Commodity Market Development in Europe – Outlook
Proceedings of the November 2009 Workshop

Editors: T. Fellmann, B. Van Doorslaer, R. M'barek, S.H. Gay
The mission of the JRC-IPTS is to provide customer-driven support to the EU policy-making process by developing science-based responses to policy challenges that have both a socio-economic as well as a scientific/technological dimension.
Background

These proceedings contain a summary and the presentations of the expert workshop "Commodity Market Development in Europe – Outlook", organised by the Institute for Prospective Technological Studies (IPTS) of the European Commission's Joint Research Centre (JRC), in close cooperation with the European Commission's DG Agriculture and Rural Development. The workshop took place in Brussels on November 10th, 2009 and was a follow up of the workshop 2006 on "Commodity Modelling in an Enlarged Europe"\(^1\) and the workshops of 2007 and 2008 on "Commodity Market Development in Europe – Outlook"\(^2,3\).

The major objectives of the 2009 workshop were to

- give an overview on short/medium term perspectives of European agricultural markets in the context of the world market development;
- outline the reasons behind observed and prospected market developments;
- present expert knowledge from agri-business and market analysts;
- provide a forum for discussion and for drawing conclusions on emerging factors for agricultural market development.

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Acknowledgements

The workshop 'Commodity Market Development in Europe - Outlook' was organised by the European Commission's Joint Research Centre, Institute for Prospective Technological Studies (JRC-IPTS), Agriculture and Life Sciences in the Economy Unit (AGRILIFE) in close cooperation with the European Commission's DG Agriculture and Rural Development (DG AGRI), Unit L/2.

We would like to acknowledge contributions made by all participants (a complete list is included in Annex 2) and their consent to sharing their knowledge and ideas, especially:

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<tr>
<td>CAP</td>
<td>Common Agricultural Policy</td>
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<tr>
<td>DDA</td>
<td>Doha Development Agenda</td>
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<td>DDG</td>
<td>Dry Distillers Grain</td>
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<td>DG AGRI</td>
<td>Directorate General &quot;Agriculture and Rural Development&quot;</td>
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<td>EDA</td>
<td>European Dairy Association</td>
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<td>EDIM</td>
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<td>EFMA</td>
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<td>EU</td>
<td>European Union</td>
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<td>15 EU Member States before May 2004</td>
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<td>EU-25</td>
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<td>EU-27</td>
<td>27 EU Member States after 2007 enlargement</td>
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<td>FAO</td>
<td>Food and Agriculture Organization of the United Nations</td>
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<td>FAPRI</td>
<td>Food and Agricultural Policy Research Institute, USA</td>
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<tr>
<td>GMO</td>
<td>Genetically Modified Organism</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<tr>
<td>IGC</td>
<td>International Grains Council</td>
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<tr>
<td>IPTS</td>
<td>Institute for Prospective Technological Studies</td>
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<td>JRC</td>
<td>Joint Research Centre</td>
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<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
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<tr>
<td>PSE</td>
<td>Producer Support Estimate</td>
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<td>SAPS</td>
<td>Single Area Payment Scheme</td>
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<td>SFP</td>
<td>Single Farm Payment</td>
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<tr>
<td>USD</td>
<td>U.S. Dollar</td>
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<td>WTO</td>
<td>World Trade Organisation</td>
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Summary

Delivering reliable projections and scenario analysis on the development of agricultural commodity markets is getting more and more complex and demanding. Both the uncertainties and challenges of market outlooks are exemplified in the rather unexpected and exceptional increase in prices for agricultural commodities between summer 2007 and spring 2008, followed by sharp price decreases until the end of 2008 (cf. Figure 1).

Figure 1: Development of commodity and crude oil prices

![Figure 1: Development of commodity and crude oil prices](image)

Source: Presentation M’barek (IPTS); primary sources: Oil World and EIA

The rather extreme movements of the markets during the past two years, compounded with the turbulences in the global financial system and concerns about the general economic outlook, make it even more challenging to conduct reliable projections and scenario analysis. The 2009 workshop "Commodity Market Development in Europe – Outlook" provided a forum to discuss recent and forecasted market developments, to outline the reasons behind observed and prospected developments, and to draw conclusions on the short/medium term perspectives of European agricultural markets in the context of world market developments.

Cereal markets

After the surge in prices during the marketing year 2007/2008, the cereal prices experienced a sharp decrease in the EU and also on world markets. The decrease in prices was mainly caused by a significant increase of area and very good yields, with EU and worldwide cereal production in 2008/9 being close to record levels. In the short-term, cereal prices in the EU are expected to remain at a relatively low level, mostly as a result of lower feed demand
linked to the economic crisis and the removal of compulsory set-aside. Decreasing output prices seem to provoke a reduction of area under cereals in the EU, and also world cereal production is projected to be lower than in the year 2008/2009. In the medium-term, cereal prices are projected to recover, mainly because of the expanding biofuel demand and only moderate yield growth (cf. Figure 2).

**Figure 2: Medium-term projections for total cereals (mio t)**

![Medium-term projections for total cereals](chart2)

Source: Presentation Londero (DG AGRI)

Despite the three successive good production years, slightly expanding cereal markets and emerging bioethanol markets are projected to lead to a return to more modest levels of stocks on world cereal markets in the medium-term (cf. Figure 3).

**Figure 3: IGC 5-year projections on cereal closing stocks (mio t)**

![IGC 5-year projections on cereal closing stocks](chart3)

Source: Presentation Tjaardstra (IGC)
Another issue highlighted during the workshop was the increasing importance of the cereal production in the Black Sea region. During the past years especially Ukraine and Russia seem to make more and more use of their production potential and both countries significantly increased their share in total grain trade. Ukraine became the world's third and Russia the fourth biggest exporter in grains in 2008/2009, with grain exports in Ukraine amounting to a share of 10.0% of global grain trades and in Russia to 9.3% respectively (cf. Figure 4).

