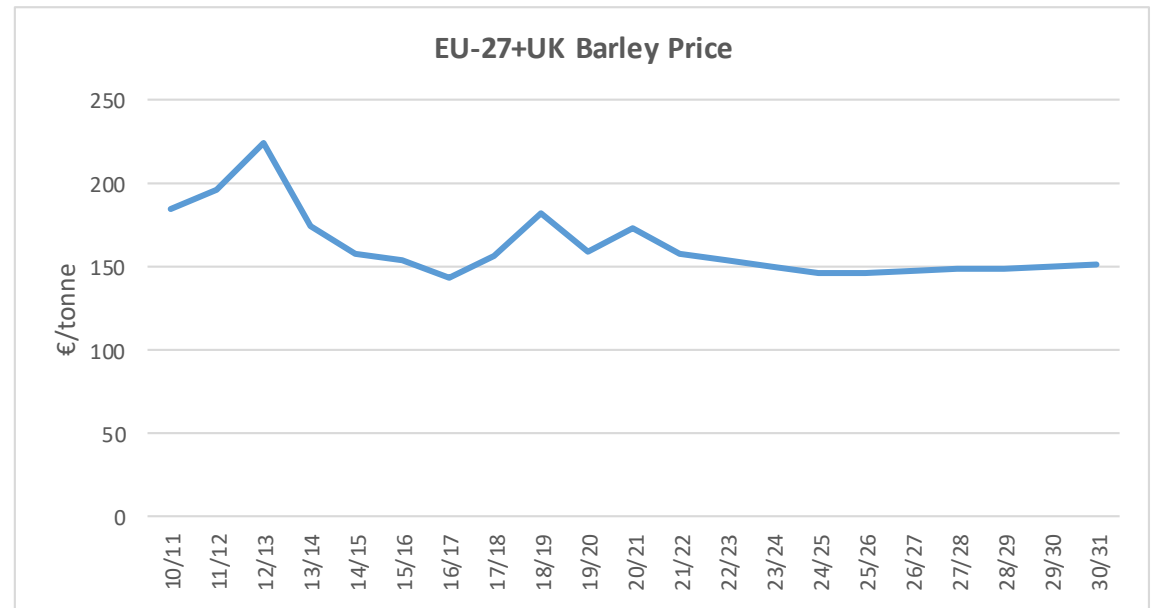


¹ Figures and tables are labelled as crop marketing years

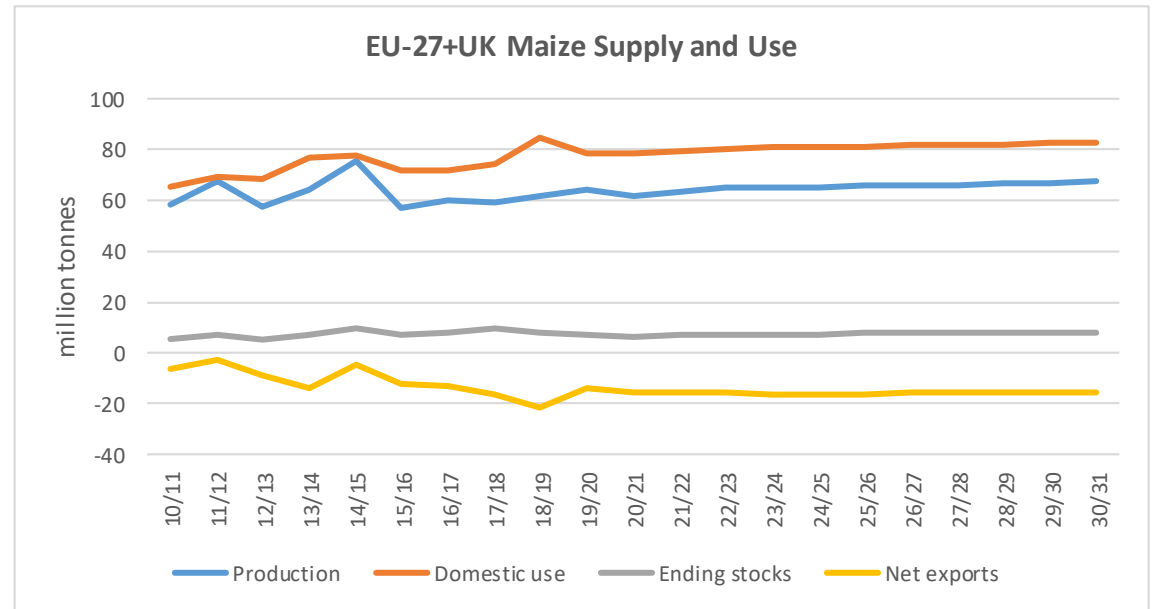
Barley area increased in 2020 as wheat area fell, and is estimated to have reached 12.6 million hectares for the EU-27+UK, significantly higher than it had been in the previous decade. Area is expected to fall back in 2021 to about 12.1 million hectares. As we assume average weather conditions barley area is not projected to be as high as 12.6 million hectares, but 2020 shows how unusual weather patterns can impact area. Another uncertainty surrounds rapeseed area. In these projections we assume a modest recovery in rapeseed area and some of this comes at the cost of barley area.



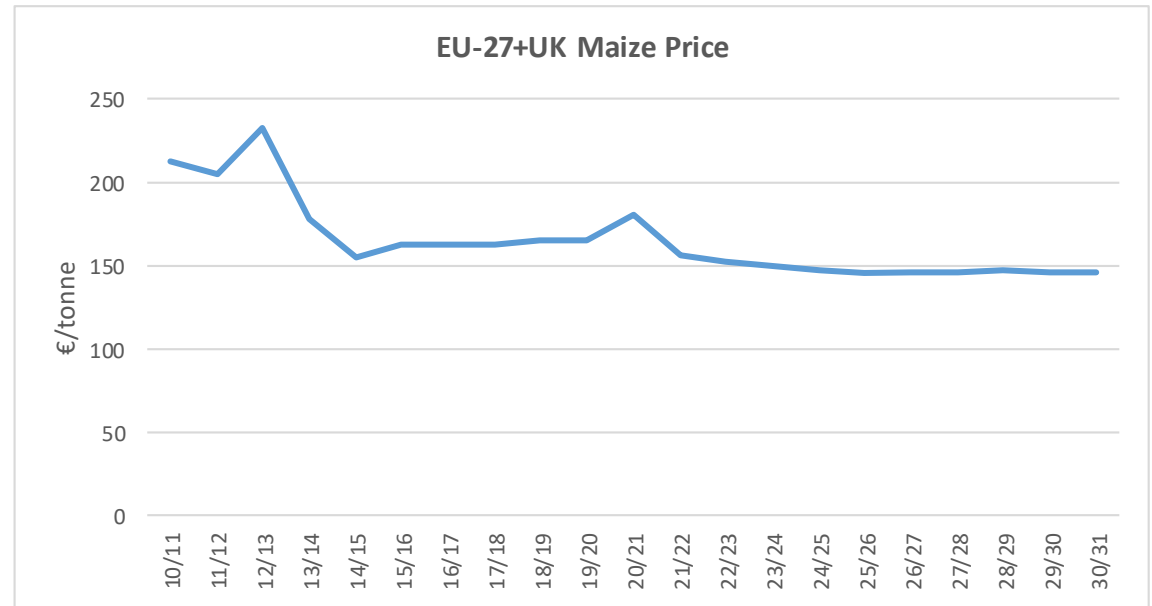
Despite the fall in area over the projections, increases in yields result in a production levels rising to end the period close to the levels seen in 2020. Increases in domestic use are projected to be smaller than production so there is an increase in net exports but these do not exceed 10 million tonnes. Barley prices are projected to be lower than that of wheat for the EU customs union area, slightly lower than those for wheat around €150 per tonne.



Maize prices peaked in 2012 and 2013 after a series of poor yield years globally but especially in the mid-west of the U.S.A. These peaks were followed by below trend global yields and this resulted in prices falling, and along with it maize area in the EU. In recent years, as maize prices have recovered (and internal demand in the EU has been strong), area has risen again. In 2020, area harvested is expected to have risen to 8.9 million hectares. Projected lower prices mean that future area is projected to fall.



Maize prices had begun to increase in early 2021 when these projections were finalised. Since then prices have continued to rise as a result of 2020 production levels but also aggressive purchasing from China. If these levels of purchases continue, it is likely that prices might rise further and see a higher area for corn than is projected here. The Chinese market is a major driver for most commodities, but its patterns of purchases are not always easily predictable. In this case, the rapid re-build of the pig herd and increased concentration of production has dramatically increased the demand for feedstocks.



As recently as 2018, EU-27+UK rapeseed area stood at 6.9 million hectares. Since then a combination of bad weather at planting and neonicotinoid related restrictions has seen area fall dramatically. In 2020, area was 5.5 million hectares. *Strategie Grains* is projecting a total area of around that amount for 2021 as well. An improvement in weather at planting could lead to an increase in area. In the projections we have a small increase in area over the projections but we do not have area over 6 million hectares for any of the years.

Along with the uncertainty regarding the regulations surrounding rapeseed cultivation there are also uncertainties regarding the demand for rapeseed oil. The biodiesel sector in the EU has been a source of demand for the rapeseed sector. 2020 saw a dramatic drop in the number of miles driven due to COVID-19. Demand for fuel will recover but the scope for expansion of the biodiesel market is limited and alternative feedstocks have become more popular, so demand for rapeseed oil in the future appears unlikely to expand much.

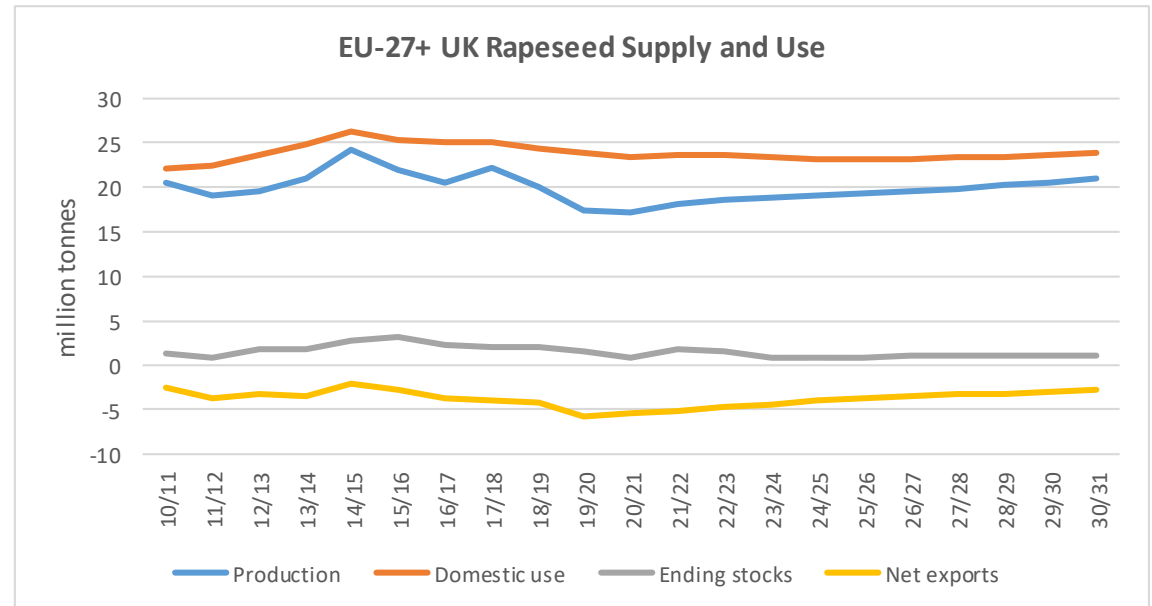
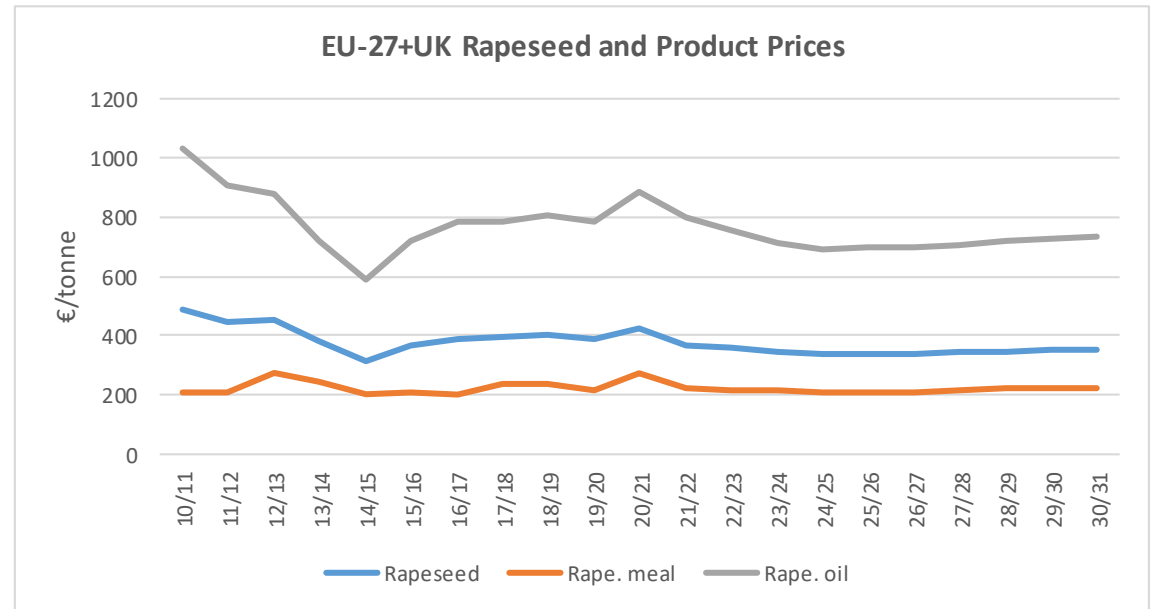


