

The Scottish Red Meat Industry *Profile*



2021 Edition



Purpose: To highlight the importance of the red meat sector to Scotland's rural economy, while providing the full range of industry stakeholders with key statistics for use in their work. This report also aims to improve transparency in the supply chain, showing where activity takes place from farm to final market outlet, and where changes in cross-border trade policy would place current activity at risk.

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Data Disclaimer:

All deadweight price data used in this report is supplied to QMS by AHDB, who collect the data from reporting abattoirs each week and publish a consolidated set of data, regionally within GB for cattle, and GB-wide for sheep and pigs.

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Introduction

This report draws together a wide range of the latest information on the Scottish red meat sector and encompasses the whole production chain, from producer to final consumer. The data has been collated from a number of sources and, unless otherwise stated, covers the 2020 calendar year.

This report's objective is to provide readers with a single source of key information on the shape and scale of Scotland's red meat industry. This is the 15th edition of this publication and it highlights the continued importance of the red meat sector to Scotland's economy.

While the red meat sector tends to see some level of volatility every year, 2020 was unprecedented. Not only was there the coronavirus pandemic but, at the end of the year, the supply chain had to plan for the significant disruption caused by the UK exiting the EU single market.

Taking the pandemic first, it led to a major rebalancing of demand in the

spring, as orders from domestic food service businesses and export markets plummeted, while orders from domestic retailers surged. In addition, processing companies had to quickly adapt their operations to take account of physical distancing requirements on-site and auction companies had to adjust the way they sold livestock.

As the year progressed, businesses in the supply chain had to cope with ever-changing public health restrictions and the knock-on effect of rule changes. There was a brief surge in orders from the food service sector in late summer, before the second wave of Covid-19 led to a tightening of restrictions on in-person dining in the final quarter. The second wave also led to a number of short-term site closures of processing sites and a subsequent backlog of livestock to process.

Throughout much of the period between March and December, import and export volumes fell below pre-pandemic levels because the catering sector at home and overseas tends to import a higher share of its requirements than the retail sector.

At the same time as the second wave was impacting on demand channels and labour supply, processing companies had to plan for the end of the transition period out of the EU single market.



This meant trying to understand how export journeys were likely to change due to requirements for new certificates, which needed to be signed by an official veterinarian, and customs checks at the EU border.

For some smaller processors, this meant looking for new customers in the home market, as haulage companies realised that transporting small consignments from a number of different suppliers would be overly complex and high-risk. For other processors, EU rules prohibiting the import of fresh mince and meat preparations meant they quickly had to find new outlets in the home market.

Meanwhile, exiting the single market also meant that changes to product labelling rules had to be understood.

To add to the challenge, all of this planning was taking place amid uncertainty as to whether a trade deal would be agreed in time to prevent tariffs from pricing many meat products out of the EU market – with this only being finalised with a week to go.

Nevertheless, while it was a

“While it was a challenging year for the entire red meat supply chain, the net result of the market rebalancing of the spring was an eventual jump higher in livestock prices for cattle and sheep farmers”



“Red meat processing sector sales are estimated to have rebounded in 2020, rising 6.5% after a 5% fall in 2019”

challenging year for the entire red meat supply chain, the net result of the market rebalancing of the spring was an eventual jump in livestock prices for cattle and sheep farmers.

This was particularly welcome in the cattle sector, where in the second half of 2019 and first third of 2020, farmgate prices had slumped well below historic averages. Through May and into June, cattle prices surged as an early barbecue season helped boost demand for higher-value steak cuts, overcoming the initial problem of carcase balance caused by consumers stocking up on mince at the beginning of the pandemic.

In the autumn, prices for finished cattle bounced higher again, trading at around their second or third highest on record and confidence fed into firm prices at store cattle sales.

In the sheep sector, the firm pricing seen for hogs before the brief market collapse at the start of the pandemic returned by the time new season lamb supplies began to build. This upturn

came despite an early marketing profile raising supplies in the summer months, and prices ran 20-30% above year earlier levels for much of the autumn. Meanwhile, confidence boosted store lamb values despite potential headwinds. Indeed, a good lambing in the hill farming areas raised the number of store lambs traded, while uncertainty over the outcome of UK and EU trade talks left store lamb finishers exposed to significant export market risk.

For pig producers, the firm market conditions of the second half of 2019 were carried into 2020, as export demand from China continued to strengthen due to a shortage of meat caused by a severe outbreak of African Swine Fever (ASF). However, the situation deteriorated markedly in the final quarter as backlogs of pigs built on farms at a time of rising feed costs after processing sector outages, while similar challenges in the EU meant that the availability of cheap imports pressured prices in the supply chain.

While Scotland's beef herd continued to contract, leading to worries for the processing sector, which operates on thin margins, there was some evidence of this decline slowing in the second half of the year. In addition, calf registrations increased, supported by greater use of beef genetics in the dairy herd, and

the shift away from continental sires towards native breeds continued.

In the sheep sector, favourable spring weather supported a record lambing rate, but cross-border movement for slaughter appears to have risen again.

In the pig sector, census results signalled further growth in the breeding herd, but the end of the year saw confidence dented by a backlog of slaughter-ready pigs on farms, coupled with surging feed costs.

Although pig meat production at Scottish abattoirs continued to recover from the loss of Broxburn abattoir in 2012, concentration in the pig processing sector remained a risk for producers.

Red meat processing sector sales are estimated to have rebounded in 2020, rising 6.5% after a 5% fall in 2019. Turnover from cattle processing rebounded at a below average pace due to the challenging market conditions of late 2018 and 2019 continuing up until Easter, plus weak by-product markets.

However, sheep and pig processing turnover jumped by an estimated 12-13%. Employment in red meat processing has been relatively stable over the year as a whole, leading to higher spending on wages and salaries, but a number of processing businesses faced considerable recruitment challenges, exacerbated by the exit from the EU.

The Scottish Red Meat Industry: A Snapshot

FARM OUTPUT

 **£849 million**
(-0.5%)

24.4%
of Scottish
agricultural output

 **£299 million**
(+4.6%)

8.6%
of Scottish
agricultural output

 **£139 million**
(+18.7%)

4%
of Scottish
agricultural output

FARM ASSURED PREMIUM AT SCOTTISH AUCTIONS

PRIME CATTLE

22.4%
(27.2% in 2019)

PRIME SHEEP

4.7%
(3.6% in 2019)

ABATTOIR OUTPUT

£815 million
(+6.5%)

BEEF

£572 million
(+7%)

SHEEPMEAT

£116 million
(+13%)

PIGMEAT

£52 million
(+12%)

OFFAL

£57 million
(-0.5%)

SKINS & HIDES

£19 million
(-18.5%)

ABATTOIR SECTOR EMPLOYMENT

3,000 employees

47%
are non-UK
EU nationals
(45% in 2019)

£77 million
of wages
(-0.2%)

RED MEAT PROCESSING SALES

SCOTLAND

23%

REST OF UK

70%

INTERNATIONAL

7%

SELF-SUFFICIENCY

BEEF

154%
(abattoir) / 166% (farm)

SHEEPMEAT

220%
(abattoir) / 536% (farm)

PIGMEAT

36.5%
(abattoir) / 92% (farm)

PER CAPITA CONSUMPTION (CARCASE WEIGHT EQUIVALENT)

BEEF

19.6kg
(UK 16.3kg)

SHEEPMEAT

2.1kg
(UK 4.1kg)

PIGMEAT

16.3kg
(UK 19.8kg)

Prices

Prices for Finished Livestock

Cattle

After falling to an eight-year low of 348.7p/kg in 2019, the annual average steer price rebounded by 5.2% in 2020, reaching 366.8p/kg. This was 0.8% above its average level from 2016-20 but still 9% below the 2013 peak.

After a weak 2019, prime cattle prices remained around the 2019 average through the first quarter of 2020. However, there was a further decline in April as the market rebalancing caused by the pandemic initially had a negative impact.

However, a surge in demand for steaks in May helped improve carcase balance and the market quickly recovered, trading above the annual average from the beginning of June.

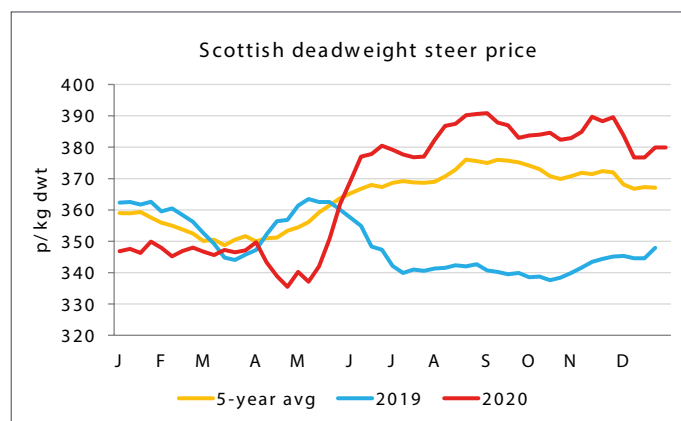
Prices then followed a typical seasonal trend in the second half of 2020, although processing sector outages at the peak Christmas procurement period in November did lead to a backlog of slaughter-ready cattle and softer market prices towards the year-end.

For a second year, steer prices averaged 5.4% higher at Scottish abattoirs than in England & Wales in 2020. For R4L steers, the Scottish premium was 3.2%.

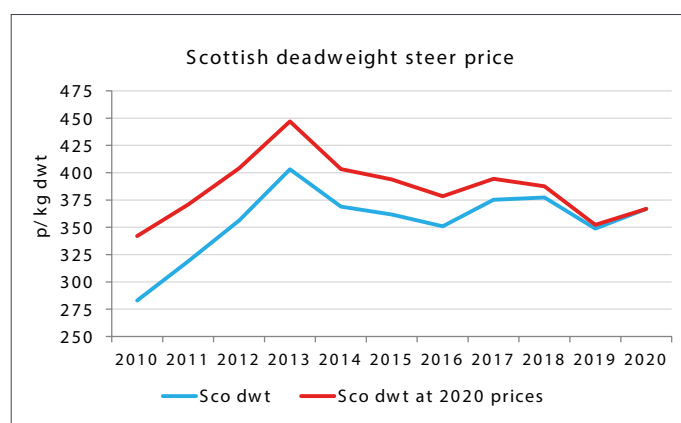
Cull cow prices averaged 260.6p/kg at Scottish abattoirs in 2020, working out at a 7.3% recovery from 2019. However, the Scottish premium over England & Wales narrowed by three percentage points to 10.7%.

Larger differences in average prices between Scotland and England & Wales than for specific grades are a reflection of carcase quality. Carcase weights for specific grades tended to be lower in Scotland, reducing the premia when looked at in terms of carcase value.

With the general level of consumer prices in the UK rising by 1% in 2020, the prime steer price increase at Scottish abattoirs softened to 4.1% in real terms. Despite rebounding, real terms prices still averaged lower than they had between 2011-18¹.



Source: AHDB; QMS calculations



Source: AHDB; ONS (a); QMS calculations

Price comparison for selected grades at Scottish abattoirs in 2020

Grade	Average in 2020		Change from 2019		Comparison with one grade higher for conformation (2020)		Comparison with E&W (2020)	
	p/kg	£ per carcase (UK spec)	p/kg	£ per carcase (UK spec)	p/kg	£ per carcase (UK spec)	p/kg	£ per carcase (UK spec)
R4L steer	371.1	1,353	+4.8%	+3.8%	+1.2%	-6.4%	+3.2%	+2.3%
R4L heifers	371.4	1,229	+5.0%	+4.7%	-0.3%	-9.9%	+3.6%	+2.3%
-U3 young bull	367.2	1,391	+7.4%	+6.4%	0.0%	-4.5%	+3.0%	+2.1%
O+3 cow	275.9	907	+7.2%	n/a	-3.3%	-15.7%	+1.0%	-1.9%

Source: AHDB; QMS analysis

¹ Real prices: Where inflation is greater than zero, the price that the producer receives is lower in real terms than the market (nominal) price. This is because the sales proceeds have less purchasing power in the wider economy due to the rise in the general level of prices. For example, a sales price of 350p/kg in period 2 would be equivalent to a price of 343p/kg in period 1 if the rate of inflation was 2%; with inflation at 4%, a price of 350p/kg in period 2 would be equivalent to just 336.5p/kg in period 1. The inflation rate used is the CPIH – a measure of retail price inflation published by the ONS.

➔ Prices (continued)

Sheep

Prime sheep prices² jumped by 15.6% at Scottish auctions in 2020, averaging 215.9p/kg liveweight. This saw them move 12.6% above their 2016-20 average.

Meanwhile, at price reporting abattoirs in Great Britain, lamb prices averaged 14.5% above their 2019 average, at 475.9p/kg deadweight. They were 10.3% above their five-year average.

After adjusting for inflation, auction prices rose by 14.4% and deadweight prices by 13.3%.

Scottish auction prices for prime sheep averaged 1.7% lower than the average at auctions in England & Wales in 2020, around midway between discounts of 1% in 2018 and 2.5% in 2019.

For cull ewes, Scottish auction prices averaged nearly £11 (18.3%) higher than in 2019, and £10 (16.2%) above the five-year average, at £69.52 per head. For a second year, the discount to ewe values at E&W sales narrowed sharply, to 2.3%, compared with 4.8% in 2019 and 6.6% in 2018.

After following a relatively normal seasonal pattern in 2019, prime lamb prices showed more volatility in 2020.

Hogg prices were unusually high through February and much of March, averaging around 235-245p/kg, placing them around 25-30% above year earlier levels and in line with the peak of the 2019 new season. However, as the pandemic led to a collapse in export demand in late March, prices then crashed by 30% towards 170p/kg in late March, despite auction volumes falling to around 20-25% of normal levels.

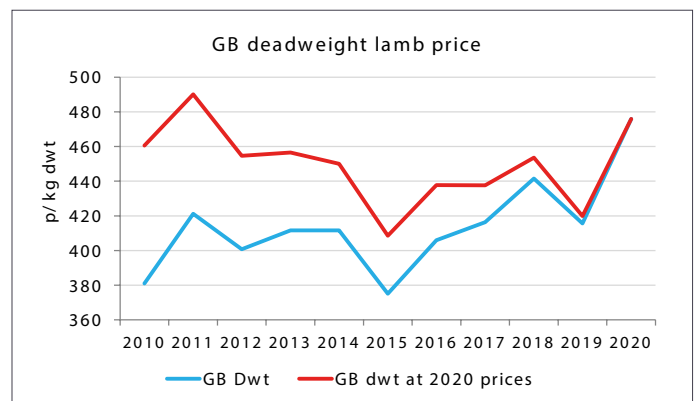
Things began to recover in early April but the market failed to rebound to where it had been in February and early March, clearing around the 215p/kg mark.

New season lamb prices peaked at around 260p/kg in mid-May, supported by demand for the festival at the end of Ramadan, before sliding to around 220-230p/kg through June, placing them slightly above year earlier levels.

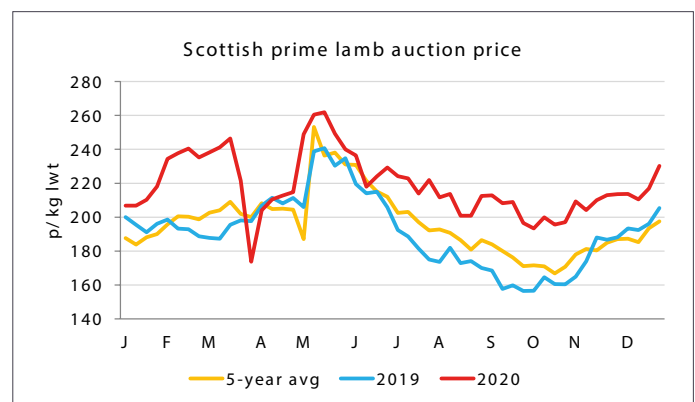
Peak procurement for Eid al-Adha came in late July and it meant prices bounced by around 4% for a week before falling by 5% a week later.

Prices slumped to their annual low point between late September and the end of October, trading around 195p/kg, with prices holding 20-25% above year earlier levels.

Moving into November, the market bounced higher and then held around the 210-215p/kg mark up until Christmas. The trade was more muted in the run up to the festive period than it had been in late 2019, resulting in a softening of the year-on-year margin to around 10%. However, the final week of the year saw prices jump to 230p/kg.



Source: AHDB; QMS calculations



Source: AHDB; ONS (a); QMS calculations

² Annual average prime sheep prices include the new season lamb price from the beginning of May and are based on the Standard Quality Quotation, which is lambs weighing 25.5-45.5kg liveweight at auction sales and 12-21.5kg deadweight at GB abattoirs.

Pigs

The annual average price at GB price reporting abattoirs for standard pigs was 8.4% higher in 2020 than in 2019, at 160.7p/kg deadweight³. However, prices still fell short of the 2013 peak in the GB DAPP, of around 165p/kg. After adjusting for inflation, per kilo prices rose by 7.3% in 2020, but were lower than they had been from 2010-14 and 2017.

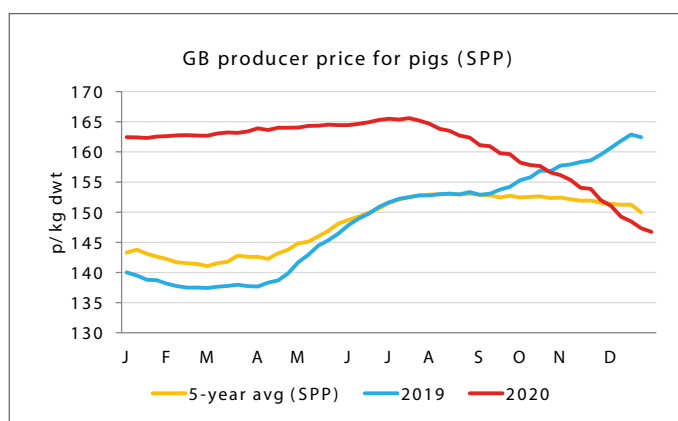
Rising carcase weights in recent years have enabled producers to offset inflationary pressures. A weight rise in 2020 (0.6% at reporting abattoirs) pushed the annual average carcase price 9% higher to £136.18. Compared with the 2013 peak year for per kilo prices, this was a rise of 3.5% in carcase value, while limiting the inflation-adjusted carcase price fall to less than 7%. If only per kilo prices were factored, they were around 3% lower than in 2013, while in real terms they were down more than 12%.

Having risen against the seasonal trend in the final quarter of 2019 on firm global demand following the shortage of protein in China due to an outbreak of African Swine Fever, the pig market carried the momentum into 2020. As a result, prices continued to edge higher in the first quarter of 2021, whereas in most years they would slip back in January and February.

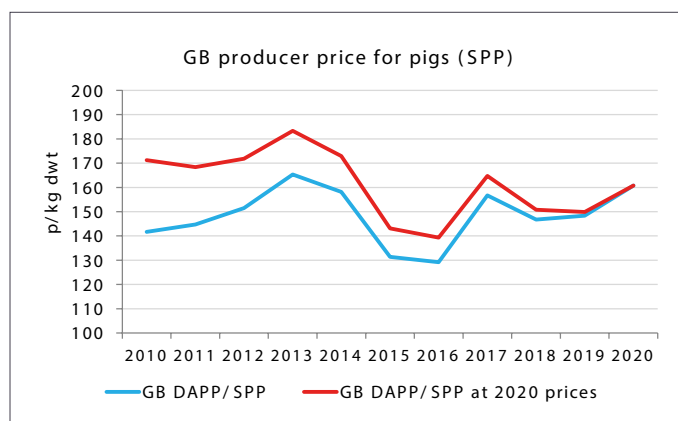
Unlike the beef and lamb markets, the prime pig market showed no sign of volatility at the beginning of the pandemic, and market prices continued to trend slowly higher, reaching a summer peak in mid-July of nearly 166p/kg. This was an increase of around 2% on the beginning of the year, compared with a lift in the five-year average of around 6% over the same period.

After seemingly limited pandemic-related impact in the second quarter of the year, the situation changed drastically in the second half of 2020. Farmgate prices trended steadily lower from mid-July to the year-end, dropping by 11.5%, compared with seasonal falls of 7-9% in 2017 and 2018, and ended the year 8% below late 2019 levels. This reflected a backlog of pigs on farms caused by numerous temporary outages at processing plants.

Delayed processing of fast-growing pigs also meant that more of them exceeded target carcase weight ranges, adding to the downwards pressure on prices while costing more to feed, squeezing producer margins.