Figure 4: Development of total grains trade in Russia and Ukraine

Oilseed markets

The global supply and demand for oilseeds is still rising at high growth rates. Rapeseed becomes more important as its share is projected to increase to almost 15% on a world total of more than 400 million tonnes. France, Germany and the UK will remain the three biggest rapeseed producers, representing more than 50% of the EU’s 2010 rapeseed area and over two-thirds of production. Even though for next year an increase in rapeseed sowing is expected, implying a bigger EU rapeseed area, it is projected that in the EU the oilseed production will not be able to follow the increasing demand for biodiesel. As a further increase of rapeseed area in the EU is limited (at least in the high productive regions), a higher production in the next years is only possible by increases in yields. In fact, yield development shows higher growth rates for sunflowerseed and rapeseed in the EU than for wheat and corn yields. However, further yield increases would be needed to meet the rising demand for oilseeds. Worldwide the supply of oilseeds depends mainly on the soybean production in the USA and South America. High demand for soybean oil and meal can especially be observed in the EU and in Asia, and the EU shows a growing demand for vegetable oils for biofuel production (cf. Figure 5).
Regarding the GMO policy of the EU, Bernhard Chilla of Toepfer International pointed out that asynchronous approval of GMO crops and zero tolerance for events not approved in the EU but commercialised in other countries, remain a potentially critical issue in the bulk commodity handling system. In 2009 the share of GMO of total plantings was above 80% for corn, and above 90% for soybeans and rapeseed in the USA and Canada. While recent GMO approvals in the EU provided a release of a rather tense situation, it can be expected that the issue remains a hot topic when looking at the pipeline of GMO soybeans (cf. Figure 6).

Figure 6: Pipeline events for GMO soybeans

Source: Presentation Chilla (Toepfer International)
Biofuel markets
The biofuels sector experiences a slow down in expansion caused by lower energy prices, profit margins and reduced investments due to the economic crisis. However, experts at the workshop see the outlook for biofuels considerably as policy driven, mainly influenced by mandates and other policy incentives. As mandates require growing use of biofuels and as crude oil prices are projected to rise, biofuel production is expected to increase. Ethanol production in the EU is mainly from wheat, coarse grains and sugar beets, and fuel ethanol use is expected to rise in the EU mainly driven by the Renewable Energy Directive. On the biodiesel market the EU is expected to stay the major player. While so far no certification system on sustainability for biofuels in the EU is in place, a gradual enforcement of sustainability criteria in the EU is expected to cause decreases in demand of biofuels made from palm oil and soybean.

Meat markets
In contrast to the cereal markets, the meat markets exhibited only moderate price movements in 2007 and 2008. However, meat prices were unfavourably affected on the one hand by increases in slaughters due to the rise in feed cost and on the other hand by decreases in demand due to the beginning of the economic crisis. While then decreasing feed cost eased a bit the cost pressure on meat producers, the economic crisis provoked a severe weakening of meat consumption, accompanied by a qualitative shift in demand towards lower-priced meat (i.e. pork/poultry rather than beef/sheep meat, unprocessed rather than processed) and to alternative (price competitive) sources of protein. In addition, exchange rate developments and credit constraints had a further negative impact on trade flows and prices, coming along with increasing difficulties for the EU to export meat. In the short-term more downward pressure on meat prices might have to be expected, with Gíra expecting a broadly negative trend especially for worldwide beef trade flows (cf. Figure 7).

In the medium-term projections are more favourable for the meat markets, mainly driven by the expected recovery of the economy and thus a continuous increase in meat consumption. As EU meat consumption is projected to reach around 87 kg per capita in 2015, production growth might be outpaced by the growth in consumption. On the global level Gíra expects biggest growth in meat consumption in China (+31%). Thus, China will stay the number one meat consumer and will even increase its share in total meat consumption. While also the beef
Commodity Market Development in Europe – Outlook

Market in China is growing due to higher disposable income, new food products (like burgers) and better quality beef (cattle bred for eating), this growth is still mainly domestically covered by a 80% backyard focused production.

**Figure 7: Beef trade flows (incl. live), 2008 with trend shown for 2009**

Source: Presentation Brown (Gíra)

Regarding the long-term perspectives of the global meat markets, Richard Brown pointed out that there are now real uncertainties over many of the key drivers for the meat sector, and that the issues that drive future worldwide developments and competitive advantages have to be studied further (cf. Figure 8).

**Figure 8: Uncertainties over long term development of the key drivers for the meat sector**

Source: Presentation Brown (Gíra)
Dairy markets

After the increase of EU and world prices for milk and dairy products in 2007/08, the milk sector experienced severe price decreases. The collapse of milk prices was mainly attributable to an increased global supply on the one hand, and a diminishing demand linked to the economic crisis on the other hand, with the combination of both leading to a strong imbalance of supply and demand in world trade of dairy products in 2009/10 (cf. Figure 9).

Figure 9: World trade of dairy products 2009/10

With the EU dairy markets put more and more under pressure, market support measures had been deemed to be necessary for the EU in order to balance the markets. After the accumulation of private stocks in 2008, EU export refunds for dairy products were reactivated in 2009 and intervention buying into public storage is exceeding the actually guaranteed intervention buying limits. Despite an increase in EU milk quota, the price bust provoked a decline in milk supply, leading to an increasing underutilisation of available milk quota in EU Member States (cf. Figure 10).
In the short-term a stabilising and slowly recovering of dairy prices is projected. World price increases will be triggered on the one hand by economic recovery and on the other hand by the lower supplies attributable to a reaction to the low profitability in the previous years. The medium-term prospects remain favourable for high value-added dairy commodities but bulk commodity markets will need a longer (de-stocking) period to recover. Demand for cheese and other value-added dairy products is projected to increase and will drive production growth. In the EU the increase in milk production will remain below the quota level on aggregate and will be achieved by yield increases while the dairy herd size decreases further over the same period. With further regard to the CAP Health Check, under low EU and world market prices only little expansion in EU milk production is expected following the elimination of dairy quotas.

**Fertiliser manufacturing and its impact on commodity markets**

Christian Pallière of EFMA pointed out the high dependence of fertiliser production costs on energy prices, with the price for gas having a share of 90% of total cash cost for the production of Ammonia, 82% for Nitric Acid, 76% for Ammonium Nitrate and 72% for UREA. Pallière highlighted that, while price developments of fertilisers seem to show similar patterns as cereal prices on world markets, energy prices seem to be quite volatile and distorted, with for example European gas prices being far higher than gas prices in Russia.
According to EFMA the impact of fertiliser prices on farm income is rather low. The on-farm expenditure of fertiliser stays below 10% of the total expenditures on input costs and is almost constant during the last ten years. The evolution of other input costs, like energy or feeding stuffs, is considered to be of more importance in determining the farm income (cf. Figure 11).

