Global Perspectives on Agri-Food

How do Italian and European dairy farmers compare to New Zealand and the USA

Peter Paul Coppes January 25, 2019
RaboResearch Food & Agribusiness
Globally active in banking with offices in 40 countries

40 Countries

15 International desks

900 Offices

47,000 Staff
Deep sector knowledge in combination with comprehensive product suite

F&A sectors

- Animal protein
- Beverages
- Consumer foods
- Dairy
- Farm inputs
- Grains, oilseeds & sugar
- Supply chain

Product suite

- Capital structuring
- Corporate Risk & Treasury Management
- Debt Capital Markets
- Equity Capital Markets
- Financial Products
- Global Client Solutions
- Loan Products Group
- M&A
- Project Finance & Export Finance
- Trade & Commodity Finance

Advisory

- Leading M&A position
- Capital structuring capabilities
- Extensive industry knowledge

Lending

- Lending capabilities

Debt

- Debt Capital Markets

Professional Products

- Wide scope of professional products

Equity

- Equity Capital Market capabilities

- One of the largest lenders in the Dutch and global F&A markets, providing access to financing where needed by our clients
- Able to commit significant capital to key relationships due to the strong balance sheet

- Rabobank is a key bank in bond financing, private placements, and securitisation transactions

- Asset Based Finance
- Corporate Risk & Treasury Management
- Global Client Solutions

- Acquisition Finance
- Trade Commodity Finance
- Project Finance & Export Finance

- Leading Benelux ECM advisor, providing the full range of ECM services, across all sectors
- Highly experienced origination and execution team, with a global focus and execution capability

Best Investment Bank in the Netherlands (2015 and 2013)

Best Investment Bank in the Netherlands (2015 and 2013)

Corporate Finance Advisory: highest customer satisfaction (2015)

37th of Top 1000 World Banks (2015)
Significant commitments to almost all major players in the industry

17 / 20
17 of the top 20 global dairy players are Rabobank clients

16% of Rabobank’s total loan portfolio is committed to the dairy sector

€ 24 billion outstanding in dairy (rural & wholesale)
Our mission is to be the bank of choice to our F&A clients

**F&A Sector Banking**

We offer sector-based finance solutions by bringing together our global sector knowledge, our client insights and seamless execution.

<table>
<thead>
<tr>
<th>Animal protein</th>
<th>Beverages</th>
<th>Consumer foods</th>
<th>Dairy</th>
<th>Farm inputs</th>
<th>Grains, oilseeds &amp; sugar</th>
<th>Supply chain</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Pork &amp; beef</td>
<td>• Beer</td>
<td>• Food services</td>
<td>• Dairy</td>
<td>• Agro chemicals</td>
<td>• Grains</td>
<td>• Food Logistics</td>
</tr>
<tr>
<td>• Seafood</td>
<td>• Coffee</td>
<td>• Bakery</td>
<td></td>
<td>• Animal nutrition &amp; health</td>
<td>• Oilseeds</td>
<td>• Packaging</td>
</tr>
<tr>
<td>• Poultry</td>
<td>• Distribution</td>
<td>• Confectionary</td>
<td></td>
<td>• Equipment</td>
<td>• Sugar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Juices</td>
<td>• Grocery</td>
<td></td>
<td>• Fertilisers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Soft drinks</td>
<td>• Other value-added processing</td>
<td></td>
<td>• Seeds</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Spirits</td>
<td>• Dairy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Wine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sector knowledge**

- Fundamental sector knowledge covering the entire F&A chain supported by extensive research from macro-themes, impacting a particular F&A industry, to micro-level analysis of individual companies
- Over 80 dedicated research professionals across 20 offices globally, covering 11 sub-sectors, working closely with Rabobank’s professionals

**Client insights**

- We champion innovative thinking and idea generation, driven by our knowledge of the clients and their sector, to bring forward-looking deals and solutions to our clients
- Rabobank Group operates in 42 countries around the world

**Seamless execution**

- Our Global Sector Heads bring together the local, regional and global network of our bankers and our product suite to support client ambitions and provide disciplined execution of client agendas
Today’s Agenda

- The *agricultural policies and farmers’ support*

- The *costs*, and forecast of feed price

- The *creditworthiness assessment*
The Agriculture policies and farmer’s support
Subsidies in EU

1. 38% of EU Budget is CAP (Common Agriculture Policy)
2. 72% of that is direct support via Agriculture Guarantee Fund per hectare farmed
3. 20-30% of income farmer is EU Subsidy
4. Average EUR 25,000 per farmer (not dairy farmer)
5. Specific support (Green Payment, Young Farmer, Small/Mid-size farms, natural constraints, voluntary support)
Talking of Government, what about the EU commission?

- Yes there are still subsidies for production through the single farm payment
- Yes they are used to subsidise production costs - even though they’re not meant to be
- Yes in some cases they are the difference between profit and loss
- But
- The commission hasn’t completely come to the rescue
Future of European Dairy Production

- Post quota Europe has increased production - it was expected too
- This increase has come in the middle of extremely challenging conditions for the global market and has gone some way to prolong the slump.

- Looking to the future
  - Further investments are unlikely
  - The removal of regulation will level the playing field and EU farmers will need to be more market orientated - any further farmer support is unlikely
  - Consolidation will grow in Europe but will be limited
  - Europe will compete - but only when it pays too

- Therefore, the opening of floodgates is unlikely and growth will slow

- But, the EU (or parts of it) will be competitive – Italy needs to be ready
Subsidies other parts

• Europe

• United States

• New Zealand

• Other countries
The costs and forecast of milk production
We can classify dairy farm into 3 socio-economic categories

**Household farms**

**Key characteristics:** Small farms 1-3 cows, dairy is one income source, 50% of the milk is consumed on the farm, 50% sold.

