Future perspectives and challenges for European agriculture

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Agriculture and Rural Development

Европейска комисия

Outline

1. Agriculture in the European Union and the role of the Common Agricultural Policy

2. Trends, drivers and challenges for EU and world agriculture

3. The EU agricultural outlook

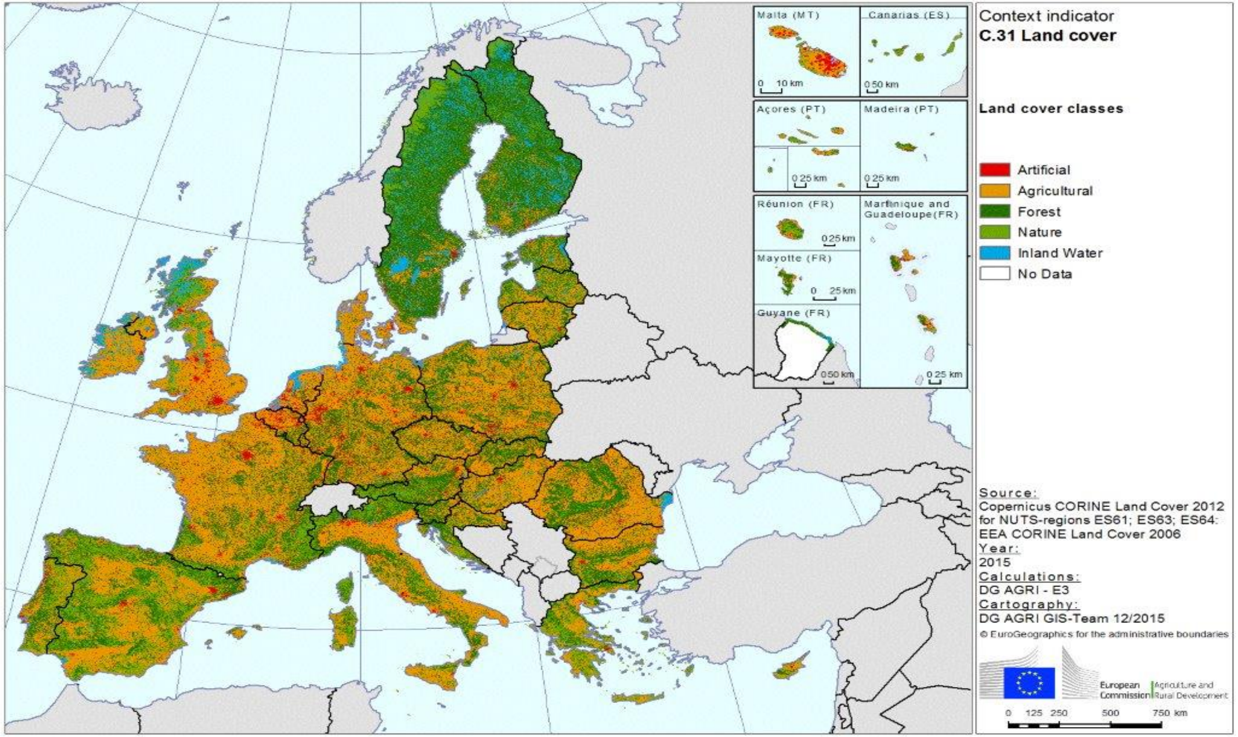
4. Need to modernise and simplify the EU Common Agricultural Policy