Source: AHDB; QMS calculations



Source: AHDB; ONS (a); QMS calculations

“Prices continued to edge higher in the first quarter of 2021, whereas in most years they would slip back in January and February”

³ The 'Standard Pig Price' (SPP) is the price paid by a sample of abattoirs across Great Britain for a 'standard pig'. A standard pig is one that does not receive a premium based on a specific characteristic, such as its breed or being farmed organically. Bonus payments for meeting specific contract targets are also excluded. The only premia included are, therefore, those based on weight and carcase grade.

➔ Prices (continued)

Farm Assurance Premium at Scottish Auctions

Although individual sales may differ, there is a general pattern throughout the year in which the prices paid at Scottish auctions for farm assured cattle and sheep will be higher than for non-farm assured stock.

Each year, the premium for cattle tends to be around 20-30%, with the premium for assured lambs smaller, at around the 5% mark.

These premia are based on realised selling prices; the true premium cannot be observed as it is the difference between the price paid and the price which would have been paid for

the animal had its assurance status been the opposite.

It should also be noted that less than 2% of the prime cattle and less than 7% of the prime sheep sold at Scottish auctions in 2020 were non-assured.

In 2020, the premium for cattle slipped for a second year but remained substantial, while the premium for sheep recovered some of the ground lost in the previous year.

At sheep sales, the premium for assured stock briefly spiked to 13% when the market crashed at the beginning of the pandemic.

Farm assurance premium for prime cattle at Scottish auctions				
	Farm Assured average price (p/kg lwt)	Non-Farm Assured average price (p/kg lwt)	FA premium (p/kg lwt)	FA premium (%)
2018	212.6	161.6	51.1	31.6
2019	200.0	157.3	42.8	27.2
2020	207.9	169.9	38.1	22.4

Source: IAAS; QMS calculations

Farm assurance premium for prime sheep at Scottish auctions ⁴				
	Farm Assured average price (p/kg lwt)	Non-Farm Assured average price (p/kg lwt)	FA premium (p/kg lwt)	FA premium (%)
2018	194.6	182.7	12.0	6.6
2019	187.4	180.8	6.6	3.6
2020	216.7	206.9	9.8	4.7

Source: IAAS; QMS calculations

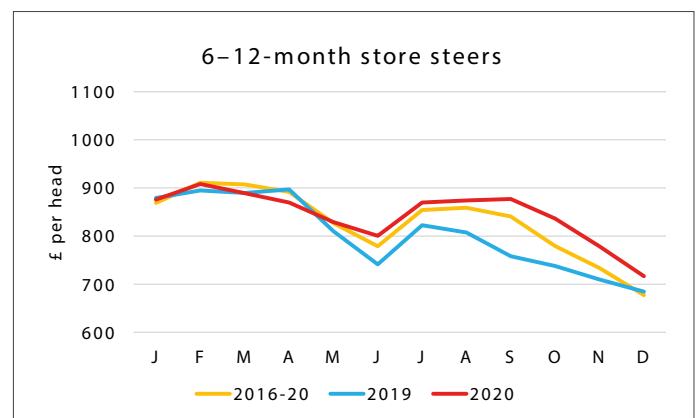
Prices for Livestock for Finishing

Store Cattle

After two years when store cattle prices were significantly higher in spring than autumn, 2020 was a more even picture for young steers in the six to 12-month category, while prices peaked at autumn sales in the 12 to 18-month group.

Having opened the year at slightly higher levels than in 2019, store prices softened in the early weeks of the pandemic, averaging 3-4% lower than a year earlier in April.

However, by the summer, the store trade had firmed significantly as the rise in prices for finished cattle boosted confidence among finishers after a very challenging period. In the main autumn selling period, prices exceeded year earlier levels by around 12-16%, taking them around 4-7% above their five-year average. In the year as a whole,



Source: IAAS/Scottish Government; QMS calculations

⁴ Annual average prime sheep prices include the new season lamb price from the beginning of May and are based on the Standard Quality Quotation which is lambs weighing 25.5-45.5kg liveweight at auction sales

six to 12-month steers averaged £857 per head, while 12 to 18-month steers sold for £975, working out at respective year-on-year increases of 2.6% and 5.3%, returning values to their highest since 2017. These averages worked out at a respective 63.3% and 72.1% of the average carcass price for a finished R4L steer (£1,353). These relative price levels were similar to 2019's 64.1% and 71%.

Store Sheep

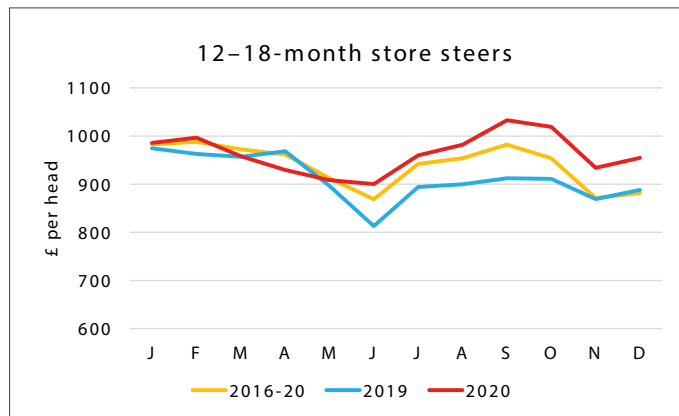
Between the final week of July and December, the total number of store lambs traded exceeded 2019 levels by 7.4%. This amounted to an additional 35,800 lambs, accounting for 51% of the increased lamb crop reported in the June census.

Regional analysis of the census results highlighted significant increases in lamb numbers in Tayside (including Perthshire) and Highland regions, helping to explain the rise in store volumes.

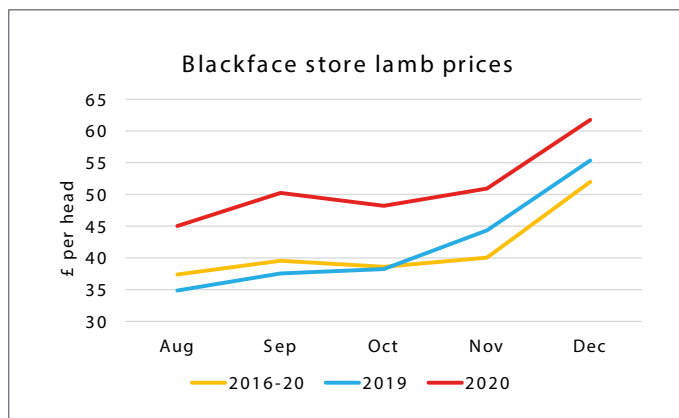
Despite more lambs being sold through the store ring, and a higher proportion of sales taking place in August and September (70.6% in the ten weeks to October 3, up from 67.1% in the corresponding period of 2019), prices followed the finished lamb market higher from the outset, reflecting a general level of confidence in the sheep sector.

Weekly average selling prices for Blackface lambs ranged from £42-54.50 in the 10 weeks to early October, with Suffolk stores ranging from £67-£73.50. A year earlier the respective price ranges had been £33-43 and £52-64.

In the next 11 weeks to mid-December, price ranges were £45.50-63 for Blackface and £60-80 for Suffolks, compared with a respective £36-56 and £53-71 in 2019.



Source: IAAS/Scottish Government; QMS calculations



Source: IAAS/Scottish Government; QMS calculations



“The total number of store lambs traded exceeded 2019 levels by 7.4%”

Exchange Rate Movements

Shifts in exchange rates affect the competitiveness of Scotland's red meat in the home market and abroad, and can lead to changes in farmgate and wholesale prices. Hedging, forward-buying and contract-pricing can slow the pace at which these changes pass through the supply chain. Exchange rate movements also affect the cost of production for farmers and meat processors.

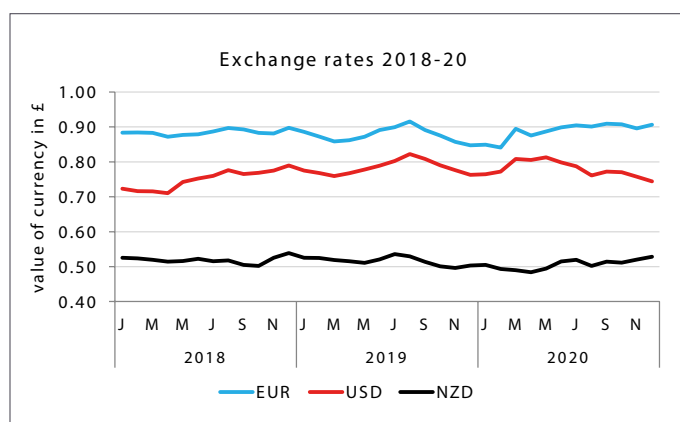
A weakening of sterling tends to benefit exporters because it can make an unchanged euro price convert into a higher sterling revenue. This can allow an exporter to reduce their euro price to gain market share without having to accept a lower sterling price in return. On the import side, a weaker sterling is likely to raise the relative price of imports, underpinning demand for home-produced product in price sensitive markets – most likely in food manufacturing and food service. However, it would tend to raise input costs.

Sterling initially made a very strong start to 2020, with greater political stability following the December 2019 General Election boosting the economic and investment outlook in the UK. However, this quickly changed, and after considerable volatility at the start of the pandemic, the value of sterling found a new balance in the second half of the year, but at a significantly lower level, with a euro worth 90-91p, compared with 84p in February.

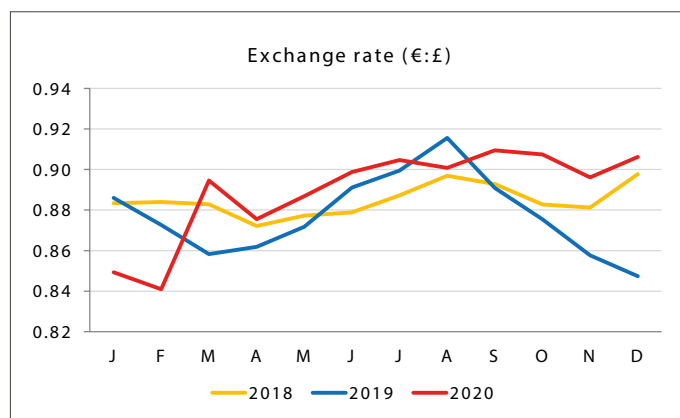
The annual average value of sterling weakened by 1.3% relative to the euro compared with 2019, with a euro worth 89.0p. By contrast, the annual average value of sterling relative to the New Zealand dollar (NZD) firmed by 1.9%, with the NZD buying 50.6p in 2020.

After falling 4.5% in 2019, there was a slight 0.5% recovery in the average value of sterling against the US dollar in 2020, potentially easing some of the pressure on the cost of imports valued in USD. A dollar was equivalent to 78p.

However, the US dollar trended sharply lower in the final quarter as the presidential election result raised the prospect of a considerable economic stimulus package, and sterling was around 8% higher in December than it had been in Q2.



Source: Bank of England; European Central Bank; FRED



Source: European Central Bank

“The annual average value of sterling weakened by 1.3% relative to the euro compared with 2019”

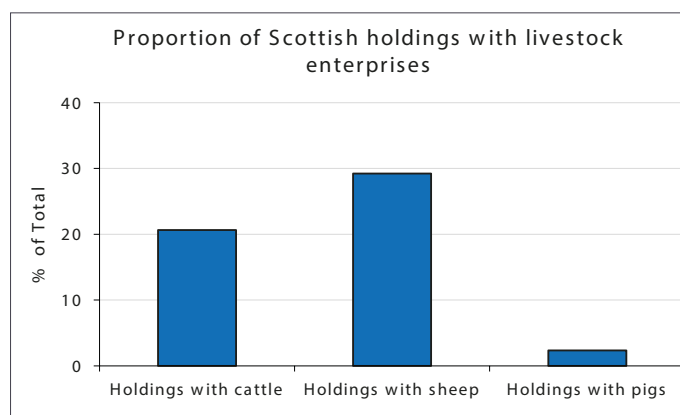


Livestock Production

In June 2020, there were 51,574 agricultural holdings in Scotland. This marks a third consecutive increase, rising 282 (0.5%) on 2019, though numbers remained around 0.5% below June 2016 levels. Whereas the number of holdings with sheep slipped back after four years of expansion (-0.6%) and there was a fourth year of decline in the number with cattle (-3.1%), the number with pigs rose by 2.9%.

Sheep production remained the most common form of livestock-keeping in Scotland in 2020, taking place on 29.2% of holdings. Cattle production took place on 20.6% of holdings while there were pigs on only 2.3% of Scottish holdings.

Grass and rough grazing accounted for 80.2% of Scotland's agricultural area in 2020, and 89.5% of the utilised agricultural area, with an area of grass and rough grazing present on 95% of Scotland's agricultural holdings.



Source: Scottish Government; QMS calculations

Livestock Production and Greenhouse Gas Emissions

With 1990 being a key point of historical comparison for greenhouse gas emissions, we can use the June census as a baseline against which we can compare current cattle and sheep numbers.

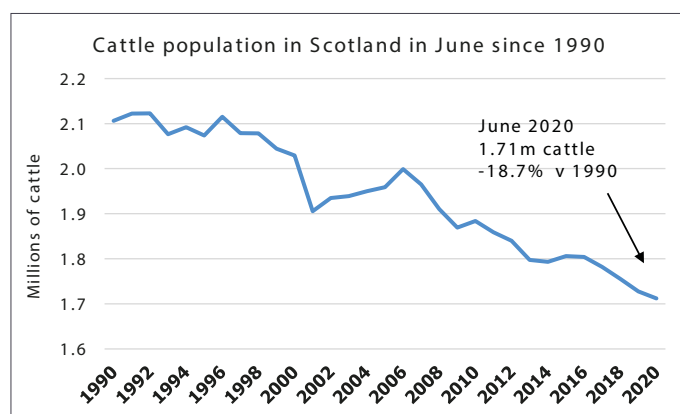
The cattle population in Scotland has steadily declined since 1990, although the FMD outbreak of 2001 did mean a sharp fall in numbers followed by a rebound between 2002 and 2006. By 2020, numbers had fallen nearly 19% below 1990 levels, indicative of a significant decline in greenhouse gas emissions.

Having been around its record high in 1990 (the peak was in 1991, in a series dating back to 1866), Scotland's sheep population was almost a third smaller than this in 2020. However, unlike the near linear downwards trend in cattle numbers, effectively all of the decline in sheep took place in the opening decade of the 21st century.

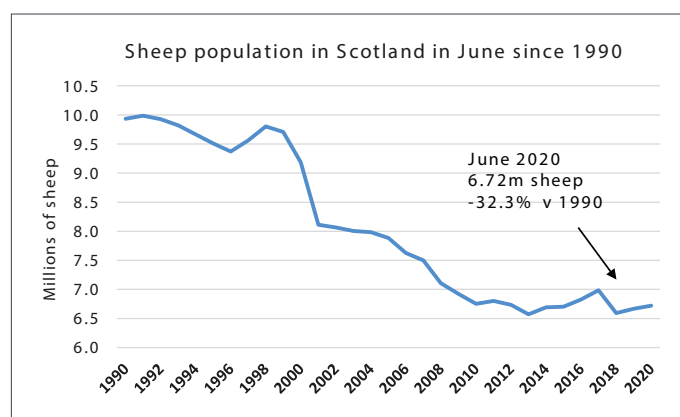
It fell sharply after the FMD outbreak and again after the shift in agricultural subsidies from support payments per animal to support based on the area of land farmed, with the latter resulting in declines in the more remote and less productive regions of Scotland.

Over the past decade, higher farmgate prices and efficiency gains have helped support the economic sustainability of continuing sheep production.

In the annual QMS Enterprise Profitability Reports from 2017-19, sheep production systems, on average, made a small net margin before factoring in area-based subsidy payments, whereas cattle production was characterised by significant losses.



Source: Defra; QMS calculations



Source: Defra; QMS calculations

🔗 Livestock Production (continued)

Cattle Production – National and Regional

Scotland's beef herd fell by another 0.4% on a year earlier in December 2020, to 398,400 head. However, the rate of decline did slow compared with an average annual fall of 1.4% since 2010. Numbers were down 6% on 2015 and by 13% on 2010.

The drop between June and December was the least since 2016, working out at 3.7% after three years at 4-4.1%.

Scotland's dairy herd contracted by 0.6%, dropping to a seven-year low of 173,900 head. In contrast to beef cows, numbers were 3% higher than in 2010, though 2.5% down on 2015.

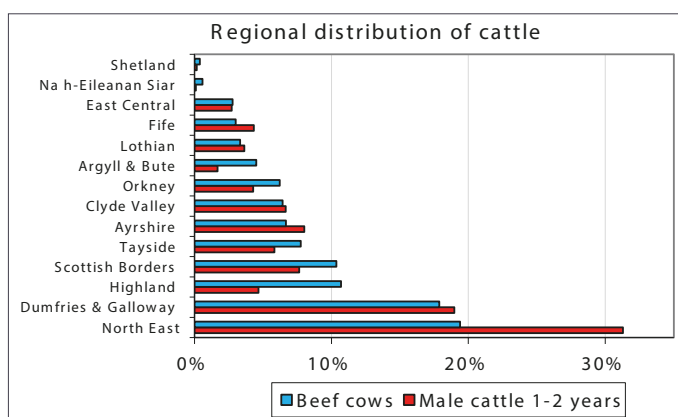
Beef cows accounted for 69.8% of the breeding herd in December 2020. This was a third year at just under 70%, following four years at 70.3-70.8%. In 2010, it had been 73.3%.

Although the total cattle population declined for a fifth year, it was by less than 0.1%, slipping just below the 1.632 million mark.

With livestock production heavily influenced by land type, the cattle population is skewed towards producing beef calves in Scotland's island and upland areas, such as Argyll & Bute and Orkney.

Meanwhile, dairy production and finishing operations are common in Ayrshire and Dumfries & Galloway, while Fife, Lothian and the North East are geared towards cattle finishing. In Tayside and the Borders, there is more of a mix, reflecting considerable variation in land between coastal and inland areas. In June 2020, 78.7% of Scotland's beef cows were in Less Favoured Areas, compared with 69.2% of dairy cows.

Highlighting the flow of store cattle into Aberdeenshire for finishing, the North East had 31.3% of Scotland's male cattle between one and two years of age in June 2020, but only 19.4% of the beef herd.



Source: Scottish Government; QMS calculations

Scottish cattle population in December			
	2010	2019	2020
	'000 head		
Beef breeding herd	459.7	400.1	398.4
Beef cow share of total cow herd	73.3%	69.7%	69.8%
Dairy breeding herd	167.8	173.9	172.8
Total cattle herd	1,805.1	1,632.5	1,631.7
Breeding herd comprises female cattle over two years of age with offspring			

Source: Scottish Government; QMS calculations

“The cattle population is skewed towards producing beef calves in Scotland’s island and upland areas”

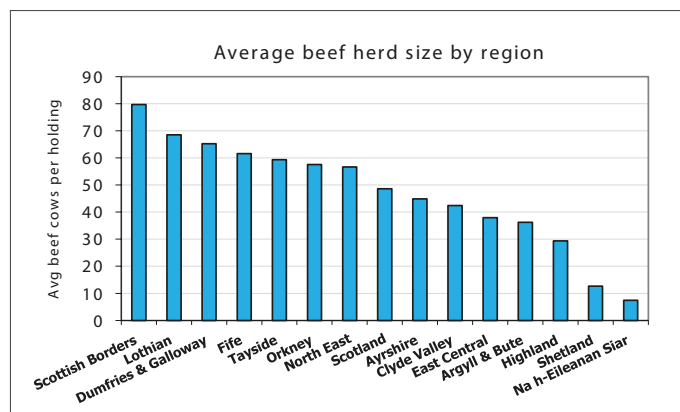
Herd Size

The average number of beef cows on Scottish holdings increased to 48.6 in June 2020, following three years at 48.1. Compared with an average lift of 1.1%, there were stronger increases of 2-4% in the Borders, Orkney, Tayside, Ayrshire, Argyll & Bute, Shetland and Eilean Siar. By contrast, average herd sizes fell in Dumfries & Galloway, East Central and Lothian.

Average herd sizes vary considerably across the country, with the prominence of crofting in the Highlands and Islands apparent in the fact that the average holding in Eilean Siar had only 7.5 cows in 2020 and Shetland was little higher at 12.6.

Scotland has a number of large cattle enterprises. The 14.2% of holdings which had at least 100 cows in June 2020 were home to just over half of the country's beef cows, averaging 173.3 each. Holdings with at least 100 cows captured a marginally increased share of the beef herd, going from 50.0% in June 2019 to 50.4% in June 2020.

Meanwhile, 18.3% of the holdings with cattle under a year



Source: Scottish Government; QMS calculations

old had at least 100 of them (average of 182) and there was a stronger increase in concentration in the year to June 2020, capturing 57.6% of the national total, up from 56.3% in 2019.

