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Date: November 2017  
Paper Number: 17-028

The Research Service acknowledges the parliamentary fellowship provided to Keri McNamara by the Natural Environment Research Council, which enabled this Research Briefing to be completed.

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Research Briefing

The Dairy Sector

This Research Briefing provides an overview of the dairy sector in Wales. It sets out on the impact of global dairy prices on Welsh and UK farmers, the cost of production, changing supply chain margins, dairy contracts in Wales and the potential impacts of Brexit.
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1. Introduction

This research briefing gives an overview of the current state of the UK dairy sector with particular reference to the Welsh dairy industry. Dairy farming is one of the largest agricultural sectors in the UK, accounting for around 13.9% of UK agricultural production by value, and 29% in Wales in 2016. Numbers of dairy farmers in Wales have decreased over the past few years. This has been associated with continued cost and price pressure. Between 2015 and 2016 the value of Welsh milk and milk products dropped by £35 million (8%) as a consequence of global oversupply and sluggish demand.

However, following two years of declining UK farmgate milk prices, a recent improvement in the global supply/demand balance has resulted in price increases. Current forecasts anticipate this price growth will slow imminently as a consequence of increasing production.

2. UK farmgate prices

Farmgate prices represent the average price paid to milk producers. The UK average price of milk in July 2017 was 27.78 pence per litre (ppl). This was 6.98 ppl (34%) higher than in July 2016. Despite a drop in the first half of 2016, milk prices have been climbing since July 2016 (Figure 1).

Average yield per cow in June 2017 stood at 26.16 litres/day, a decrease of 0.4 litres/day compared with the same month in 2016. According to the Promar Milk Costings, combining milk prices with the current milk yield gives a total average monthly milk value of £37,377 which was £9,608 (34.6%) more than the previous year.

![Average UK, GB & NI farmgate prices](image-url)

Figure 1: Farmgate milk prices in pence per litre (ppl) for the UK, GB and Northern Ireland (NI). Source: DEFRA Farmgate via AHDB.
3. Changing global prices

Volatility in the market associated with the Russian import ban resulted in a drop of the global price of milk in 2014. This downturn continued through 2015 into 2016 fuelled further by strong milk production from the largest exporting regions and a reduction in Chinese demand.

In the first half of 2016, the industry was subject to the additional challenge of reduced demand from oil-exporting countries as a result of the falling oil price. Coupled with the strengthening of the US dollar and the removal of EU production quotas, prices in July 2016 fell to 60% of their 2013 levels.

However, a decrease in production alongside stable demand contributed to an increase in dairy prices in the second half of 2016. Latterly, this production gap is largely being filled in the EU by increased outputs in Italy, Poland, France and the UK which is expected to slow down the price increase.

The price of butter has been particularly strong in the first half of 2017 which has been partially responsible for the global increase in the value of dairy. It is expected that the price increases in the first half of 2017 will not continue much longer and intervention buying may become necessary at an EU level to protect a weak milk price. **Rabobank’s prediction of future trends reads:**

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As the year progresses, Rabobank sees global butter prices remaining firm. They will be needed to maintain margins due to the persistent low value of skimmed milk, which is likely to remain weak, but stable, supported by limited stocks in Oceania and intervention buying in Europe.

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This is already being felt by UK and Welsh producers as purchasers start to drop their prices. First Milk, which purchases milk from a third of Welsh dairy farms, reduced its May 2017 milk prices by **between 0.1 and 0.35ppl** (the first reduction since summer 2016) while Arla dropped its **June 2017 price by 0.4ppl**.

Dairy farmers in Wales are partially protected from the extremities of global volatility by EU initiatives such as Private Storage Aid under the Common Market Organisation. Despite this, the Welsh dairy industry is still exposed to global market trends as UK and EU intervention is, **according to the Farmers Union of Wales (FUW), not sufficient to absorb all volatility.**

**Cost of Production**

Overall feed costs have decreased since 2014, with the average feed price in 2014 at £701 per cow compared to £553 for the year until June 2017 (21% decrease). However, margin over purchased feed (MOPF) also decreased by 16% over the same period. Since August 2016, there has been a shorter term increase in both MOPF and feed costs from 15.47ppl in July 2016 to 20.49ppl in June 2017 (32%) (Figure 2).

This MOPF calculation reflects changes in feed price, which is the single biggest cost in milk production. It does not take into account all factors and there are several other elements that affect the margin per cow.
4. Dairy supply chain margins

Agriculture and Horticulture Development Board (AHDB) data show that in the past it has been possible to estimate profit margins for processors and retailers of liquid milk, mature Cheddar and mild Cheddar. However, reliable information for processor selling prices for liquid milk and mature Cheddar is no longer available due to consolidation within the liquid milk and mature Cheddar processing sector. The last figures available on the gross supply chain margins for liquid milk are for 2010/11 and 2013/14 for mature Cheddar (Table 1, Figure 3).