**Figure 11: Economic accounts for agriculture**

![Economic accounts for agriculture](image)

Source: Presentation Pallière (EFMA)

Regarding the use of fertilisers, developments on agricultural commodity markets have an important impact on the fertiliser consumption but the effect is mainly on the long run. Furthermore, developments on the energy markets are also very influential on fertiliser consumption (impacting essentially on nitrogen); though they have a rather short term effect. Both the developments on energy and agricultural commodity markets have more impact on the use of phosphorus and potassium than on nitrogen consumption. Following the methodology used by EFMA, the consumption of fertiliser in the EU27 is forecasted to increase on average between about 4.0% and 7.7% between the years 2009 and 2019. Nonetheless large differences exist between the forecasted developments of fertiliser use in Member States. Moreover, the changes are more pronounced for the use of potassium and phosphorus than for nitrogen use (cf. Figure 12).
The impact of the economic crisis on commodity markets

Concerning the macro-economic situation experts highlighted at the workshop that the world economy has entered into the deepest crisis for more than 60 years. In the short term the consequences of the financial and economic crisis will continue to rather strongly influence the developments of the agricultural commodity markets. However, the EU economy is predicted to exhibit a recovery from the year 2010 onwards, indicating also a more favourable environment for the agricultural sector. Nonetheless, in particular the economic outlook faces great uncertainty as it is subject to a number of (mainly downside) risks that influence the developments of agricultural commodity markets. The risks regarding the macro-economic situation include the length and breadth of the economic crisis and the scale of the negative feedback-loop between the financial and real sectors of the economy. In addition, existing global imbalances could further trigger disruptive exchange-rate developments and the use of further trade-distorting policy measures cannot be ruled out. Currency movements in response to the crisis affect price changes in the commodity markets. The flight to the dollar after July 2008 led to the appreciation of the USD on currency markets. Given the fact that most commodities are priced in USD, any appreciation of the USD puts downward pressure on commodity prices. In the same way, the increase in the Sterling/Euro rate caused problems for EU-exporters to the UK.
A further worsening of the economic situation would alter agricultural market projections also with its impact on asset values, access to credit and energy prices. Regarding access to credit the economic crisis still may more negatively influence the farmers' ability for investments and to buy inputs. Furthermore, the processing industry can also be confronted with more rigorous credit constraints. Apart from these macro-economic aspects there are other factors that can have a severe impact on the future developments of EU agricultural markets, especially future changes in agricultural and trade policies as well as the outcome of the trade negotiations in the Doha Development Round, the policies on renewable energy, the path of technological change and future climatic conditions.
Workshop Presentations
Commodity Market Development in Europe - Outlook
J. Delincé, R. M'barek, T. Fellmann, S.H. Gay (IPTS)

Workshop on
“Commodity Market Development in Europe - Outlook”
Jointly organised by JRC/IPTS and DG AGRI
Brussels, 10 November 2009
J. Delincé (IPTS), R. M'barek, T. Fellmann, S.H. Gay
IPTS, AGRI/LIFE unit

Invited market experts
- Julian Binfield, Food and Agricultural Policy Research Institute (FAPRI), USA
- Zohra Bouamra Mechenache, INRA, France
- Richard Brown, GRISA Consulting, France
- Bernhard Chilla, Tso Porf International, Germany
- Roffaert Garafalo, European Biodiesel Board, Belgium
- Amedel Karayigit, Agricultural Marketing and Enterprise Specialist, Turkey
- Ruud Krupenfort, Friesland-Campina, The Netherlands
- Alan Matthews, Trinity College Dublin, Ireland
- Holger Matthey, FAO, Italy
- Christian Pallière, European Fertiliser Manufactures Association, Belgium
- József Popp, Agricultural Economics Research Institute, Hungary
- Melanie Richard, Institut de l’Élevage, France
- John Tjardes, International Grains Council, UK
- Pavel Vavra, OCED, Trade and Agriculture Directorate, France

Background

- IPTS in cooperation with DG AGRI has built up a platform for modelling tools and market analysis to support EU policy-making:
  - Modelling of the Common Agricultural Policy
  - Projections of agricultural commodity markets in Europe
  - Analysis of international agro-food trade patterns
  - Improvement of data quality and availability
- Modelling platform (end 2009):
  - Partial equilibrium models: CAPIRI, ESIM, AGLINK, (CAPSIM, AGWEMODC)
  - General equilibrium models: GATE, GLOBE
- Data management tools
- Expert workshops on agricultural commodity markets in Europe:
- Evolved from a model results comparison workshop to a more expert oriented information forum
- DG AGRI baseline and agri-business information

Outlook Nov 2008

- Strong negative impact on the global macro-economic environment, but recovery after 2010 predicted to be also quite strong
- Oil prices are expected to stay at a low level but are likely to recover after 2009
- Experts expect agricultural prices to further decrease over the short term
- Aggravation of impact of market fundamentals (strong supply response), particularly for dairy products, meat and, to a lesser extent, cereals
- High risk that producer margins will be squeezed further as the impact of lower agricultural output prices is exacerbated by high input prices
- However, the current macro-economic environment affects also input prices, especially if energy prices continue to stay at low levels
- Total fertilizer costs to remain relatively high
- Energy related input costs from production to processing and transportation are forecasted to decrease during 2009 with ocean freight rates already slumping since summer 2008

Development of commodity prices

Source: Oilworld 2009, EUA, 2009

Pierluigi Londero (DG AGRI)

How to interpret the projections

- not as a forecast of what the future will be, but a description of what may happen under a specific set of assumptions, which at the time of projections were judged plausible.
- they should be seen as a benchmark for assessing the medium-term impact of future market and policy issues

Methodological approach - markets

- Models used: current market projections carried out using two recursive dynamic partial equilibrium models (ESIM and Aglink)
- Data used: market and policy information available at the end of January 2009
- Results: model output consists of supply balance sheets for main commodities and market prices. Income projections mainly based on Economic Accounts for Agriculture and model output
- Detailed results for:
  - Cereals, oilseeds, meat, eggs and dairy markets
Methodological approach - income
- Value of agricultural production based on
  - marketed projections for arable crops, meat and milk sectors
  - historical trends for other sectors
- Value of costs based on
  - market projections for feed and seed use
  - correlation with crude oil price for fertilizer and energy
  - correlation with inflation for services
- Subsidies based on
  - estimated direct payments and RD funds
  - assumed top-ups and co-financing by Member States
- Labour assumed to follow historical trend

Prospects for agricultural markets 2008-2015
Cereal and oilseed sectors

Policy assumptions
- CAP in its current (post Health Check) form
  - Phasing out milk quotas
  - Intervention mechanism reduced to wheat, butter and skimmed milk powder
  - Further decoupling until 2012
  - SAPS maintained until 2013 (inclusive)
  - Abolition of mandatory set-aside
  - Increased modulation
- World trade remains in conformity with the Uruguay Round Agreement on Agriculture

