Strengths and weaknesses of the French dairy sector and of its main competitors in Europe.

Density dairy cows/km²

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(NB without: NMS 12
26% Dairycows and 14% milk deliveries EU27)
Phasing out quota system:
Milk production in France is not a long quiet river
(milk deliveries, trend of the time series, indice 100=2005)

Source: EUROSTAT– traitement Institut de l'Elevage
Volatility of prices (output, input) and farm incomes

Dairy crisis in 2009
Hit economic results everywhere

But evolutions 2005-2011 very different

Strong recovery 2010-11 in France after 2009 (loss of competitiveness of the French dairy sector)
Or 2007 (milk price came too late)
But -17% (2012/2011).

Source: DG AGRI RICA UE jusqu'en 2009 puis sources nationales – traitement Institut de l'Elevage
Where are these gaps from?

Milk price
- Cost of production

\[
\text{Break even price} = \text{Milk price} \Rightarrow \text{Family Farm Income} = 0
\]

Milk price from which family labour can be paid

= Result by ton of milk
\times \text{Milk production (in volume)/AWU family}

link to the labour productivity and % of paid labour

= \text{Family Farm Income by AWU family}

Specialised dairy farms (OTEX41)
source: DG AGRI FADN UE until 2009 then national sources – traitement Institut de l'Elevage
Break even prices reveal several models/patterns for milk production. France is at the center of Europe.

**Break even milk price (€/t)**

- **Denmark**
  - Structurally higher (expensive capital, labour substitution, wages, TMR, 0 grazing).
  - Input prices since 2008 + specific financial crisis.

- **Netherlands**
  - Very efficient but very specialised.

- **France/Allemagne**
  - Close in average.
  - Strong heterogeneity underlying in both cases.
  - Opposite choices in 2009.

- **Ireland**
  - Low cost (cc feed, investments), grass grazing, seasonal production.

Specialised dairy farms (OTEX41)

Source: DG AGRI FADN UE until 2009 then national sources – traitement Institut de l’Elevage.

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Milk prices: less gaps than for costs

Denmark and Netherlands
Higher prices: Fat & Protein, regular production, organic (DK).
ARLA position (+28€/t in 2009)

Irlande
Structurally lower in the period (seasonal production, mix products and markets)

France
More stable and less volatility by « construction »
Lower than excepted / mix products (collecting & processing costs, complexity & diversity of players in the supply chain)

Allemagne
Agricultural year [july-june]
Year 2009=250€ (235 € North Germany)

Specialised dairy farms (OTEX41)
Source: DG AGRI FADN UE until 2009 then national sources – traitement Institut de l'Elevage
Result by ton of milk (price-cost)

Ireland
High result despite lower price

Denmark
Lower result – Higher risk

Disappointing level (price x cost) for France in 2009

Sharp decrease (/2 or /3) in the Netherlands (2009)

Recovery in 2010, except in Denmark

Specialised dairy farms (OTEX41)
source: DG AGRI FADN UE until 2009 then national sources – traitement Institut de l’Elevage
Labour Productivity and multiplier effect

Milk production/AWU total (t of milk)

Milk production/AWU family (t of milk)

Specialised dairy farms (OTEX41)
source: DG AGRI FADN UE until 2009 then national sources – traitement Institut de l’Elevage

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## In average on 2005-2011

<table>
<thead>
<tr>
<th></th>
<th>IRELAND</th>
<th>FRANCE</th>
<th>GERMANY</th>
<th>NETHERLANDS</th>
<th>DENMARK</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Milk price (€/t)</strong></td>
<td>292</td>
<td>323</td>
<td>321</td>
<td>335</td>
<td>332</td>
</tr>
<tr>
<td><strong>Break even milk price (€/t)</strong></td>
<td>144</td>
<td>210</td>
<td>199</td>
<td>252</td>
<td>320</td>
</tr>
<tr>
<td><strong>Result by unit (€/t)</strong></td>
<td>149</td>
<td>112</td>
<td>122</td>
<td>82</td>
<td>12</td>
</tr>
<tr>
<td><strong>Milk production by farm (kg)</strong></td>
<td>289 000</td>
<td>295 000</td>
<td>354 000</td>
<td>602 000</td>
<td>1 057 000</td>
</tr>
<tr>
<td><strong>Milk production by AWU totale (kg)</strong></td>
<td>182 000</td>
<td>168 000</td>
<td>196 000</td>
<td>364 000</td>
<td>466 000</td>
</tr>
<tr>
<td><strong>Milk production by AWU family (kg)</strong></td>
<td>208 000</td>
<td>180 000</td>
<td>236 000</td>
<td>395 000</td>
<td>838 000</td>
</tr>
<tr>
<td><strong>Evolution 2011/2005</strong></td>
<td>17%</td>
<td>27%</td>
<td>36%</td>
<td>34%</td>
<td>66%</td>
</tr>
<tr>
<td><strong>Family Farm Income/AWU family (€/AWU)</strong></td>
<td>31 100</td>
<td>20 400</td>
<td>28 900</td>
<td>32 000</td>
<td>8 300</td>
</tr>
</tbody>
</table>