The big picture

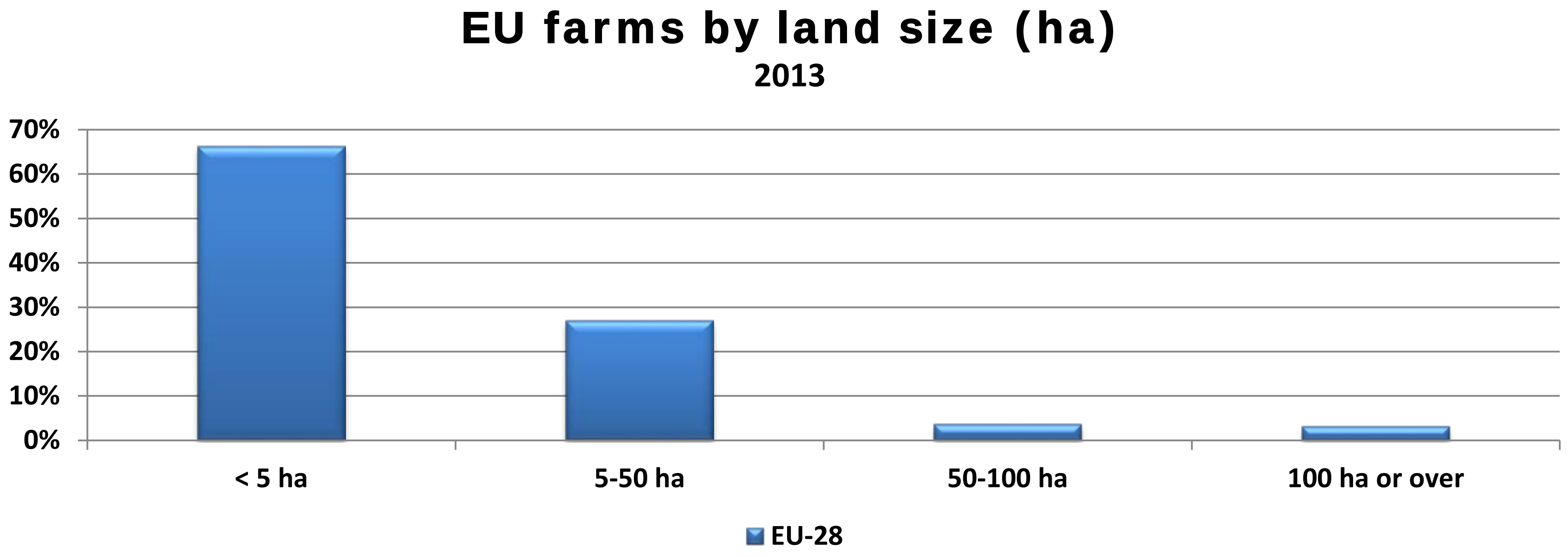
175 million ha land
=> roughly 40% of EU land cover

11 million farms
=>16 ha per farm

22 million people (around 9 million full-time equivalent jobs)
=> 4.4% of total employment