Overview
Over the short term cereal prices to remain at relatively low level due to
- Lower demand linked to economic crisis (mainly through feed demand)
- Removal of set-aside
Prices are projected to recover over the medium term thanks to
- Expanding biofuel demand
- Moderate yield growth and
- EU and world stocks at relatively low level
Low risk of (regional) imbalance on EU cereal markets
Changing price relations in favour of coarse grains (mainly maize)
... but greater risk of price fluctuations

Macro-economic assumptions
- Economic crisis beclouds the short-term outlook
- Medium-term prospects remain favourable
  - EU GDP growth around +2.1% per year
  - USD/EUR exchange rate to stabilise around 1.35
  - EU inflation around 1.5% per year
  - EU population growth would slow to 0.3% per year
  - Crude oil price fluctuates between 75-95 USD/barrel
  - World GDP growth above 3.6% per year
- High degree of uncertainty as the economic outlook remains subject to a number of risks

Assumptions for USD/EUR exchange rate and GDP growth (compared to assumptions in March 2008)

Slightly expanding cereal markets and emerging bioethanol markets....
Development of cereal markets in the EU 1991-2011 (ytd 3)

... lead to a return to modest levels of stocks on EU cereal markets
Development of stocks and cereal imports in the EU, 1995-2015 (mio t)
Commodity Market Development in Europe – Outlook

Overview
- Difficult situation over the short-term
  - Low commodity prices induce a significant decline in the milk price paid to producers
  - Increasing underutilisation of available milk quotas
  - Market measures required to balance markets
- Medium-term prospects remain favourable for high value-added commodities, but milk commodity markets recover over a lengthier (de-stocking) period
- Milk price projected to remain depressed and production remains below the quota level on aggregate

Prospects for agricultural markets 2008-2015
Milk and dairy sector

Butter: declining production lead to the disappearance of public stocks by 2012
EU production, consumption, trade and intervention stocks per q

SMP: lengthy de-stocking from intervention with little support from exports (facing strong competition)
EU production, consumption, trade and intervention stocks per q
Health Check decisions on dairy

- Milk quotas increase by an annual 1% over five quota years (2009/10 to 2013/14)
  - Italy receives the aggregate 5% increase in the first quota year (2009/10)
- Milk quotas remain unchanged in 2014/15
- Milk quotas abolished from April 2015
- Fat adjustment is reduced by half

Impact on milk production and price
(as % deviation from the ‘no Health Check’ scenario)

Favourable medium-term perspectives for farm income, most notably in the EU-12

Impact on milk fat and non-fat solids in 2015 (in tons, versus the ‘no Health Check’ scenario)

Uncertainties

- Economic outlook
  - Length and breadth of recession
  - Exchange rate developments
  - Crude oil price
- Agricultural and trade policies
  - Renewable energies
  - DDA negotiations
- Technological change
- Climatic conditions
- Animal diseases

Prospects for agricultural markets 2008-2015

Agricultural income
The FAPRI Outlook in Comparison to the DG AGRI Outlook
Julian Binfield (FAPRI)
Commodity Market Development in Europe – Outlook

Crop area

Dairy balance sheet

The potential for headlines to differ in dairy is very large. As we have seen changes in world prices (and exchange rates) can change markets dramatically especially exports.

We find it difficult to have butter prices above support levels without export subsidies.

Cereals balance sheet

Livestock numbers (million hd)

We have flat beef core numbers

Oilseed summary

Meat balance sheet

Commission dairy core numbers similar

Beef的故事，除价格外？

Both have the EU increasing net imports a little

Sheep sector very interesting

Dairy?

Thanks

Any comments or suggestions to:

Julian Binfield
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www.fapri.missouri.edu
Global Developments in the Meat Markets and Industries
Richard Brown (GIRA)
Commodity Market Development in Europe – Outlook

1. Global long term meat market background
2. Current global meat market situation (food focus)
3. Global meat industry developments
4. Conclusions & perspectives

USD has weakened against key currencies throughout 09 losing almost all of the 4Q08 gain (except RUB)

Oil price recovery is almost exactly what Gira was assuming at the Dec08 GMC – but has big implications

US feed grain prices have fallen – but could have fallen more after another good harvest, benefiting from weak USD and oil
Commodity Market Development in Europe – Outlook

**World Live & Meat Trade volume will decline in '09, partly in reaction to the strong growth in '08**

![Graph showing Developments in Meat & Live Trade 2004-2009](image)

- **2008:** +1.6 mio towe (+7%); **2009:** -1.4 mio towe (-6%)

---

**EU Meat Consumption, 1997-09**

![Graph showing EU Meat Consumption](image)

- **Poultry:** Increase
- **Pigmeat:** Decrease by 6%
- **Sheepmeat:** Decrease by 2%
- **Beef & Veal:** Decrease by 4%

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**EU BF Balance Summary**

![Graph showing EU BF Balance](image)

- **EU-15:**
  - **NUT PRODUCTION (T/yr)**
  - **ANIMAL FEED CONSUMPTION (T/yr)**
  - **IMPORTS FROM (T/yr)**
  - **EXPORTS FROM (T/yr)**

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**Cattle Prices in the EU by Company 2008-09**

![Graph showing Cattle Prices](image)

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**Global weakening demand for BF due to economic slowdown/recession**

- **Global consumption fall by -400’000 towe** was expected
- **Global decrease in prices (in USD)** from 2008 high level. Bigger fall than expected – reflecting deeper financial crisis
- **Decrease in production in most countries, except CN**
- **Slight decrease in BF trade** (after a weaker 2008 year)
  - Further decrease in BR exports (-100’000 towe); herd rebuilding
  - Slight increase in BF exports from the US, CA & AR
  - Stable export volumes from AU
  - RU import fall – reflecting weaker demand & further production decrease
- **Long-term downward trend in EU production & slight recovery of imports**
  - Further, small consumption decrease expected

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**Downturn in short term beef demand in reaction to economic crisis**

- Consumption down (less production, less import (BF supply not missed in this environment))
- Shift in demand from loin &istical cuts to mince
- In-home rather than eat-out
- Likely further step-change down in production
- Dairy market crisis: herd reduction
- Unprofitable: Uncompetitive, i.e., long term confidence in beef herd

---

**Surprise at the apparent supply problems in S. America**

- But not concrete, in the current demand environment
- Sense of traders/retailers looking for other origins
- ECU agreement to settle hormone conflict
- Motivating volume and tariff for US exporters
- Major issue for CA (& others) to resolve – with apparent opportunities
- But sensitivity over N American system: feedlot welfare & fat
- Mounting environmental impact and food sustainability discussion
Commodity Market Development in Europe – Outlook

**Gira**

US: domestic demand weakening offset by strong exports in 08 ... but with 09 markets less buoyant.