Calf Registrations

After edging up a fraction in 2019, the number of calves registered by Scottish farms rose by a more significant 0.9% in 2020 to reach 557,500 head. However, this still left them trailing their recent highs of 2015-17 by around 2%; compared with 2010, they were down 2.6%.

Beef sired registrations drove the recovery for a second year, rising 1.4% on the back of a 0.9% lift in 2019, reaching 466,900 head. This meant that numbers exceeded the 2015-17 average, falling 0.6% short of their recent peak in 2017 and being 1.1% lower than in 2010.

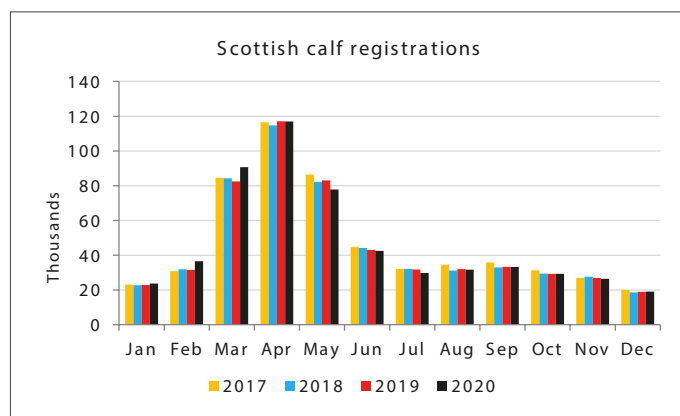
By contrast, dairy-sired registrations declined for the seventh time in eight years, slipping 1.7% to 90,800 head. This means they fell nearly 17% below their 2015 peak, while they were down more than 6.5% from 2017 and 9% on 2010 levels.

These figures highlight the continuing structural shift in cattle production in Scotland, with dairy producers making greater use of sexed semen for female replacements and beef genetics to produce higher quality male calves. Beef-sired registrations reached 83.7% of total registrations in 2020, working out at the highest since 2008.

With the share of beef cows in the total cattle breeding herd only edging up, the gap between the proportion of cows and calves being beef-sired continued to widen, approaching 14 percentage points compared with 11 points in 2010.

A regional breakdown of registrations in 2020 shows continuing decline in the North East but increases elsewhere.

However, the decline in beef-sired registrations in the North East slowed to 0.5% from more than 2% in 2019. There were small increases in beef-sired calves of 0.3% in the South East and 0.9% in the North West, while the South West saw a jump of 3.1%. As a result, the South West increased its



Source: BCMS; QMS calculations

share of beef-sired registrations to 45.6%, and to 51.5% of all registrations. The South West's share of dairy registrations fell slightly to 81.6%.

With the majority of prime cattle being slaughtered between around 18 months and just over two years old, the sharp fall in calf registrations in 2018 pointed towards a tightening of supply beginning in the autumn of 2019, when spring-2018 born calves began to reach the market, continuing into 2020.

However, slaughter at earlier ages in 2020 appears to have delayed the squeeze in availability until 2021.

Spring calving remained predominant in Scotland's beef herd in 2020, with 56.6% of beef registrations taking place between March and May, compared with 23.5% of dairy registrations. After a significant shift from around 52%

➔ Livestock Production (continued)

in the years up to 2006 to 55% in 2009, the share of beef registrations in the spring has edged up more gradually, averaging 55.9% between 2011-15 and 56.4% from 2016-20.

In addition to the change in structure of calf registrations away from dairy sires towards beef sires, the breed structure has been showing considerable change in recent years. Angus calvings have been rising strongly year after year, overtaking Limousin as the most popular breed in 2020. Since 2015, their share of registrations has climbed by five percentage points, while the share across Limousin,

Charolais and Simmental has fallen by nearly seven points to 43.9% in 2020.

As well as Angus, other breeds which have seen a surge in popularity in recent years include British Blue, Hereford, Luing, Salers, Shorthorn and Stabiliser. Collectively, their registrations increased by more than 37% between 2015 and 2020, reaching 15.7% of the total compared with 11.2% in 2015. However, their share was unchanged from 2019 as registrations of Hereford and Shorthorn only edged higher, while British Blue numbers fell almost 4%.

Beef-sired calf registrations and herd structure in Scotland					
	2010-12 avg	2018	2019	2020	Change in 2020 (% year-on-year)
Number of calves registered	462,650	456,350	460,350	466,900	+1.4
Share of total registrations (%)	81.4	82.6	83.3	83.7	+0.5
Beef cow share of total breeding herd (avg of June and December) (%)	73.5	70.3	70.0	70.1	+0.1

Source: BCMS; Scottish Government; QMS calculations

Calf registrations in Scotland					
Breed	2018 (% of total)	2019 (% of total)	2020 (% of total)	% change v 2019	% change v 2015
Angus	17.7%	19.0%	20.7%	+9.8%	+28.7
Limousin	20.6%	19.9%	19.3%	-2.2%	-15.2
Black & White Dairy Breeds	15.5%	14.8%	14.3%	-2.1%	-20.4
Charolais	13.8%	13.5%	13.0%	-2.8%	-17.6
Simmental	12.6%	12.0%	11.6%	-2.2%	-13.2
Other	19.8%	20.9%	21.1%	+2.1%	+29.1
Total registrations (head)	552,100	552,700	557,700	+0.9%	-2.2

Source: BCMS; QMS calculations

Sheep Production

Since 2015, the Scottish Government has sourced its sheep figures in the December Survey of Agriculture from the more comprehensive Sheep and Goat Inventory. However, this has resulted in greater volatility from year to year in estimates of 'other sheep' aged over 12 months and 'lambs not put to ram' due to the ways the questions have been asked, so some caution is required when comparing against previous years. However, the figures have now been more consistent since 2018.

Adding together the number of ewes kept for breeding to the number of lambs put to the tup indicates some breeding flock expansion in autumn 2020. Combining the 0.8% increase in ewes kept for breeding and the 14% surge in lambs put to the tup gives an overall uplift of 1.4% compared with the

previous breeding season. Subtracting the female breeding flock from the total number of sheep estimated to have been on Scottish holdings in December 2020 points to a reversal of the previous year's increase in other sheep, the majority of which will have been hoggs for slaughter, with numbers falling by 2.7%.

It should be noted that this pool of sheep will include lambs which have been retained for future breeding but not put to the tup in their first autumn, as well as less productive ewes being fattened for slaughter.

The declines here reflect the early marketing of an increased lamb crop, plus the impact of firm market conditions and confidence on retention rates, and the number of lambs put to the tup compared with autumn 2019.

Scottish sheep flock in December				
	2018	2019	2020	Change in 2020 v 2019
	million head			
Breeding females for the 2021/22 season	2.880	2.895	2.936	+1.4%
Other sheep	2.074	2.133	2.075	-2.7%
Breeding females for 2021/22 defined as ewes kept for breeding and lambs put to ram				

Source: Scottish Government; QMS calculations

Regional Variation in Sheep Production

Five regions accounted for 63% of Scotland's breeding ewe flock and 65% of the lambs in June 2020. The Borders continued to have the largest ewe flock, although its share fell to 15.9% from 16.2% as numbers contracted by 3.5% in 2020.

Ewe numbers also fell in Dumfries & Galloway and Highland but they fell at below average rates, raising their share of the national flock by a fraction to 14.9% and 13.4%.

Meanwhile, the North East had the second largest fall in ewes, 3.4%, reducing its share from 9.6% to 9.4%. There was a 1.4% expansion in Tayside, so it leapfrogged the North East into fourth place, taking 9.6% of the total flock, up from 9.4% in 2019.

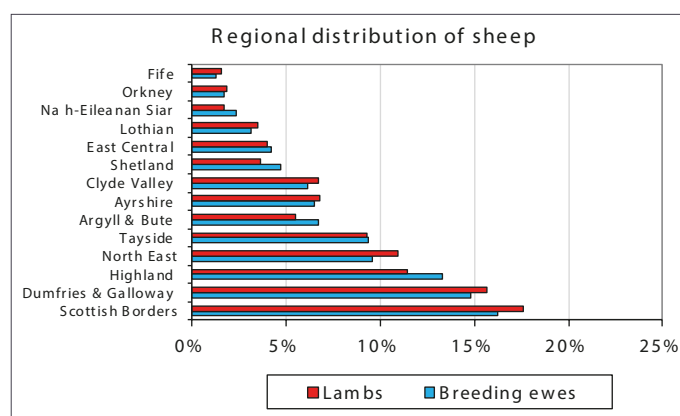
Scotland has significant regional variation in lambing performance, generally reflective of land and climate, but also farming structure. As a result, above average lambing rates in the Borders, Dumfries & Galloway and the North East meant that each had a higher share of Scotland's lamb population than for ewes, at 17.4%, 15.7% and 10.6% respectively, while Tayside had the same share and Highland had a smaller 11.5% of the national lamb crop.

In 2020, the national lambing rate reached its highest of the 21st century, jumping to 130.6%, up almost four percentage points on 2019 and 2.3 points higher than the previous high reached in 2017. The lambing rate has been trending higher over time, suggesting improved productivity, with the five-year average for 2016-20 rising to 127.1% from 123.9% in 2011-15, and 120% in 2001-5.

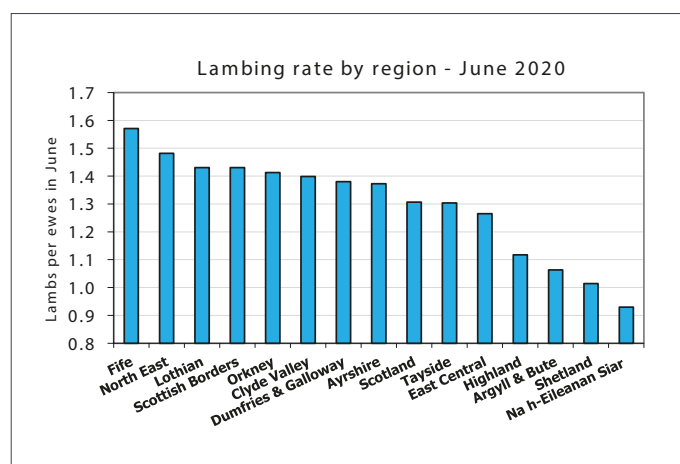
Fife continued to lead the country in lambing performance, rising to 157% from 153% in 2019. A rise in ewe numbers of nearly 6% meant its lamb crop increased by 8.5% (though it was still the smallest across the regions for which figures are reported).

In the North East, while there was a near four-point increase in lambing rate to 148%, it was the one region to have a smaller lamb crop than in 2019, as ewe numbers fell by almost 3.5%.

The Borders showed a strong six-point lift in lambing rate to a well above average 143%, but a 3.5% reduction in ewe numbers meant that this was only enough to raise the size of the Borders lamb crop 0.6%. Tayside had the second largest increase in lamb crop, of 5.6%, and its lambing rate rose five points, catching up with the national average.



Source: Scottish Government; QMS calculations



Source: Scottish Government; QMS calculations

“In 2020, the national lambing rate reached its highest of the 21st century” ➔

🔗 Livestock Production (continued)

Flock Size

There was a marginal fall in the average ewe flock size across Scotland in the year to June 2020, from 201.4 to 200.9, with the number of holdings with ewes and ewe numbers both showing small decreases of 0.9% and 1.2%, respectively.

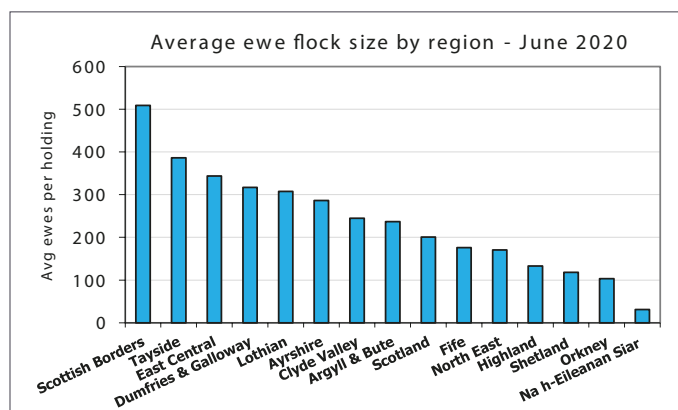
Of the overall 1.2% and 30,000 head decline in ewe numbers across Scotland in 2020, 72% came from reductions in the largest holdings with more than 1,000 ewes. The number of these holdings dipped from 487 to 483 and ewe numbers contracted by 2.9%, averaging 1,482 head each compared with 1,514 in 2019. Back in June 2017, there had been 517 of these holdings and they were collectively home to 10% more ewes, averaging 1,526 each.

These largest holdings took a 28.2% share of the national flock in 2020, down from 28.7% in 2019 and 29.7% in 2017. The vast majority of these large holdings were in southern Scotland, with 47% in the South East (including Perthshire), 37% in the South West, 10% in the North West, and 6% in the North East.

While the Borders continued to have by far the largest average flock size, it declined by nearly 3% on 2019, slipping to 509 from 523. By contrast, Fife, Lothian and Tayside also had increases of around 4%. In the North West, where flock sizes are at their lowest, there were small increases in each of the sub-regions in 2020, up 0.4% in Highland and by just over 1% elsewhere.

Lambing performance and flock size do not correlate perfectly, with Fife, the North East and Orkney all below average for flock size, having been ranked one, two and six for lambing.

This is likely to, in part, reflect large hill and upland breeding sheep flocks in areas such as the Borders and Perthshire, where ground and climate may not be conducive to high lambing rates. In regions such as Fife and the North East, sheep enterprises may be a smaller part of the overall mixed farming business.



Source: Scottish Government; QMS calculations

Pig Production

Scotland's pig breeding herd numbers tend to be volatile from year to year both in the June and December census, with annual changes averaging around 11% in the December reports and nearly 6.5% in the June reports over the past decade. Averaging sow numbers from the two surveys and comparing from year to year gives an average variation of around 7%.

Last year was no exception, with a small reduction of 0.7% in the June survey being followed with a year-on-year surge of 14% in the December report.

Meanwhile, the combined total of breeding sows and pregnant gilts across both surveys was up 6.3% on 2019 at 37,500 head. This was the highest since 2011 and a similar

proportion above the average breeding herd between 2009 and 2011 – the years before the closure of Broxburn abattoir.

The number of gilts above 50kg to be used for future breeding reported is also volatile between years. In 2020, numbers were down around 11% for a second consecutive year, averaging just below 4,200 head. However, there was little difference between the total reported in the June and December surveys, suggesting that this decline was not driven by the challenging market conditions of late 2020.

Prime pig numbers reported in the survey also tend to show significant volatility, both between years and between the two surveys within the same year. Following three years of

Scottish pig population – average of June and December surveys			
	2009-11 avg	2019	2020
Breeding pig herd	35,200	35,300	37,500
Prime pigs	354,100	273,500	303,300
Breeding herd defined as breeding sows and pregnant gilts Prime pigs excludes barren sows, boars and gilts over 50kg to be used for future breeding			

Source: Scottish Government; QMS calculations

decline in both June and December surveys, averaging around the 4% mark in each year, there was a rebound in both in 2020, averaging 11% higher.

While 2020 was only the second year since the closure of Broxburn abattoir in 2012 that the combined total exceeded 300,000 head, numbers still trailed the 2009-11 average by

more than 14%, likely reflecting the cross-border movement of young pigs for finishing in England due to limited slaughtering capacity in Scotland.

In addition, although the ratio of prime pigs to sows rebounded from an average of 7.7 in 2019 to 8.2 in 2020, it remained well below the 2009-11 average of 10.1.

Regional Spread of Pig Production in Scotland

A regional breakdown of the June census highlights the heavy concentration of pig production in eastern Scotland, with the North East accounting for 59.3% of the sow herd and the South East, which includes Angus, Lothian and the Scottish Borders, a further 29.7% of the total. In western Scotland, only Highland and Dumfries & Galloway had more than 1,000 sows.

There was a slight rebalancing between June 2019 and June 2020, with the North East share down two percentage points, with two-thirds of this going to the South East and the other third the South West.

There was also a slight rebalancing in fattening pigs, with the share farmed in the North East dipping to 60.5% from 61.8%, while it edged up 0.2 percentage points to 29% in the South East, by 0.7 points to 6.2% in the South West, and by 0.4 points to 4.2% in the North West.

Pig production is also concentrated into a relatively small number of herds, with 57 of the 445 holdings with sows having

at least 100 of them and being home to 95% of the herd. Breaking this down further, 46 holdings had at least 250 sows and they housed 90.4% of the national total. These large holdings kept an average of 706 sows, compared with a national average of only 81.

North East Scotland was home to 29 (31 in 2019) of the 46 holdings, with at least 250 sows, while there were a further 12 in the South East (11 in 2019). Large holdings in the North East averaged 698 sows apiece, while the large South East holdings had an average of 791 each.

In June 2020 there were 108 Scottish holdings with at least 100 fattening pigs (105 in 2019) and they accounted for 98% of the national total. A total of 56 of these holdings were in the North East (57 in 2019) and they averaged 2,101 each, while there were 37 in the South East (36 in 2019), averaging 1,506 each. In the South West, there were 11, averaging 997 each. The four in the North West averaged 1,840 each.

Number of breeding sows per holding					
	North West	North East	South East	South West	Scotland
2019	9.4	238.5	95.9	22.6	82.2
2020	9.2	239.2	109.8	22.0	80.7

Source: Scottish Government; QMS calculations

➔ Livestock Production (continued)

Farming Output

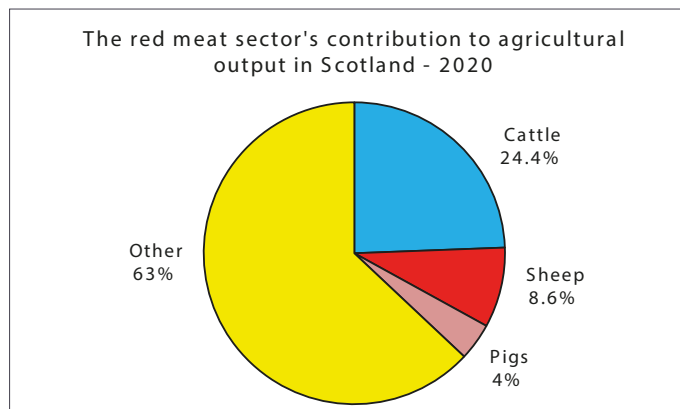
In 2020, the Scottish Government estimates that total agricultural output rose by 1.6% to £3.48 billion. This was the fourth consecutive annual increase and output, including direct subsidy payments for cattle and sheep, was 11.5% above its 2015-19 average.

At £849 million, the beef sector accounted for 24.4% of the total, with sheep contributing a further £299 million, giving it an 8.6% share, and pig farming output of £139 million working out at 4%. Just over 75% of cattle and sheep output came from sales of finished livestock, with 6% from cross-border sales of store cattle and sheep, and the rest being the asset value from adding replacement breeding stock to herds and flocks.

Wool sales contributed less than 0.5% of sheep output – well below the typical 2-3% of output it had contributed between the mid-90s and 2017.

While cattle output is estimated to have fallen slightly in 2020, it held above its five-year average. However, its share of agricultural output fell by 0.5 percentage points on the year, falling further behind its average of nearly 27% over the past decade.

In sheep production, output rose nearly 5% on 2019 and by 15% above its five-year average, though its share of total agricultural output was only slightly above historical averages, and remained well below the 13-15% seen back in the 1990s.



Source: Scottish Government; QMS calculations

Pig farming output is estimated to have surged in value in recent years, with the 2020 estimate being around 60% higher than the average from 2011-16, reflecting rising sow productivity and an upwards trend in carcase weights at slaughter.

Its growth has seen its share of total agricultural output climb and it reached 4% for the first time in 2020 since 1997.

Cattle and sheep continued to be of greater significance to Scottish agriculture than on average across the UK and EU.

Contribution to Scottish agricultural output						
	2010-12 avg		2019		2020	
	£m	%	£m	%	£m	%
Cattle	733	25.9	853	24.9	849	24.4
Sheep	244	8.7	286	8.3	299	8.6
Pigs	82	2.9	117	3.4	139	4.0

Source: Scottish Government; QMS calculations

Contribution to agricultural output in 2020 ⁵				
	Scotland	UK	Ireland	EU27
Cattle	24.4	14.4	27.1	6.7
Sheep	8.6	6.3	3.5	1.0
Pigs	4.0	5.7	6.8	9.6

Source: Eurostat; Scottish Government; QMS calculations

⁵ UK, Ireland and EU sourced from Eurostat – real output in euro, production value at basic price

Producer Input Costs

In 2020, UK agricultural input prices, as reported by Defra, edged lower after three years of increases. However, average input prices were still the second highest on record, with inputs more expensive in 2018, 2019 and 2020 than at their previous high in 2013.