Table 5. EU-27+UK Wheat Supply and Utilization

Crop year	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
	thousand hectares																				
Area harvested	26,199	26,320	25,754	25,663	26,855	26,829	27,076	26,189	25,583	26,004	24,229	26,080	25,932	25,855	25,715	25,794	25,840	25,883	25,906	25,962	26,036
	tonnes/hectare																				
Yield	5.22	5.25	5.18	5.59	5.82	5.96	5.37	5.75	5.30	5.94	5.64	5.86	5.83	5.87	5.91	5.95	5.98	6.01	6.05	6.09	6.13
	million tonnes																				
Production	136.7	138.1	133.4	143.5	156.4	159.9	145.3	150.6	135.5	154.4	136.6	152.7	151.2	151.8	152.0	153.4	154.5	155.6	156.8	158.1	159.5
Beginning stocks	17.1	13.5	15.6	13.8	14.0	16.7	19.5	14.8	17.9	15.9	14.3	10.4	13.4	14.6	15.6	16.3	16.9	17.4	17.8	18.2	18.6
Imports	4.6	7.4	5.3	4.0	6.0	6.9	5.3	5.8	5.8	4.8	4.9	4.9	5.0	5.0	5.0	5.0	5.0	4.9	4.9	4.9	4.9
Total supply	158.4	158.9	154.3	161.2	176.4	183.5	170.2	171.2	159.2	175.1	155.8	168.1	169.5	171.4	172.6	174.7	176.4	178.0	179.5	181.2	183.0
Domestic use	121.8	126.6	117.7	115.2	124.2	129.2	128.0	129.8	120.0	122.4	119.1	124.0	125.2	126.3	126.7	126.8	127.1	127.3	127.3	127.4	127.6
Feed	51.5	57.0	50.0	48.0	55.0	59.0	56.0	58.0	51.5	52.5	48.2	50.7	51.1	51.8	51.9	52.1	52.3	52.5	52.5	52.5	52.6
Fuel	4.6	4.3	3.3	3.2	3.5	3.5	4.4	4.1	3.4	3.0	3.4	3.8	3.9	4.0	4.0	3.9	3.8	3.7	3.7	3.6	3.6
Other	65.7	65.3	64.4	64.0	65.7	66.7	67.6	67.8	65.1	66.9	67.6	69.5	70.2	70.5	70.8	70.9	71.0	71.1	71.2	71.3	71.3
Exports	23.1	16.7	22.8	32.0	35.5	34.8	27.4	23.4	23.3	38.4	26.3	30.7	29.7	29.5	29.6	30.9	31.8	32.8	34.0	35.2	36.4
Ending stocks	13.5	15.6	13.8	14.0	16.7	19.5	14.8	17.9	15.9	14.3	10.4	13.4	14.6	15.6	16.3	16.9	17.4	17.8	18.2	18.6	19.0
Net exports	18.5	9.4	17.5	28.1	29.5	27.8	22.1	17.6	17.5	33.6	21.4	25.8	24.8	24.5	24.6	25.9	26.9	27.9	29.0	30.3	31.5
	€ per tonne, July-June																				
Market price	208.0	194.6	239.7	186.5	165.6	156.2	153.4	161.1	186.4	173.6	199.5	168.1	166.4	163.0	160.5	160.2	160.8	161.9	163.5	164.7	165.6

Table 6. EU-27 and UK Barley Supply and Utilization

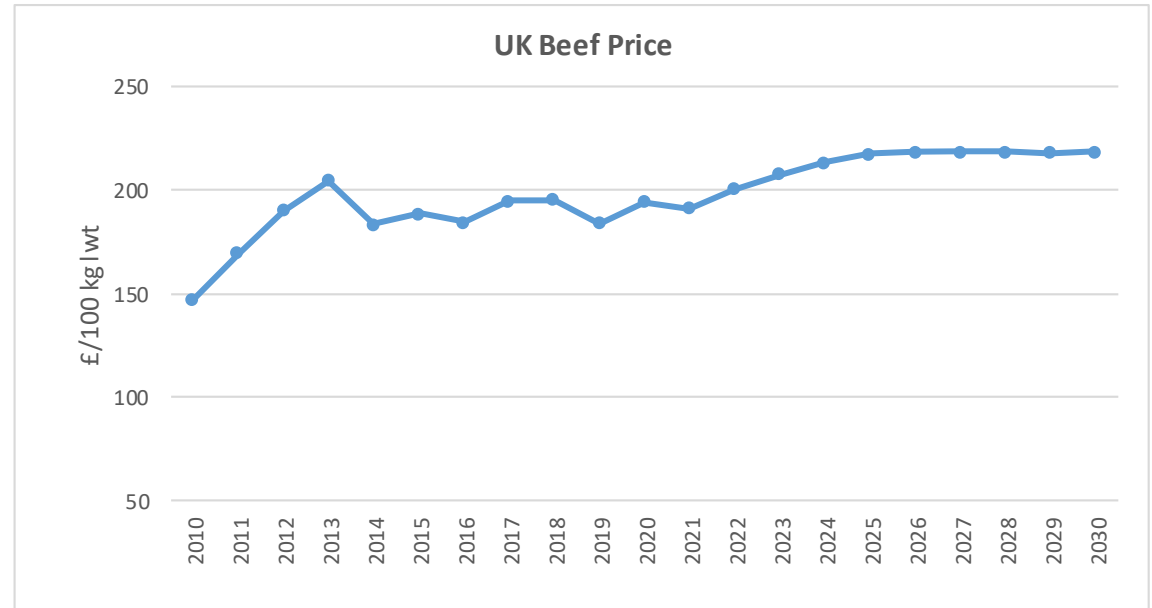
Crop year	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
	thousand hectares																				
Area harvested	12,238	11,928	12,458	12,321	12,391	12,181	12,301	12,021	12,301	12,211	12,611	12,091	12,023	12,033	12,033	11,932	11,860	11,817	11,783	11,752	11,726
	tonnes/hectare																				
Yield	4.33	4.35	4.40	4.84	4.88	5.06	4.87	4.86	4.53	5.12	5.07	5.07	5.13	5.17	5.21	5.25	5.29	5.33	5.36	5.41	5.45
	million tonnes																				
Production	52.9	51.9	54.8	59.7	60.5	61.7	59.9	58.4	55.7	62.5	64.0	61.3	61.7	62.3	62.7	62.7	62.7	62.9	63.2	63.5	63.9
Beginning stocks	15.6	7.9	6.1	5.0	5.6	5.8	5.9	5.4	4.6	4.2	4.6	4.7	5.1	5.4	5.6	5.9	6.0	6.1	6.1	6.1	6.2
Imports	0.2	0.5	0.1	0.0	0.1	0.3	0.4	0.5	0.1	0.6	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2
Total supply	68.7	60.3	60.9	64.8	66.2	67.7	66.2	64.3	60.5	67.4	68.8	66.2	67.0	67.9	68.6	68.8	69.0	69.3	69.6	69.9	70.3
Domestic use	55.9	51.2	50.9	53.4	50.9	51.0	55.1	53.8	51.3	54.7	55.8	53.3	54.2	55.1	55.4	55.3	55.3	55.2	55.1	55.0	55.0
Feed	41.3	35.8	35.5	38.0	35.7	36.5	40.1	39.0	36.5	40.2	41.2	38.0	38.6	39.3	39.6	39.7	39.8	39.8	39.9	39.9	39.9
Fuel	0.5	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2
Other	14.0	15.1	15.1	15.1	14.9	14.3	14.8	14.5	14.6	14.2	14.4	15.1	15.3	15.5	15.5	15.4	15.2	15.1	15.0	14.9	14.8
Exports	4.9	3.0	5.0	5.7	9.5	10.8	5.7	5.9	4.9	8.1	8.2	7.9	7.5	7.2	7.3	7.5	7.7	8.0	8.4	8.7	9.1
Ending stocks	7.9	6.1	5.0	5.6	5.8	5.9	5.4	4.6	4.2	4.6	4.7	5.1	5.4	5.6	5.9	6.0	6.1	6.1	6.1	6.2	6.2
Net exports	4.7	2.6	4.9	5.7	9.5	10.5	5.3	5.4	4.8	7.5	8.0	7.6	7.2	6.9	7.0	7.2	7.4	7.7	8.1	8.5	8.9
	€ per tonne, July-June																				
Market price	184.4	195.5	224.0	173.9	156.9	153.6	143.1	156.2	181.6	159.4	173.0	157.4	154.1	149.8	146.5	146.1	146.8	147.9	148.9	149.8	150.5

Table 7. EU-27 and UK Maize for Grain Supply and Utilization

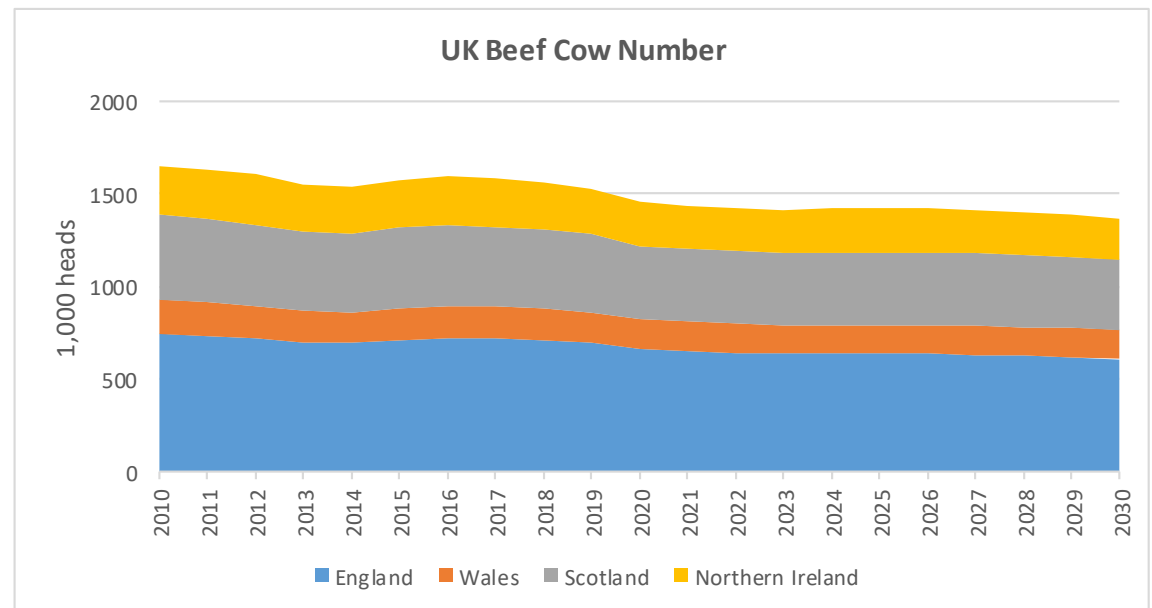
Crop year	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
	thousand hectares																				
Area harvested	8,404	9,259	9,590	9,770	9,600	9,340	8,620	8,510	8,230	8,830	8,910	8,620	8,403	8,328	8,329	8,324	8,319	8,312	8,309	8,308	8,302
	tonnes/hectare																				
Yield	6.99	7.34	6.01	6.61	7.87	6.10	6.94	6.97	7.48	7.29	6.93	7.37	7.71	7.78	7.82	7.87	7.90	7.94	8.00	8.05	8.11
	million tonnes																				
Production	58.7	67.9	57.6	64.6	75.5	57.0	59.8	59.3	61.6	64.4	61.8	63.5	64.8	64.8	65.2	65.5	65.7	66.0	66.4	66.9	67.3
Beginning stocks	5.6	5.2	6.7	5.1	6.9	9.6	6.9	7.5	9.2	7.7	7.2	6.4	6.7	7.0	7.2	7.4	7.5	7.7	7.7	7.8	7.9
Imports	7.4	6.1	11.4	16.0	8.9	14.0	15.0	18.5	25.3	18.6	18.1	18.2	18.2	18.3	18.3	18.2	18.2	18.2	18.2	18.1	18.1
Total supply	71.7	79.3	75.6	85.7	91.3	80.6	81.7	85.4	96.0	90.6	87.1	88.1	89.7	90.0	90.6	91.1	91.5	91.9	92.3	92.8	93.3
Domestic use	65.3	69.3	68.3	76.4	77.7	71.8	71.9	74.4	84.7	78.7	78.3	79.0	80.5	80.7	81.1	81.4	81.6	81.8	82.0	82.3	82.6
Feed	49.9	54.0	53.0	58.0	59.5	55.5	55.0	57.0	67.0	60.0	61.1	60.8	61.8	61.8	62.1	62.4	62.6	62.9	63.1	63.4	63.6
Fuel	3.3	3.8	4.9	5.7	5.8	5.1	4.9	6.1	5.9	4.9	4.7	5.2	5.4	5.5	5.5	5.4	5.2	5.2	5.1	5.0	5.0
Other	12.1	11.5	10.4	12.7	12.4	11.2	12.0	11.4	11.8	13.8	12.4	13.0	13.3	13.4	13.6	13.7	13.7	13.8	13.9	13.9	14.0
Exports	1.1	3.3	2.2	2.4	4.0	2.0	2.2	1.8	3.6	4.8	2.4	2.4	2.2	2.1	2.1	2.2	2.2	2.3	2.5	2.6	2.7
Ending stocks	5.2	6.7	5.1	6.9	9.6	6.9	7.5	9.2	7.7	7.2	6.4	6.7	7.0	7.2	7.4	7.5	7.7	7.7	7.8	7.9	8.0
Net exports	-6.3	-2.8	-9.2	-13.6	-4.9	-12.1	-12.8	-16.7	-21.6	-13.8	-15.7	-15.7	-16.0	-16.2	-16.2	-16.1	-16.0	-15.9	-15.7	-15.5	-15.4
	€ per tonne, July-June																				
Market price	211.8	205.1	232.4	178.2	154.1	162.2	162.0	162.9	164.9	164.6	180.6	156.5	152.4	150.0	146.7	145.4	145.5	146.0	146.4	146.3	146.2