**Gira**

Brazil expected Brazilian meat exports to fall in 09 due to weak international demand ... but the fall has been greater than this.

**Gira**

Canada: Export dependent (to US), and suffering for that from USD, COOL, and BSE.

**Gira**

BF meat producer prices in LC have fallen from the dramatic 2007/08 increase in spite of lower slaughtering.

**Gira**

Australian BF: Disappointing pasture conditions thwart herd rebuilding in Q4. Better '09 prospects thwarted by USD-weakness.

**Gira**

Brazilian BF producer prices show a much steeper fall in USD – reflecting the weaker BRL in 4Q08.

**Gira**

Brazilian BF: major cattle price increases motivate herd rebuilding ... causing production decline ... at a time of disrupted export markets.

**Gira**

... but Brazil needs to respond to many issues e.g. "Greenpeace investigation links fast food giants to Amazon destruction."
Commodity Market Development in Europe – Outlook

Agenda

1. Global long term meat market background
2. Current global beef market situation
3. Global meat industry developments
4. Conclusions & perspectives

Brazilian agribusiness had a great run... but 2009 has been a tough year.

- Volume growth
  - Exports into a broadening portfolio of markets
  - Domestic
  - Price up
  - Productivity, quality & efficiency
  - Investment: inward and outward
- Emergence of Brazilian meat firms onto the global stage
- 1H08 commodity price boom emphasised the phenomenal opportunities for Brazilian agribusiness
- ... and then came the 4Q08 crash
  - Challenging many of the long established assumptions and drivers for the meat sector
  - Real uncertainty, volatility and risk
  - ... pause, survive, re-think ... and then ... what?

Suddenly the M&A stream has started again... e.g. Cadbury: the BR at the forefront

- Opportunity:
  - damaged balance sheets
  - creative bankers
  - stronger BRL
- Ambition: BR
- Drive for scale:
  - Selling power, and reach
  - Rationalisation benefits
  - Marketing opportunities
- Multi-origin:
  - flexibility & risk reduction
  - Re-appraisal of country risk
- Multi-species: scale benefits & risk reduction
- Strategic support: BNDES and the Gov't.

Even US agribusiness stocks plummeted... forcing a pause in strategic developments.

Meantime EU processors are concentrating in Europe... but have a long way to go.

- Fragmented, nation-oriented industry, with no genuinely multi-national players... except JBS's slate in Brazil
- VION M&A in DE catalyses concentration and reaction, and now UK (BFCFS)
- France has concentrated BPAV sector with the new EU leader, AMES
- Long way to go in ES and IT
- Industrial issue ready... falling cattle supply... weaker demand is in the hot topics

... good rebound... but still a confidence knock for agribusiness stocks.
1. Global long term meat market background
2. Current global beef market situation
3. Global meat industry developments
4. Conclusions & perspectives

Argentina BF: Export restrictions still in place, demotivating the sector
- 2008: 3-months strike paralyzing the sector
- 2009: Expected increase in exports over the low level of 2008

Uruguay BF: Return to a more 'normal' situation after 2008 exceptional year
- Clearly export-led market (75% of the production is exported)
- 2008: Uruguay benefited from export disruptions in AR & BR (change in destinations)

In this uncertain environment... the key strategic questions are:
- Extent, timing, location and type of global meat demand growth?
- Where best to invest... or diversify?
- Regulatory issues... a confidence check for investors
  - Will politicians allow global opportunities to be exploited by global players...or domestic competitors? What type of meat will the people want?
- How to react to environmental challenges?
- Risk and the management of risk
  - How can the risks of the meat business be minimized and managed?
  - Is vertical integration an answer? Or a sink for capital and complexity?
- Margin distribution and retail relationships
  - Will suppliers be allowed on acceptable ROI? What is optimal ownership?
  - Overcapacity and industry fragmentation
  - What can be done to improve industry competitiveness? E.g. EU
  - What will China import?
  - Beef industry needs the answers more than most
  - Competitiveness and capacity if it is allowed to use it
- What future for EU family farmers? How does EU industry stay relevant?

Frozen beef import volume 2009/2008 - 15% down YTD
- 2009: -15% vol. below 2008
  - Weak demand
  - Beef importers lack financial resources
  - Commercial Bank Credit very difficult
  - Importer out of...
- Year above quota: 450 000 t frozen beef
  - Over quota tariffs increased by 30% (or less than 5.3 Surfing)
- Offal imports up strongly (unilaterally)
- Typical basis on selective export plants
- 2010: Import recovery
  - Demand recovery
  - Need for BF imports
Evolution of Milk and Dairy Markets: collapse of milk price and soft landing of EU milk quota removal
Zohra Bouamra-Mechemache (GREMAQ-INRA)

Introduction
- Collapse of milk prices in 2009: after a 25% increase in milk price between 2007 and 2008, milk price has decreased by 50%
- Meanwhile, increase in milk quota: by 2% in 2008 and 1% from 2009 (to 2013)
- Is the collapse of milk prices due to the planned quota removal (soft landing) or not?
- EDIM: Evaluation of the impact of milk quota removal

Current situation of milk market
- While dairy consumption was increasing in the past, decrease in the EU and world markets linked to the economic crisis
  - EU: particularly low for cheese and fresh dairy products (decrease in production in the first semester of 2009: 2.5% for drinking milk, 1.3% for fermented milk, 0.8% for cream and 2.4% for cheese)
  - New member states: slower growth of demand
  - Decrease in total world exports (Comparisons of the first semester 2008/first semester 2009): -5.8% for butter, -4.4% for SMP, -12.3% for cheese
  - The decrease in price not only observed in the EU: World prices of butter and milk powders under the level of prices observed two years ago.
Commodity Market Development in Europe – Outlook

Soft landing

- EDIM tool used to evaluate the impact of gradual quota removal.
- Takes into account a positive trend in demand
  - EU25: 0.2% year in fat equivalent, 0.5% year in protein equivalent
  - Rest of the world: 2% per year
- One of our main results: a 1% increase in demand leads to a 3% increase in the milk price, everything else being equal.