On average, input costs generally lacked direction in the first half of the year before trending slightly higher in the second half, ending the year 3.9% higher than in late 2019. Indeed, the fall in the annual average reflects the downwards trend in the second half of 2019, which meant a higher base level of costs by around 2% to compare against in the first half of 2020.

Prices for different types of inputs showed more divergence in 2020, with raw materials linked to energy markets and the global oil price tending to slide, mostly due to the sharp fall in the spring months as the pandemic reduced global economic activity.

By contrast, the cost of machinery, equipment and vehicles were relatively flat and although straight feed prices increased significantly, compound feed prices were only slightly higher than in 2019. Within plant protection products, fungicides surged, while insecticides and herbicides were slightly cheaper.

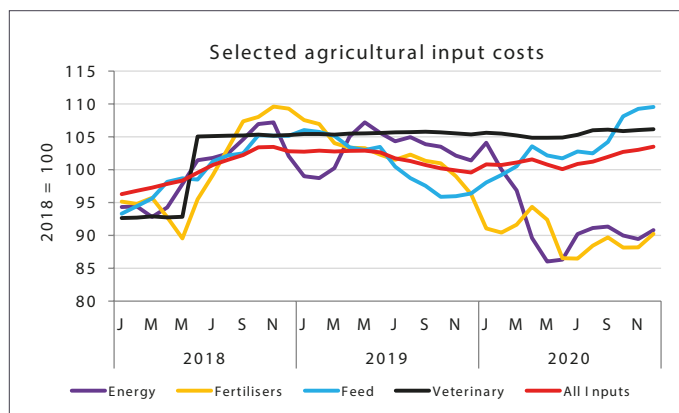
In the energy segment, electricity costs were marginally higher than in 2019, but this reflected low prices in the first quarter of 2019, with electricity costs proving relatively stable in the first three quarters of 2020 before softening at the end of the year.

Meanwhile, fuel prices more closely shadowed the global oil market. The cost of heating fuel fell in the spring and failed to rebound in the autumn, while motor fuel prices showed some demand-driven recovery in the second half. Heating fuel averaged 4.6% lower than in 2019, with motor fuel down by more than 14%.

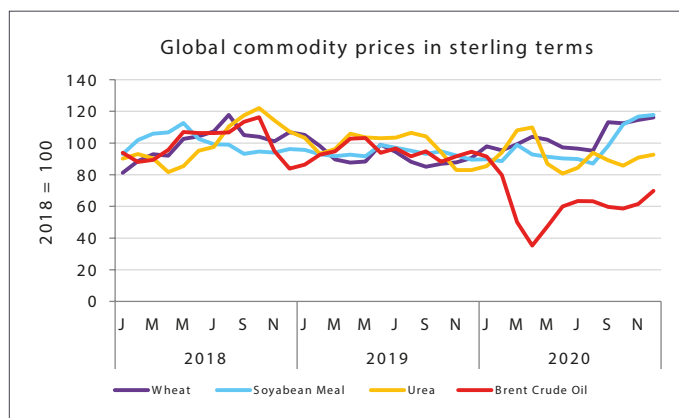
On a global level, fertiliser prices generally mirrored the oil market in 2020 – though they did weaken before the pandemic hit the UK and briefly rebounded in March and April.

Compound fertiliser prices fell at a slightly faster pace than straight fertilisers, while phosphorus-based fertilisers fell more significantly than nitrogen or potassium-based ones.

After falling in 2019, feed prices trended higher in 2020 due to a poor global harvest and firm demand, with a more significant uptick in the final quarter taking costs beyond their previous highs of late 2018 and early 2019. However, prices did remain



Source: Defra; indices re-based to 2018 by QMS



Source: FRED; IMF; indices re-based to 2018 by QMS

around 9% below their early 2013 peak. Feed wheat and soyameal showed particularly sharp spikes in late 2020 and ended the year around a third more expensive than in late 2019.

Feed barley rose by less, but still ended the year around 15% costlier than in December 2019. Rising prices for straights were reflected in compound feeds, with their prices going up as the year progressed. However, slower pass-through meant that prices for cattle, sheep and pig feed were 4-9% higher in December 2020 than a year earlier, and failed to return to the levels seen at the beginning of 2019.

Index of producer input costs				
	2018	2019	2020	Annual change 2019:2020
	2015=100			%
Energy	119.2	122.8	109.9	-10.5
Fertilisers	100.8	103.2	90.5	-12.3
Feedstuffs	113.2	114.3	117.1	+2.5
Veterinary	109.1	115.1	115.1	-0.0
Total Inputs	110.9	112.7	112.6	-0.2

Source: Defra; QMS calculations

Retail Prices

Consumer prices index (CPIH⁶)

Consumer price index and annual inflation rate for selected categories (CPIH)				
	Change from previous year			Index in 2020 (2015 = 100)
	2018	2019	2020	
All prices	+2.3	+1.7	+1.0	108.9
Food	+1.8	+1.1	+0.6	103.6
Meat	+1.0	-0.2	+1.7	100.1
Beef and veal	-0.7	-1.8	+0.6	95.7
Lamb and goat	+8.7	+1.1	-2.4	110.0
Pork	-0.3	-0.8	+4.5	99.4
Poultry	-0.4	-2.0	-1.2	89.5
Edible offal	+0.7	-1.5	+2.7	102.3
Dried, salted or smoked meat	+0.4	+0.6	+4.2	101.9
Fish	+3.8	+1.7	+1.3	113.6
Milk, cheese and eggs	+2.4	+0.2	-0.3	100.7
Ready-made meals	+1.6	+1.4	+1.1	106.9
Restaurants, cafes and nightclubs	+2.6	+2.4	+1.0	111.7
Fast food and takeaway food	+3.5	+3.6	+4.2	117.6

Source: ONS

Although the general level of prices in the UK economy continued to trend higher in 2020, the pace of upturn slowed for a third year. Prices stabilised in the spring as the pandemic hit, before a slow upwards trend returned and the CPIH rose by 1% between January and December, compared with lifts of 3.1% in 2017, 2.5% in 2018 and 2% in 2019.

The annual inflation rate of 1% was a four-year low and around half of the average rate over the past decade, with only 2015 having a lower rate since the series began in 1989.

The 2020 slowdown in inflation was again driven by the cost of goods, which flatlined on average, having risen by 2.7% in 2017, by 2.5% in 2018 and by 1.1% in 2019.

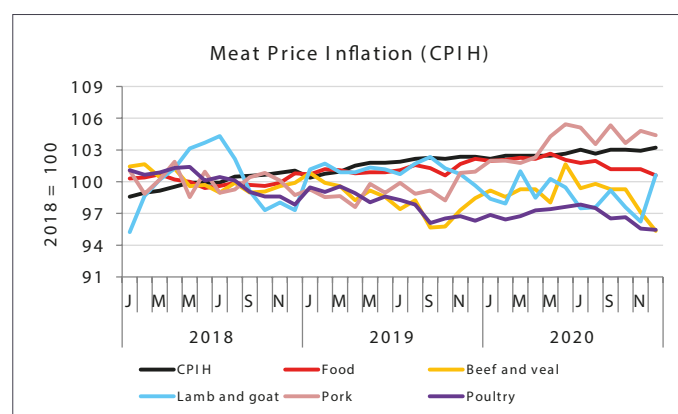
Meanwhile, services price inflation slowed to 1.7%, having spent recent years fluctuating around the 2-2.5% mark. Services prices have a stronger link to labour costs and general economic conditions than goods prices, which are influenced more by inherently volatile commodity markets.

While goods prices steadied in general and food inflation slowed, meat prices firmed by 1.7% in 2020, having fallen marginally in 2019 and increased more slowly than goods in 2017 and 2018.

Beef and veal prices trended lower for much of 2019 before rising towards the end of the year and carrying this momentum into 2020, despite steady farmgate prices.

Retail prices were then relatively stable until falling sharply in November and December 2020, despite the rebalancing higher in farmgate prices during the year.

In the year as a whole, beef was slightly more expensive



Source: ONS; indices re-based to 2018 by QMS

than in 2019 but remained 4% below its 2015 average, highlighting the weak link between farmgate and retail prices. Following two years of significant retail price volatility, lamb and goat prices had been more stable in 2019. In 2020, the price range widened, with the low and high being around 2.5% away from the average. Despite significant farmgate price uplift in 2020, lamb and goat meat proved cheaper than in 2018 and 2019, down 3-4.5% on 2019 in the autumn. Nevertheless, the annual average was still 10% above 2015 levels and 12% higher than in 2016.

Having fallen sharply through 2015, consumer prices for pork lacked direction between 2016 and autumn 2019, spending most of the time 4-6% below 2015 levels. However,

⁶ CPIH is a measure of consumer price inflation which includes owner occupiers' housing costs

following significant farmgate price inflation in 2019, consumer prices did rise significantly in late 2019 and in the first half of 2020, recovering to 2015 levels by May 2020 and then steadying. While the annual average was 4.6% higher than 2019, it was still 0.6% below 2015 levels.

A late-2019 rise of around 4% in edible offal prices reversed in the first half of 2020. However, an autumn rebound saw prices end the year around where they had begun. After averaging similarly between 2015 and 2019, prices rose 2.7% in 2020 and were 3.6% above their 2015-19 average in Q4.

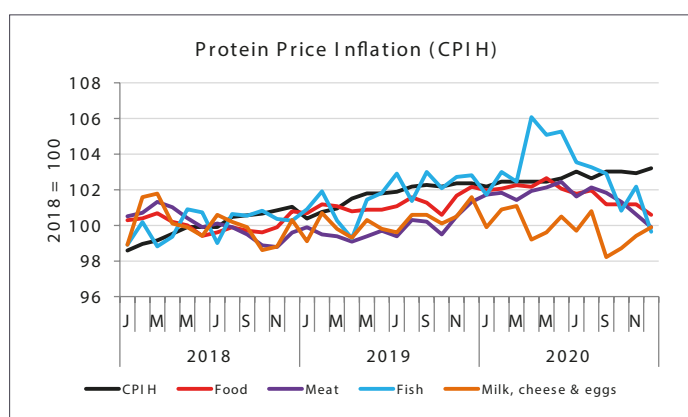
Retail prices for dried, salted or smoked meat firmed through 2019 and reached a five-year high in February 2020. After lacking direction between spring and autumn, prices cooled in Q4 but were still 1.6% above late-2019. While prices for 'other meat preparations' rose marginally on 2019, they ended the year down 2.7% in Q4. Poultry retail prices fell for a fifth straight year in 2020, ending it nearly 12% below 2015 levels. While the fish category rose slightly in price, fresh fish prices fell more than 3% (but were well above 2015 levels) and frozen seafood was down 1.2%; the overall increase was driven by a 4.2% rise for preserved or processed fish and seafood.

Meanwhile, for dairy, there were marginal price falls for milk,

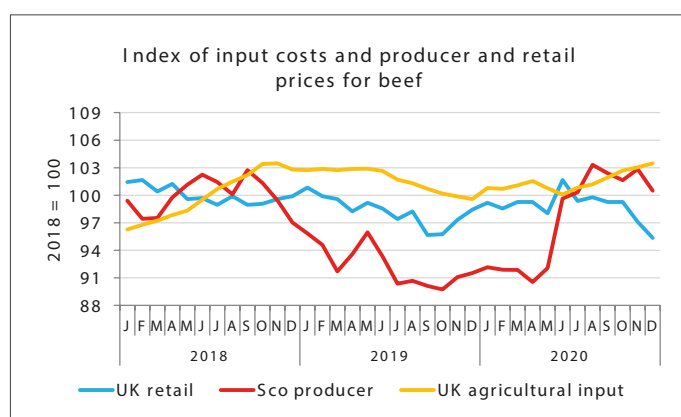
yoghurt and cheese, but eggs rose slightly. The cost of ready meals increased slightly through 2020, resulting in a fourth straight year of inflation. Food service sector prices are more reflective of general economic forces than raw material costs. Inflation slowed from around 3% to less than 2% at restaurants and cafes, but firmed to 4.2% for fast food and takeaways, likely reflecting diverging demand levels.

Indeed, inflation in fast food and takeaway prices jumped from around 4% in Q1 2020 to 5-6% between April and July before softening to 3-3.5% for the final third of the year.

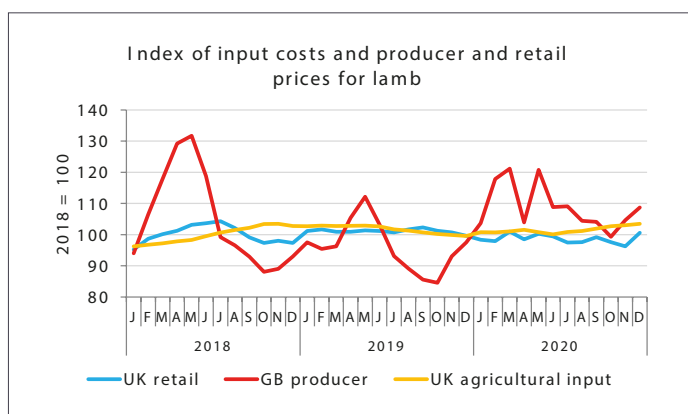
“Poultry retail prices fell for the fifth straight year”



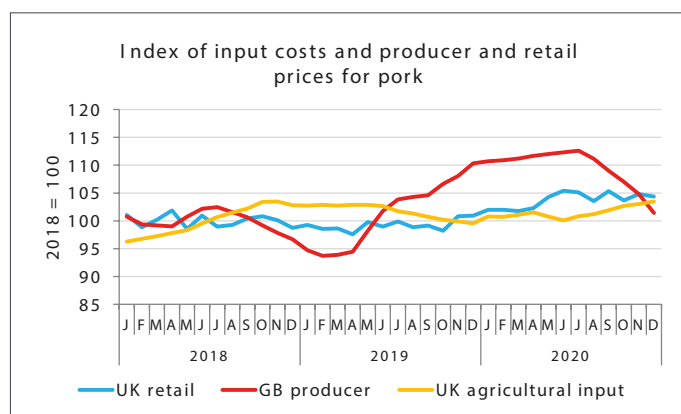
Source: ONS; indices re-based to 2018 by QMS



Source: AHDB; Defra; ONS; monthly producer prices calculated by QMS based on a statistical month and weighted by throughput at reporting abattoirs; all series re-based to 2018 by QMS



Source: AHDB; Defra; ONS; monthly producer prices calculated by QMS based on a statistical month and weighted by throughput at reporting abattoirs; all series re-based to 2018 by QMS



Source: AHDB; Defra; ONS; monthly producer prices calculated by QMS based on a statistical month and weighted by throughput at reporting abattoirs; all series re-based to 2018 by QMS

Primary Processing

Supply of Livestock to the Processing Sector

Cattle

Annual prime cattle slaughter appears to have found a balance of around 390,000 head at Scottish abattoirs since 2017. In the 52 weeks to 2 January 2021, slaughter totalled nearly 388,850 head – down 0.1% on the 52 weeks to December 28 2019.

Numbers remained significantly lower than a decade before, when they had peaked above 460,000 head, and numbers had been above 500,000 head between 2004 and 2006.

There was a slight rebalancing during the year of the male prime cattle kill towards steers as slaughter fell by 0.6%, compared with a 3.3% decline for young bulls. However, for four years, the share of steers in the male prime kill has been relatively stable at 87.4%-87.8%, up from 85-86% in the middle of the last decade. Meanwhile, 1% more heifers were processed in 2020, raising their share of the prime kill to 40% from 39.5% in 2019 and below 39% in the middle of the last decade.

Mature cattle slaughter has been much more volatile at Scottish abattoirs in recent years and, while throughput rebounded by 7.4% to exceed 64,400 head in 2020, it remained well below the highs of 2016-18, when slaughter had averaged above 71,000 head.

BCMS data points to a reduction of 2.3% in the number of Scottish-born animals being slaughtered at GB abattoirs, to 484,400 head in 2020. There was a smaller fall of 1.8% in cattle aged less than 30 months, while the over-30 months kill contracted by 3.7%. In both categories, there were smaller declines for females, pushing up the female share of slaughter by 0.6 percentage points on 2018 and 2019 to 49.7%, suggesting further reduction in the breeding herd. Within the under 30-month kill, there was a rebalancing of age at death from the 24-29-month group to under 24 months.

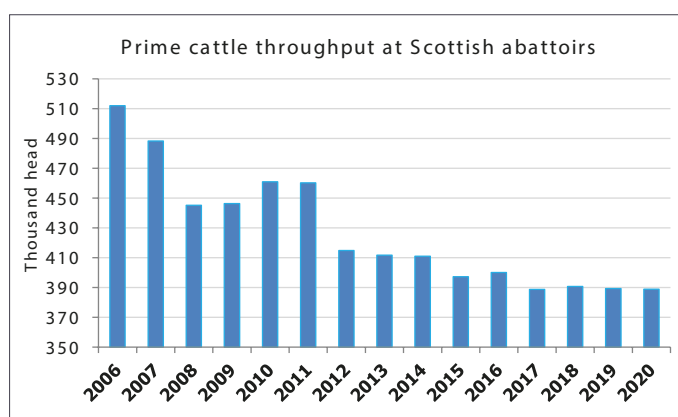
The average prime cattle carcase weight fell by 1% at Scottish abattoirs in 2020, slipping to 366.1kg. At this level, weights were marginally above their 2017 low (365.8kg) but still 1.3% below the 2015 high (370.8kg).

While average weights in Scotland are above the UK average, data from the price reporting abattoirs suggests that this reflects carcase quality, with weights being lower in Scotland for the same grades processed south of the border.

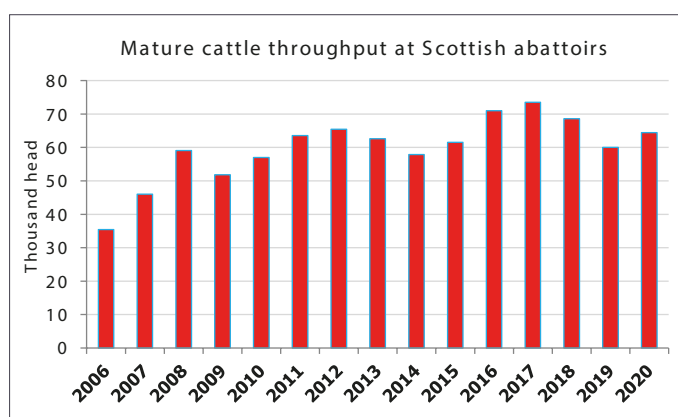
Many carcasses, primarily of steers, continued to exceed the target weight range to meet product specifications for prime cuts of beef sold by UK supermarkets, leading to pricing penalties. A response to market signals has influenced a more significant reduction in steer carcase weights, which fell to a seven-year low in 2020 and were 2.8% below their 2015 peak.

Cow carcase weights fell back considerably from their 2019 peak at Scottish abattoirs in 2020, down 1.6% at 350kg. However, they were still significantly higher than 2016-18 levels.

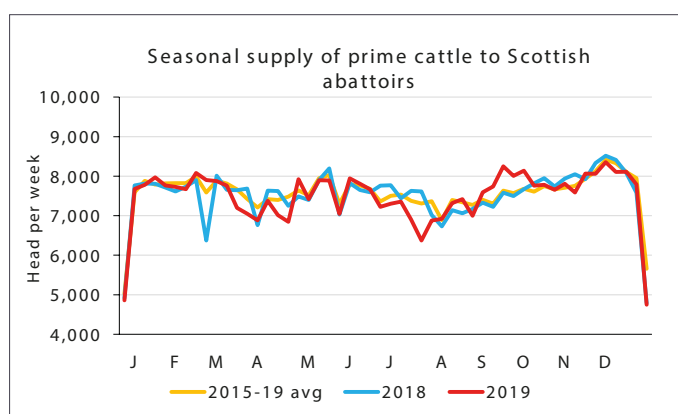
The fall in carcase weights in 2020 meant that a fractional decline in prime cattle slaughter converted into a 1.1% lower production volume of nearly 142,400t in 2020. For cow beef, the



Source: Scottish Government



Source: Scottish Government



Source: Scottish Government; QMS calculations

rise in throughput more than offset the reduction in carcase weights, and output increased by 5.6% to 22,800 tonnes.

Total beef output continued to trend lower in 2020 at Scottish abattoirs, slipping 0.2% to 165,150t, leaving it at its lowest level since 2003 and nearly 11% below the peak of 185,000t in 2006 and 2007.

