Global poultry industry trends

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Rabobank International
Global poultry outlook

Shaping the industry for competitiveness

Nan-Dirk Mulder, 27 April 2016
Content

1. Long term market outlook
2. Key investment themes
3. Strategic global industry outlook
Animal protein is our sweet spot

14 out of top 20 meat companies are client of Rabobank
Exposure in Animal Protein: EUR 19 billion
Global animal protein industry has benefited from lower feed prices until recent oversupply

**Rabobank global meat market monitor**

- **Supply reduction**
- **Asian supply issues in pork and poultry**
- **Improving pork prices**
- **Global stable feed price**

Source: Rabobank analysis based on Bloomberg, FAO, USDA, local statistics, 2016
Poultry gains further market share in the animal protein market, China remains different

**Global market excl. China**

- **Chicken**: CAGR: +2.2%
- **Eggs**: CAGR: +2.1%
- **Pork**: CAGR: +0.7%
- **Beef**: CAGR: -0.4%

**China meat and egg market**

- **Chicken**: CAGR: +2.8%
- **Eggs**: CAGR: -1.6%
- **Pork**: CAGR: +1.5%
- **Beef**: CAGR: +0.4%

Source: Rabobank analysis based on USDA, FAO and local statistics, 2016
Feed grains: Ongoing overproduction with stock rebuilding at all world grains markets
Avian Influenza has become a global challenge

Avian influenza outbreaks Jan 2014 – Feb 2016
Long term outlook: 65% more poultry in 20 years

Global demand for animal protein

Change: 15/35
Seafood: +30%
Eggs: +50%
Poultry: +65%
Pork: +35%
Beef: +20%

Source: Rabobank analysis, FAO, OECD, FAPRI, 2015
65% of global protein demand growth is in Asia

Global market volume change 2014-2024

Source: Rabobank forecast based on FAO, FAPRI, OECD. 2015
Asia lacks adequate resources

**Global land and water availability per capita**

- Canada: 18
- US: 16
- Australia: 14
- Brazil: 12
- France: 10
- Germany: 8
- Thailand: 6
- Malaysia: 4
- India: 2
- Indonesia: 1
- China: 0
- Japan: 0

**Available new agricultural land**

- Sub Saharan Africa: 45%
- Rest of the world: 15%
- Brazil: 10%
- Argentina: 7%
- Other South America: 11%
- Russia: 9%
- Other Eastern Europe/Central Asia: 3%

Source: Rabobank, FAO 2015

Source: FAO/Rabobank analysis 2015
Asian chicken production is 30-50% more expensive as Brazilian production

Cost price comparison whole broiler 2013

Source: Rabobank, WUR, 2015
Growing importance of trade, but volatile global market conditions

Global trade in meat 2000-2015

Source: Rabobank, USDA, 2015

- **Poultry**: CAGR: +5.5%, 12% of global supply
- **Beef**: CAGR: +3.7%, 17% of global supply
- **Pork**: CAGR: +5.4%, 6% of global supply
Global poultry production outlook: Growth everywhere, especially in BRICs

Global broiler production outlook 2025
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Economic development drives food market change

ECONOMIC TAKE-OFF
Food as a need
Income: < $5,000

ECONOMIC DEVELOPMENT
Food as a social occasion
Income: $5,000 - $15,000

ECONOMIC REINVENTION
Food as stimulation
Income: > $40,000

ECONOMIC CONSOLIDATION
Food as nutrition/well-being
Income: $15,000 - $40,000

Source: Rabobank analysis, 2015
Consumer concern driven change to change global industries especially in emerged markets

- EU: 2012 Cage ban
- 2013 sow house ban
- D: Germany Initiative Tierwohl
-&nbsp; Tierwohl
- ACT, WA: Bans on cage houses and sow stalls
- China: Antibiotics, melamine scandals
- Canada: ban on pig gestation
- Alberta: Phase out of battery cages
- California: Jan 2015 cage ban
- NL: Chicken of tomorrow
- Client based push to non-cage eggs
- Brazil: Discussion about cage ban
- Antibiotics free
- NL: Chicken of tomorrow
- D: Germany Initiative Tierwohl
- EU: 2012 Cage ban
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- China: Antibiotics, melamine scandals
- Canada: ban on pig gestation
- Alberta: Phase out of battery cages
- California: Jan 2015 cage ban
- NL: Chicken of tomorrow
- Client based push to non-cage eggs
- Brazil: Discussion about cage ban
- Antibiotics free

Source: Rabobank, 2016
Premium chickens: An opportunity?