Concluding remarks

- Gradually phasing out milk quota implies a significant price decline but production will increase by less than 4%.
- A crisis generated by a decrease in demand for dairy products will reinforce the negative impact on prices which in turn will reduce the milk quantity produced.
- What solution?
  - Volatility of dairy markets: if demand increases again then the additional negative impact on milk price will disappear
  - Limit quota increase or quota reduction in the short term, will have no effect if set at a not too low level. In the medium term, if demand increases, will tend to give more support to farmers than what needed to compensate them for the price decline
  - Other solution: should take into account the volatility of prices (particularly on the world market)

Analytical Approach / Economic model

- Partial equilibrium model of the vertical chain
  - Milk supply: A reduced form of a dynamic model
  - Processing (14 final products)
  - Final demand (EU, subsidised or not, exports, public interventions)
- Hedonic model (fat, protein)
- Spatial model (EU25, Oceania, 4 importing zones)
- Multi-periodic trends in demand (estimated), trends in supply (estimated)
- Modelling of domestic and trade policies.

Analytical Approach / Economic model

- Quota rents: based on estimated long-run marginal costs
- Difficulty to assess under-production; overproduction
- Adjustment for two countries ... active quota market and under-production

Sensitivity to demand

- In presence of inelastic supply, prices are determined by the demand pattern only.
- Lower demand:
  - Would lead to further price decline
  - Which in turn reduces the expansion of milk production.
- Conclusion: price decline relatively sensitive to demand growth pattern.

Luxembourg ... Milk price

- Inclusion of an elasticity term in the model, compared to a Luxembourg within-country in 2014/15
Luxembourg … Dairy markets

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<thead>
<tr>
<th></th>
<th>2016-17</th>
<th>2015-16</th>
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<tbody>
<tr>
<td>Price</td>
<td></td>
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<tr>
<td>Milk</td>
<td>93.5</td>
<td>102.3</td>
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<tr>
<td>Butter</td>
<td>76.5</td>
<td>88.7</td>
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<tr>
<td>SMP</td>
<td>105.5</td>
<td>79.5</td>
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<tr>
<td>WMP</td>
<td>94.0</td>
<td>95.0</td>
</tr>
<tr>
<td>Cheese</td>
<td>101.0</td>
<td>114.5</td>
</tr>
</tbody>
</table>

Exports

- Butter price at the IP level but SMP above the IP.
- EU non-competitive on the world market for butter.
- Exports decrease for all dairy products but cheese.
- Production in favour of final consumption products (cheese, fresh products).
Supply 2009/10: still declining

Main reasons:
- EU: stable supply and high intervention stocks
- USA: decline of milk supply and higher home demand
- Australia: drought, less cows in Victoria and higher home demand
- New Zealand: price setter of higher prices, but slow start
- Argentina: export is less attractive, slow start
- Brazil: Q2 milk deliveries down by 9%
- India: more imports needed
- China: max. stable milk supply

World trade of dairy products is growing

Economic growth notably Asian markets are on their way to recovery

- Fast recovery of S.E. Asian markets.
- Quarter to quarter recovery even stronger (e.g. Thailand 6%, China 11%)
- When will EU demand recover??

2. Price volatility and price stability: 2 approaches

- Macro or market wide level: Limit price movements for all market participants
- How:
  - Regulated pricing schemes
  - Trade barriers
  - Production quotas/supply management
- Micro or individual level: Limit the impact of price movements firm by firm or farm by farm
- How:
  - Forward contracts
  - Futures and optionless contracts

Let’s be clear: futures do not stabilize prices, they only can limit individual price risks

Futures markets: How to avoid or limit speculation and losses?

USA often used as example:
- NASS milk production - monthly
- NASS dairy products - monthly
- NASS cold storage - monthly
- NASS ag prices - monthly
- NASS weekly dairy product prices - Fr
- ERS Livestock, Dairy & Poultry Outlook
- FAS U.S. Trade Internet System
- FAS Current World Market & Trade Reports
- FAS Weekly Dairy Purchases
- FAS Milk Price Support Program - Fact Sheet
- World Ag Supply and Demand Estimates Report

Is this infrastructure possible in EU and who should do it? European Commission??

3. Price volatility and FrieslandCampina

- Owners are 15,000 member farmers of FrieslandCampina,
  one of the oldest dairy co-operatives in the world.
- Member commitment: member farmers deliver all their milk, the co-op FrieslandCampina accepts all the milk.
- Sustainable value creation for the members consists of milk price, capital payment and addition of members' reserves on name
Commodity Market Development in Europe – Outlook

Revenue by region

- 9.5 billion euro
- 100%
- Netherlands 30%
- The Netherlands 2.798
- Rest of Europe 28%
- Germany 16%
- Asia & Australia 14%
- Africa & The Middle East 9%
- North & South America 3%

FrieslandCampina has started a department of Milk Valorization

- Core Competence of FrieslandCampina is this knowledge and know-how to achieve the highest milk valorization.
- AML (Milk Valorization and marketing) is responsible for:
  - the allocation of > 10 ced milk (AML)
  - the sorting (2 or less for heavy)
  - the WLM (Line Milk) (WLM for Milk)
- Linear Modeling based on intelligent and forecasting
- Milk is responsible as a corporate center for Fair, Transparent, and Objective decision making in the European market.

Discussed in this introduction

1. Present market situation:
   - Strong imbalance in demand & supply
2. Price volatility and price stability
   - Dairy futures market will not stabilize market prices
   - EU market does miss the structure for dairy futures
3. Price volatility and FrieslandCampina
   - Mutual commitment, milk valorization in more products and regions & make or buy

A young company in name, but we have a long history

Dairy Cooperative FrieslandCampina U.A.

Thank you for your attention
Cereal Markets
John Tjaardstra (International Grains Council)
Oilseed Markets
Bernhard Chilla (Toepfer International)
GMOs – The same problems since years

- Lack of approvals due to political interference
- Zero tolerance for events not approved in the EU but commercialized in other countries not manageable in the bulk commodity handling system
- "technical solution" blocked by DG SANCO
- Traces of unapproved maize in soybeans and soybean meal nearly lead to a crisis in the food & feed sector
- Recent approvals provide short-term relief but do not cure the root cause of the problem: delayed approvals and zero tolerance

3. Sustainability

Biofuels and Sustainability Certification
1. So far no certification system available
2. Criteria to certify will determine, whether we might see a shortage of vegetable oils in the EU and therefore higher prices
3. Current draft legislation in Germany will in all likelihood block use of palm and soybean oil
EFMA Forecast of Food, Farming and Fertiliser Use in EU 27 – 2009-2019
Christian Pallière (EFMA)
Commodity Market Development in Europe – Outlook

Commodity market development in Europe
EPMA Forecast 2009/2010

Economic accounts for agriculture

[Graph showing economic accounts for agriculture from 1995 to 2008]

Commodity market development in Europe
EPMA Forecast 2009/2010

Example on wheat grain & Nitrogen cost/ha and fertilizer cost in %

The gross income of farmers per ha has changed considerably from 2004/05 until 2008/09. The nitrogen share has changed between 15 and 37%.