Average carcass weights				
	Scotland			UK
	2018	2019	2020	2020
	kg per head			
Steers	383	385	381	372
Heifers	344	348	347	337
Young bulls	364	371	366	342
All prime cattle	366	370	366	355
Cull cows	344	356	350	317

Note: UK carcass weights adjusted to same specification as Scottish weights based on conversion rates when Defra changed reporting method in September 2019

Source: Defra; Scottish Government; QMS calculations

Carcass weights for selected grades at price reporting abattoirs			
	Scotland		England & Wales
	2019	2020	2020
R4L steers	368	365	368
R4L heifers	332	331	335
-U3 young bulls	382	378	382
R4L cows	n/a	388	390

Note: Weights reported in UK spec; selected grades were the most common at Scottish reporting abattoirs in 2020. Price reporting abattoirs handled 89% of the Scottish prime cattle kill and 76% of the prime kill at E&W abattoirs in 2020

Source: AHDB

Seasonality of Production

Despite a relatively stable annual total for prime cattle slaughter, there was again a significant difference in the seasonal pattern in 2020.

Slaughter was notably weak in the early weeks of the pandemic and again in August and September, while it was above the five-year average in June and July.

There were also a number of weeks where processing sector outages reduced slaughter, including around the traditional pre-Christmas peak, resulting in a backlog of cattle and pressuring farmgate prices.

Steers and heifers accounted for four out of every five cattle processed at Scottish abattoirs in 2020. Their combined share peaked at 85% in February and March and bottomed out at 72% in July, when young bull supply was at its annual peak. Young bulls accounted for 6.4% of the annual kill but were above 9% between May and August, peaking at 13% in July.

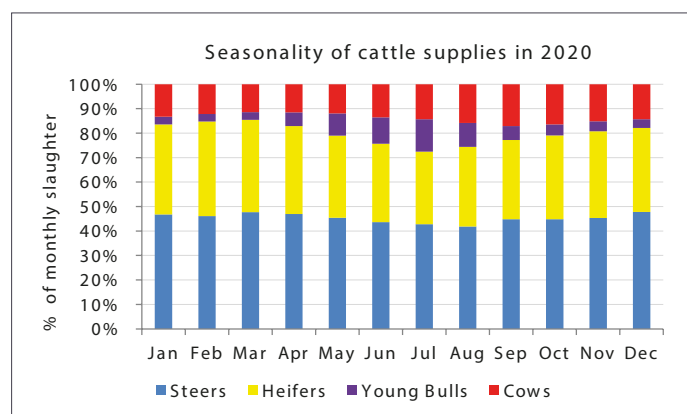
The cow kill showed more normal variability than in 2019, taking its lowest share of around 11% in February and March and peaking at 17% in September. Carcass weights followed

a traditional seasonal pattern in 2020, reflecting the dominance of spring calving in the beef herd.

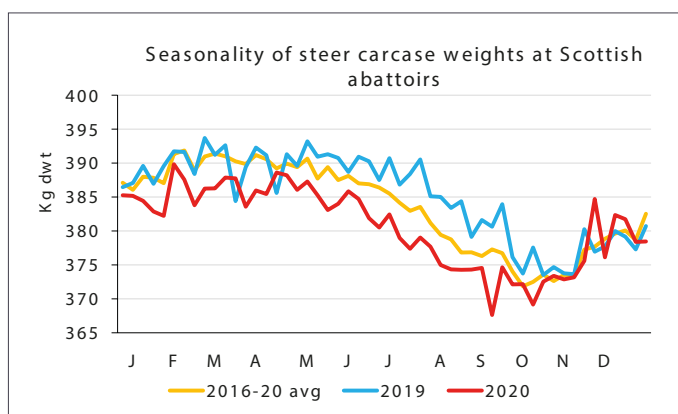
With spring-born cattle reaching abattoirs in greater numbers around 18 months, it leads to lighter weights in the autumn, then weights peak in spring when a higher proportion are processed at around two years of age.

**“Steers and heifers
accounted for four out of
every five cattle processed at
Scottish abattoirs in 2020”** ➔

➤ Primary Processing (continued)



Source: Scottish Government; QMS calculations



Source: Scottish Government; QMS calculations

Carcass Quality

To be labelled as Scotch Beef, beef from eligible animals must also meet product specifications. Carcasses must be classified as either 2, 3, 4L, 4H or 5L for fat cover, and E, U, R or O+ for conformation.

In 2020, 94.8% of steer carcasses and 97.5% of heifer carcasses were graded in this range, down slightly from 2019. Meanwhile, 69.1% of steers and 61% of heifers graded at E, U or R and 3 or 4L, with both of these being lifts of 0.9 percentage points from 2019. In general, carcasses were

leaner and of reduced conformation in 2020. R4L continued to be the most common grade for steers and heifers at Scottish abattoirs in 2020, while for young bulls -U3 was slightly more common than R3, with the gap narrowing.

Cows continue to have a much more even distribution, with shares of 5-10% for R3, 4L and 4H; O+3, 4L and 4H; -O3 and 4L; and -P1.

In England & Wales, the most common grades were R3 for steers and young bulls, R4L for heifers and -P1 for cows.

Steer carcasses by grade at Scottish abattoirs in 2020			
	3	4L	4H
-U	9.2%	12.0%	1.8%
R	16.2%	29.1%	6.2%
O+	4.7%	7.8%	1.1%
Others		11.9%	

Source: AHDB; QMS calculations

Age of Cattle at Slaughter

There was a clear shift in the slaughter profile at Scottish abattoirs in 2020, with both males and females being handled at younger ages.

While the most common age at death stayed constant, at 21 months for females and 22 months for males, half of males were handled by 22 months and half of females by 21 months, with this milestone reached a month earlier than in 2019 for both genders. The Scottish profile remained more variable than in

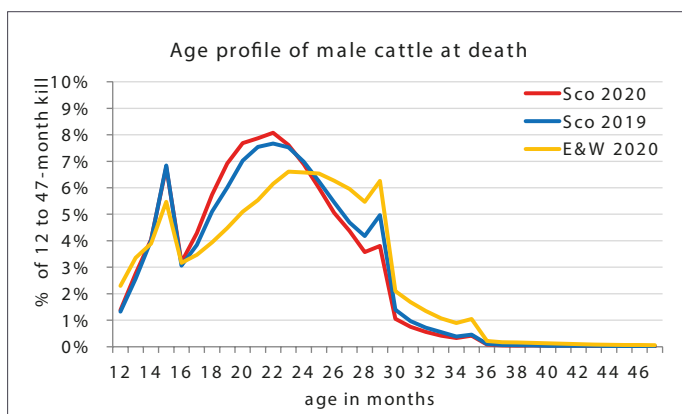
England & Wales, where slaughter is more consistent and later.

On this latter point, the milestone of 50% of the kill at 1-3 years old being handled took until the 25th month for males and 23rd month for females, working out at three months later for males and two months later for females than in Scotland. On the female side, some of the elevated slaughter rates at over 30 months in England & Wales compared with Scotland will reflect the net inflow of cows for slaughter.

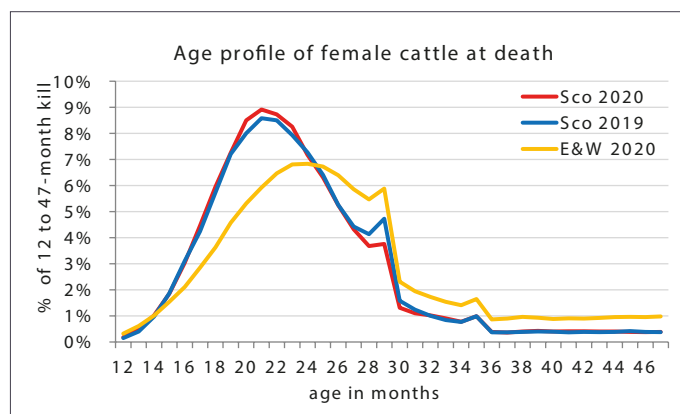
Proportion of slaughter by selected age groupings (% of gender total at 1-4 years old)

Age at death (months)	Scottish abattoirs			E&W abattoirs
	Males 2020	Males 2019	Females 2020	Males 2020
12-15	15.0	14.7	3.5	15.0
16-23	51.4	47.8	55.1	38.4
24-29	29.7	32.5	30.5	37.1
30-35	3.5	4.5	6.1	8.1
36-47	0.4	0.5	4.7	1.4

Source: BCMS; QMS calculations



Source: BCMS; QMS calculations



Source: BCMS; QMS calculations

Sheep

Prime sheep slaughter fell by 2.8% to 1.21 million at Scottish abattoirs in 2020. However, having rebounded to a four-year high in 2019, throughput held above the five-year average by 3.5%. Numbers were still around 18% below their 21st century peak during 2009-11, and down by 9% on 2012-14.

Working on an estimate that nearly 80% of spring lambs will be slaughtered rather than retained for breeding suggests that there will have been roughly 2.6m lambs for slaughter from Scottish farms in 2020.

Lamb throughput of 1.2m suggests that a net 46-47% of these will have been processed in Scottish abattoirs.

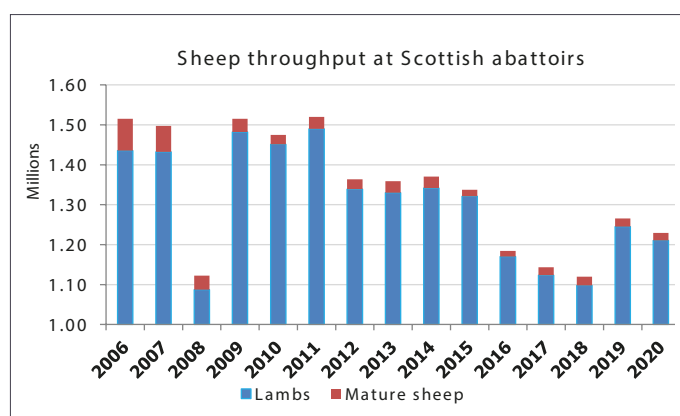
Cross-border movement for slaughter appears to have risen in 2020, given that slaughter fell in the calendar year despite early marketing of an increased spring lamb crop.

The number of ewes and rams processed by Scottish abattoirs fell for a second consecutive year in 2020, down 6.8% to 18,800 head.

This meant numbers slipped back below the five-year average but remain above their lows of 2015 and 2016.

Very limited interest in processing mature sheep in Scotland means that around 95% of ewes and rams being sent to slaughter from Scottish farms will be processed elsewhere in Great Britain.

Prime sheep carcase weights at Scottish abattoirs fell



Source: Scottish Government

back slightly in 2020, dipping to 20.35kg from 20.43kg in 2019. This was a decline of 0.4% but weights remained above 2016-18 levels, when they had averaged below 20.3kg.

Weights held above the UK average for at least an 18th year, although for a second year the difference was around 3%, down from an average of 4.5% between 2013 and 2018 and a peak of 7% in 2010. Meanwhile, ewe carcase weights continued to trend higher, approaching 34kg and remaining above the UK average for a 14th year.

➤ Primary Processing (continued)

Average sheep carcase weights				
	Scottish abattoirs			UK
	2016-20	2019	2020	2020
	kg per head			
Lambs	20.3	20.43	20.35	19.7
Cull sheep	32.0	33.5	34.0	26.9

Source: Defra; Scottish Government; QMS calculations

Seasonality of Production

Lamb production shows much more significant seasonal fluctuations than cattle or pig production.

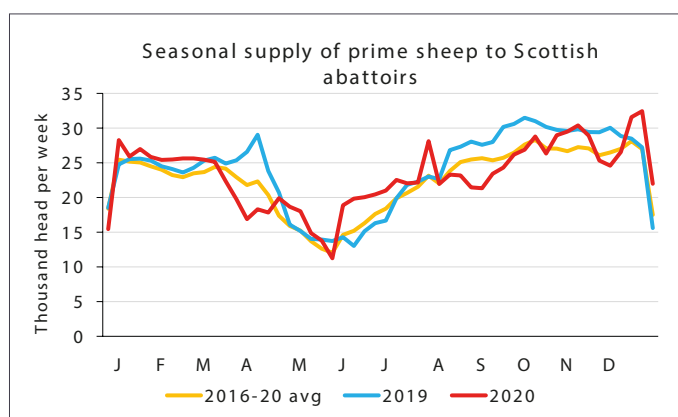
On the supply side, lambs are born at a similar time of year while, on the demand side, consumption tends to peak around key Christian and Islamic festivals.

However, Scotland's climate and topography also results in a different seasonal profile of lamb production from England & Wales, with a slower arrival of new season lambs in the summer months and a higher share of lambs being carried over and processed in the following calendar year.

With more than half of Scottish-born slaughter lambs being processed outside Scotland each year, the seasonal profile of production at Scottish abattoirs will also reflect the customer base of these businesses. As a result, the seasonality of abattoir throughput can differ from that of marketings at Scottish auction sales.

In 2020, slaughter was unusually low at Scottish abattoirs in late March and the first half of April, reflecting the collapse in orders at the beginning of the pandemic, and there was only a small lift ahead of Easter. However, it was then unusually high through June and into July, reflecting the early arrival of lambs on to the market following ideal spring weather conditions, which boosted growth rates.

Slaughter then surged in the final week of July as it was the peak processing week before Eid al-Adha. However, the spike in slaughter is likely to have been limited by the timing of the festival, coming when new season lamb supplies were still building in Scotland. Indeed, the peak selling week of 2020 at auctions in England & Wales was the week before Eid al-Adha, while numbers at Scottish sales reached only 69%



Source: Scottish Government; QMS calculations

of their December peak. After a weak August and September, suggesting soft demand from Scottish abattoirs' customer base, throughput climbed strongly to reach an autumn peak in late-October and early November.

Outages in the processing sector limited slaughter in late November and early December, before throughput climbed to an annual peak in mid-December as the backlog was cleared and order books were boosted by the festive season. However, some of this peak will have reflected stockbuilding by EU importers ahead of the introduction of customs procedures.

Between January and April, carcase weights were at their highest of the year, reflecting the older age of the lambs being processed, averaging 20.7kg. From May to September, weights then averaged 20kg before climbing to average above 20.4kg in the final quarter, with this being a stronger upturn than in 2019.

Carcase Quality

During 2020, carcase quality increased at GB price reporting abattoirs, with 60.9% of SQQ⁷ carcasses grading at E, U or R

for conformation and 2 or 3L for fat cover, compared with 59.7% in 2019. In the first third of the year, 50-55% of hogg

⁷ SQQ stands for Standard Quality Quotation. In deadweight price reporting, this encompasses carcasses weighing between 12 and 21.5kg, while in auction market price reporting, it encompasses live lambs sold at weights of 25.5-45.5kg

carcasses were in this range. Quality peaked early in the new season, with around three-quarters of lamb carcasses within this range, trending downwards to around half at the year-end.

In general, carcasses were slightly leaner than in 2019, but conformation also reduced. R3L was the most common grade in 2020, making up 32.3% of the total, up from 30.7% in 2019.

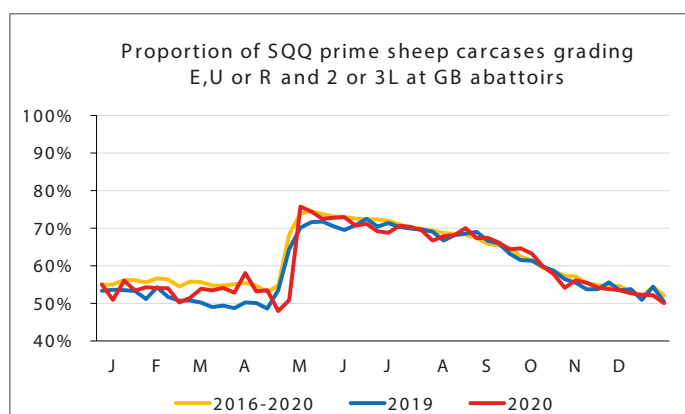
A further proxy of lamb quality is the proportion of prime sheep sold at auction markets that qualify as SQQ due to their live weight at sale.

During 2020, this proportion rose sharply, to 70.7% from 66% in 2019, but it still trailed 2018's 71.8% and remained slightly below the five-year average. The vast majority of lambs sold outwith the SQQ range are to the heavy side.

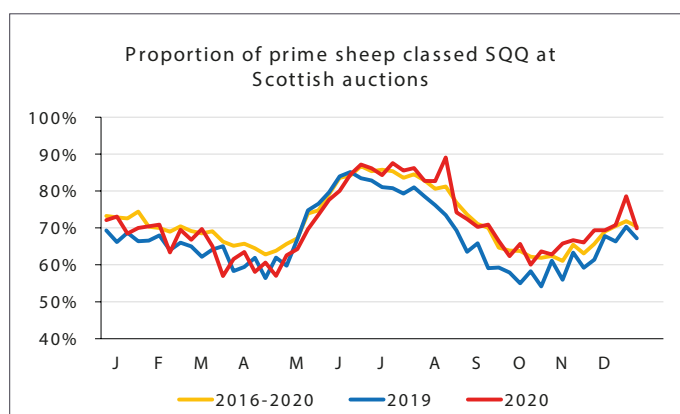
SQQ Lamb carcasses by grade at GB price reporting abattoirs in 2020

	2	3L	3H
U	2.9%	12.0%	5.8%
R	11.4%	32.3%	16.1%
O	4.4%	5.7%	2.0%
Others:		7.2%	

Source: AHDB; QMS calculations



Source: AHDB; QMS calculations



Source: IAAS; QMS calculations

Pigs

Prime pig slaughter reached an eight-year high in 2020 at Scottish abattoirs, rising 3.9% to 355,500 head. This took throughput to 19% above its average in the first four years after the closure of Broxburn abattoir in late 2012, though it was still down 42% on the 2008-12 average.

Slaughter approached an average of 6,850 head per week in 2020, up from below 6,600 in 2019 and a 2013-16 average of 5,750. Nevertheless, on net, more than 60% of Scottish-born pigs continued to be processed in English abattoirs, either through direct movements to slaughter or having been finished on farms in Northern England.

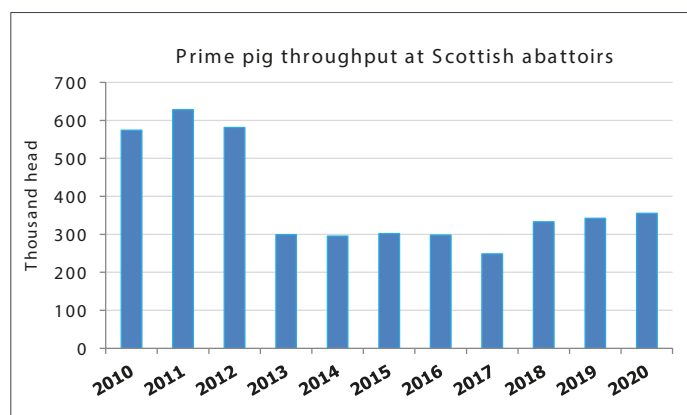
After surging for three years, sow slaughter at Scottish abattoirs rose in 2020 by another 4.8%, totalling just under 15,850 head and an average of 305 per week. This suggests that Scottish abattoirs now have capacity to process all sows sent for slaughter from Scottish farms. Prime pig

carcase weights are estimated to have risen for a fifth year at Scottish abattoirs, increasing by another 2% to reach 85.4kg, based on an EU specification carcase.

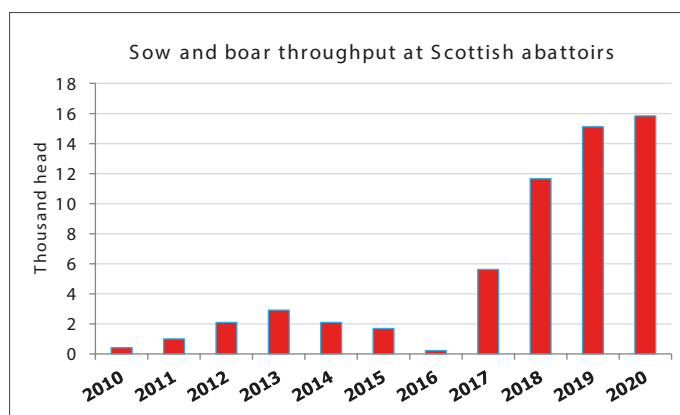
While continuing investment in herd health and feeding systems is likely to have boosted growth rates further, weights were elevated in the final quarter of the year after temporary closures of processing sites led to a backlog of fast-growing pigs on farms. The combination of higher throughput and heavier carcasses boosted annual prime pigmeat production at Scottish abattoirs by 6% in 2019 to reach 30,400t. Sow meat production fell due to reduced weights offsetting the rise in throughput, resulting in total pigmeat production climbing by 5.2% to an estimated 32,500t.

While total pigmeat production was up by more than a third on the 2013-16 average, it still trailed 2008-12 levels by nearly a third.