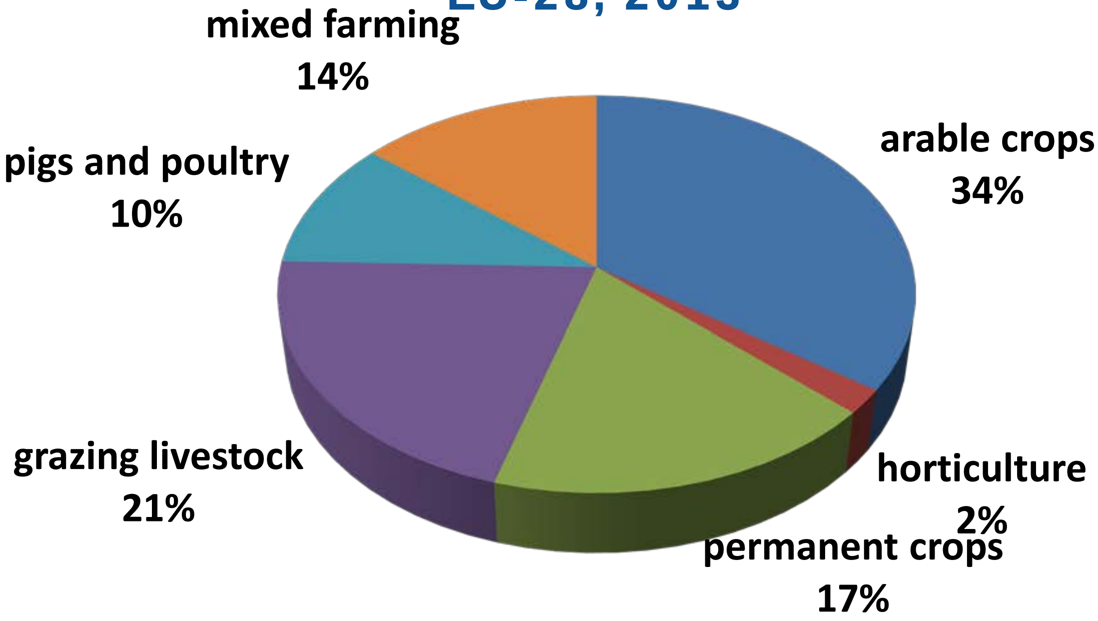


Distribution of farms by size of farmland



Main activities of EU farms

EU-28, 2013



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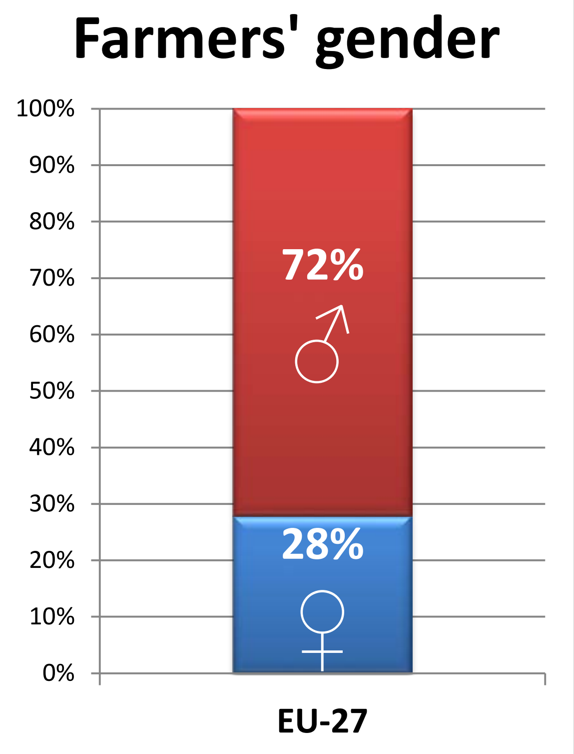

