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BRIEFING PAPER

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UK Dairy Industry Statistics

By Alex Bate

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Summary

This briefing paper sets out key statistics and current trends for the UK dairy industry.

- The UK is the third-largest milk producer in the EU after Germany and France, and the tenth-largest producer in the world.
- Milk accounted for 17.8% of total agricultural output in the UK in 2014, and was worth £4.6bn in market prices.
- The total number of UK dairy cows has fallen from 2.6 million in 1996 to 1.9 million in 2015, a 27% reduction.
- The UK produced 14.6 billion litres of milk in 2014, the highest annual figure since 1990.
- In 2014, the UK had a negative trade balance in butter and cheese, but a positive trade balance in milk and cream.
- Farm-gate milk prices for August 2015 were 23.3 pence per litre, the lowest monthly figure since August 2009.
- Between 1995 and 2015, doorstep delivery has declined from 45% to 3% of the retail milk market.

1. UK Dairy Herd

Table 1 shows that the number of dairy cows in the UK declined steadily from 1996 to 2013, before seeing a slight increase in 2014 and 2015. The total has fallen from 2.6 million in 1996 to 1.9 million in 2015, a 27% reduction.

Table 1: Dairy cow numbers (thousands): UK 1996-2015

	England	Wales	Scotland	Northern Ireland	**United Kingdom**
1996	1,785	297	225	281	**2,587**
1997	1,702	281	217	279	**2,479**
1998	1,660	276	216	288	**2,439**
1999	1,661	279	214	286	**2,440**
2000	1,575	269	207	284	**2,336**
2001	1,490	270	196	295	**2,251**
2002	1,462	268	199	298	**2,227**
2003	1,435	268	198	290	**2,191**
2004	1,374	245	195	288	**2,102**
2005	1,276	238	197	291	**2,001**
2006	1,259	237	183	296	**1,974**
2007	1,236	234	181	286	**1,937**
2008	1,199	229	175	289	**1,892**
2009	1,163	221	169	285	**1,838**
2010	1,160	221	168	281	**1,830**
2011	1,129	220	164	282	**1,796**
2012	1,121	224	167	285	**1,796**
2013	1,113	223	166	279	**1,782**
2014	1,143	234	170	294	**1,841**
2015	1,162	246	176	312	**1,895**

Source: AHDB Dairy, *Cow Numbers*

Notes: Grey cells indicates numbers recorded using old calculation systems. England, Wales and Scotland switched to the new, Cattle Tracing System (CTS) and Northern Ireland switched to the new, Animal and Public Health Information System (APHIS), in the mid-2000s. This should be taken into consideration when comparing data prior to these changes.

The decline in the size of the dairy herd has been accompanied by a similar fall in the number of dairy producers. **Table 2** shows that the number of registered dairy producers in the UK fell from 35,741 in 1995 to 13,815 in 2014, a 61% reduction.

Table 2: Number of registered dairy production holdings, June: UK 1995-2014

	England & Wales	Scotland	Northern Ireland	United Kingdom
1995	28,093	2,239	5,409	**35,741**
1996	27,092	2,135	5,343	**34,570**
1997	26,110	2,009	5,233	**33,352**
1998	24,681	1,951	5,121	**31,753**
1999	23,286	1,896	5,039	**30,221**
2000	21,772	1,795	4,855	**28,422**
2001	20,191	1,624	4,741	**26,556**
2002	18,695	1,639	4,596	**24,930**
2003	16,977	1,590	4,425	**22,992**
2004	15,846	1,569	4,201	**21,616**
2005	14,732	1,523	4,058	**20,313**
2006	13,778	1,472	3,761	**19,011**
2007	12,867	1,429	3,619	**17,915**
2008	12,252	1,351	3,457	**17,060**
2009	11,743	1,298	2,967	**16,008**
2010	11,256	1,263	2,781	**15,300**
2011	10,851	1,189	2,753	**14,793**
2012	10,724	1,163	2,662	**14,549**
2013	10,581	894	2,684	**14,159**
2014	10,274	886	2,655	**13,815**

Source: AHDB Dairy, *Producer Numbers*

Notes: From 2005 figures for Northern Ireland include farms on which dairy cows account for more than two-thirds of the total standard output.