➡ Primary Processing (continued)



Source: Scottish Government



Source: Scottish Government

Average carcass weights (EU spec)				
	Scotland			UK
	2018	2019	2020	2020
	kg per head			
Clean pigs	82.5	83.7	85.4	85.5

Source: Scottish weights are estimated by QMS using the Scottish Government's slaughter survey and AHDB's APP price reports; UK weight converted into EU spec by QMS from Defra slaughter statistics

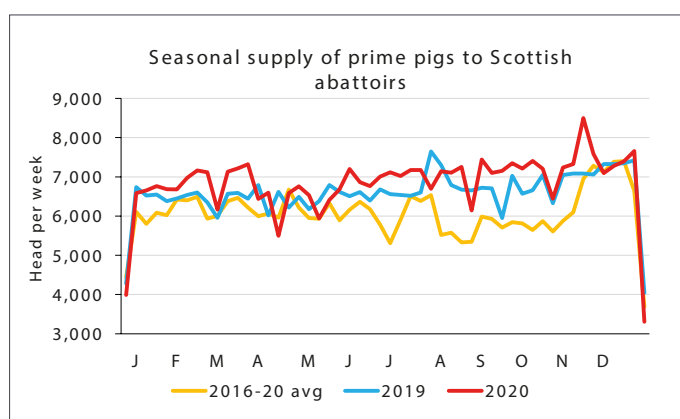
Seasonality of Production

Prime pig slaughter has less of a seasonal trend at Scottish abattoirs than in the UK as a whole, where production falls in the summer months.

In 2020, throughput was at its lowest during the spring in the early weeks of the pandemic, before spending most of the second half of the year above the annual weekly average.

In the final quarter, pigs were at times diverted to Scottish abattoirs from sites elsewhere in Britain, following temporary closures.

Prime pig carcass weights have a seasonal profile, generally falling in the summer months.



Source: Scottish Government; QMS calculations

“Throughput was at its lowest during the spring in the early weeks of the pandemic, before spending most of the second half of the year above the annual weekly average”

Scottish Abattoir Output and Employment

Twenty-one red meat abattoirs operated in Scotland in 2020 and submitted levy returns to QMS, unchanged from 2019.

Cattle slaughter took place on 17 sites, with sheep slaughter on 15, and 11 handling pigs. Scottish Government slaughter reports show that 2.05 million cattle, sheep and pigs were handled by these abattoirs in the 52 weeks to 2 January 2021, producing an estimated red meat output of 223,300t.

This production volume was up marginally on 2019, the highest since 2012, and was 1.7% above the average for 2016-20.

It is estimated that the total turnover of the primary red meat processing sector in Scotland rebounded in 2020, rising 6.5% to £815m, on the back of a 5% decline in 2019.

While both employment and the total wage bill are estimated to have fallen fractionally in 2020 – the latter based on a fractional fall in average weekly earnings in the UK manufacturing sector – they are estimated to have remained around 3,000 and £77m respectively⁸.

An estimated 47% of the workforce was estimated to be non-UK EU or EEA nationals, up slightly from 2019, highlighting that the sector remains sensitive to UK immigration policy. This sensitivity has significant regional variation, with processors based in the west tending to be less exposed.

In cattle processing, an estimated 5% rebound in turnover reflects a recovery in wholesale prices and mature cattle throughput, though a weak first third of the year limited the

recovery. By-product markets are estimated to have pressured overall returns from cattle processing, with offal sales down 4% for a second year, while hide revenue fell 17%. However, hide markets did recover as the year progressed, in line with the rebound in global manufacturing.

After a strong 2019, sheep processing revenue is estimated to have risen by an even faster 12% rate, as a decline in throughput was offset by wholesale price increases.

The downward trend in sheepskin values continued, falling 30%, but this was nearly offset by strength in the offal trade.

Pig processing turnover backed up a strong 2019 with an even faster rate of growth in 2020, up an estimated 13%, driven again by rising throughput, carcase weights, wholesale prices and offal value.

The cattle processing sector is more evenly spread in terms of capacity than the sheep or pig sectors. There are a number of medium-sized plants working with cattle, whereas sheep and pig processors tend to be either very small or very large.

While the share of cattle slaughter in the five largest abattoir sites continued to trend higher, it rose by only 0.5 percentage points, having risen 1.5 points in the previous two years. The five largest sheep and pig slaughter sites also noted a further increase of their already high share – sheep by 1.8 percentage points and pigs by 0.4. The share of the five smallest sites rose slightly for cattle and sheep, but dipped 0.4 points for pigs.

Scottish abattoir output						
	Number of animals		Volume of meat (t)		Estimated value (£m)	
	2019	2020	2019	2020	2019	2020
Cattle	449,350	453,290	165,510	165,155	583	616
Sheep	1,265,325	1,229,445	26,115	25,270	109	123
Pigs	357,410	371,350	31,105	32,840	50	57
Skins & hides	n/a	n/a	n/a	n/a	23	19

Source: QMS Processor Survey; QMS calculations and estimates; Scottish Government
2020 figures based on 52 weeks to 2 January 2021; 2019 based on 52 weeks to 28 December 2019

Scottish abattoir sector scale			
	Cattle	Sheep	Pigs
Abattoirs killing stock	17	15	11
Proportion of kill in five largest abattoirs (%)	74	94.7	98.2
Proportion of kill in five smallest abattoirs (%)	0.6	0.7	0.7

Source: QMS red meat levy returns

⁸ The estimated wage bill is based on average wages and salaries reported by processing companies in accounts filed with Companies House for 2019, plus ONS figures for manufacturing earnings growth in 2020

➤ Primary Processing (continued)

Distribution of Sales

Sales distribution of primary red meat processors by destination in 2020						
	Scotland		Rest of UK		Exports	
	Value (£m)	% by value	Value (£m)	% by value	Value (£m)	% by value
Beef	132	23	405	71	36	6
Sheepmeat	25	22	74	64	16	14
Pigmeat	10	20	42	80	<1	<1
Total red meat	167	23	521	70	52	7
Fifth quarter	26	45	24	43	7	12
Skins and hides	12	66	5	26	2	9
Note: Distribution based on first point of delivery						

Source: QMS Processor survey; QMS calculations and estimates

England & Wales remained the most common first point of sale for Scottish processors in 2020 and it is estimated that more than two-thirds of all revenues were generated there.

Meanwhile, beef sales to Northern Ireland totalled around £20 million – more than any individual beef export market in Europe. In some instances, beef, lamb and pork is delivered to processing and packing sites in England, Wales and Northern Ireland before returning to Scotland in shelf-ready retail packs, or will be exported from there.

The Scottish processing sector continued to direct less of its produce overseas than the UK as a whole. The pandemic added to the challenge for Scotland's processors, who tend to specialise in lower volume but higher value trade, with them particularly exposed to a collapse in demand from food service sector buyers. Meanwhile, the strong domestic lamb market in GB made it difficult for exporters of Scotch lamb to remain price competitive.

As noted above, some products will be exported after secondary processing at sites elsewhere in the UK. For example, Scotland's largest pig abattoir was approved for export to China in September 2019 but direct exporting of pigmeat from Scotland is believed to have remained negligible. In 2021, loss of this export

approval for China has left the pig sector in Scotland lacking confidence, despite a general market recovery in Britain.

Fifth-quarter products continued to play an important role in helping cattle and sheep processors achieve carcass balance. These products are much more likely to be sold to wholesalers and food manufacturers than into multiple retailers, and pet food processors are an important outlet. They also make up a significant proportion of cattle processing exports.

Multiple retailers remained the dominant market outlet for Scotland's red meat processors in 2020, but wholesalers were an important outlet for exporters. While food service and catering account for a small share of overall sales, the near-shutdown of the sector in March 2020 will have had a major impact on a number of processors.

Product sales mixes vary considerably by species. More than 70% of beef sales were boneless cuts, while less than 20% was mince, with the majority of retail mincing taking place in specialist secondary processing sites. In the lamb sector, there was more of an even split between carcasses (22%), bone-in (36%) and boneless cuts (29%). In pig processing, three-quarters of output is estimated to have come from carcass sales.

Sales distribution of primary red meat processors by outlet in 2020				
	Beef	Sheepmeat	Pigmeat	Fifth Quarter
	% by value			
Multiple retailers	61	64	69	9
Independent retailers	6	8	12	7
Wholesalers	9	27	10	15
Food manufacturers	18	1	2	29
Pet food manufacturers	1	<1	<1	6
Food service & catering suppliers	5	<1	7	2
Other	<1	<1	<1	34
Note: Distribution based on first point of delivery				

Source: QMS Processor survey; QMS calculations and estimates

Scotland's Red Meat Exports Outside the UK in 2019/20

In the year to July 2020, Scotland's red meat export processors are estimated to have sold £75.5 million worth of red meat and fifth-quarter products to customers outside the UK, with a shipped volume of around 16,900t.

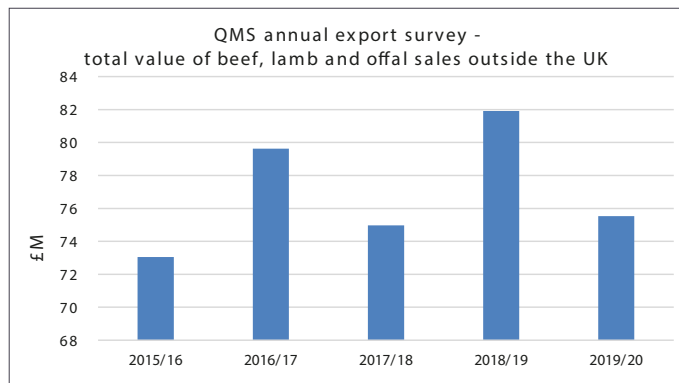
Having risen strongly in the previous year, the total value of exports contracted by nearly 8%, falling around 2% below the five-year average. In part, the decline is likely to reflect the near-closure of export markets for a period in mid-to-late March 2020, when public health measures introduced to control Covid-19 led to delays at EU borders and saw export sales destined for the food service sector severely disrupted.

Within the total, beef fell by around 12% in value and volume, but still generated nearly £41m of revenue.

Lamb exports, which were particularly hard hit in the early weeks of the pandemic, are estimated to have fallen significantly, slipping to around £26m, although a higher average value per tonne exported by around 10% provided a partial shield to export revenues.

Despite falling, exports still accounted for an estimated 23% of abattoir turnover from lamb sales during the period, compared with around 8% of beef sales. France remained by far the largest overseas export market for Scotch Lamb.

In contrast to beef and lamb, activity in offal surged, more than doubling in value to over £9m, and tripling in volume.



Source: QMS export survey, QMS estimates for non-response based on HMRC UK trade data

EU customers accounted for 97% of total export revenues, with the shares being 98-99% for beef and lamb sales but 83% for fifth-quarter products.

Overall, EU markets bought nearly £73m worth of products. These results reflect the relative ease of doing business with EU countries prior to the GB leaving the EU single market, due to minimal trade frictions and geographical proximity.

Exports of Scotch Beef were worth £29m to exporters and the average value per tonne of Scotch Beef exported was almost a quarter higher than for non-Scotch Beef. Italy and France remained the largest destinations for Scotch Beef exports, accounting for around 55% between them, while close to 40% of sales were earned from Germany, the Irish Republic, the Netherlands and Belgium.

Meanwhile, the Netherlands and France were the main destinations for non-Scotch Beef, accounting for just over two-thirds of the total.

Outside the EU, only small volumes of Scotch Beef were exported to Switzerland, but trade took place in high value cuts, averaging well above £20/kg. This indicates the opportunity that exists for sales of premium cuts of Scotch Beef to buyers seeking out the highest quality beef in a competitive global market.

Within the EU, Belgium and Germany were destinations where the average value of beef exports was close to double the overall average, indicating trade in a different balance of cuts to other markets, with a greater focus on higher value products.

**“EU customers
accounted for 97% of
total export revenues”**



Red Meat Supply and Consumption

Product Available for Consumption⁹

Beef

Defra estimates that in 2020, the total volume of beef available for consumption and further processing in the UK rebounded by 2.5% but, at 1.09m tonnes, remained below the highs of 2016-18.

Domestic beef production increased by 1.9% to reach its highest level since 1995, while the fall in imports was more than offset by a reduction in exports, leading to a small increase in net imports, in carcase weight equivalent

terms (cwe). Despite these changes, imports were still at their lowest since 2012, while exports were at their second highest since 2011.

Imports accounted for 28.1% of new supply during the year, down from 29.7% in 2019 and a 2018 high of 32.4%.

Meanwhile, exports fell back to 15.9% of domestic production and around their five-year average, after jumping to 18.2% in 2019.

UK beef market balance sheet ('000 tonnes carcase weight equivalent)				
	2020 volume	2020 market share	2016-20 average annual volume	2016-20 market share
Production	934.9	85.4% of supply	914.7	83.0%
- Exports	147.7	15.8% of production	145.5	15.9%
+ Imports	307.1	28.1% of supply	333.0	30.2%
= Total Supply	1094.3		1102.1	

Source: Defra; QMS calculations

Sheepmeat

New supplies of sheepmeat available in the UK are estimated to have contracted for a fifth year in 2020, down another 4.9% to 276,200t. This was lowest volume recorded in the series, which dates back to 1985, with volumes 17% lower than the peak of the past decade reached in 2015, and 26% below the average from 2005-09.

Domestic production fell by 3.6% but was around its five-year average, while imports fell by more than exports,

meaning that net exports increased, removing additional supply from the market. Imports fell by another 10.3%, taking them 38% down on their average from 2010-16, while exports, including live sheep trade, fell by 5%.

Imports fell to 25.8% of new supply in 2020, down from 27.4% in 2019 and an average of around 37% between 2000-17. Exports held at around a third of domestic production, up from the 29% low in 2015 but below the highs of 37-40% from 2011-14.

UK sheep market balance sheet ('000 tonnes carcase weight equivalent)				
	2020 volume	2020 market share	2016-20 average annual volume	2016-20 market share
Production	306.3	110.9% of supply	306.4	102.4%
- Exports	101.5	33.1% of production	99.9	32.6%
+ Imports	71.4	25.8% of supply	92.8	31.0%
= Total Supply	276.2		299.3	

Source: Defra; QMS calculations

⁹ New supplies made available during the calendar year. This excludes any change in inventories during the year, which would be needed to make a better estimate of annual consumption. Import and export volumes include processed products and live animals, and are converted from product weight into carcase weight equivalent

Pigmeat

New supplies of pigmeat added to the UK market in 2020 declined by 5.4%, slipping to a seven-year low of 1.33 million tonnes.

Volumes were 8.6% below their peak of the past decade, reached in 2016, and you have to go back to the turn of the century for volumes to have been consistently lower.

An increase of 2.7% in domestic production to a 21-year high was more than offset by a 12.1% reduction in imports,

plus a 3.3% lift in exports. Imports dropped to their lowest level since 2001, while meat exports increased for an eighth year in succession and fell narrowly short of their series record back in 1998.

Imports fell to 50.3% of market supply, well below the 53-56% range between 2012-19, while exports held at around 30% of production for a second year, up from a quarter in the 2010-15 period.

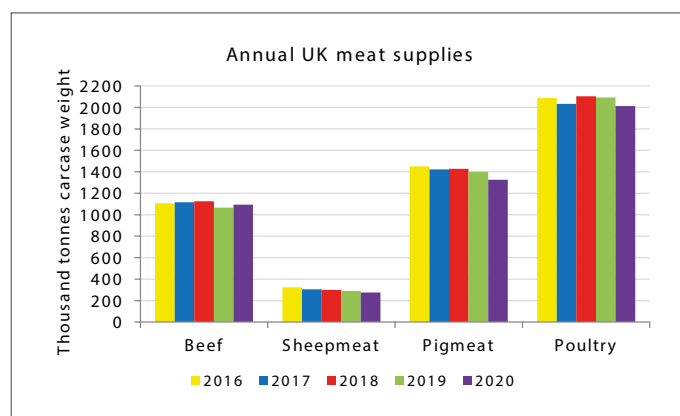
UK pigmeat market balance sheet ('000 tonnes carcass weight equivalent)				
	2020 volume	2020 market share	2016-20 average annual volume	2016-20 market share
Production	944.1	71.2% of supply	901.4	64.1%
- Exports	285.0	30.2% of production	259.9	28.8%
+ Imports	666.1	50.3% of supply	763.9	54.4%
= Total Supply	1325.3		1405.4	

Source: Defra; QMS calculations

Poultry

New supply of poultry fell by 3.8% in 2020, dropping to a five-year low. This suggests that market supply may have begun to stabilise after a decade of strong growth, with changes in trade flows offsetting continued growth in domestic production.

Poultry meat accounted for 47.2% of UK meat production in 2020 and 42.8% of UK meat supply.



Source: Defra

Structural change in UK meat supplies			
	2006-10 avg annual net supply	2016-20 avg annual net supply	Change over decade
Beef	1.06m	1.10m	+3.6%
Sheepmeat	0.37m	0.30m	-17.1%
Pigmeat	1.38m	1.41m	+1.5%
Poultry	1.67m	2.07m	+23.6%
Total	4.48m	4.87m	+8.8%

Source: Defra; QMS calculations

Red Meat Supply and Consumption (continued)

Retail Sales

Beef

Based on its panel of 30,000 shoppers, Kantar estimates that after a fall in 2019, GB households spent 15.9% more money buying fresh and frozen unprocessed beef in 2020¹⁰, underpinned by the rebalancing of meat demand towards dining at home due to public health restrictions.

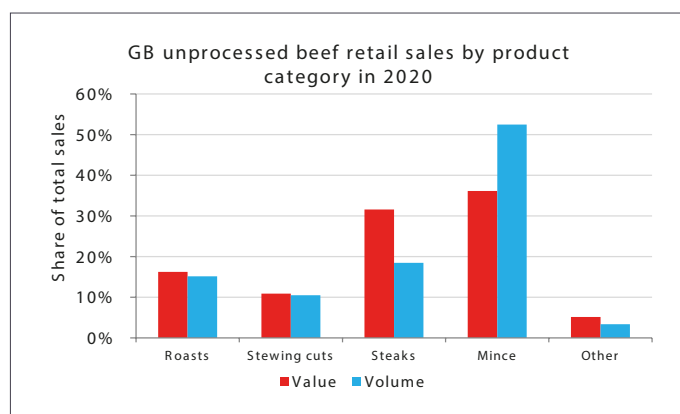
The proportion of households buying beef increased by 1.7% (1.4 percentage points) while there was an 8.7% lift in the frequency of purchase.

Across GB there was also a rebalancing of spending within the beef offer, with steak cuts driving overall spending growth, up 19.1%, while roasts grew in line with beef as a whole, but spend on mince and stewing beef rose by a slower 11-12%. Despite rising farmgate prices, there was little evidence of retail price inflation, with mince and steaks averaging slightly cheaper.

In Scotland, spending on beef grew more slowly, up 13.4%, but steaks out-paced the total GB market, up 21%, while the other categories showed growth of around 8-9%.

The proportion of Scottish households buying beef remained slightly higher than in GB, edging up to 89%.

The emphasis on shopping local boosted sales of beef at butcher shops, with the proportion of GB households using this service up nearly a quarter and total spend rising 26%. Still,



Source: Kantar; QMS calculations

less than 12% of households bought beef from a butcher. An alternative Kantar dataset highlights that while the share of GB households buying fresh beef rose from 84% to 86%, the share buying chilled burgers rose by around four percentage points to 61%. However, frequency remained considerably lower at fewer than seven times, compared with more than 17 for fresh beef.

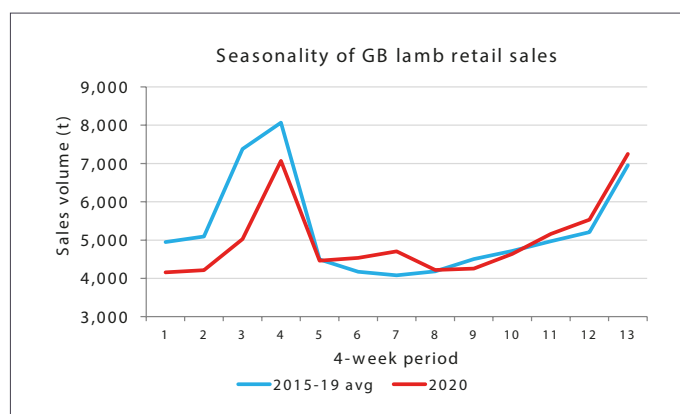
Lamb

Kantar estimates that GB households spent 10.8% more money on buying lamb in 2020, on the back of a slight increase in 2019. However, with retail prices increasing by around 5%, the volume purchased grew at half this rate. The share of households buying lamb rose by 3.5%, while the average frequency of purchase was almost 5% higher.