The EFMA Forecast

Assumptions and scenario

Building the EU scenario:
- Background information:
  - Quantitave:
    - Global: FAO, USDA, OECD
    - EU: EU Commission and EEA
  - Qualitative:
    - Contact with EU experts (Agr & Env).
- Building the scenario:
  - Selecting relevant information for EFMA forecasters.
  - Proposing a draft scenario.
  - Discussing the scenario in plenum.

The objectives, principles and main steps of the EFMA methodology
Commodity Market Development in Europe – Outlook

Concluding remarks:

Double impact on fertilizer consumption:
- Energy market (impact essentially on nitrogen).
  >>> Very important, political dimensions but rather short term effect.
- Market of agricultural commodities:
  >>> Very important, highly volatile, now linked with energy market.
  More long term effect on consumption.
  >>> More impact on P and K than on nitrogen.

Thank you for your attention!

Christian Pallière
chpal@ema.be
The Impact of the Economic Crisis on Commodity Markets
Alan Matthews (Trinity College Dublin)

From food crisis to financial crisis
- Characteristics of the 2008-09 recession
- Explaining the drop in farm prices
- Policy implications

Financial crisis triggers the largest contraction in output since WW2...

The current recession in historical perspective (data to June 2009)

Source: IMF World Economic Outlook, October 2009

The current recession in historical perspective – the Great Depression

Source: Eichengreen and O'Rourke, 2009

Conventional view is that agri-food is less sensitive to downturn
Commodity Market Development in Europe – Outlook

The current recession – agri-food exports continue to perform better

OECD-FAO Outlook simulates elasticity of prices with respect to demand fall...

Characteristics of the economic crisis

- Deep fall in volume and value of world trade...
- but agri-food trade has held up better than overall trade, particularly for EU-27 agri-food exports
- Severity of the financial crisis has led to a sharp contraction in credit, including trade finance
- Monetary and fiscal stimulus responses have been huge and effective...
- ...but give rise to future macroeconomic and exchange rate uncertainty

Explaining the fall in farm prices

- Huge literature now on the causes of the 2007-08 price spike...
- ...but nothing to date on the dynamics of the subsequent collapse
- Prices fell either because of above-normal growth in supply or below normal growth in demand
- Supply stimulated by response to price spike, whereas demand affected by global recession
- The relative importance of supply and demand factors differs by commodity, but recession effects seems to be important only for dairy and beef

Food prices – spike, collapse...but recovery during recession in 2009

Little impact of recession in vegetable oils market
Commodity Market Development in Europe – Outlook

.. whereas beef consumption shows marked response to crisis

Price trends also affected by currency movements in response to the crisis

Policy implications — what response to volatility?

- Volatility in one market can be reduced by exporting it to the rest of the world
- Introduction of export taxes (response to high prices) or subsidies (response to low prices)
- Counter-cyclical tariff policy
- Biofuel mandates
- Exchange rate management/volatility
- However, exporting instability is not a sustainable or desirable long-term policy option
- Adapting to the consequences or mitigating the causes of volatility?

Exchange rate effects on commodity prices

- Appreciation of the USD puts downward pressure on commodity prices (given most commodities are priced in US dollars)
- Dollar appreciation makes commodities more expensive for consumers in non-dollar regions, thereby reducing their demand
- Profits increase in local currencies for producers outside the dollar area, stimulating a supply response
- Dollar appreciation makes dollar-denominated financial assets more attractive, making commodities a less attractive asset for foreign investors
Annex 1: Workshop Agenda "Commodity Market Development in Europe - Outlook"

**Tuesday, 10 November 2009**

**Venue:**
European Commission
Berlaymont (Room Jean Rey)
Rue de la Loi 200, B-1040 Brussels

Organisers: Institute for Prospective Technological Studies
Robert M’barek, Thomas Fellmann, Stephan Hubertus Gay

### AGENDA

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Chair/Institution</th>
</tr>
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<tbody>
<tr>
<td>09:30</td>
<td>Welcome. Presentation of participants. Background of workshop</td>
<td>Jacques Delincé, Robert M’barek, IPTS</td>
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<tr>
<td>09:45</td>
<td>Session 1: Short/Medium-Term Outlook</td>
<td>Chair: Holger Matthey, FAO</td>
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<tr>
<td></td>
<td>(20 min) Short- and medium-term outlook for the EU agricultural markets</td>
<td>Pierluigi Londero, DG AGRI</td>
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<td>(10 min) The FAPRI outlook in comparison to the DG AGRI outlook</td>
<td>Julian Binfield, FAPRI</td>
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<td></td>
<td>(45 min) Discussion</td>
<td>All participants</td>
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<tr>
<td>11:00</td>
<td>Coffee break</td>
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<tr>
<td>11:30</td>
<td>Session 2: Meat and Milk Markets</td>
<td>Chair: Pavel Vavra, OECD</td>
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<tr>
<td></td>
<td>(15 min) The European meat markets within the global context</td>
<td>Richard Brown, GIRA Consulting</td>
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<tr>
<td></td>
<td>(15 min) Milk and dairy market I</td>
<td>Zohra Bouamra-Mechemache, INRA</td>
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<tr>
<td></td>
<td>(15 min) Milk and dairy market II</td>
<td>Ruud Krimpenfort, Friesland-Campina</td>
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<tr>
<td></td>
<td>(45 min) Discussion</td>
<td>All participants</td>
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<td>13:00</td>
<td>Lunch break</td>
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<td>14:30</td>
<td>Session 3: Cereals, Oilseeds, Biofuels</td>
<td>Chair: Alison Burrell, IPTS</td>
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<tr>
<td></td>
<td>(15 min) Cereal market</td>
<td>John Tjaardstra, International Grains Council</td>
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<td></td>
<td>(15 min) Oilseed market</td>
<td>Bernhard Chilla, Toepfer International</td>
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<td></td>
<td>(15 min) Biofuel market</td>
<td>Stephan Hubertus Gay, IPTS</td>
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<td>(45 min) Discussion</td>
<td>All participants</td>
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<td>16:00</td>
<td>Coffee break</td>
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<td>16:15</td>
<td>Session 4: Emerging Issues</td>
<td>Chair: Tomás García Azcárate, DG AGRI</td>
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<tr>
<td></td>
<td>(15 min) Fertiliser manufacturing and its impact on commodity markets</td>
<td>Christian Palliére, European Fertilizer Manufactures Association</td>
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<tr>
<td></td>
<td>(15 min) The impact of the economic crisis on commodity markets</td>
<td>Alan Matthews, Trinity College Dublin</td>
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<tr>
<td></td>
<td>(40 min) Discussion</td>
<td>All participants</td>
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<tr>
<td>17:25</td>
<td>Concluding remarks</td>
<td>IPTS and DG AGRI</td>
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**Annex 2: List of Participants**