Scotland has changed its typology in 2013 which is now based on 11 farm types and uses the cattle tracing scheme, figures have been revised from 2012 onwards, resulting in a significant fall in the number of holdings compared with 2011.

For England and Wales, all premises where milk is produced are refered to as 'Production Holdings'; this includes holdings with sheep, goats and buffalo

Table 3 shows that the average herd size has risen, as those holdings with smaller herds have left the industry. In 2014 the average number of cows per UK herd was 133, compared to 97 in 2004, and 75 in 1996.

Table 3: Average dairy herd size: UK 2004-2014

	2004	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
England	105	104	111	117	119	121	125	126	127	128	136
Wales	88	91	96	102	105	105	112	115	117	118	127
Scotland	124	129	124	127	129	130	133	138	181	185	192
Northern Ireland	69	71	84	91	97	96	101	103	107	104	111
United Kingdom	**97**	**98**	**106**	**112**	**115**	**116**	**121**	**123**	**126**	**126**	**133**

Source: AHDB Dairy, *Average herd size*

2. Production

Whilst the number of UK dairy cows has decreased, the yield per cow has increased by 93% since 1975. As a result, total domestic milk production has increased by 9% over the period (see **Table 4**).

Total production had been steadily falling from a high of 16.7 billion litres in 1983 to a low of 13.1 billion litres in 2009, before beginning to rise again. The figure for 2014 of 14.6 billion litres is the highest since 1990.

Table 4: Milk production: UK 1975 to 2014

	Total milk production (million litres)[1]	Average yield (litres per cow)
1975	13,407	4,099
1980	15,409	4,727
1985	15,653	4,872
1990	14,816	5,151
1995	14,252	5,398
2000	14,071	5,979
2005	14,052	6,986
2010	13,453	7,303
2011	13,665	7,563
2012	13,443	7,477
2013	13,534	7,543
2014	14,649	7,916

Note: Total milk production is based on all milk produced on farm, including milk consumed in farm households, milk fed to livestock and farm waste. Suckled milk is excluded.

2014 Figures are provisional

Source: Defra, *Agriculture in the UK 2014 (various years)*

Only 3% of all UK produced milk was exported in 2014, with the rest for domestic use. **Chart 1** shows the quantities of milk used for domestic liquid consumption and manufacture.

Chart 1: UK Milk Usage, 1994 & 2004 (million litres)

	1994	2014	% change
Liquid consumption	6,773	7,028	+4%
Butter	292	288	-2%
Cheese	3,251	3,866	+19%
Cream	265	301	+13%
Condensed milk	751	270	-64%
Milk powder	2,098	1,562	-26%
Other manufacture	632	732	+16%

Source: *Defra, Agriculture in the UK 2014, table 8.5*

The largest declines since 1994 have been in the quantities of milk used for producing milk powder and condensed milk. Prior to 1988, more milk was used to manufacture milk powder than cheese.

The UK is the third-largest milk producer in the EU after Germany and France, and the tenth-largest producer in the world. Milk accounted for 17.8% of total agricultural output in the UK in 2014, and was worth £4.6bn in market prices.[1]

Table 5 details milk production over the period 1992-2012 in the fifteen top milk-producing countries in 2012. The decline in production over the period in the UK corresponds to reduced outputs in a number of other European countries.

By contrast, production in China, Pakistan, India, Brazil and New Zealand has increased considerably over the period. Note that since the Defra figures and UN figures are gathered and reported on a different basis, the production figures for the national dataset do not precisely match the international dataset.

Table 5: Cow's milk production in the 15 top milk-producing countries in the world: 1992-2012

million tonnes	1992	1997	2002	2007	2012	*Change 1992-2012*	*Change 2002-2012*
USA	68.4	70.8	77.1	84.2	90.9	*+33%*	*+18%*
India	24.3	29.1	34.6	46.8	54.0	*+122%*	*+56%*
China	5.3	6.3	13.4	35.6	37.8	*+616%*	*+183%*
Brazil	16.3	19.2	22.3	26.1	32.3	*+99%*	*+45%*
Russia	47.0	33.8	33.2	31.9	31.6	*-33%*	*-5%*
Germany	28.0	28.7	27.9	28.4	30.5	*+9%*	*+9%*
France	25.7	24.9	25.2	24.4	24.0	*-7%*	*-5%*
New Zealand	8.1	11.1	13.9	15.6	20.1	*+149%*	*+45%*
Turkey	8.7	8.9	7.5	11.3	16.0	*+83%*	*+113%*
UK	**14.8**	**14.8**	**14.9**	**14.0**	**13.9**	***-6%***	***-7%***
Pakistan	3.8	7.6	8.4	11.1	13.4	*+254%*	*+60%*
Poland	13.2	12.1	11.9	12.1	12.7	*-4%*	*+7%*
Argentina	6.8	9.4	8.8	9.8	11.8	*+74%*	*+34%*
Netherlands	11.9	10.9	10.7	11.1	11.7	*-2%*	*+9%*
Ukraine	19.0	13.5	13.8	12.0	11.3	*-41%*	*-19%*