UK Cattle and Beef

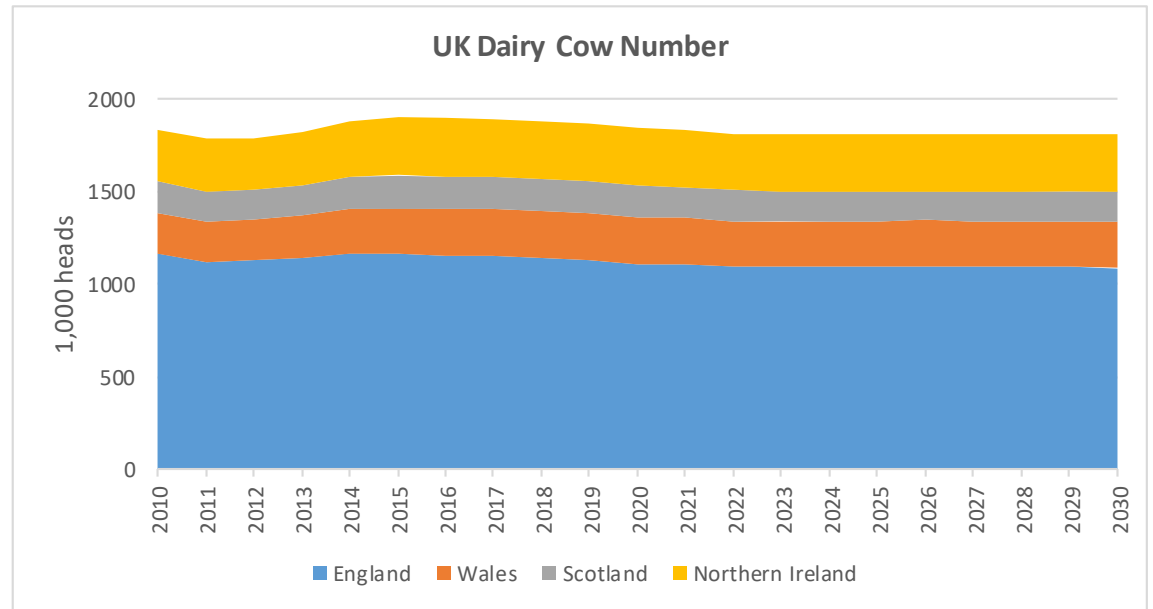
The UK beef price has been on an upward trend since 2010, averaging £184 per 100 kg between 2010 and 2019 and £189 per 100 kg between 2015 and 2019. In the projection period, the UK beef price continues to increase, then flattens out from 2025 at 12% above the 2020 value. The increase in beef price is partially due to the decreasing trend in UK (and EU) suckler cow numbers.



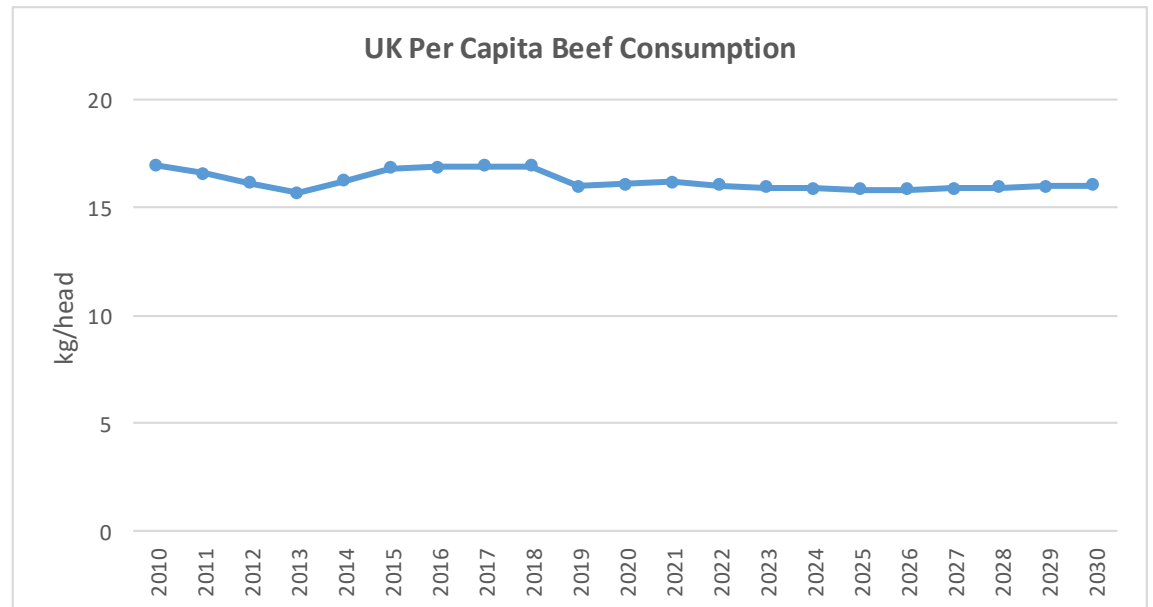
Historically the number of beef cows in the UK have been contracting. Looking forward, this trend in beef cow number continues, resulting in 13% fewer beef cows in 2030 compared to the ten-year average leading up to 2020.



Dairy cow numbers have also been declining, partly due to productivity increases sustaining production by higher yields and smaller herds. This trend continues in the projection period, resulting in 2% fewer dairy cows in 2030 compared to the ten-year average leading up to 2020.



Prior to COVID-19 it appears that the long run downward trend in beef consumption in previous decades had ceased. Beef per capita consumption is projected to be relatively stable at approximately 16 kg per head throughout the projection period. This is 3% lower than the ten-year average leading up to 2020.



While per capita consumption is steady over the projection period, population growth leads to an increase in total beef consumption. Therefore, while domestic beef production will decrease, use increases. Given these trends, the UK remains a net importer of beef, with an increase of 27% in beef imports expected over the projection period.

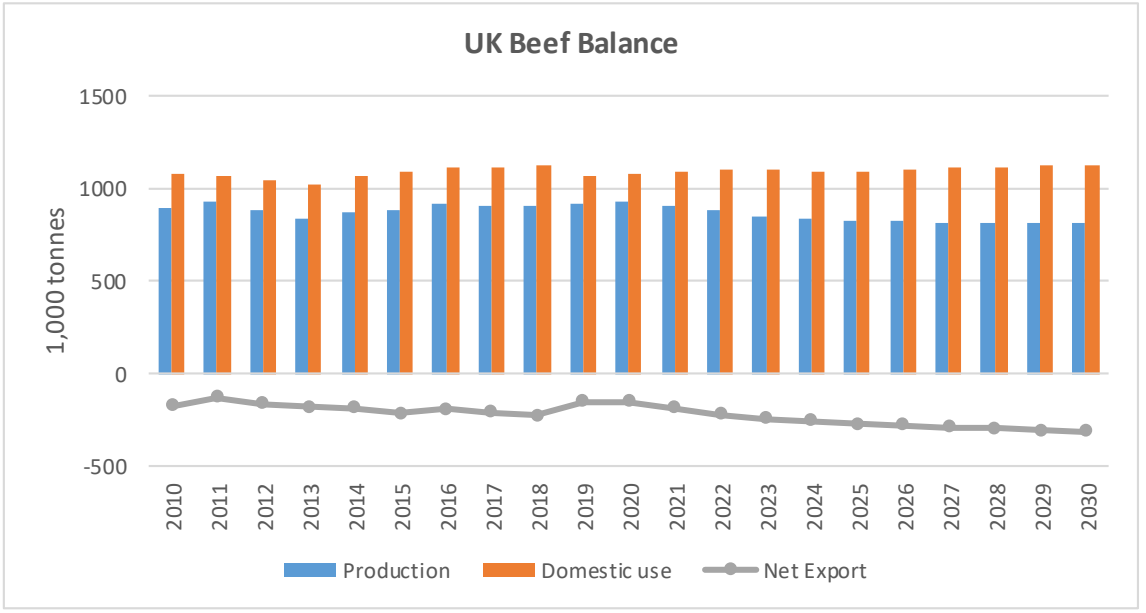
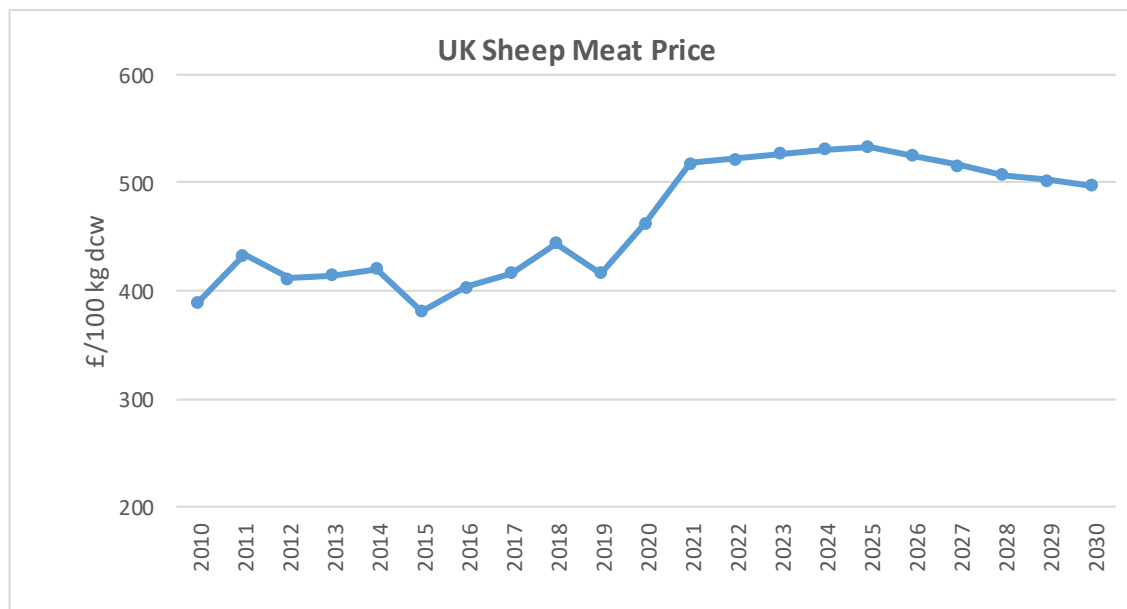


Table 8. UK Cattle and Beef

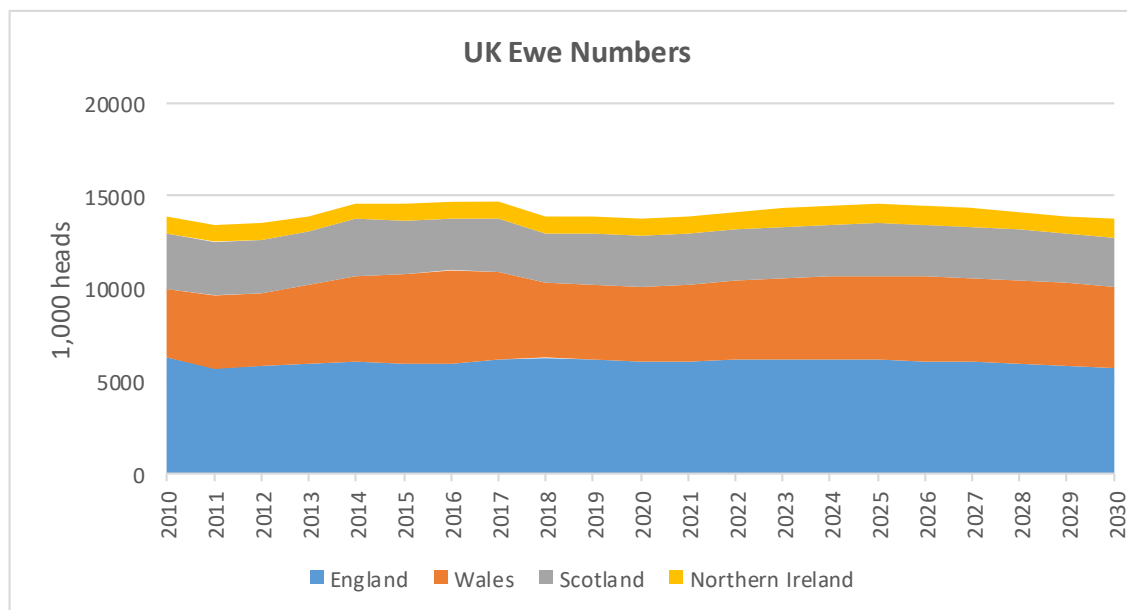
Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Cattle																					
Suckler cows										thousand heads											
England	745	730	718	699	695	713	721	721	712	699	665	654	645	639	638	637	636	632	626	619	610
Wales	184	181	177	168	164	167	168	168	167	164	158	154	153	153	154	155	156	156	156	155	154
Scotland	460	450	431	429	423	437	437	433	424	417	397	394	392	391	391	392	392	391	388	384	380
Northern Ireland	261	269	276	258	254	260	270	267	256	247	235	233	233	234	235	237	237	236	234	231	227
Dairy cows										thousand heads											
England	1,164	1,122	1,123	1,139	1,164	1,162	1,156	1,150	1,143	1,131	1,109	1,110	1,096	1,093	1,092	1,093	1,093	1,091	1,090	1,088	1,088
Wales	222	218	222	229	238	246	249	251	254	252	253	249	245	246	247	249	250	250	251	252	253
Scotland	168	162	163	167	174	176	175	174	175	176	171	166	162	161	161	161	161	160	160	159	159
Northern Ireland	278	281	278	282	306	312	317	316	311	314	313	305	307	306	307	308	308	308	308	308	308
Total Cattle	9,924	9,687	9,749	9,682	9,693	9,816	9,806	9,787	9,610	9,495	9,371	9,130	8,944	8,810	8,725	8,677	8,647	8,622	8,593	8,556	8,514
Beef and Veal										thousand tonnes											
Production	897	931	877	840	871	880	916	904	901	917	930	902	877	853	835	824	819	818	816	815	812
Domestic use	1,076	1,062	1,040	1,019	1,061	1,095	1,108	1,116	1,125	1,067	1,080	1,091	1,097	1,095	1,094	1,095	1,101	1,108	1,116	1,123	1,129
Net export	-178	-132	-163	-180	-190	-214	-192	-212	-225	-150	-150	-189	-220	-242	-259	-271	-282	-291	-299	-307	-316
										£/100 kg, liveweight											
Price (GB)	147	169	190	204	183	189	184	195	195	184	194	191	200	208	213	217	218	218	218	218	218