Europe: High welfare concepts

- **Animal**
  - Slow growing bird
  - Lower density
  - Straw, light

- **Environment**: Sustainanable Soy

- **Program**
  - Separate programs for red meat and poultry industry
  - 80% of German supermarkets
  - More space per bird

Labels to guarantee standards of production

- United Kingdom
- France
- McDonald’s

US: Antibiotics free and QSR

- **North America**: Antibiotics free

- **QSR and retail**: higher animal welfare standards

Source: Rabobank analysis, 2015
From volume to value: The journey to higher margins

The poultry value added pyramid

- Standard chicken
- Premium chicken
- Value added chicken
- Value added food
- Brand

Low

Margin level

High

Investors who follow this strategy
Chinese industry still struggles with low confidence in white chicken

Animal disease fears: Human H7N9 cases

Food safety scandals

Why are there so many food scandals?

- Dishonest companies are not punished: 94%
- Companies are not strictly supervised: 92%
- Companies are dishonest & only care about profit: 92%
- Food standards are too low: 77%
- Environment is polluted so food is unsafe: 69%
- Do not have advanced technology: 34%
- Not experienced at producing quality food: 20%
China: Breeding stock shortage to affect market and imports in H2 2016

China breeding stock imports

China poultry and pork price

Source: Rabobank analysis based on local statistics, 2016
China will recover, but in another shape. Regaining confidence is key

**China poultry consumption: low**

<table>
<thead>
<tr>
<th>Country</th>
<th>Consumption (kg/head)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>5.0</td>
</tr>
<tr>
<td>Vietnam</td>
<td>10.0</td>
</tr>
<tr>
<td>China</td>
<td>15.0</td>
</tr>
<tr>
<td>Thailand</td>
<td>20.0</td>
</tr>
<tr>
<td>South Korea</td>
<td>25.0</td>
</tr>
<tr>
<td>Japan</td>
<td>30.0</td>
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<tr>
<td>Taiwan</td>
<td>35.0</td>
</tr>
<tr>
<td>Singapore</td>
<td>40.0</td>
</tr>
<tr>
<td>Malaysia</td>
<td>45.0</td>
</tr>
</tbody>
</table>

**Source:** Rabobank/USDA, 2015

**Road to recovery**

- Wet markets = 70%
- Avian influenza management
- Supply management
- Value chain model
- Branding
- Wet market policy

**Broiler meat markets = 30%**
South East Asia: Growing interest from regional and global investors

South East Asia market growth and regional internationalisation

Source: Rabobank analysis based on USDA, FAO and local statistics, 2016
Eastern European industry is growing very fast driven by local and export market growth

*EU poultry production growth Jan- Oct 2015 versus 2014*

Source: Rabobank analysis based on Eurostat, 2016
Sub Saharan Africa: Investments are also taking off

Africa meat and egg market 2025f

Africa Poultry Growth by Market

Source: Rabobank projections based on USDA, FAO and local statistics, 2016
US: Oversupply after 2015 avian flu crisis

**US broiler sector: Exports -12%**

**US Layer hen herd versus egg and feed prices**

Source: Rabobank analysis based on USDA, 2016
Mitigate AI risk: Higher dependence on limited suppliers, opportunities for newcomers

**Global export market shares by country**

<table>
<thead>
<tr>
<th>Product</th>
<th>High potentials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole</td>
<td>🇹🇷 🇦🇷 🇷🇺</td>
</tr>
<tr>
<td>Breast</td>
<td>🇧🇷 🇺🇸 🇲🇾</td>
</tr>
<tr>
<td>Cuts</td>
<td>🇧🇷 🇺🇸 🇺🇦</td>
</tr>
<tr>
<td>Processed</td>
<td>🇲🇾 🇵🇬 🇻🇳</td>
</tr>
</tbody>
</table>

Source: Rabobank analysis, 2016
AI: To change breeding supply, local programmes and internationalisation

Further globalization of distribution and compartmentalisation

Domestic programs to reduce import dependence

Source: Rabobank analysis, 2016
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Globalisation of the industry: Companies from emerging markets take the lead

Top 20 Global meat companies 2016

Source: Rabobank
The rising importance of Asia for global soybean and meat trade

**China’s rising share in global soybean trade**

**Asia’s rising share in global meat trade**

Source: Rabobank analysis, Bloomberg, USDA, 2016
Internationalisation in the meat industry to continue

Globalization in the animal protein industry

Source: Rabobank, 2016
Towards the Asian and African decades in poultry development

*Global investments in the poultry and egg industries*

Source: Rabobank, 2015
Thanks for your attention

Questions?
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Nan-Dirk Mulder, 27 April 2016