Source: FAOSTAT, Food and Agriculture Organisation of the United Nations

1 Defra, *Agriculture in the United Kingdom 2014*, Table 4.1; 8.5

3. International Trade

There is little overseas trade in liquid milk, but considerable trade in processed products. In 2013, only 1.3% of liquid milk produced in the EU was exported.[2]

Table 6 shows that in 2014 the UK had a negative trade balance in butter and cheese, but a positive trade balance in milk & cream.

Imports make up a very small proportion of total supply of liquid milk in the UK. 1% of milk available to UK dairies was imported in 2014. However, milk imports have risen from 75 million litres in 2009 to 139 million litres (provisional) in 2014.[3]

Table 6: UK trade balance in dairy products, 2009 & 2014

Thousand tonnes

	Imports		Exports		Trade balance	
	2009	**2014**	**2009**	**2014**	**2009**	**2014**
Cheese	419	467	105	134	-314	-333
Milk & Cream	158	221	539	654	381	433
Butter	96	95	27	51	-70	-44

2014 figures are provisional.
Source: Defra, Agriculture in the UK 2014

4. Consumption

In 1995, doorstep delivery accounted for 45% of household purchases of milk in England and Wales.[4] By the end of 2014/15, the proportion in Great Britain had declined to 3%.[5]

This decline has been accompanied by a growing price differential between milk from retailers and from doorstep delivery. In the UK in 1995, a pint of milk cost an average of 37.9p on the doorstep and 23.9p from retailers. [6] By the end of 2015, a pint cost 81p on the doorstep and 24.8p from retailers.[7]

2 AHDB Dairy, *Dairy statistics: an insider's guide 2014*, p54.
3 Defra, *Agriculture in the United Kingdom 2014,* Table 8.5:
4 Agriculture and Horticulture Development Board, *The Brief*, 2000
5 AHDB Dairy, *Dairy Statistics, an Insider's Guide 2015*
6 Agriculture and Horticulture Development Board, *The Brief*, 2000
7 AHDB Dairy, *UK Retail Prices*

5. Farm-gate Prices

Farm-gate prices are those received by milk producers. They are monitored monthly and represent the average price per litre, net of delivery charges.

Chart 2 shows that farm-gate prices had been in decline, from around 25 pence per litre (ppl) in 1997 to 18 ppl in November 2007. There was a sharp upturn in prices in late 2007 and a sustained rise from 2010 onwards. Prices peaked in November 2013, and have fallen by 30% in the two years to November 2015.

Monthly milk prices are seasonal, and tend to be lower in the summer. The price for August 2015 was 23.3 ppl, the lowest monthly figure since August 2009.

The dairy arm of the Agriculture and Horticulture Development Board (AHDB Dairy), argue that some of this downward pressure on prices comes from changes in the international market:

> Demand for dairy commodities weakened during 2014 as key importing countries had built up significant stock levels following heavy buying in the previous year. Milk production was strong in the major exporting nations, creating an imbalance in supply and demand and placing downward pressure on prices.[8]

Defra also pointed to international changes:

> High domestic production across the year combined with the ban on dairy imports to Russia and falling returns from global commodity markets had a large impact on the industry. In consequence, the majority of UK milk processors reduced the payments to farmers for raw liquid milk.[9]

Chart 2: Farm-gate milk prices 1991-2015, including bonus payments

Source: Defra, *Latest UK milk prices and composition of milk*

[8] AHDB Dairy, [Dairy Statistics, an Insider's Guide 2015]
[9] Defra, [Agriculture in the UK 2015]

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