UK Sheep and Sheep Meat

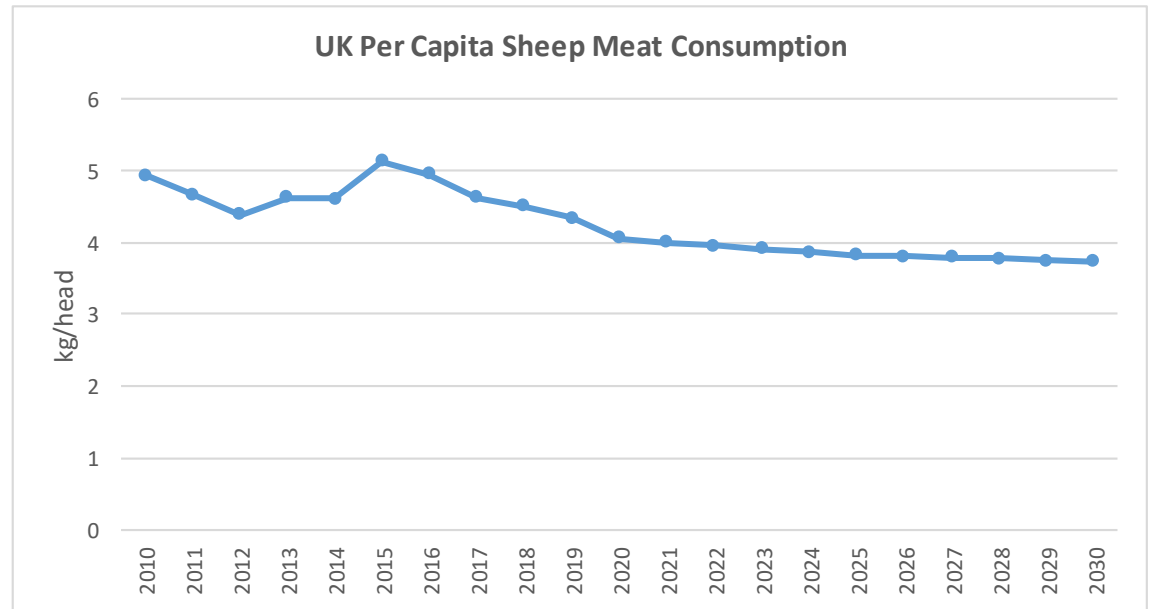
UK sheep meat price shows an increasing trend with the exception of 2019 when price declined 6% (to £416 per 100 kg dead weight), before recovering in 2020 (showing a year on year increase of 11%). Prices remain relatively flat for the first half of the projection period, followed by a slight decline of about 1.5% a year. The EU sheep meat price is on average higher than the UK price by £0.66 per kg between 2020 and 2030. UK and EU price trends diverge from 2025, with EU prices remaining relatively static and the UK price declining.



UK ewe numbers have fluctuated within a range of 4%, above and below the average number (14 million head) over the period between 2010 and 2020. Ewe numbers increase by about 1% per year, in response to increasing sheep meat prices in the first half of the projection period, peaking at 14.5 million head in 2025, then decline to under 14 million by 2030.



Per capita sheep meat consumption has been trending downwards in the UK, with a 20% decline in consumption between 2015 and 2020. The relatively high price of sheep meat leads consumers to substitute for other meats on the market. The downward trend in per capita sheep meat consumption continues over the projection period resulting in per capita consumption of less than 4 kg per head in 2030.



UK sheep meat production has averaged 300 thousand tonnes in the ten years leading up to 2020. Looking forward, sheep meat production remains close to the historic average. Domestic use of sheep meat declines over the projection period due to decreasing per capita consumption and strong prices. The UK is a net exporter throughout the projection period.

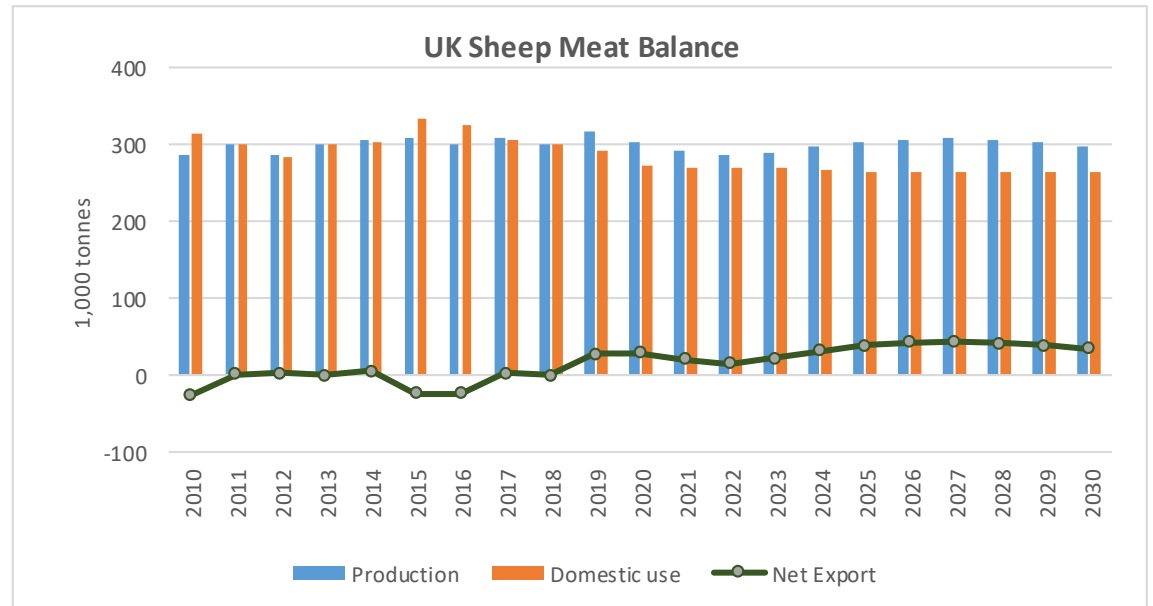
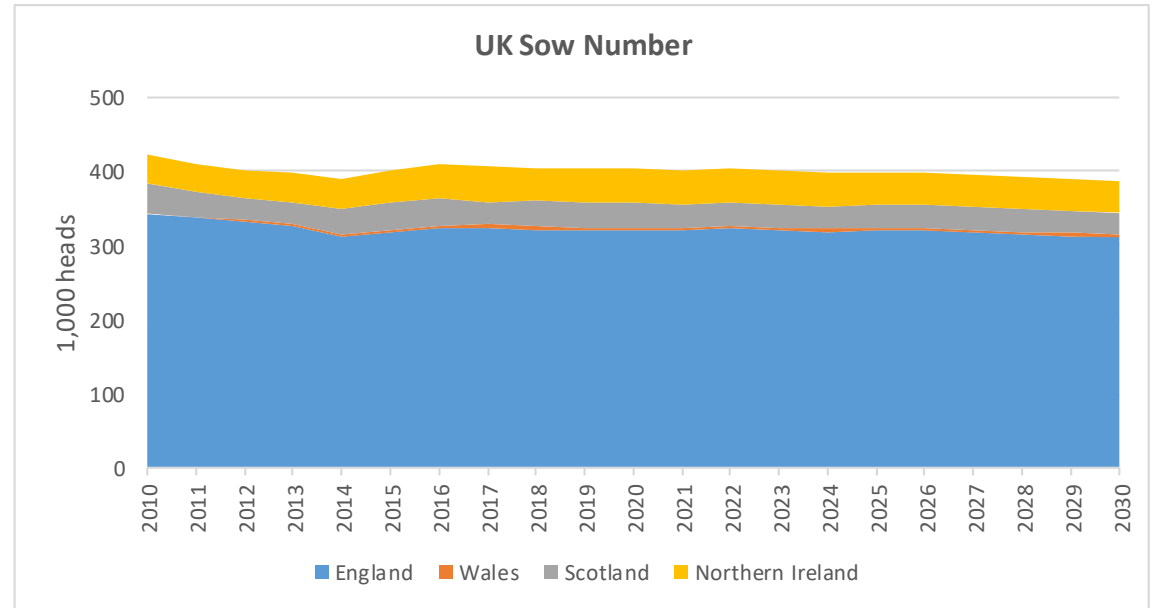


Table 9. UK Sheep and Sheep Meat

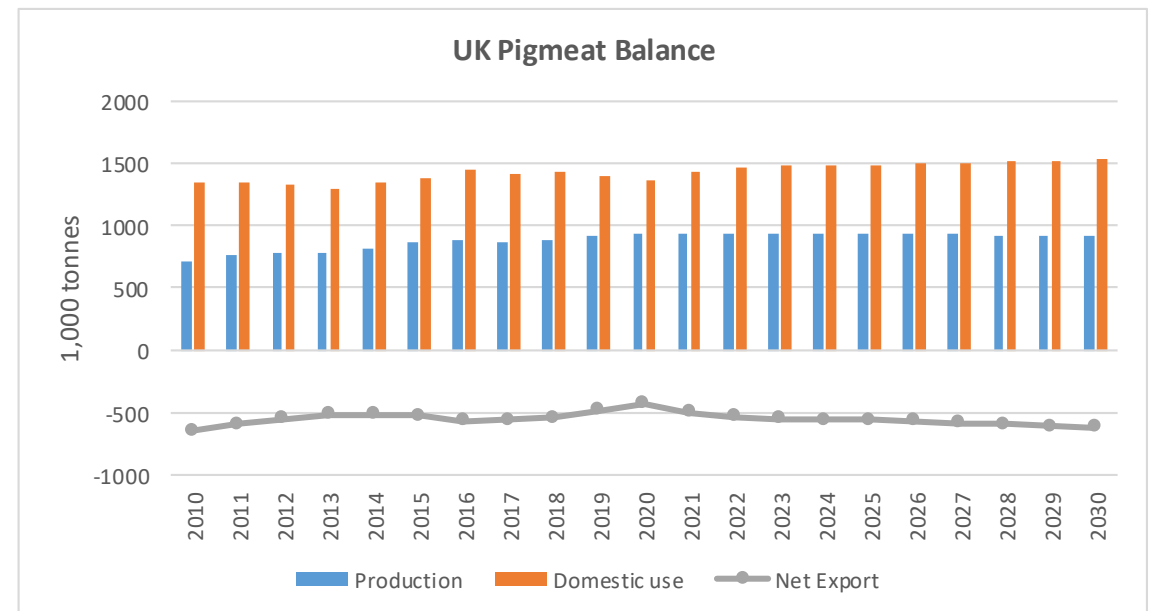
Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Sheep																					
Ewes										thousand heads											
England	6,227	5,651	5,791	5,982	6,053	5,902	5,920	6,153	6,230	6,119	6,067	6,058	6,112	6,159	6,166	6,145	6,089	6,003	5,893	5,776	5,660
Wales	3,792	3,988	3,923	4,197	4,635	4,923	5,050	4,763	4,030	4,053	4,019	4,116	4,261	4,387	4,481	4,542	4,567	4,562	4,539	4,512	4,477
Scotland	2,933	2,900	2,939	2,882	3,039	2,883	2,798	2,815	2,752	2,763	2,740	2,750	2,787	2,820	2,833	2,831	2,811	2,776	2,729	2,677	2,626
Northern Ireland	891	927	922	865	890	914	913	928	886	906	898	916	957	989	1,006	1,015	1,015	1,006	992	975	959
Total sheep	21,347	22,007	23,029	22,027	22,687	23,106	23,671	23,239	22,283	22,756	22,563	22,455	22,800	23,176	23,417	23,517	23,472	23,289	22,986	22,655	22,309
Sheep meat										thousand heads											
Production	287	301	286	300	306	309	300	309	299	318	303	291	285	290	298	303	307	308	306	302	297
Domestic use	313	299	283	300	302	334	325	306	300	291	273	270	271	269	267	265	264	264	264	264	263
Net Export	-26	2	2	-1	5	-24	-25	3	-1	27	29	21	14	22	31	38	42	44	42	38	34
										£/100kg, deadweight											
Price (GB)	389.6	432.9	411.0	414.8	420.3	380.8	403.0	416.0	444.0	416.0	462.7	518.5	522.5	526.7	531.0	533.1	525.0	516.5	507.7	502.3	497.5