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<tr>
<th></th>
<th>Name</th>
<th>Institution</th>
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<tbody>
<tr>
<td>1</td>
<td>BINFIELD Julian</td>
<td>Food and Agricultural Policy Research Institute (FAPRI), University of Missouri, USA</td>
</tr>
<tr>
<td>2</td>
<td>BOUAMRA MECEMACHE Zohra</td>
<td>INRA, Toulouse, France</td>
</tr>
<tr>
<td>3</td>
<td>BROWN Richard</td>
<td>GIRA Research &amp; Consultancy, E. Sussex, UK</td>
</tr>
<tr>
<td>4</td>
<td>CHILLA Bernhard</td>
<td>Toepfer International, Hamburg, Germany</td>
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<tr>
<td>5</td>
<td>KARAYIGIT Ahmet</td>
<td>Freelance Consultant, Agricultural Marketing and Enterprise Specialist, Turkey</td>
</tr>
<tr>
<td>6</td>
<td>KRIMPENFORT Ruud</td>
<td>FrieslandCampina, The Netherlands</td>
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<tr>
<td>7</td>
<td>MATTHEWS Alan</td>
<td>Institute for International Integration Studies, Trinity College, Dublin, Ireland</td>
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<tr>
<td>8</td>
<td>MATTHEY Holger</td>
<td>FAO, Rome, Italy</td>
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<td>9</td>
<td>PALLIERE Christian</td>
<td>European Fertiliser Manufacturers Association, Brussels, Belgium</td>
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<td>10</td>
<td>POPP Jozsef</td>
<td>Agricultural Economics Research Institute, Budapest, Hungary</td>
</tr>
<tr>
<td>11</td>
<td>RICHARD Mélanie</td>
<td>Institut de l'Elevage, Paris, France</td>
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<tr>
<td>12</td>
<td>TJAARDSTRA John</td>
<td>International Grains Council, London, UK</td>
</tr>
<tr>
<td>13</td>
<td>VAVRA Pavel</td>
<td>OECD, Trade and Agriculture Directorate, Agro-Food Trade and Markets Division, Paris, France</td>
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**European Commission**

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<tr>
<td>14</td>
<td>BENSTED-SMITH John</td>
<td>Directorate General Agriculture and Rural Development (DG AGRI), Brussels, Belgium</td>
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<td>15</td>
<td>BUCHHOLZER Florence</td>
<td>Directorate General Agriculture and Rural Development (DG AGRI), Brussels, Belgium</td>
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<td>16</td>
<td>BURRELL Alison</td>
<td>Joint Research Centre Institute for Prospective Technological Studies (IPTS), Seville, Spain</td>
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<td>17</td>
<td>CONSENTINO Fabrizio</td>
<td>Directorate General Agriculture and Rural Development (DG AGRI), Brussels, Belgium</td>
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<td>18</td>
<td>D'AVINO Alberto</td>
<td>Directorate General Agriculture and Rural Development (DG AGRI), Brussels, Belgium</td>
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<td>19</td>
<td>DELINCE Jacques</td>
<td>Joint Research Centre Institute for Prospective Technological Studies (IPTS), Seville, Spain</td>
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<td>20</td>
<td>DRIESEN Myriam</td>
<td>Directorate General Agriculture and Rural Development (DG AGRI), Brussels, Belgium</td>
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<tr>
<td>21</td>
<td>ERLANDSSON HOLSTEYNS Maria</td>
<td>Joint Research Centre Institute for the Protection and Security of the Citizen (IPSC) Ispra, Italy</td>
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<td>22.</td>
<td>FELLMANN Thomas</td>
<td>Joint Research Centre</td>
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<td>23.</td>
<td>GALITA Livia</td>
<td>Directorate General Agriculture and Rural Development (DG AGRI), Brussels, Belgium</td>
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<td>24.</td>
<td>GARCIA AZCARATE Tomás</td>
<td>Directorate General Agriculture and Rural Development (DG AGRI), Brussels, Belgium</td>
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<td>25.</td>
<td>GARGANO Nadia</td>
<td>Directorate General Agriculture and Rural Development (DG AGRI), Brussels, Belgium</td>
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<td>GAY S Hubertus</td>
<td>Joint Research Centre</td>
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<td>GENOVESE Giampiero</td>
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<td>28.</td>
<td>HANIOTIS Tassos</td>
<td>Directorate General Agriculture and Rural Development (DG AGRI), Brussels, Belgium</td>
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<td>HEGER Martin</td>
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<td>KOLODZIEJAK Andreas</td>
<td>Directorate General Agriculture and Rural Development (DG AGRI), Brussels, Belgium</td>
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<td>31.</td>
<td>KRZYSZTOFOWICZ Maciej</td>
<td>Directorate General Agriculture and Rural Development (DG AGRI), Brussels, Belgium</td>
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<tr>
<td>32.</td>
<td>LOBOUZ Benoit</td>
<td>PhD Student, invited by the European Commission</td>
</tr>
<tr>
<td>33.</td>
<td>LONDERO Pierluigi</td>
<td>Directorate General Agriculture and Rural Development (DG AGRI), Brussels, Belgium</td>
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<td>34.</td>
<td>M'BAREK Robert</td>
<td>Joint Research Centre</td>
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<td>35.</td>
<td>MÖLLER Christine</td>
<td>Directorate General Agriculture and Rural Development (DG AGRI), Brussels, Belgium</td>
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<td>36.</td>
<td>NEKRASius Dangis</td>
<td>Directorate General Agriculture and Rural Development (DG AGRI), Brussels, Belgium</td>
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<td>37.</td>
<td>OLEWINSKI Dominik</td>
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Abstract
These proceedings consist of presentations and a summary of a workshop on "Commodity Market Development in Europe - Outlook" held in November 2009 in Brussels. The workshop discussed short- and medium-term commodity baseline projections of agricultural markets in Europe. Policy makers, market and modelling experts from the EU and abroad also discussed emerging factors of EU agricultural market developments, especially volatile agricultural commodity prices, stock levels, biofuels, asynchronous approval of CMO crops and the economic crisis.
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