*Specialised dairy farms (OTEX41)
Source: DG AGRI FADN UE until 2009 then national sources – traitement Institut de l’Elevage*
Impacts and out of the crisis: different configurations

- **Denmark**: radical choices (financing, technical management), a gamble for some producers
  - The limits of the capital-labor substitution

- **Netherlands**: a single misstep in a march of unrivaled profitability? When will the farms reach the environnemental limit?

- **Ireland**: the general economic crisis boosts the interest for a low-cost model despite its climate sensitivity and lack of equipment

- **Germany**: a faster than expected recovery which strengthens (again) the ambitions of the dairy sector.
  - 3 Dairy Germanys. Despite the biogas, an impressive dairy growing in the North.

- **France**: after delayed transmissions market signals, exceptional responsiveness revealing a great potential for development of milk production?
High diversity. 75,600 French dairy farms (2010)
3 dairy France (mountain, livestock lowlands, mixed crop & livestock regions)

Complexity of dairy processing sector and supply chains

Economies of scale?
Economies of scope?
Economies of agglomeration?

French dairy policies facing new choices

Source: Agreste agricultural census 2010 – analysis Institut de l’Elevage

Milk fields (lowland areas)
45% dairy farms
49% milk prod

Mixed crop & livestock areas
29% dairy farms
32% milk prod

Mountains
23% dairy farms
16% milk prod
From diseconomies of scale to economies of scale
(after investment support program) (phasing out, quota available)

Evolution of slope (€/1000l for 100 000 l of milk)
For the cost of production (without opportunity costs):

Source Agreste RICA – traitement Institut de l’Elevage
(rond vide statistiquement non significatif, rond plein <5%, gros rond plein <1%)

What’s next?
Economies of scope in mixed crop and dairy farming system?

- 75,600 exploit. laitières françaises (2010)
- 17,500 mixed crops & dairy (23%)
  7% mixed pig/poultry
  Spé milk/l'milk&beef

- Almost 25% of French dairy cows in mixed crop & livestock farms
- Specific and important component of French dairy farming
- Very high productivity (labour, area, animal)
- Better economic results (income) than specialised dairy farms

Especially with high output prices

- 20% looking for economies of scope, <10% find them

Others find economies of scale, grow more crops, produce more milk with intensive production (12,000 l/ha forage)

Source: Agreste recensement agricole 2010 – traitement Institut de l’Elevage
In 2010, 224 cantons (-18 / 2000) = 33% dairy cows,
408 cantons (-26 / 2000) = 50% dairy cows

Comparative advantages (soil, climate)

Input prices, suppliers & services, skilled workers, processors

But environmental regulations

Sociological concerns in low density areas
Dairy France Positioning

- More diverse (3 main contexts of production).
- Restructuration and territorial evolutions

<table>
<thead>
<tr>
<th>évolution nb dairy farms 2005-2010, % / year</th>
<th>Pays-Bas</th>
<th>Irlande</th>
<th>Allemagne</th>
<th>France</th>
<th>Danemark</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-3.1%</td>
<td>-3.4%</td>
<td>-4.1%</td>
<td>-5.4%</td>
<td>-6.9%</td>
</tr>
</tbody>
</table>

- Less homogeneous than thought.

- 2 000 largest dairy farms = 1 000 000 l in average. Half in mixed crops & livestock areas
- 3 300 (4%) dairy farms >= 100 cows with 11% of cows (1% and 3% in 2000)

- No lack of competitiveness for dairy production. Particular evolution for labour productivity and economies of scale
- Lower land costs & price.
- Dairy farms less specialised, more self sufficient /feed, with lower input costs but 70% of fixed costs
A challenge: the territorial differenciation of dairy policies

- What recomposition for the destabilized mixed farming areas?
  Resistance islands or isolated mega-farms near highways?
- What specific support for the mountain areas? What new opportunities to avoid direct competition? What balance between milk & beef?
  Dairy farmers: a rare resource in the future?

To take into account the diversity of dairy farming systems

- An asset (typicity of dairy products; resilience of the milk supply)
- and a constraint (obstacle to the rationalization of supply chains?)

With a new European and national ‘toolbox’
Thank you for attention

Pour en savoir plus:
Les modèles laitiers du nord de l’Union européenne à l’épreuve de la volatilité
www.idele.fr

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