UK Pig and Poultry

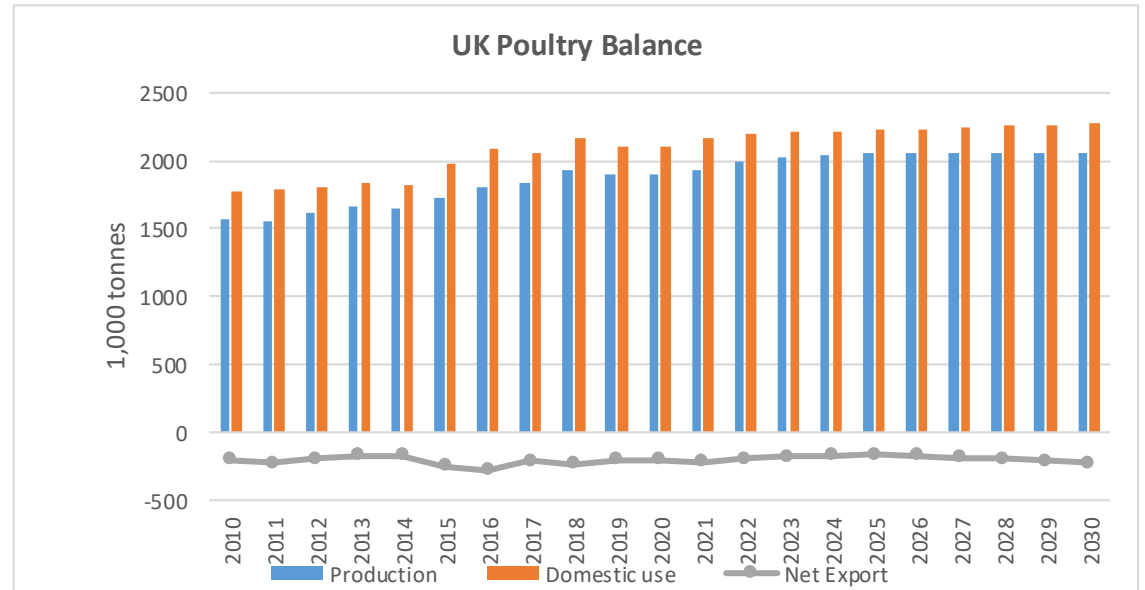
UK sow numbers have been stable at just over 400 thousand from 2015 to 2020. Sow numbers trend downwards slightly in the projection period, as there is an expectation that efficiency gains continue to reduce the number of sows needed for the same level of production.



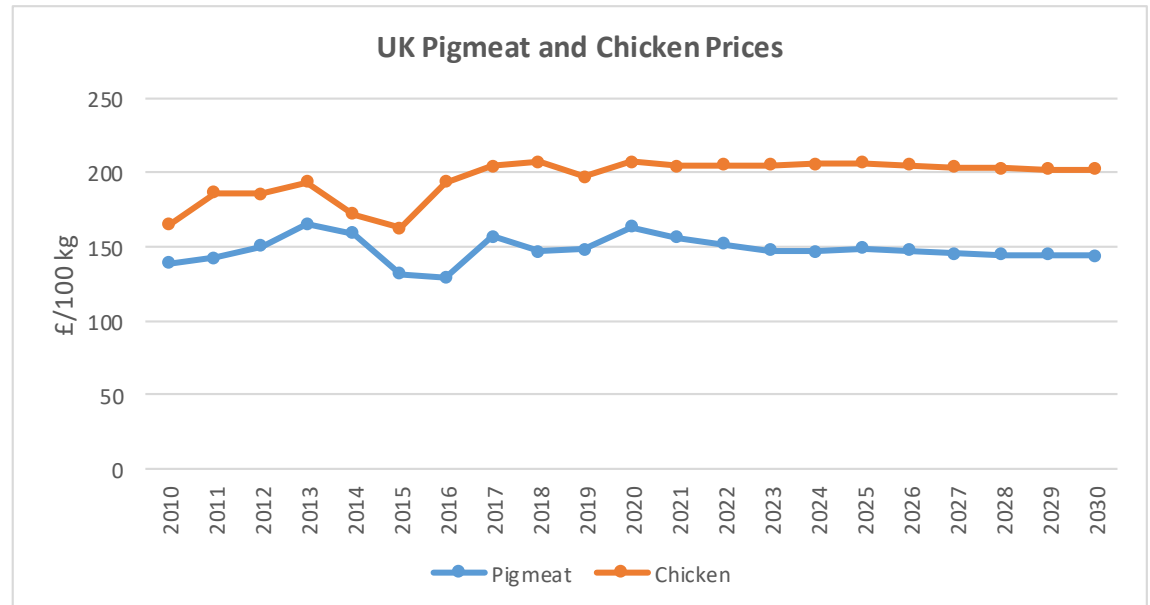
UK pig meat production has shown steady growth since 2017, driven largely by production efficiencies within the sector. Over the projection period however, pig meat production is expected to show a modest decline due to strong competition from imports, reaching about 913 thousand tonnes in 2030. Domestic use exceeds production, and the shortfall widens slightly during the projection period, therefore net imports increase.



Poultry production has been trending upwards in the UK. In the projection period, this trend continues with production in 2030 18% above the ten-year average leading up to 2020. Domestic use has also increased, particularly from 2015, and this continues in the projection period. However, despite production increases, domestic use continues to exceed production, with the UK remaining a net importer.



Pig meat and chicken prices have fluctuated between 2010 and 2020. Projections cannot anticipate market volatility due to short-term shocks, and underlying conditions suggest pig and poultry prices will be relatively stable. Pig meat price remains close to the ten-year average leading up to 2020. In contrast chicken prices increase, on average 9% higher than the ten-year historic average for 2010 to 2020. From 2016, the UK chicken price has run above the EU price. This continues throughout the projection period, with an average gap of £0.29 per kg.



UK per capita poultry meat consumption has been increasing, particularly after 2014. In the projection period, consumption levels out after recovering from the dip in 2020 to around 32 kg per head. Pig meat consumption has been flatter in the recent past, and remains stable in the projection period, closing at 22 kg per head by 2030.

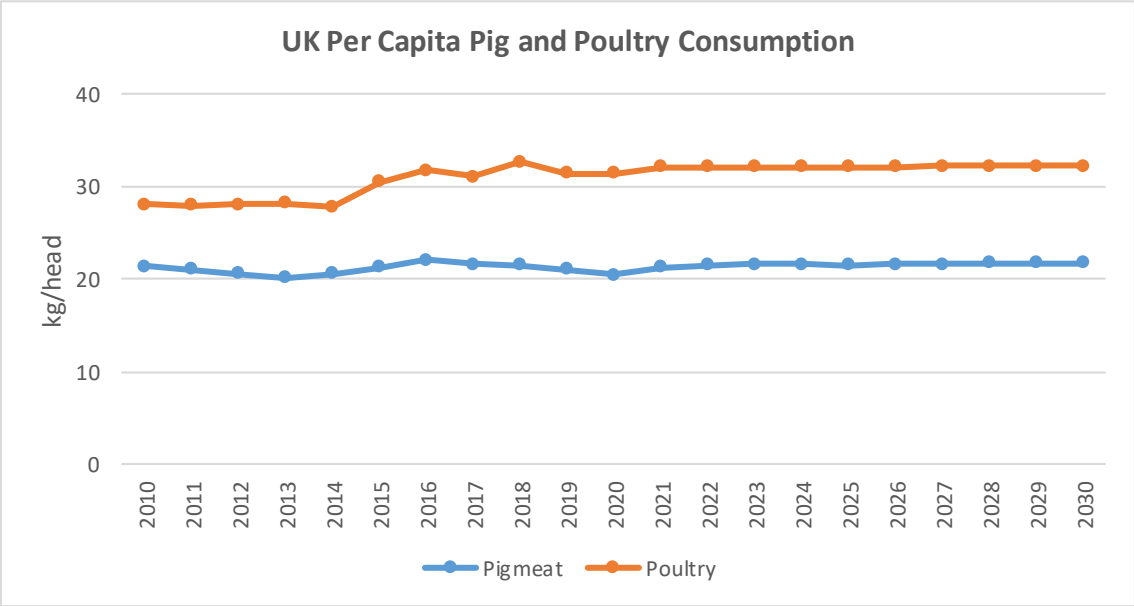
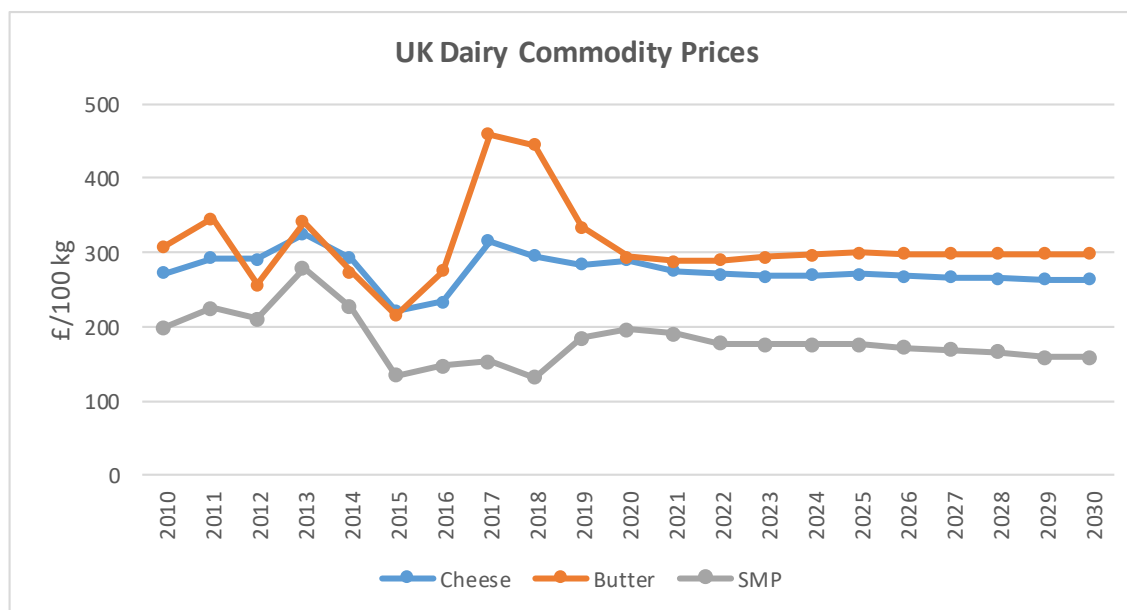


Table 10. UK Pigs, Pork and Poultry Meat

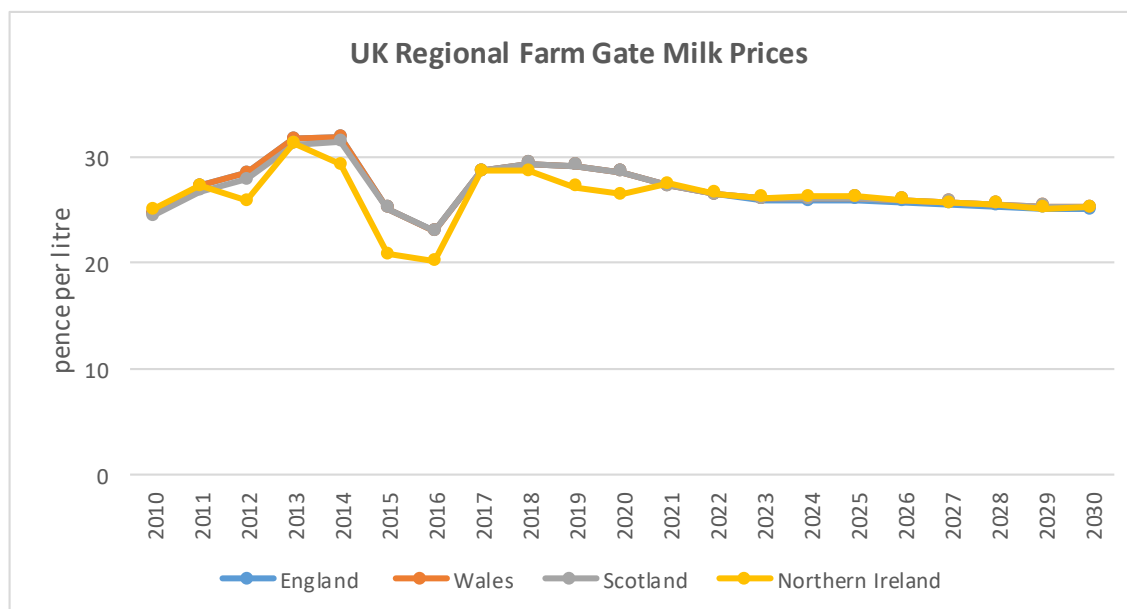
Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Pigs																					
Sows																					
										thousand heads											
England	342	337	332	326	313	317	324	325	322	320	320	320	324	321	319	321	320	317	315	313	311
Wales	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4
Scotland	39	32	28	28	33	37	38	31	36	34	34	32	32	31	31	31	31	30	30	30	30
Northern Ireland	39	38	37	41	41	43	44	47	44	47	46	45	45	44	44	44	44	44	43	43	43
Pig meat																					
Production																					
Production	710	759	776	787	822	861	887	867	891	922	943	938	937	938	933	929	930	929	924	918	913
Domestic use	1,354	1,347	1,327	1,305	1,345	1,383	1,450	1,422	1,430	1,404	1,373	1,438	1,469	1,485	1,492	1,491	1,499	1,510	1,518	1,523	1,530
Net Export	-644	-589	-546	-515	-517	-523	-563	-555	-539	-482	-430	-499	-533	-548	-559	-562	-569	-580	-594	-606	-617
Pig meat Price																					
										£/100 kg											
Pig meat Price	139	142	150	165	159	132	129	157	147	148	163	156	152	148	147	149	148	146	144	144	144
Poultry meat																					
Production																					
Production	1,570	1,559	1,609	1,661	1,646	1,731	1,803	1,837	1,937	1,900	1,900	1,937	1,996	2,027	2,046	2,060	2,062	2,061	2,057	2,054	2,050
Domestic use	1,776	1,784	1,807	1,832	1,818	1,983	2,086	2,051	2,170	2,100	2,110	2,164	2,195	2,206	2,214	2,222	2,233	2,244	2,254	2,264	2,273
Net Export	-207	-225	-198	-169	-170	-249	-281	-211	-232	-200	-201	-215	-198	-180	-168	-161	-171	-183	-197	-210	-223
Chicken Price																					
										£/100 kg											
Chicken Price	165	187	185	194	172	163	193	204	207	197	207	204	205	205	206	207	205	204	203	203	202