**Key driver:** Selling milk provides daily cash for family needs.

**Family farms**

**Key characteristics:** Work is mainly done by the family, Size in developed countries 10 up to 100/300 cows?

**Key driver:** Generate an income.

**Business farms**

**Key characteristics:** Work is mainly done by employees, Size in developed countries > 300 cows?

**Key driver:** Generate the expected ROI.
Structure of dairy farming world wide
IFCN Standard Classes for world aggregate 2012 - estimates

Data: Farms in Standard Classes based on 91 countries, cows in Standard Classes based on 83 countries. Estimated milk production per standard size class representing 85% of cow & buffalo milk production. 2012 data preliminary or estimated for selected countries.

Sources: Dairy sector database product, IFCN Dairy Research Center
European farm-gate milk prices remain high, but now falling.

1. Price levels still strong
2. Below 2017 level
3. Latest announcement of Arla, FrieslandCampina and others to reduce by EUR 1,00 for end of year
Global farm-gate prices are tiptoeing on profitability.

Farmgate milk prices (USD equivalent) - select regions

Source: RFC, Fonterra, USDA
Cost of production

Europe seems to be more efficient but exchange rates have played a big role.
Ranking countries by cost of production
average farms per country in 2017

Comment: Average sized farms in the countries, analysed year: ECM: energy corrected milk (4% fat, 3.3% protein). For the conversion on the left hand side 2016 exchange rates used

Source: IFCN Dairy Research Center, Dairy Report 2017
Total costs for farming in Europe

![Chart showing total costs for farming in Europe across different countries and categories]
Big data offers a boost to production models

‘Big data’ allows farmers to optimise yields, incrementally improving margins by lifting yields and reducing inputs

<table>
<thead>
<tr>
<th>Year</th>
<th>Corn Yields</th>
<th>Soybean Yields</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965</td>
<td>4.0</td>
<td>0.5</td>
</tr>
<tr>
<td>1970</td>
<td>5.0</td>
<td>1.0</td>
</tr>
<tr>
<td>1975</td>
<td>6.0</td>
<td>1.5</td>
</tr>
<tr>
<td>1980</td>
<td>7.0</td>
<td>2.0</td>
</tr>
<tr>
<td>1985</td>
<td>8.0</td>
<td>2.5</td>
</tr>
<tr>
<td>1990</td>
<td>9.0</td>
<td>3.0</td>
</tr>
<tr>
<td>1995</td>
<td>10.0</td>
<td>3.5</td>
</tr>
<tr>
<td>2000</td>
<td>11.0</td>
<td>4.0</td>
</tr>
<tr>
<td>2005</td>
<td>12.0</td>
<td>4.5</td>
</tr>
<tr>
<td>2010</td>
<td>13.0</td>
<td>5.0</td>
</tr>
<tr>
<td>2015F</td>
<td>14.0</td>
<td>5.5</td>
</tr>
<tr>
<td>2020F</td>
<td>15.0</td>
<td>6.0</td>
</tr>
<tr>
<td>2025F</td>
<td>16.0</td>
<td>6.5</td>
</tr>
</tbody>
</table>

Source: USDA; Rabobank, 2014

Big data allows farmers to take further steps to optimise farming practices. Once established in the US, this could be leveraged elsewhere.
New production models can close the yield gap in central Europe

New production models can sometimes mean transplanting best practice from one region to another, with material impacts.

Improving land and adopting modern practices could boost output by 9 mln tonnes by 2025

Central and eastern Europe deliver crop yields well below potential.

The yield gap could be closed by upgrading ag land, adopting modern agronomic practices and using modern machinery.

Source: FAOSTAT; Rabobank, 2014
European production has consolidated in the last few years

2006/07 - 2016/17 - bubble sizes corresponds to milk solids per farm

Number of producers vs. Average herd size for countries like France, Germany, Italy, Netherlands, UK, and Denmark.
But it pales in comparison to our global competitors

2016/17 - bubble size corresponds to milk solids per farm
What about resilience to price shocks?

Simulated Return on Investment (ROI) in % for typical farms 2014 – 2016

- BD-2
- DE-90N
- US-2000ID
- NZ-316

Return of investment in %

Probability
Circular economy: profit or loss?
Creditworthiness assessment
Intensive dairy farming regions / land value

NB: Map indicates LSU’s per hectare (how many hectare for cattle weight 450kg) of agricultural land, which implies that in regions where agricultural land is scarce – as in Norway - LSU density gets high quickly

Source: ROM3D, 2015
Land price indices

2005 = 100

Australia  Ireland  New Zealand  Italy  UK  Netherlands
Constraints to expansion

Expansion isn’t limitless

*Milk production in Europe will continue to grow up to a point.*

*But there are constraints*

- Land prices & availability
- Environmental regulations
- Consumer attitudes
4-star creditworthiness

Level financing
- Tenure
- Equity

Earning Capacity:
- Reserves
- Credibility
- Payment history
- Liquidity

Earning Capacity:
- Vision – Strategy
- The farmer
- Market developments
- Process Management
- Financial Management

The Farm
- Quality assets
- Replacement investment
- Structure / Organization
- Development
Questions?
Thank you