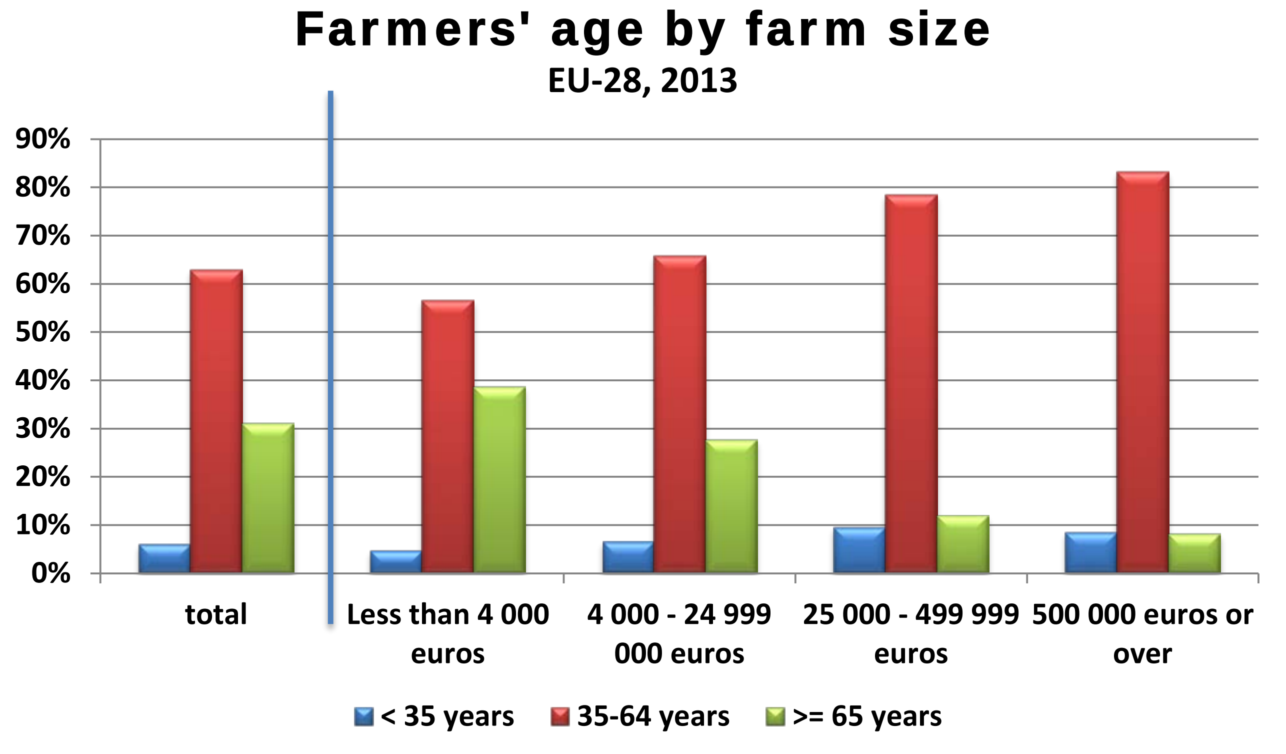

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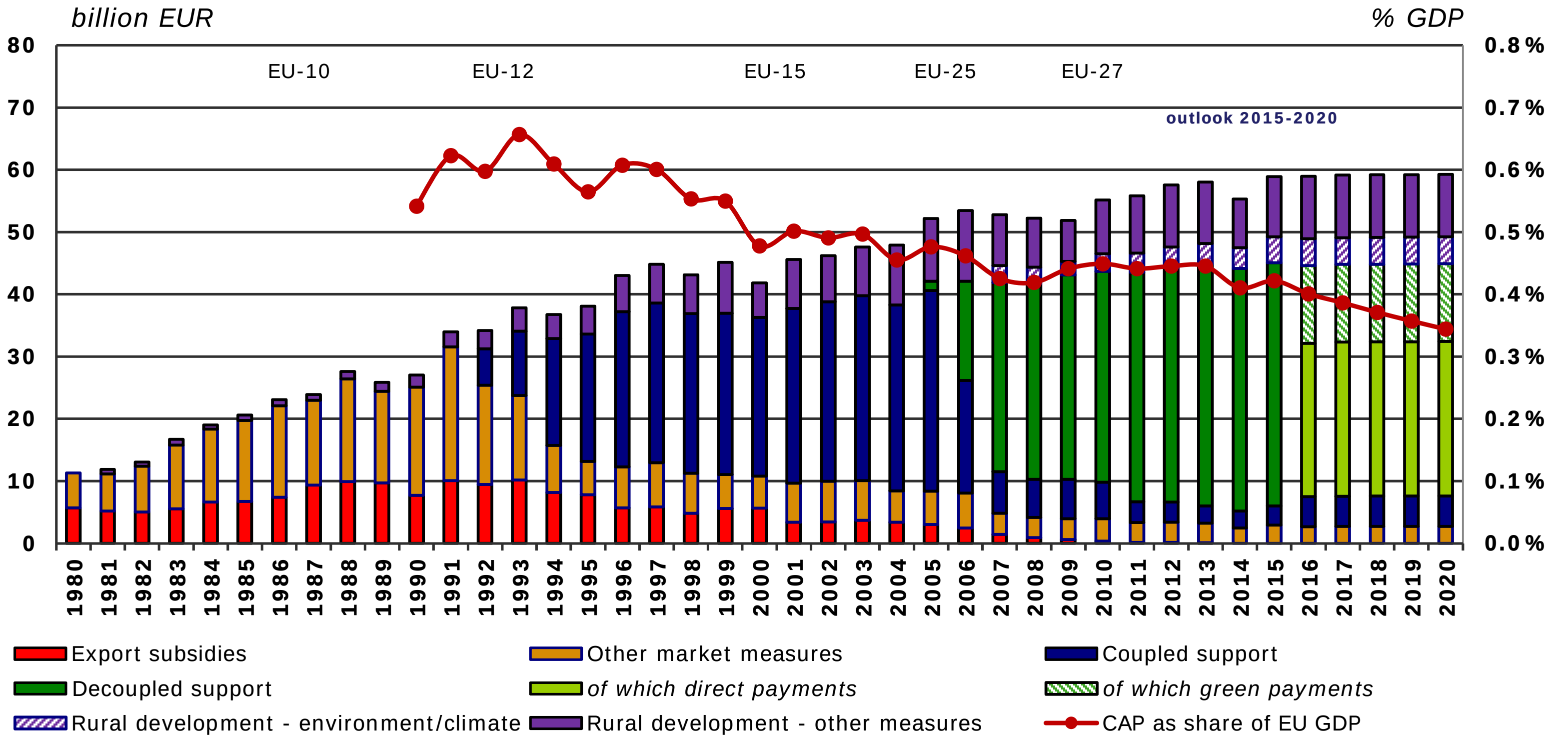