UK Dairy

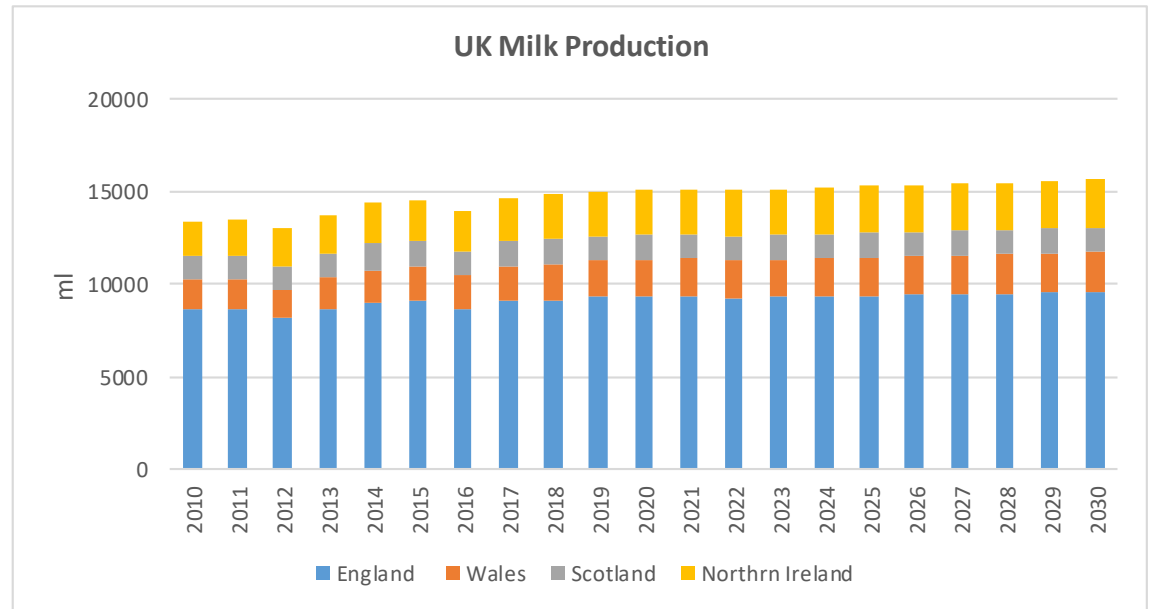
UK dairy commodity prices have fluctuated over recent years, with butter price peaking in 2017.. Looking forward, butter price and cheese price remain relatively flat over the projection period with cheese price tracking below the butter price. SMP trends down slightly post-2020, staying below the ten-year historic average price. Volatility is expected to continue in this market, and it could be that increasing demand as restaurants reopen could see butter prices in particular spike.



Due to a relatively greater dependence on commodity markets in Northern Ireland, producer prices tend to run below those in Great Britain (GB) as milk for liquid consumption achieves a price premium over manufacturing use and contributes relatively more to farm gate prices in GB. In 2020, Northern Ireland's farm-gate milk price was approximately 2 pence per litre below that of the GB. In the projection period, the gap narrows considerably due to the unique status of Northern Ireland with respect to EU trade. However, this does not prevent a downward trend, as farm-gate milk prices in all countries of the UK decrease about 5% over the course of the projection period.



Milk production has been trending upwards. Looking forward this continues, with average production up 3% in the end of the projection period compared to the ten-years leading up to 2020. The only significant volumes of liquid milk entering or leaving the UK is in relation to the Republic of Ireland, which can continue due to the Northern Ireland Protocol.



Liquid milk consumption has remained relatively stable historically, with manufacturing absorbing any variability in annual production. Due to the increase in production going forward, milk for manufacture also increases over the projection period.

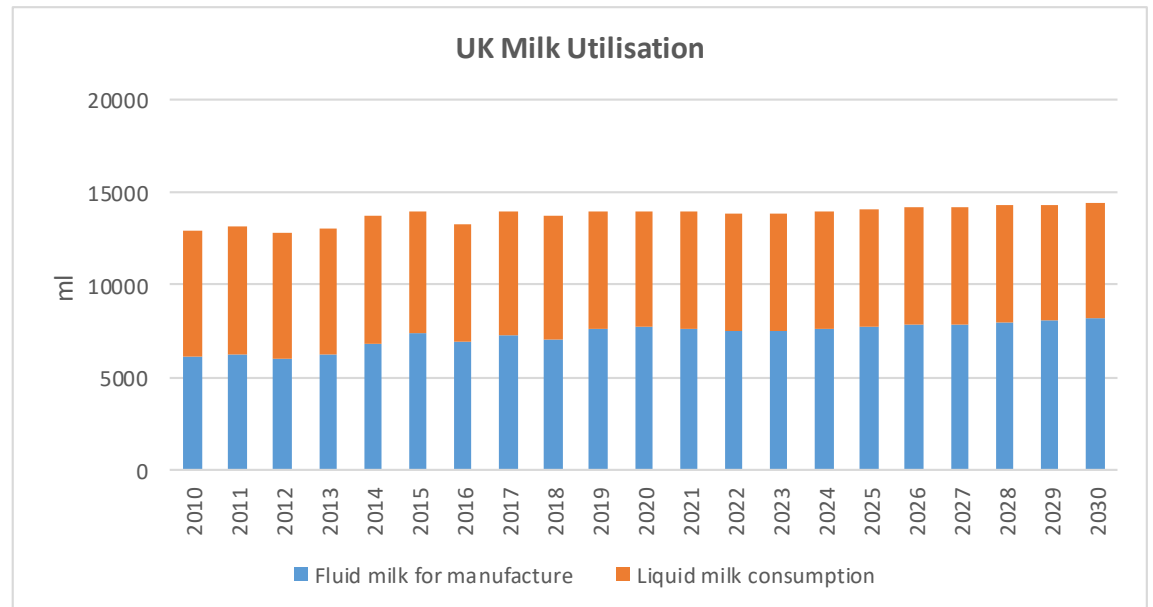


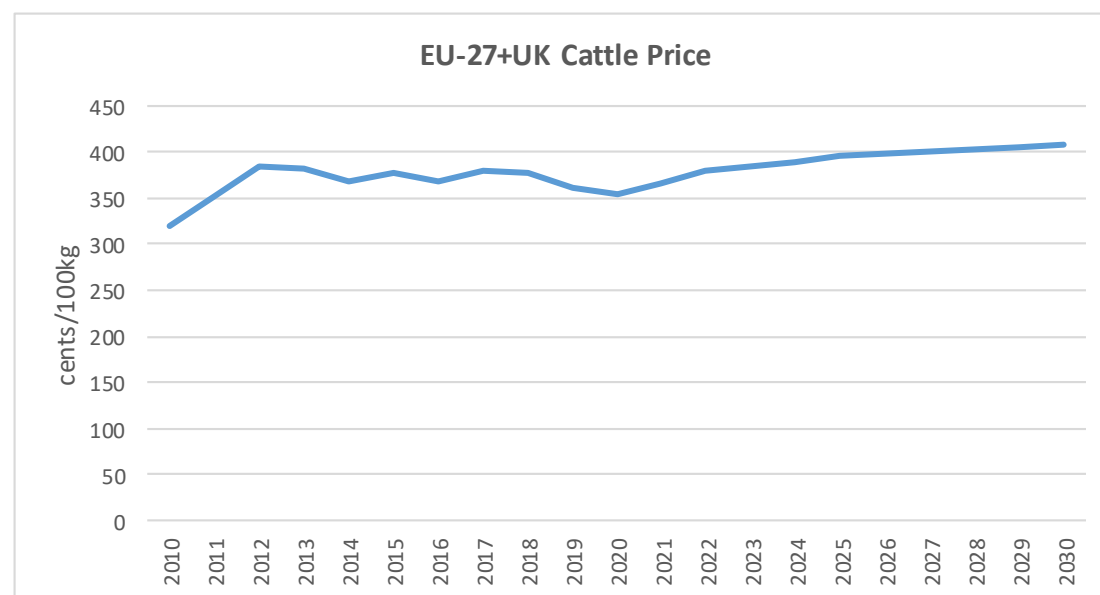
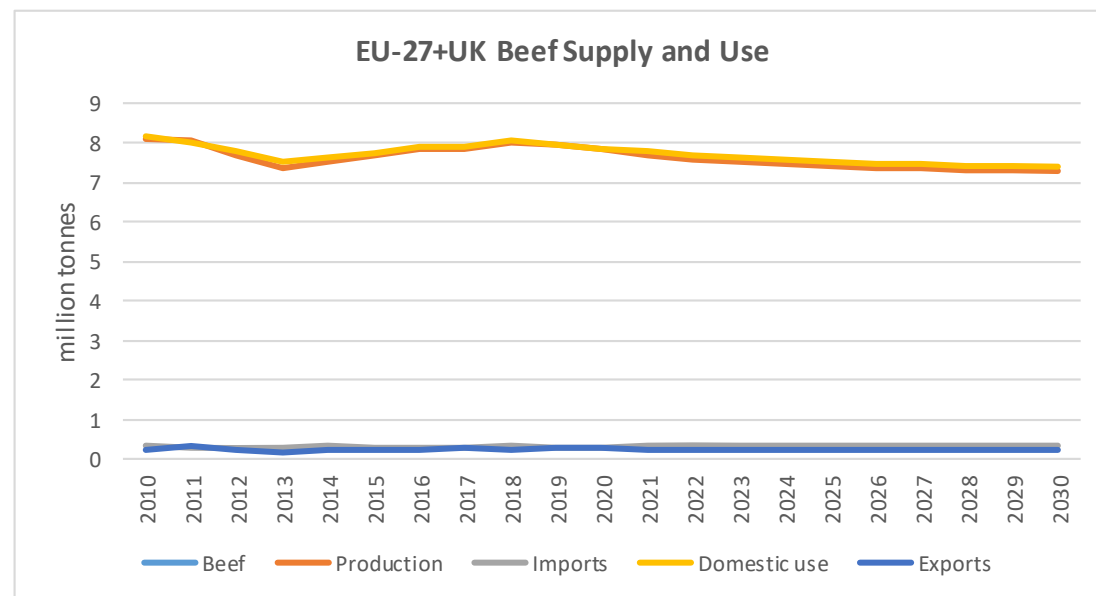
Table 11. Dairy Products

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	thousand heads																				
Dairy cows	1,832	1,783	1,786	1,817	1,883	1,895	1,897	1,891	1,883	1,871	1,846	1,846	1,810	1,806	1,807	1,811	1,811	1,809	1,808	1,807	1,808
	ml																				
Milk production	13,332	13,494	12,974	13,680	14,394	14,541	13,930	14,582	14,801	14,981	15,066	15,130	15,033	15,071	15,162	15,276	15,358	15,419	15,487	15,553	15,639
	thousand tonnes																				
Cheese																					
Production	376	395	397	384	408	435	442	457	465	468	476	470	455	456	461	467	471	474	477	479	484
Domestic use	699	685	715	731	747	777	768	779	798	795	772	806	836	843	847	851	857	863	868	873	877
Net export	-323	-290	-319	-343	-335	-343	-326	-322	-333	-327	-296	-336	-381	-387	-386	-384	-386	-389	-391	-394	-393
Butter																					
Production	120	130	145	142	143	150	143	161	152	188	185	186	186	188	189	192	193	193	194	196	197
Domestic use	199	194	209	203	188	205	178	197	174	198	198	204	206	207	207	207	208	208	209	210	211
Net export	-75	-64	-66	-61	-44	-56	-35	-36	-22	-9	-13	-18	-20	-19	-17	-15	-15	-15	-15	-14	-14
Prices	ppl, £/100 kg																				
Farm gate milk (EN)	24.7	27.3	28.5	31.7	31.9	25.1	23.0	28.7	29.4	29.2	28.6	27.3	26.4	26.0	25.9	26.0	25.8	25.5	25.4	25.2	25.1
Cheese	272.0	292.0	290.6	325.2	293.0	221.0	233.2	315.3	295.2	283.9	290.0	275.5	270.9	268.8	270.1	271.2	268.7	266.4	265.4	264.1	264.4
Butter	309.2	345.9	256.6	342.1	274.0	215.2	274.6	459.1	444.9	333.8	294.5	288.9	290.4	293.3	296.4	299.8	298.9	298.1	297.9	298.1	298.2
SMP	198.4	224.4	210.9	278.9	226.7	133.5	146.9	152.9	130.9	185.1	196.2	189.6	177.6	175.2	175.7	175.3	171.7	168.5	165.8	159.2	158.7
WMP	259.4	273.3	256.0	335.3	274.1	203.1	229.7	293.0	277.4	277.0	285.3	311.6	297.1	294.6	295.1	294.6	289.9	285.4	282.4	273.3	274.2