However, figures for the mild Cheddar supply chain for 2014-15 were produced. For mild Cheddar the AHDB statistics found that the 2014/15 slump in dairy prices had severe impacts on farmers and manufacturers, while retailers saw a rise in margins. The farmgate milk price dropped from 31.2 ppl in the first fiscal half of 2013/14 to 27.4 ppl in the second half of 2014/15 while gross retail margins rose from 41% to 58% in the same period (Figure 4).
5. Milk supply

Total UK wholesale milk deliveries to dairies was 14,009 million litres in 2016/2017, down 820 million litres from 2015/16 - a decrease of 5.6%. Provisional monthly wholesale milk delivery figures for March 2017 indicate that deliveries amount to 1,241 million litres. This is a decrease on the same month last year of 19 million litres or 1.5%. However, as of February 2017 Welsh milk production is increasing, contrary to the overall UK trend. Welsh production is up 1.4% over the last two years but is countered by a drop of 3.3% and 1.5% in England and Scotland respectively.

Between 1984 and 2015, milk supply was controlled by milk production quotas. The system was introduced to address oversupply and charged a levy for producers and purchasers who exceeded a set quota. The European Commission ended the quotas in March 2015 with the aim of boosting EU exports.

6. Welsh milk producers

In September 2017 there were 9,376 dairy producers (cattle, sheep and goats) across England and Wales. Compared to the same month in the previous year, producer numbers are down by 141 (1.5%). There are 1,726 dairy producers in Wales, which compares to 1,744 in September 2016 (1% reduction) (Figure 5). Carmarthenshire has the highest number of producers with 473 dairy farms, while north west Wales has the lowest with 123.

The number of dairy cows in Wales increased by 0.9% between June 2015 and 2016 and has risen by 5.0% over the last 10 years. Despite the overall rise in this period there was a fall in numbers between 2006 and 2013 and numbers still remain below the level of 1996.
7. Dairy products manufactured in Wales

The most recent statistics on dairy products manufactured in Wales were produced for a scoping study of the Welsh dairy industry in 2011. They reveal around 51% of milk produced in Wales was processed in Wales, the remaining 49% was processed in England. The Welsh dairy processing sector is dominated by cheese processing (Figure 6); totalling 20 of the 45 recognised dairy processing establishments. Cheese contracts are traditionally lower priced than liquid milk. Cheddar and Mozzarella cheese are two of the main cheese products produced, with Cheddar and other hard-pressed cheese amounting to 60% of Welsh cheese production.

The relatively small local population and the distances from dairy farms to large consumer centres such as London or Birmingham have been identified as reasons for the prevalence of cheese processors. According to Dairy Co there is also no ‘large scale’ liquid milk processor in Wales capable of supplying the major supermarkets.

Following an independent review of the dairy sector in 2015, the Welsh Government commissioned a scoping study (PDF 404 KB) to explore the feasibility of expanding the dairy processing sector in south west Wales. The study highlighted the potential of south west Wales for hosting a large processing plant due to its favourable conditions for dairy farming. However, the report indicated a more cost-effective option would be to increase the production of existing plants.
8. Milk contract availability in Wales

The availability of milk contracts to suppliers varies across Wales, with producers in the east having typically more contract opportunities than their counterparts in the west. Wales is not unique in this situation, producers closer to large consumer populations generally have greater access to contracts than those located further away.

In March 2016, Freshways dropped contracts with seven dairy farms in west Wales, a move which was attributed to the rise in the spot milk price and the westerly location of the dairy farms.

As a consequence of the high percentage of milk processed outside Wales, Welsh producers are particularly exposed to changes in supplier contracts. Dairy Producer Organisations (DPOs) offer the potential for farmers to strengthen their position in negotiations with suppliers to ensure better supply chain collaboration. The first DPO, Dairy Crest Direct, comprised 1,050 producers across England and Wales and the milk produced is processed by Müller. While the Welsh Government supports the formation of DPOs, it has been acknowledged that many Welsh farmers are unable benefit as a consequence of being members of co-operatives, which prevents DPO membership.

<table>
<thead>
<tr>
<th>Companies</th>
<th>Annual Price (ppl)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aligned Liquid Milk</strong></td>
<td></td>
</tr>
<tr>
<td>Arla Foods - Sainsbury's</td>
<td>27.29</td>
</tr>
<tr>
<td>Müller Direct Milk - Sainsbury (Profile)</td>
<td>27.63</td>
</tr>
<tr>
<td>Müller Direct Milk - Sainsbury (Seasonal)</td>
<td>27.56</td>
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<tr>
<td>Müller Milk Group - Co-operative</td>
<td>27.50</td>
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<tr>
<td>Müller Milk Group - Sainsbury</td>
<td>27.58</td>
</tr>
<tr>
<td>Müller Milk Group - Tesco</td>
<td>28.61</td>
</tr>
<tr>
<td><strong>Standard Liquid Milk</strong></td>
<td></td>
</tr>
<tr>
<td>Müller Milk Group - Partnership</td>
<td>26.87</td>
</tr>
<tr>
<td>UK Arla Farmers Liquid 1</td>
<td>25.42</td>
</tr>
<tr>
<td><strong>Standard Manufacturing</strong></td>
<td></td>
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<tr>
<td>Arla Direct Manufacturing</td>
<td>24.55</td>
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<tr>
<td>Glanbia - Llangefni</td>
<td>26.88</td>
</tr>
<tr>
<td>South Caernarfon Creameries</td>
<td>26.92</td>
</tr>
<tr>
<td>UK Arla Farmers Manufacturing 1</td>
<td>25.87</td>
</tr>
<tr>
<td><strong>A&amp;B</strong></td>
<td></td>
</tr>
<tr>
<td>First Milk - Haverfordwest (A&amp;B Comp) 2</td>
<td>26.94</td>
</tr>
<tr>
<td>Freshways 2</td>
<td>27.00</td>
</tr>
</tbody>
</table>