Within the product mix, spending on chops and steaks rose by around 14%, shoulder roasts by 16%, and lamb mince by 30%. By contrast, spending on leg roasts, which have a high degree of import penetration, fell by 1.6%. Leg roasts accounted for 36.5% of annual sales volumes, but this rose above 57% in the four weeks around Easter and above 58% in the four weeks including Christmas. These shares were around four percentage points below their 2015-19 average.

In Scotland, spending on lamb is estimated to have risen at a quicker pace of 12.8%, driven more by increased buying occasions rather than attracting new shoppers.

As a result, the share of Scottish households buying lamb fell further behind the GB average, edging over the 39% mark,



Source: Kantar; QMS calculations

whereas the GB share rose by around two percentage points to 54%. The shop local trend helped spending on lamb at GB butcher shops to surge by more than a third in 2020, although less than 8% of households bought lamb from a butcher.

¹⁰ 52 weeks ending 27 December 2020 compared with 52 weeks ending 29 December 2019. Please note that this definition of beef excludes products such as burgers

Pork

Having fallen significantly in 2019, GB households are estimated to have spent 15.8% more money buying fresh and frozen unprocessed pork in 2020, according to Kantar.

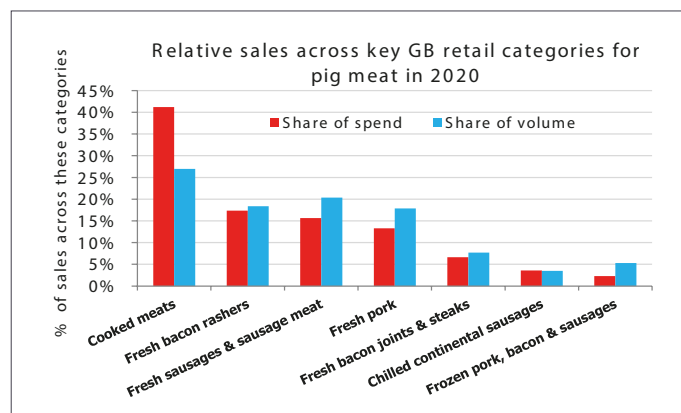
However, perhaps reflecting the pass-through of previous farmgate price inflation, retail prices increased by an average of 6.4%, dampening volume growth to around 9%.

The share of households buying pork rose by around 3% and there was a lift of more than 6% in frequency of purchase.

In Scotland, the value of sales is estimated to have risen at a slower rate of around 12%, with penetration up by just over 2% and frequency by just over 3%.

Local buying meant that sales growth at GB butcher shops outpaced the overall market, climbing nearly 28%, with the share of households buying pork from a butcher nearing 9%.

The share of GB households buying bacon rashers and sausages increased to around 86% and 83% respectively, compared with just under 69% for fresh pork, and they bought



Source: Kantar; QMS calculations

them significantly more often than pork, at around 16 and 13 times compared with nine times.

Per Capita Supplies

With the ONS estimating UK population growth of 0.4% in the year to mid-2020, a slightly increased meat supply would have been required to maintain per capita supply at 2019 levels.

Population increase exacerbated the fall in UK sheep and pigmeat supply on a per person basis, while limiting the increase in beef supply per person.

This was the fifth straight year of decline for sheepmeat, highlighting a longer-term trend which has seen it fall by around a third since 2008. Meanwhile, per capita pigmeat supply was at its lowest of the century. While beef supply per person picked up, it remained below 2014-18 levels.

Scottish per capita supply can be estimated from population statistics, differences in sales levels reported by Kantar between Scotland and GB as a whole, and from differences in Defra's Family Food datasets for the nations and regions of the UK (though the latest Defra estimates are for 2018/19).

These estimates are based mainly on consumption at home and have limited coverage of processed products, which can be hard to separate between different meats.

The evidence continues to indicate above-average beef consumption in Scotland but below-average pigmeat consumption and much lower levels of sheepmeat consumption.

Per capita supplies (kg per person)						
		Beef	Sheepmeat	Pigmeat	Poultry	Total meat
UK	2019	16.0	4.3	21.0	31.3	72.6
	2020	16.3	4.1	19.8	30.0	70.2
Scotland	2019	19.4	2.2	17.5	27.6	66.7
	2020	19.6	2.1	16.3	26.5	64.4

Note: excludes adjustment for opening and closing inventory

Source: Defra, Kantar, ONS; Scottish Government; QMS calculations and estimates

“Population increase exacerbated the fall in UK sheep and pigmeat supply on a per person basis”



Red Meat Supply and Consumption (continued)

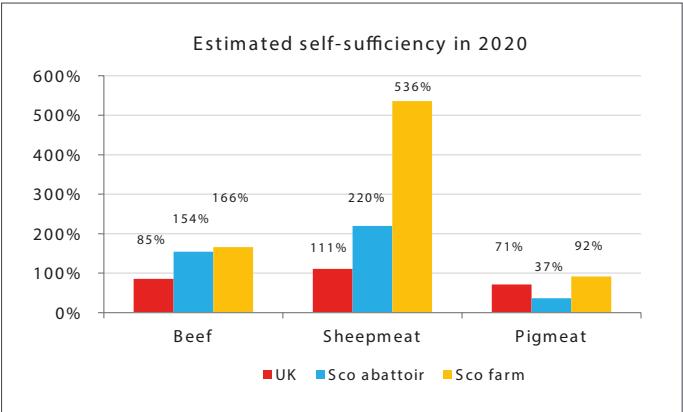
Self-Sufficiency

Scotland's abattoir production of beef and sheepmeat far outstrips estimated total consumption levels, with self-sufficiency estimated at a respective 154% and 220% in 2020. Pigmeat production is not high enough to cover total demand (36.5%).

However, self-sufficiency based on farm production levels¹¹ would be even higher for beef and sheepmeat, at 166% and 536%, and would jump to 92% for pigmeat, reflecting the significant volume of cross-border movement of live animals for finishing and for slaughter.

Basic estimates of self-sufficiency do not, however, take into consideration the demand for and supply of different cuts of meat or processed meat products, or the location of specialist further processing and packing sites, which can reflect workforce availability.

As a result, meat from animals which have been born, reared and slaughtered in Scotland can still cross borders for further cutting and packing before coming back to be sold in a retail outlet in this country.



Source: BCMS; Defra; ONS; ScotEID; Scottish Government; QMS calculations and estimates



¹¹ Farm production estimates are based on the number of cattle, sheep and pigs born on Scottish farms

International Trade

International trade is used to balance the supply of and demand for the wide range of different meat products and animal by-products where this balance cannot be achieved in the domestic market. The aim of such trade is to maximise carcase value and consumer utility.

UK Regional Trade Statistics

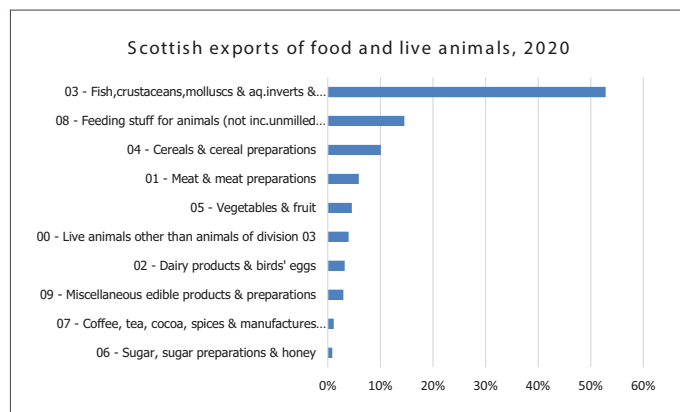
HMRC publishes estimates of the level of exports from each of the devolved nations and English regions on a quarterly basis¹². These trade figures are reported by Standard International Trade Classification (SITC) Division, meaning that the most detailed level is meat and meat preparations.

Scottish exports of meat and meat preparations were estimated to have fallen for a second year in 2020, down 10.1% on the previous year at £97.4 million and dropping 4% below their 2015-19 average.

EU destinations accounted for an increased 89.4% of Scottish exports in the meat and meat preparations category in 2020, up from 81.4% in 2019 and a five-year average of 83.6%.

This reflected a fall in sales to the EU of only 1.4% compared with a near-halving of non-EU trade, driven by a sharp fall in sales to the USA. Given the lack of US market access for fresh beef, lamb and offal, trade with the US may be in processed products and/or a feature of the way exports are allocated regionally within companies operating in more than one region or nation of the UK, with US tariffs related to the Airbus Boeing dispute potentially at play.

Scotland accounted for an estimated 4.8% of UK meat and



Source: HMRC; QMS calculations

meat preparations exports in 2020, a percentage point below the 2015-19 average. Meanwhile, meat and meat preparations were an estimated 5.9% of Scottish food and live animal exports in 2020, with the division total coming in at £1.66bn; over the 2015-19 period, this proportion was 6.6%.

Fish and seafood continued to lead the way, with exports slipping to £875.1m in 2020 but still taking a 52.8% share (55.9% in the 2015-19 period).

UK Overseas Trade Statistics

At UK level, detailed trade statistics estimates are published by HMRC, providing a view of the trade environment in which Scottish producers and processors operate.

Beef

Imports

Imports of fresh and frozen beef, including skirt, to the UK fell by 2.4% in 2020 to 235,800t. Reflecting a steep decline of more than 11% in 2019, volumes were 6.9% below their 2015-19 average.

When converted into carcase weight equivalent, import volumes were also down by 2.4% in 2020, totalling 308,000t¹³, while they were a slightly lower decline relative to their 2015-19 average (-5.8%).

Prior to 2019, a rising trend in beef imports had been driven by a shift towards frozen beef. In 2019 there had been a pause in this trend, as imports of fresh product had declined at a slower rate than frozen beef imports, but the previous trend returned in 2020. Indeed, while imports

of fresh beef were down nearly 5% on 2019 and by 12% on the five-year average, frozen beef deliveries were 2.4% above 2019 and 4.7% above the five-year average. Nevertheless, fresh beef still accounted for just under two-thirds of imports in 2020.

Imports continued to rebalance towards the EU in 2020, with the volume arriving a fraction higher than in 2019 whereas imports from non-EU countries contracted by 55%. This meant the EU share reached 97.9% in product weight, up from 95.3% in 2019 and a five-year average of 93%.

The Irish Republic increased its dominant position as the principal supplier of fresh and frozen beef to the UK in 2020, with volumes rising marginally to 187,000t in

¹² Where a company is based in more than one region, its exports are allocated regionally by the number of employees based there

¹³ Boneless cuts converted from product weight to carcase weight using a factor of 1.36; salted, dried or smoked beef converted at 1.74; and prepared and preserved beef (including corned beef) converted at 1.79 (Source: USDA – Livestock and Poultry World Markets and Trade)

➔ International Trade (continued)

Composition of UK beef imports in 2020 – EU and non-EU comparison				
Product category	Imports from the EU		Imports from non-EU countries	
	Average import price (£/kg)	Share of imports from EU	Average import price (£/kg)	Share of imports from non-EU
Fresh carcasses or half-carcasses	3.25	11.8%	n/a	0.0%
Fresh cuts, with bone in	4.66	2.2%	21.58	0.1%
Fresh boneless	4.65	52.6%	7.81	53.0%
Frozen carcasses and half-carcasses	2.80	0.1%	n/a	0.0%
Frozen cuts, with bone in	3.04	1.2%	6.46	0.5%
Frozen boneless	2.93	30.9%	3.87	46.3%
Fresh or frozen skirt	2.90	1.3%	14.14	0.0%
Total	3.91	100% (230,864t)	6.00	100% (4,935t)

Source: HMRC; QMS calculations

product weight and accounting for an increased 79.3% of the total, up from 77.2% in 2019 and a 2015-19 average of 72.2%.

Imports from outside the EU tend to be of higher value frozen cuts at globally competitive prices, often destined for the catering trade. Their sharp fall in 2020 reflected the reduction in food service sector activity, but they had already been falling sharply before the pandemic.

For example, in 2019, imports from Brazil and Uruguay were already down more than 20% on 2015, while volumes from Australia and New Zealand were nearly 75% below 2015 levels.

Imports of processed beef to the UK edged higher in 2020 after two years of significant decline, totalling 52,800t. Converting this into carcass weight equivalent would give imports of 94,600t. Around 80% of this continued to be corned beef and cooked prepared or preserved beef, but the balance between these two shifted from a relatively even split to around 52% corned beef and 30% cooked prepared or preserved beef.

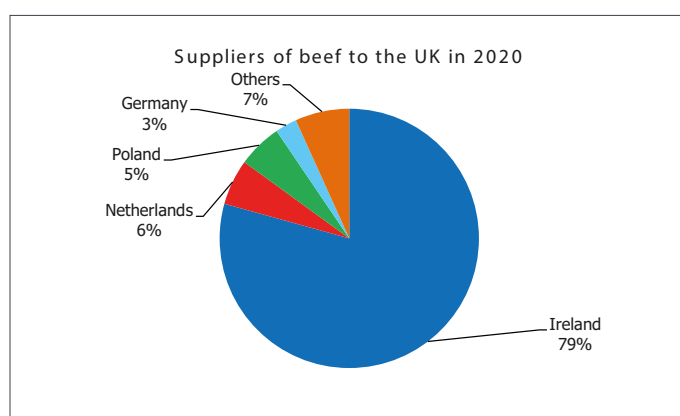
Brazil supplied more than 84% of the corned beef, with France accounting for most of the remainder (14.6%).

Exports

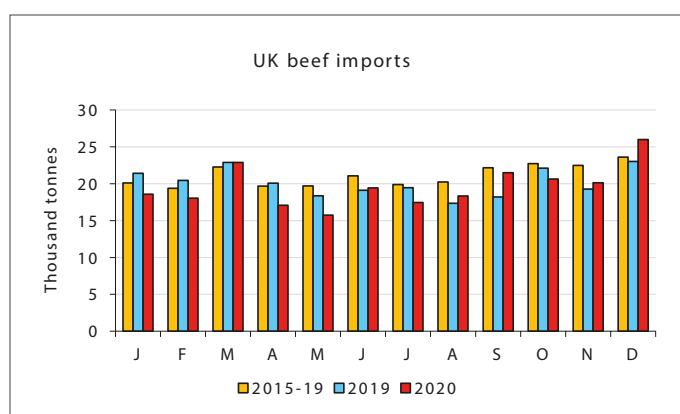
Although UK fresh and frozen beef export volumes fell back by 13.9% in 2020 to 119,100t, a surge in 2019 meant that they were still 2% above the five-year average.

Volumes made a strong start to 2020 before falling steeply after the onset of the pandemic. In carcass weight equivalent¹⁴, volumes fell by 12.5% from 2019 to 150,100t, with this slower decline reflecting increased sales of frozen boneless beef and skirt.

Having previously been on a downward trend, exports to non-EU countries jumped for a second year in 2020,



Source: HMRC; QMS calculations



Source: HMRC; QMS calculations

up 18% after an 83% uplift in 2019. Passing the 30,000t mark meant that sales to non-EU countries reached 25.1% of export volumes in 2020, up from 18.3% in 2019 and a five-year average of 15.5%. As well as being the major

¹⁴ Based on coefficients in the USDA's World Markets and Trade publication (see footnote 13)

Composition of UK beef exports in 2020 – EU and non-EU comparison

Product category	Exports to the EU		Exports to non-EU countries	
	Average export price (£/kg)	Share of exports to EU	Average export price (£/kg)	Share of exports to non-EU
Fresh carcasses or half-carcasses	2.15	17.3%	5.68	0.5%
Fresh cuts, with bone in	2.97	9.6%	3.05	10.2%
Fresh boneless	4.71	49.6%	3.38	13.0%
Frozen carcasses and half-carcasses	6.96	0.4%	3.10	0.7%
Frozen cuts, with bone in	3.48	3.1%	1.47	8.7%
Frozen boneless	2.02	18.7%	2.28	61.1%
Fresh or frozen skirt	3.62	1.3%	2.55	5.9%
Total	3.55	100% (89,109t)	2.47	100% (30,018t)

Source: HMRC; QMS calculations

supplier of beef to the UK, the Irish Republic remained the UK's principal beef export destination in 2020, in part reflecting the existence of cross-border supply chains within the British Isles. The volume exported to Ireland fell by less than 5% to 38,550t, raising its market share by more than three percentage points to 32.4%.

Trade with Ireland shifted away from fresh boneless cuts, which fell by 18% but still accounted for 57% of export volumes, while there was a 4% fall for frozen boneless cuts.

However, the volume of beef carcasses shipped to Ireland nearly tripled, approaching 13% of trade.

Exports to the other important EU destinations of the Netherlands and Italy fell sharply, with the volume shipped to the Netherlands down 36% at 22,500t, lowering its share from 25.4% to 18.9%. Though exports to France fell by 15%, they did hold above their 2015-19 average.

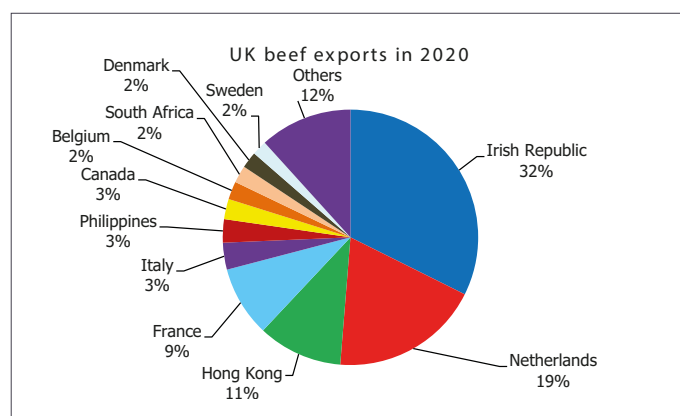
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Hong Kong and the Philippines remained the main non-EU destinations by volume in 2020 and exports to these markets increased by a respective 15% and 4%.

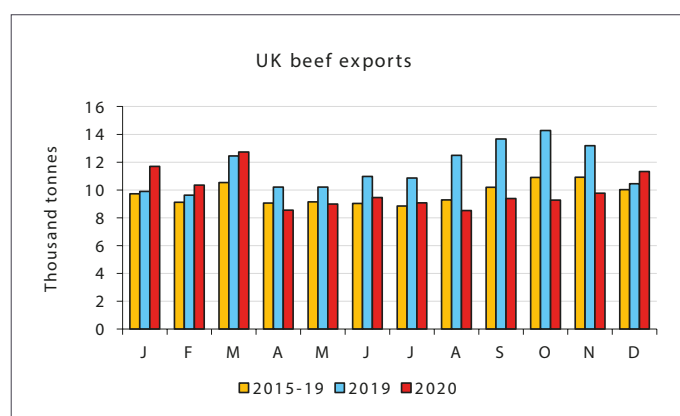
For Hong Kong, there was a switch from trade in lower value, fresh, bone-in cuts to frozen boneless beef at a slightly higher price point. Meanwhile, exports to Canada rose more than sixfold to exceed 3,000t, driven by sales of frozen boneless beef, though sales of frozen skirt remained a significant part of this trade (37% of the total). Trade with South Africa nearly doubled to pass 2,600t.

Switzerland was an important high-value market, accounting for 1.6% of export revenues from just 0.4% of the volume. Nearly 70% of sales there were of fresh, bone-in cuts, averaging nearly £15/kg, with a further 29% being boneless beef at more than £13/kg.

Processed beef exports slipped to a four-year low of around 8,400t in 2020, converting to around 15,000t in carcase weight terms. Around 68% of this was cooked



Source: HMRC; QMS calculations



Source: HMRC; QMS calculations

prepared or preserved beef, with a further 27% uncooked. Ireland remained the largest destination, accounting for 43% of the total, but this was down from 56% in 2019, with a shift towards Germany and the Netherlands.

International Trade (Continued)

Sheepmeat¹⁵

Imports

Six years of consecutive annual decline had already left UK sheepmeat imports at their lowest level of the century, before a further fall of 4.5% took place in 2020.

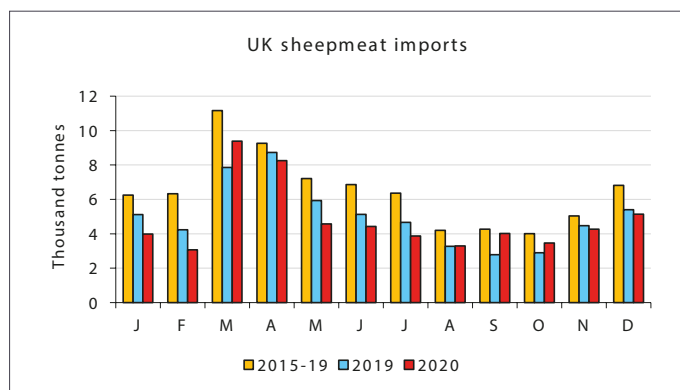
As a result, import volumes dropped to 57,800t in product weight, placing them down nearly 26% on the 2015-19 average and 37% below 2015 levels.