EU-27+UK Livestock and Dairy

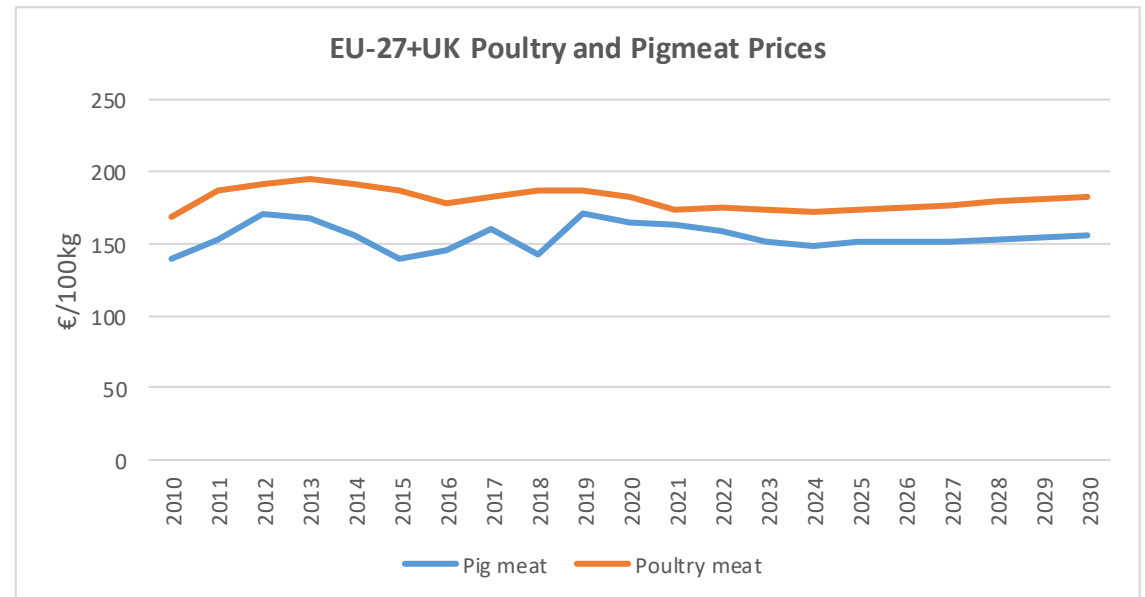
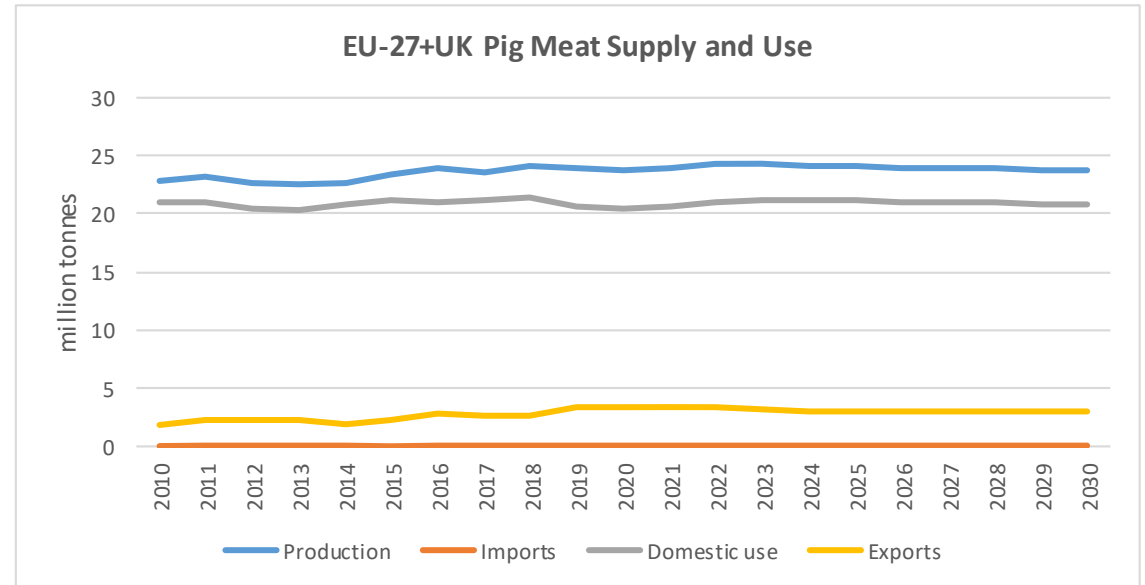
Given the relatively favourable price outlook and assumption of continued coupled payment schemes in some member states the beef cow herd for the EU-27+UK is stable, and even increases slightly in the latter years partly due to the relatively low feed prices. Dairy herds decline, however, as yields increase and this means that the volume of beef produced falls. Beef consumption falls also as prices rise and the EU population gets older.

The price of beef has been relatively stable over the last decade fluctuating within a €50 band. The fall in the availability of beef as the cow herd declines pushes prices up over the projection period and ends at €40 per 1000 kg. With trade projected to be stable, the price outlook for the sector depends on the evolution of the dairy cow herd and consumer preferences.

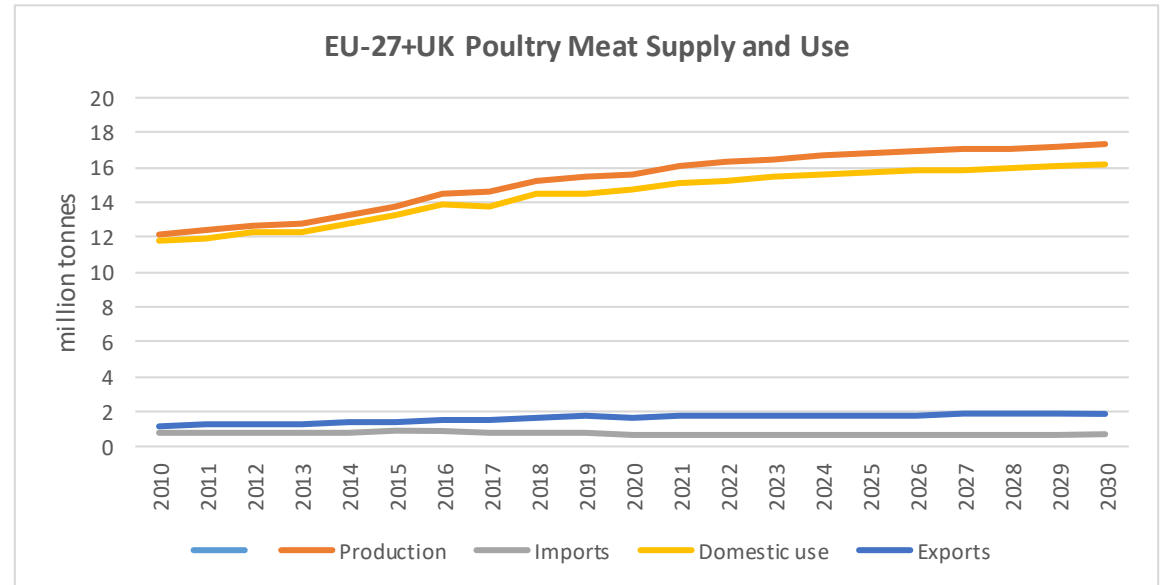


The rapid decline in the Chinese pig herd as a result of African Swine Fever (ASF) has had a huge impact on global pork markets. Although Europe has also been impacted by ASF, herd sizes have been maintained and when the Chinese market has been available for exports this has increased prices. Exports have increased at the expense of domestic use. In the longer term, China is assumed to recover from ASF and EU exports are projected to return to normal.

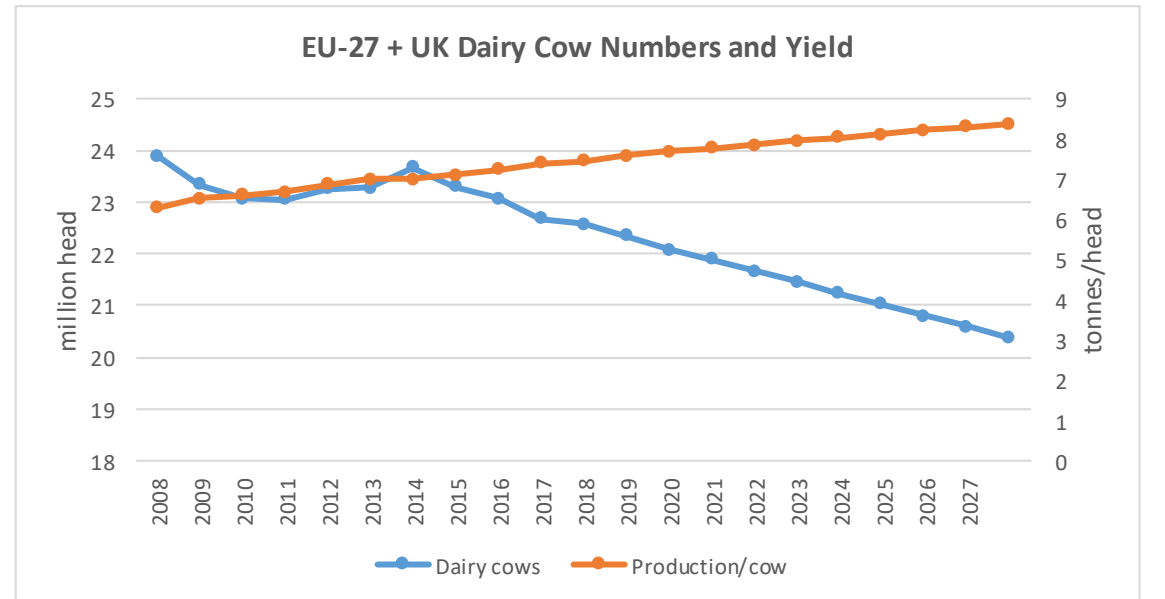
ASF in China has increased EU pork prices, with the experience between regions depending on whether China is taking exports or implements some sort of temporary ban. As exports fall the price falls – with the fall in price dependant to some extent on how much the Chinese rebuild their herd. The new herd will eventually be more efficient than the old, but probably at a smaller size. The relatively low cereals prices also pull down prices of poultry in the longer term.



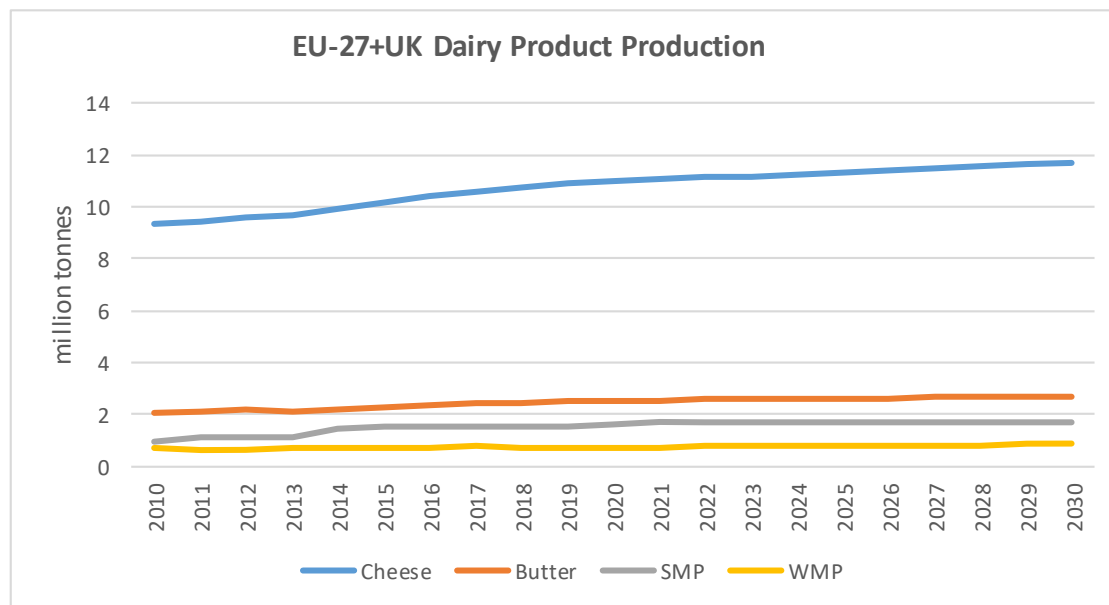
Favourable feed prices enable a continued expansion of the poultry flock in the EU. In the model poultry meat production and consumption are projected to increase at a slightly reduced rate relative to recent history. A small increase in net exports is projected.



In the early part of the last decade, the elimination of quotas led to an expansion in the size of the dairy herd. In recent years, the long term trend of a reduction in dairy cow numbers has continued, and this is projected for the outlook period (note the truncated scale on the chart for cow numbers). Yields are projected to continue to rise at the same rate as recent history, and milk production rises over the projection. The low projected feed prices would encourage expansion but there are likely to be increasingly binding in the future.



Much of the additional milk that is produced goes into cheese although the other products expand production as well. All of the four modelled dairy products show higher exports at the end of the projection period. Expanding global incomes should provide for market opportunities for the EU. It does appear that major competitors for Asian markets such as Australia and New Zealand will find it hard to expand production. The U.S.A. has been expanding production rapidly and is likely to also increase exports.



Dairy prices have been incredibly volatile in recent years and are expected to remain so. Both supply and demand for dairy products can be very unresponsive to price changes and this means that any disruption can lead to big price changes, as we have seen for butter in recent years. At time of writing butter prices are spiking again. In general, for product prices we would see higher global incomes and growth in consumption of dairy products having a positive impact on prices. But if feed prices moderate after their recent rise this will encourage milk production and have the opposite effect. The euro/dollar exchange rate will be an important determinant of the competitiveness of the sector.