Table 2: AHDB Welsh League table for April 2017 - prices paid to producers.

9. Voluntary code of practice

In September 2012, after a series of price cuts by milk processors, a voluntary code of practice (PDF 1.3MB) for contractual relationships between dairy processors and producers was introduced. The code applies to Wales, England and Scotland. As of March 2013, an estimated 85% of British milk is bound by the principles of the voluntary code. The code allows individual farmers to negotiate contracts and gives them the ability to leave contracts more easily if price changes occur.

Subsequent to its implementation, the code has undergone several reviews commissioned by the Welsh Government. The first review was chaired by Alex Fergusson MSP in October 2014 and revealed the code had led to positive change where implemented but it needed to be adopted sector-wide.
Following this, in 2014 the Welsh Government commissioned an independent review of the dairy industry in Wales (PDF 627KB) involving more than 100 stakeholder interviews. The report set out a variety of recommendations including ‘that the code continues to be reviewed annually to ensure it is ‘fit for purpose’ and that any corrective actions are identified’.

On 24 March 2015, the then-Deputy Minister for Farming and Food, Rebecca Evans announced she had accepted 19 of the 26 changes in full including the recommendation to annually review the code. She subsequently set up the independent Welsh Dairy Leadership Board comprising industry representatives to deliver on the recommendations.

While no formal review of the code has been published, it is understood that the Leadership Board has been monitoring it and has determined there is currently (as of June 2017) no need to amend it.

10. The dairy industry and Brexit

The UK’s departure from the EU is likely to impact on the UK dairy sector. According to a Rabobank report, the UK dairy industry is 77% self-sufficient. The sector is reliant on a balance of imports and exports that vary with product (Figure 7) although it is still a net dairy importer.

![UK self-sufficiency by product](image)

Figure 7: UK self-sufficiency by product. Source: Rabobank

The UK dairy sector is subject to EU intervention in the form of a range of policy measures which include access to funding, subsidies and quotas. The future of the UK’s involvement in these initiatives is unclear and will be dependent on the outcome of Brexit negotiations. Changes to the status quo could have an assortment of implications for the UK dairy sector which is currently highly integrated with EU policy.

For instance, imports from other dairy-producing countries such as New Zealand are currently limited under EU quotas. It is possible that once these are lifted they could try to increase their market share by placing pressure on local producers.

The UK currently benefits from tariff-free dairy imports and exports in the EU. According to Rabobank, should the UK negotiate a tariff-free trade deal with the EU then the likelihood is business as usual for the industry. However, if this is lost, UK dairy producers could be faced with tariffs of 33.5% for exports into the EU. It is estimated that if these tariffs had been applied last year, it would have cost the industry in the region of £1.5-2 billion.
Of particularly substantial impact could be the loss of tariff-free trading with Ireland. Ireland exported 65,000 tonnes of butter and dairy and 139,000 tonnes of cheese into the UK in 2015 (PDF 717KB), including 85% of Cheddar imports. Meanwhile, Ireland accounts for 67% of the UK’s dairy exports (PDF 717KB). While it is expected Ireland will try to maintain access to the UK market, an interruption could allow UK-based producers to increase their domestic market share.

Should tariff-free trading be lost, any UK-imposed import tariffs could allow certain imports to be substituted with UK milk. However, combined with supply chain investment, this could present an opportunity for the industry.

Coupled with a growing global population and demand from increasingly affluent emerging markets, it is possible the UK sector could grow. Targeting certain countries and markets looking for value-added products could allow greater returns. A recent report by AHDB, identified Russia as the biggest opportunity for growth, although the market is currently closed due to international sanctions. Alternatively, Middle Eastern, Asian and North African markets also present options as they are likely to be the focus of most of the global growth in dairy imports.

See a recent AHDB Horizon report (PDF 718KB) on Brexit and the dairy industry for more information.

11.Key sources

- AHDB Dairy
- Rabobank
- Farmers Union of Wales
- NFU Wales
- Farmers Weekly
- DEFRA Dairy Farming guidance
- Welsh Government pages on ‘The Dairy Industry’
- AHDB Horizon report (PDF 718KB)
- Up-to-date farmgate prices