After converting to carcase weight equivalent¹⁶, imports fell by a steeper 8.1% to 96,900t in 2020, due to significant declines in imports of fresh and frozen boneless sheepmeat.

In 2020, imports of leg roasts did, however, rebound by nearly 6%, but were still down 18% on the five-year average and by a third from 2015 levels. While imports of fresh leg roasts continued to decline, there was a jump of 37% in frozen legs, raising their share to 53% of leg imports, from under 42% in 2019 and 47-9% in 2015-18.

Lamb imports tend to be a complementary trade, particularly at Easter and Christmas when leg roasts are very popular. In 2020, imports to the UK peaked in March despite the later Easter, with the pandemic likely having some impact on deliveries. For example, New Zealand exporters are thought to have diverted product from China towards Europe before the first wave took hold in Europe.

According to Kantar data, in the four weeks to 19 April



Source: HMRC; QMS calculations

2020, sales of leg roasts were 2.2 times the annual average for a four-week period, and 2.3 times above this average in the four weeks to December 27. Without imports, local production would have to expand if consumers were to continue buying leg roasts at the same level around these seasonal peaks, and if domestic production was to expand to fill the gap for legs, a problem with carcase balance could quickly develop.

New Zealand continued to supply a significantly smaller volume of sheepmeat to the UK than its post-single market exit quota level of 114,205t in carcase weight equivalent, with

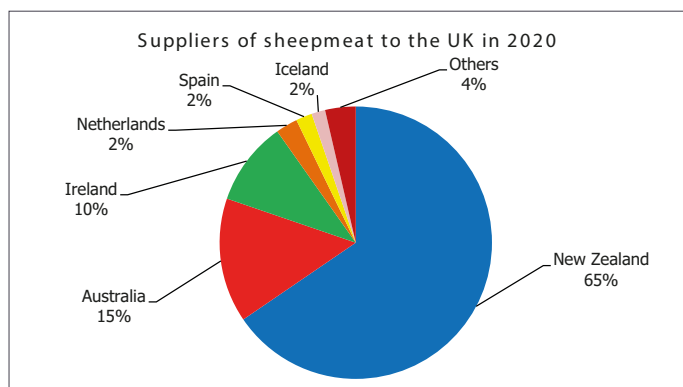
Composition of UK sheepmeat imports in 2020 – EU and non-EU comparison

Product category	Imports from the EU		Imports from non-EU countries	
	Average import price (£/kg)	Share of imports from EU	Average import price (£/kg)	Share of imports from non-EU
Fresh lamb carcasses and half-carcasses	6.76	4.6%	n/a	0.0%
Fresh sheep carcasses and half-carcasses (excl. lambs)	4.15	0.3%	n/a	0.0%
Fresh cuts, with bone in	6.43	32.3%	6.28	26.6%
Fresh boneless cuts	3.20	15.6%	7.10	7.9%
Frozen lamb carcasses and half-carcasses	8.26	0.1%	n/a	0.2%
Frozen sheep carcasses and half-carcasses (excl. lambs)	4.82	2.2%	3.76	0.1%
Frozen cuts of sheep, with bone in	4.26	12.8%	4.98	47.4%
Frozen boneless cuts	3.61	25.4%	5.14	17.8%
Fresh, chilled or frozen meat of goats	3.07	6.7%	n/a	0.0%
Total	4.68	100% (9,307t)	5.52	100% (48,458t)

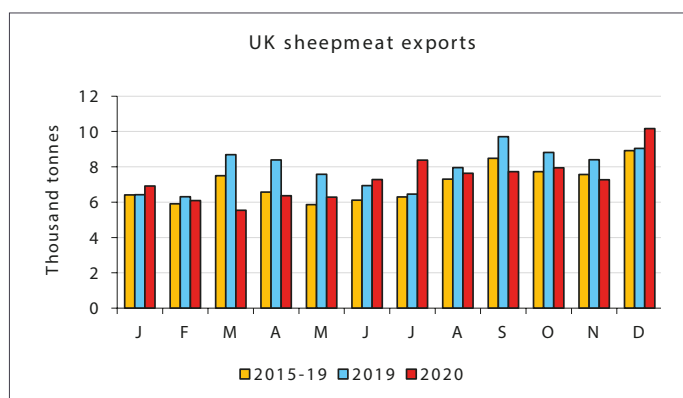
Source: HMRC; QMS calculations

¹⁵ HS code 0204 also includes goat meat but trade is minimal

¹⁶ The coefficients used are those for boneless cuts in UK import quotas www.gov.uk/government/publications/reference-documents-for-the-customs-tariff-quotas-eu-exit-regulations-2020. Where the quota coefficient is allocated at ten-digit level in the customs code, the two separate coefficients of 1.67 and 1.81 have been averaged to give 1.74 for the eight-digit product category



Source: HMRC; QMS calculations



Source: HMRC; QMS calculations

volumes estimated at 37,800t in product weight and 43,500t in carcase weight.¹⁷ These were year-on-year declines of around 2% and 6% respectively, leaving volumes 32% and 36% below 2015-19 averages.

Sheepmeat imports from Australia rebounded in 2020, rising almost 23% to an estimated 11,350t in carcase weight equivalent. Nevertheless, past declines meant that this was still down by 12% on the five-year average, and 74.9% of the initial post-EU exit quota allocation.

Ireland remained the main EU supplier of lamb to the UK, accounting for 62% of EU deliveries (in product weight) despite a near-29% slump to a four-year low of 5,800t in product weight.

Overall imports from the EU contracted by 26% in 2020 and their share of the total fell by nearly five percentage points to 16.1%, though this stayed above the 2015-19 average.

Exports

After reaching a five-year high in 2019, UK sheepmeat export volumes slipped back by 7.5% in 2020 to 87,600t in product weight. However, they did hold 3.5% above their 2015-19 average.

Converting export volumes into carcase weight equivalent indicates a marginally softer fall of 7.2% to 89,800t, though with a smaller lead over the five-year average (2.3%).

While EU markets remained the main destination for UK sheepmeat exports, a decline of 11% – while sales to non-EU markets jumped by 51% – meant a smaller share of the total, easing by around four percentage points to 90.4%. France

Composition of UK sheepmeat exports in 2020 – EU and non-EU comparison				
Product category	Exports to the EU		Exports to non-EU countries	
	Average export price (£/kg)	Share of exports to EU	Average export price (£/kg)	Share of exports to non-EU
Fresh lamb carcasses and half-carcasses	5.27	52.0%	7.83	11.8%
Fresh sheep carcasses and half-carcasses (excl. lambs)	5.05	17.3%	10.07	1.6%
Fresh cuts, with bone in	4.80	20.0%	5.39	24.2%
Fresh boneless cuts	6.02	3.2%	8.29	2.1%
Frozen lamb carcasses and half-carcasses	7.16	0.4%	2.07	7.4%
Frozen sheep carcasses and half-carcasses (excl. lambs)	6.18	0.0%	9.39	0.1%
Frozen cuts of sheep, with bone in	4.04	4.7%	1.86	36.5%
Frozen boneless cuts	4.86	2.4%	2.86	16.1%
Fresh, chilled or frozen meat of goats	2.92	0.1%	3.76	0.2%
Total	5.10	100% (79,224t)	3.88	100% (8,368t)

Source: HMRC; QMS calculations

¹⁷ Conversion based on UK import quota coefficients (see footnote 16). This NZ quota volume is specified in the same document

➔ International Trade (continued)

remained the UK's largest export market in 2020, taking delivery of 33,500t in product weight.

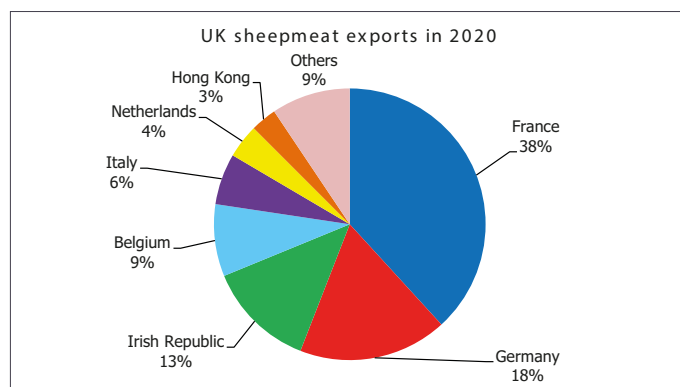
However, its share of the total fell further, slipping to 38.2% from 39.6% in 2019 and above 50% in 2015/16.

Over 84% of the volume exported to France was in carcass form, with two-thirds of this being lamb carcasses and a third ewe carcasses. While exports to Germany contracted by a fifth, volumes remained well above the 2015-19 average; like France, around three-quarters of trade was in carcasses.

Ireland was one of the EU markets to note export growth in 2020 (+6%), with this being an outlet for lower value sheepmeat averaging £3.67/kg.

Spain and Portugal are very seasonal markets, with around 40% of annual exports in December, and around 50-55% in the final two months.

Outside the EU, the volume exported to Hong Kong rebounded after a weak 2019 and this remained a good outlet for lower value frozen bone-in cuts, while the UAE



Source: HMRC; QMS calculations

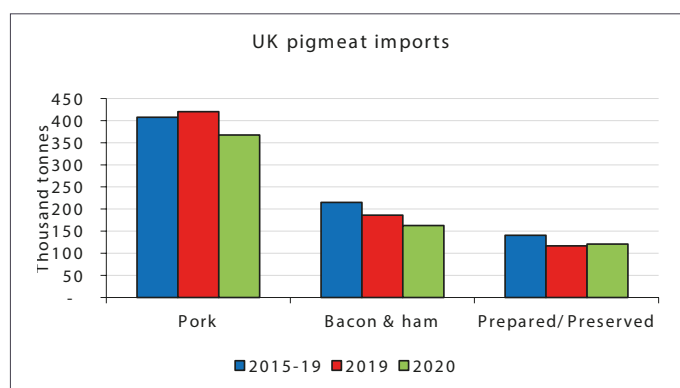
became a much more important destination, with shipments exceeding 850t. Switzerland remained an important high-value market, accounting for 1.3% of total export revenue from 0.5% of the volume.

Pigmeat

Imports¹⁸

On the back of a 15% fall in 2019, UK pigmeat imports fell by another 10% in 2020 to 650,750t in product weight. This left them around 15% below their 2015-19 annual average. In carcass weight terms, imports fell at similar rates, dropping to 802,900t¹⁹.

Deliveries of fresh and frozen pork fell by 12.6% to 367,200t; a five-year low. While slipping back to a 56.4% share of the total pigmeat import volume in product weight, this held above the five-year average (53.4%). In carcass weight, imports fell to 456,600t and 56.9% of total imports. Imports of bacon and ham



Source: HMRC; QMS calculations

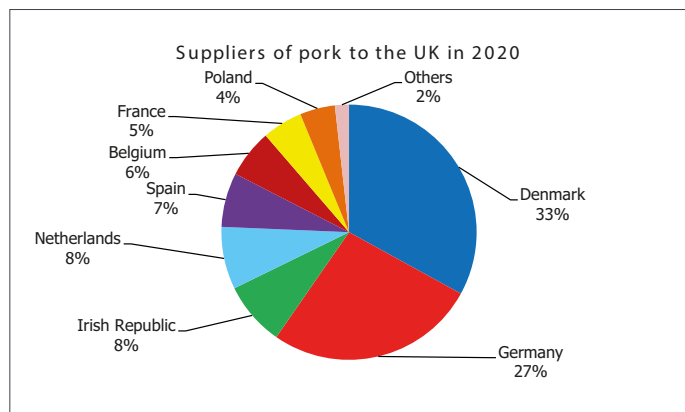
Composition of UK pigmeat imports in 2020 – share of total in carcass weight equivalent

Fresh carcasses or half-carcasses	1.2%	Hams and shoulders, salted/ in brine/dried/smoked, with bone in	0.6%
Fresh hams and shoulders, with bone in	14.3%	Bellies salted/ in brine/dried/ smoked	2.0%
Fresh boneless	28.6%	Boneless cuts salted/ in brine/ dried/smoked	22.4%
Frozen carcasses and half-carcasses	0.1%	Prepared or preserved hams	9.9%
Frozen hams and shoulders, with bone in	0.5%	Prepared or preserved shoulders	0.3%
Frozen boneless	11.7%	Other prepared or preserved pigmeat or offal	8.3%
Total	802,900t		

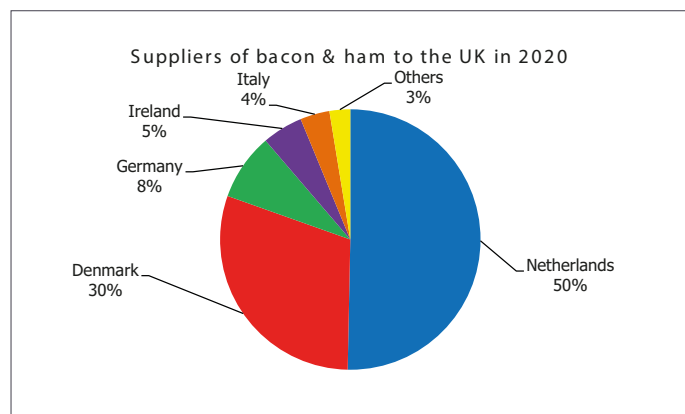
Source: HMRC; QMS calculations; USDA conversion rates

¹⁸ Fresh and frozen pork (HS 0203), bacon & ham (HS 0210), and prepared or preserved pigmeat (HS 1602)

¹⁹ "In HS 0203, bone-in cuts converted from product weight to carcass weight using a factor of 1.11 and boneless cuts converted at 1.30. In HS 0210, bone-in hams and shoulders are converted at 1.30 and other products at 1.16. In HS 1602, conversion rates are 1.30 (Source: USDA – Livestock and Poultry World Markets and Trade)"



Source: HMRC; QMS calculations



Source: HMRC; QMS calculations

also contracted by 12.6% in 2020, dropping to 162,900t in product weight and 189,500t carcass weight.

Reflecting sharp declines in recent years, volumes were around a third below 2015/16 levels, with their share of pigmeat imports sliding to 25% from around 26% in the previous three years and a third back in 2015. In carcass weight, the share slipped to 23.6%. More prepared or



preserved pigmeat was imported to the UK in 2020, with volumes 3.5% higher than in 2019 at 120,700t product weight and 156,900t carcass weight. However, after a steep fall in 2019, deliveries were still 14% below their five-year average.

The share of prepared or preserved pigmeat in the total import volume rebounded by two percentage points in 2020, edging above its five-year average of 18.4%. In carcass weight, this share was 19.5%.

Very little pigmeat is imported to the UK from non-EU sources each year, averaging only 918t between 2016 and 2020.

Denmark and Germany increased their market share of UK pork imports in 2020, rising from a collective share of around 54%, up to nearly 60% in product weight.

With imports from Denmark falling at a below average rate of 7.6% to 121,200t, its share rose by nearly two percentage points, while a 2.7% increase to 97,900t raised Germany's share by four points. These gains in share came at the expense of

Composition of UK pork exports in 2020 – EU and non-EU comparison				
Product category	Exports to the EU		Exports to non-EU countries	
	Average export price (£/kg)	Share of exports to EU	Average export price (£/kg)	Share of exports to non-EU
Fresh carcasses or half-carcasses	1.09	27.6%	3.36	0.5%
Fresh hams and shoulders, with bone in	1.52	11.6%	2.52	1.4%
Fresh boneless	1.84	37.2%	1.64	2.1%
Frozen carcasses and half-carcasses	2.86	0.1%	2.34	3.2%
Frozen hams and shoulders, with bone in	1.40	2.0%	1.53	16.1%
Frozen boneless	1.36	21.6%	1.74	76.7%
Total	1.48	100% (113,862t)	1.74	100% (144,559t)

Source: HMRC; QMS calculations

➔ International Trade (continued)

Ireland, the Netherlands, Spain and Belgium, with imports down by 23-33% in 2020.

In the bacon and ham pigmeat category, the two largest suppliers – the Netherlands and Denmark – continued to hold even greater dominance, with below average falls of 7-8% in 2020 raising their collective market share by nearly four percentage points to just over 80%. This was at the expense of Germany, Ireland and Italy, with declines of 18-35%, dropping them to a combined 17% of the total. In the prepared or preserved category, there was a switch in principal supplier from Ireland to Poland in 2020, with volumes arriving from the former 18% higher at 35,700t, while they fell by 19% from the latter, to 31,200t. This meant that their combined share slipped from 59.1% to 55.5%, with the 25.9% Irish share comparing with a five-year average of one-third.

Germany and Denmark were other important suppliers, with around 15% and 12% of the total, while the share provided by Italy, Spain and the Netherlands rose from 6% to 10%.

Exports

UK pigmeat exports continued to trend higher in 2020, totalling 285,500t, which was a year-on-year lift of 4.3%, placing them 34% above their 2015 levels. When converted into carcase weight, exports were higher by similar rates, reaching 350,600t.

Compared with five-year average export shares of around 88%, 7% and 5% for pork, bacon and ham, and prepared or preserved pigmeat respectively, both in product and carcase weight terms, shares changed to around 90.5%, 4.5% and 5% in 2020. This reflected increases of around 6% for pork and 11% for prepared or preserved pigmeat, whereas exports of cured pigmeat fell heavily (-27%).

UK pork exports have undergone a considerable shift in recent years, with increasing import demand from China/Hong Kong. This accounts for around 21% of export volumes in 2015, growing to 23-25% in 2016-18, then surging to 36% in 2019 and reaching 48.6% in 2020 (these shares were around a percentage point higher in carcase weight terms throughout).

Volumes climbed from 38,400t product weight and 49,700t carcase weight, up to respective figures of 125,500t and 157,300t in 2020. At the same time, sales to the EU were



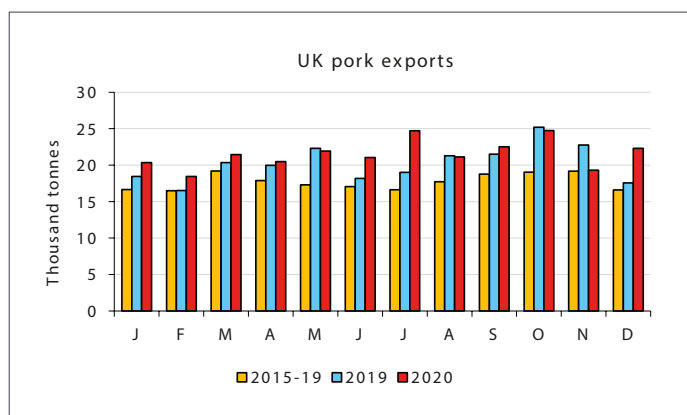
11% lower in 2020 than in 2015, with their share dropping from 69% in 2015 to 52% in 2019 and 44% in 2020.

The shortage of pork in China following an African Swine Fever outbreak which began in 2018 resulted in a surge in market prices, making it a very attractive market for UK exporters. In the main product category for exports to China/Hong Kong (frozen boneless pork), the average price per kilo was around 20% higher than could be realised from sales to the EU.

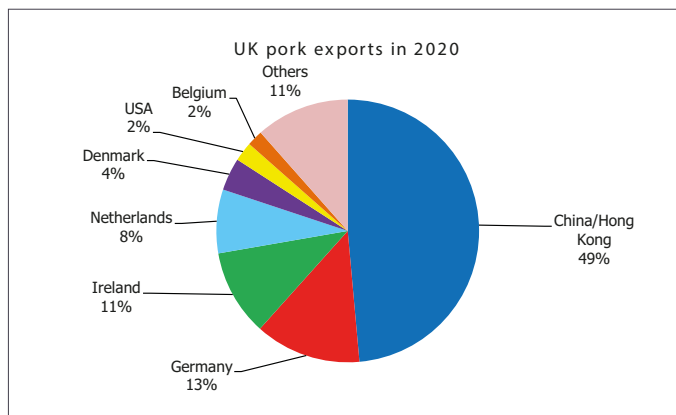
While UK exports to the EU fell by around 11% in 2020 overall, sales to Germany were down by just 0.6%, so its share of trade with the EU increased to 30%.

By contrast, sales to the Irish Republic, the Netherlands and Denmark fell by 16-26%, lowering their shares of EU trade from a collective 58% to 51%.

The Irish Republic increased its dominance as the main market for UK exports of processed pigmeat in 2020, with its share of the bacon and ham category climbing from 68% to 81%, while its share of the prepared or preserved pigmeat category rose from 78% to 86%.



Source: HMRC; QMS calculations



Source: HMRC; QMS calculations

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