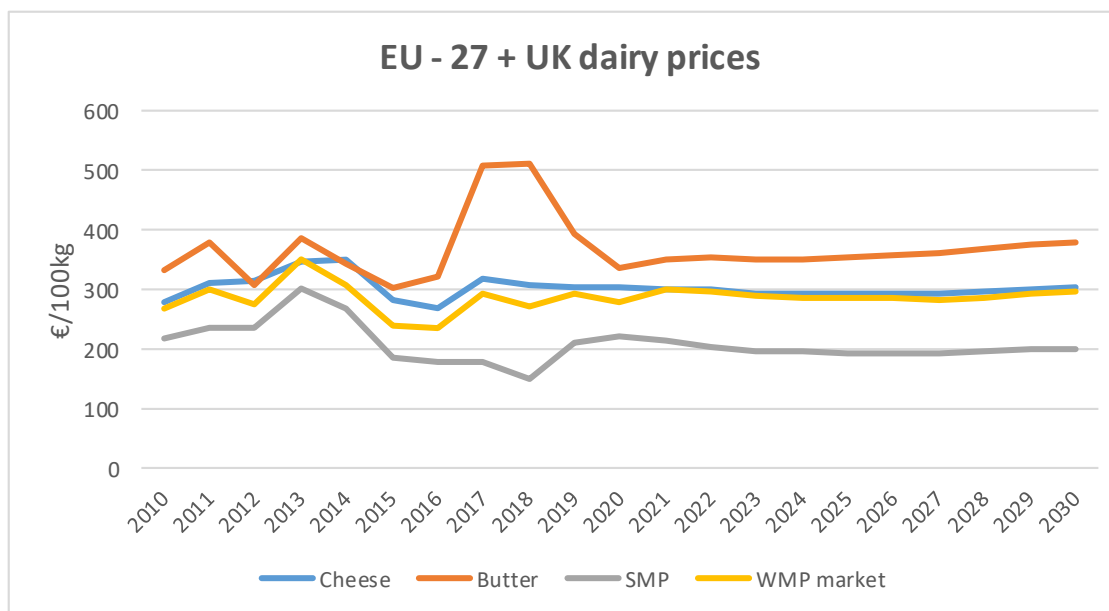


Table 12. EU-27+ and UK Cattle and beef

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Cattle	million head																				
Beginning inventories	89.9	87.9	87.1	87.3	87.7	88.4	89.1	89.5	88.8	87.5	86.6	85.5	84.5	83.8	83.2	82.8	82.5	82.3	82.1	81.9	81.7
Dairy cows	23.9	23.3	23.1	23.0	23.3	23.3	23.3	23.7	23.1	22.7	22.7	22.6	22.2	22.0	21.8	21.6	21.4	21.2	21.0	20.7	20.5
Suckler cows	12.4	12.4	12.2	12.0	12.0	12.1	12.3	12.4	12.3	12.2	12.2	12.1	12.1	12.2	12.4	12.6	12.8	13.0	13.1	13.3	13.4
Cattle slaughter	29.0	28.7	27.4	26.1	26.1	26.3	26.9	26.9	27.1	27.1	27.1	26.4	26.1	25.7	25.5	25.4	25.3	25.2	25.1	25.0	24.9
Slaughter weight	279.5	279.7	280.7	282.3	288.2	291.5	291.5	292.4	294.9	292.8	288.4	291.0	291.0	291.3	291.4	291.6	291.8	291.8	291.9	292.0	292.1
Beef and veal	thousand tonnes																				
Production	8,095	8,032	7,696	7,378	7,532	7,657	7,851	7,856	8,003	7,928	7,817	7,689	7,584	7,500	7,444	7,406	7,373	7,350	7,327	7,307	7,283
Non-EU imports	321	286	275	304	308	300	304	285	312	296	299	322	343	340	335	331	326	322	325	328	331
Domestic use	8,162	7,991	7,761	7,521	7,632	7,747	7,907	7,871	8,064	7,937	7,858	7,774	7,697	7,612	7,552	7,510	7,473	7,447	7,428	7,413	7,393
Non-EU exports	253	327	210	161	208	211	248	270	251	287	258	237	229	227	227	226	225	225	223	221	220
Stock change	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
Beef and veal	kg per capita, cwe																				
Beef and veal	16.4	16.0	15.5	15.0	15.2	15.4	15.7	15.5	15.9	15.6	15.4	15.3	15.1	14.9	14.8	14.7	14.7	14.6	14.6	14.6	14.5
Young cattle R3	€ per 100 kilograms																				
Young cattle R3	319.7	352.1	383.8	381.6	367.6	377.2	367.5	379.7	378.3	361.0	353.9	366.0	379.6	384.9	389.0	394.8	399.1	401.7	404.0	406.0	408.1

Table 13. EU-27+UK Pigs, Poultry and Pork

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Pigs	million head																				
Beginning inventories	152.9	152.5	149.9	147.0	146.2	148.3	148.7	147.2	150.3	148.2	147.9	150.1	152.0	153.4	153.0	151.6	150.9	150.7	150.1	149.3	148.7
Sows	14.1	13.7	13.3	12.7	12.5	12.5	12.3	12.0	12.2	11.8	11.8	11.9	12.0	12.0	11.9	11.8	11.7	11.7	11.6	11.5	11.4
Pig slaughter	256.0	259.3	252.5	250.8	252.8	258.4	261.6	258.3	261.7	258.4	257.8	261.2	264.2	265.5	264.2	262.2	261.4	260.9	259.7	258.5	257.6
Slaughter weight	89.4	89.4	90.0	89.9	89.9	90.7	91.2	91.6	92.0	92.6	92.3	91.7	91.7	91.6	91.7	91.8	91.9	91.9	92.0	92.1	92.2
Pig meat																					
Production	22,879	23,189	22,714	22,555	22,737	23,436	23,866	23,660	24,082	23,916	23,797	23,954	24,226	24,323	24,212	24,079	24,020	23,980	23,898	23,810	23,750
Non-EU imports	30	18	20	16	14	11	12	14	15	17	17	17	17	17	17	17	17	17	17	17	17
Domestic use	21,065	21,018	20,543	20,333	20,803	21,229	21,065	21,101	21,419	20,590	20,436	20,568	20,935	21,162	21,228	21,109	21,061	21,024	20,953	20,852	20,772
Non-EU exports	1,844	2,189	2,191	2,238	1,948	2,218	2,813	2,574	2,678	3,344	3,378	3,381	3,294	3,161	2,989	2,984	2,974	2,969	2,958	2,973	2,993
Stock change	0	0	0	0	0	0	0	0	0	0	0	7	14	17	11	3	4	4	3	2	3
Pig meat	kg per capita, cwe																				
Pig meat	42.3	42.1	41.0	40.5	41.4	42.1	41.7	41.7	42.2	40.5	40.2	40.4	41.1	41.5	41.7	41.5	41.4	41.3	41.2	41.0	40.9
Pig meat reference	€ per 100 kilograms																				
Pig meat reference	140.2	153.2	170.5	168.0	156.4	139.6	146.0	160.7	142.6	171.0	164.3	163.1	158.2	151.6	149.0	151.4	151.9	152.0	153.0	154.8	155.8
Poultry meat																					
Production	12,154	12,381	12,716	12,805	13,263	13,788	14,494	14,557	15,253	15,492	15,647	16,111	16,331	16,489	16,643	16,801	16,926	17,023	17,125	17,233	17,344
Non-EU imports	796	831	841	791	821	855	882	789	802	814	716	710	708	707	705	704	703	702	702	701	700
Domestic use	11,800	11,922	12,233	12,285	12,719	13,254	13,831	13,817	14,464	14,552	14,714	15,123	15,282	15,423	15,558	15,698	15,810	15,897	15,986	16,080	16,178
Non-EU exports	1,150	1,290	1,324	1,311	1,365	1,388	1,546	1,529	1,590	1,754	1,649	1,722	1,754	1,767	1,786	1,805	1,817	1,827	1,840	1,852	1,864
Stock change	0	0	0	0	0	0	0	0	0	0	1	-1	3	6	4	2	3	2	1	1	1
Poultry meat	kg per capita, cwe																				
Poultry meat	23.7	23.9	24.4	24.5	25.3	26.3	27.4	27.3	28.5	28.6	28.9	29.7	30.0	30.3	30.5	30.8	31.1	31.2	31.4	31.6	31.8
Chicken price	€ per 100 kilograms																				
Chicken price	168.6	186.5	191.2	194.9	191.0	187.5	177.9	181.8	187.3	187.0	181.9	174.1	175.7	173.2	172.2	173.3	174.7	176.6	178.8	181.1	182.9

Table 14. EU-27+UK Sheep and Sheep meat

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Sheep	million head																				
Beginning inventories	89.0	87.4	87.1	86.1	85.0	85.0	86.0	87.0	86.7	85.5	85.4	84.8	87.5	88.8	89.7	90.3	90.6	90.5	90.3	89.8	89.3
Ewes	67.0	65.5	64.9	63.1	62.9	62.4	62.6	62.9	63.2	62.5	62.4	62.1	63.1	64.0	64.6	65.0	65.2	65.2	65.1	64.8	64.5
Sheep slaughter	59.1	58.7	56.1	53.9	53.1	54.0	55.3	55.5	55.9	55.2	55.1	51.7	54.1	55.3	56.3	56.9	57.4	57.6	57.6	57.3	57.0
	kg per head																				
Slaughter weight	15.6	15.7	15.7	16.0	16.2	16.1	15.6	15.7	15.6	16.7	16.2	16.5	16.2	16.2	16.3	16.3	16.3	16.3	16.3	16.3	16.3
Sheep meat																					
Production	920	922	883	866	862	869	862	872	870	923	895	851	879	899	916	927	936	940	939	934	929
Non-EU imports	240	222	190	200	189	202	203	173	174	138	146	156	128	101	76	55	40	29	24	20	16
Domestic use	1,148	1,129	1,049	1,029	1,019	1,051	1,046	1,011	1,016	1,024	1,007	995	987	980	972	962	956	948	942	934	925
Non-EU exports	12	15	25	36	32	20	19	34	28	37	35	20	20	20	20	20	20	20	20	20	20
Stock change	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	kg per capita, cwe																				
Sheep meat	2.30	2.26	2.09	2.05	2.03	2.09	2.07	2.00	2.00	2.02	1.98	1.95	1.94	1.92	1.91	1.89	1.88	1.86	1.85	1.84	1.82
	€ per 100 kilograms																				
Sheep meat price	449.3	468.6	489.2	495.9	506.4	506.7	486.7	483.8	493.5	528.0	579.7	583.0	588.3	583.9	581.5	583.3	583.3	583.6	583.4	585.7	587.8

Table 15. EU-27+UK Dairy Supply and Utilisation

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	thousand head, end of year																				
Dairy cows	23,892	23,337	23,076	23,041	23,257	23,282	23,670	23,293	23,064	22,670	22,575	22,352	22,082	21,891	21,667	21,463	21,243	21,032	20,803	20,592	20,370
Production/cow	6,282	6,515	6,599	6,681	6,872	6,986	7,006	7,100	7,233	7,395	7,456	7,567	7,683	7,765	7,857	7,944	8,034	8,116	8,204	8,287	8,372
Fluid milk	thousand tonnes																				
Cow's milk production	150	152	152	154	160	163	164	165	167	168	168	169	170	170	170	171	171	171	171	171	171
Milk quota	142	142	142	142	142	142	142	142	142	142	146	146	146	146	146	146	146	146	146	146	146
Other milk production	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Fluid consumption	44	45	45	45	46	46	47	47	47	47	47	48	48	48	48	47	47	46	46	45	44
Manufacturing use	104	106	107	108	112	115	116	118	120	120	121	121	122	122	123	124	124	125	126	126	127
Feed use, net exports	66	65	64	64	66	67	68	68	65	67	68	70	70	71	71	71	71	71	71	71	71
Cheese	thousand tonnes																				
Production	9,341	9,391	9,604	9,712	9,938	10,205	10,450	10,608	10,717	10,915	10,991	11,033	11,110	11,163	11,248	11,342	11,422	11,497	11,563	11,626	11,686
Non-EU imports	80	74	77	75	77	61	71	60	59	63	64	66	68	70	70	71	72	73	74	74	75
Domestic use	8,755	8,793	8,913	9,001	9,281	9,534	9,747	9,839	9,944	10,098	10,132	10,273	10,435	10,545	10,620	10,682	10,741	10,799	10,841	10,881	10,926
Non-EU exports	666	672	768	786	721	719	800	828	832	880	924	824	742	685	697	730	752	770	795	819	835
Ending stocks	468	468	468	468	481	494	468	468	468	468	468	470	472	474	475	476	477	477	478	478	479
Butter	thousand tonnes																				
Production	2,073	2,102	2,165	2,124	2,239	2,301	2,393	2,414	2,436	2,507	2,532	2,556	2,577	2,593	2,607	2,626	2,644	2,666	2,676	2,685	2,693
Non-EU imports	32	32	33	21	25	3	3	3	9	5	5	5	5	5	5	5	5	5	5	5	5
Domestic use	2,032	1,981	2,054	2,034	2,100	2,121	2,209	2,257	2,272	2,314	2,321	2,316	2,318	2,320	2,319	2,313	2,307	2,300	2,291	2,281	2,274
Non-EU exports	157	124	124	116	135	172	206	170	157	213	215	293	263	277	292	317	342	370	390	409	424
Ending stocks	50	80	100	95	125	135	115	106	120	105	105	56	56	57	58	58	58	59	58	58	58
Skim powder	thousand tonnes																				
Production	965	1,096	1,107	1,109	1,457	1,533	1,569	1,529	1,532	1,557	1,635	1,723	1,683	1,668	1,681	1,671	1,679	1,707	1,711	1,715	1,715