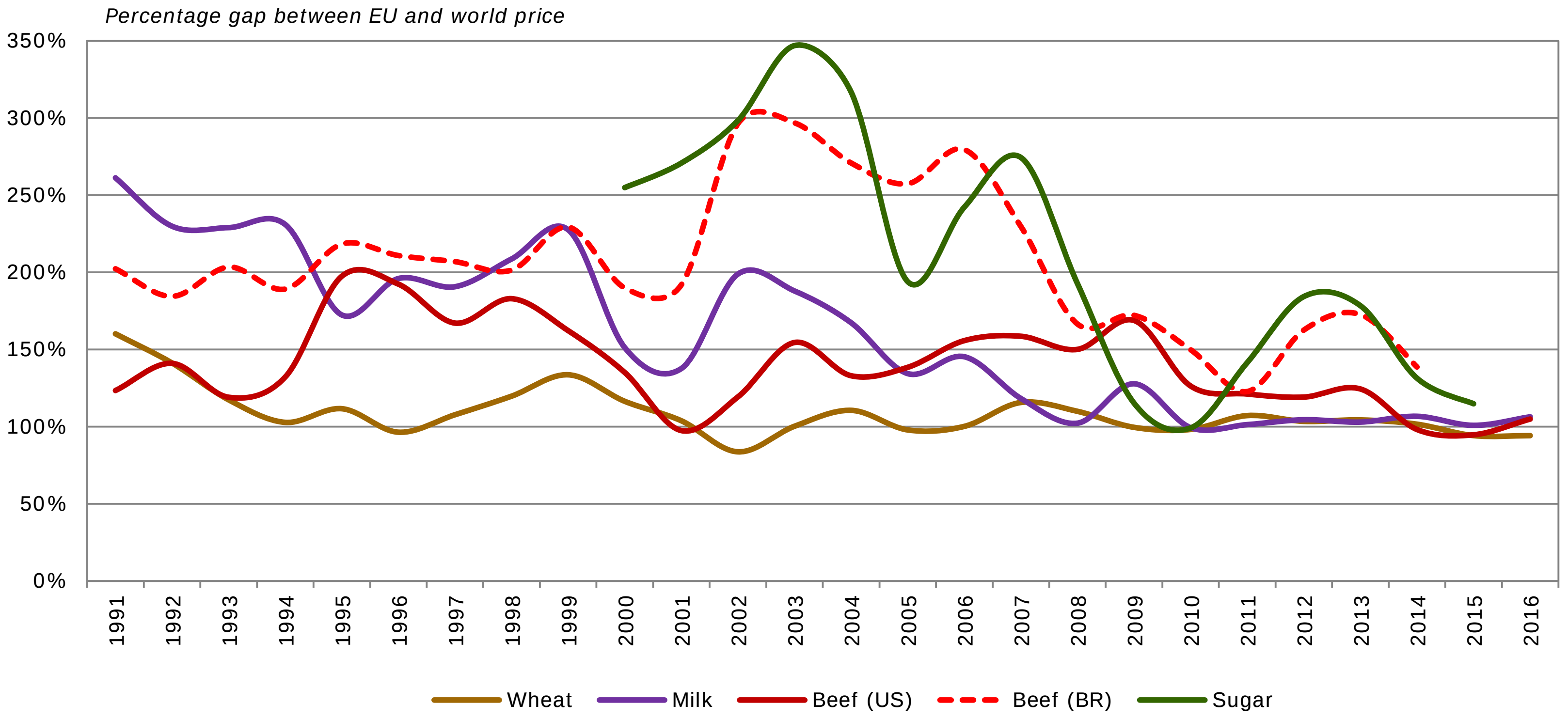
The long drive of Common Agricultural Policy reform…



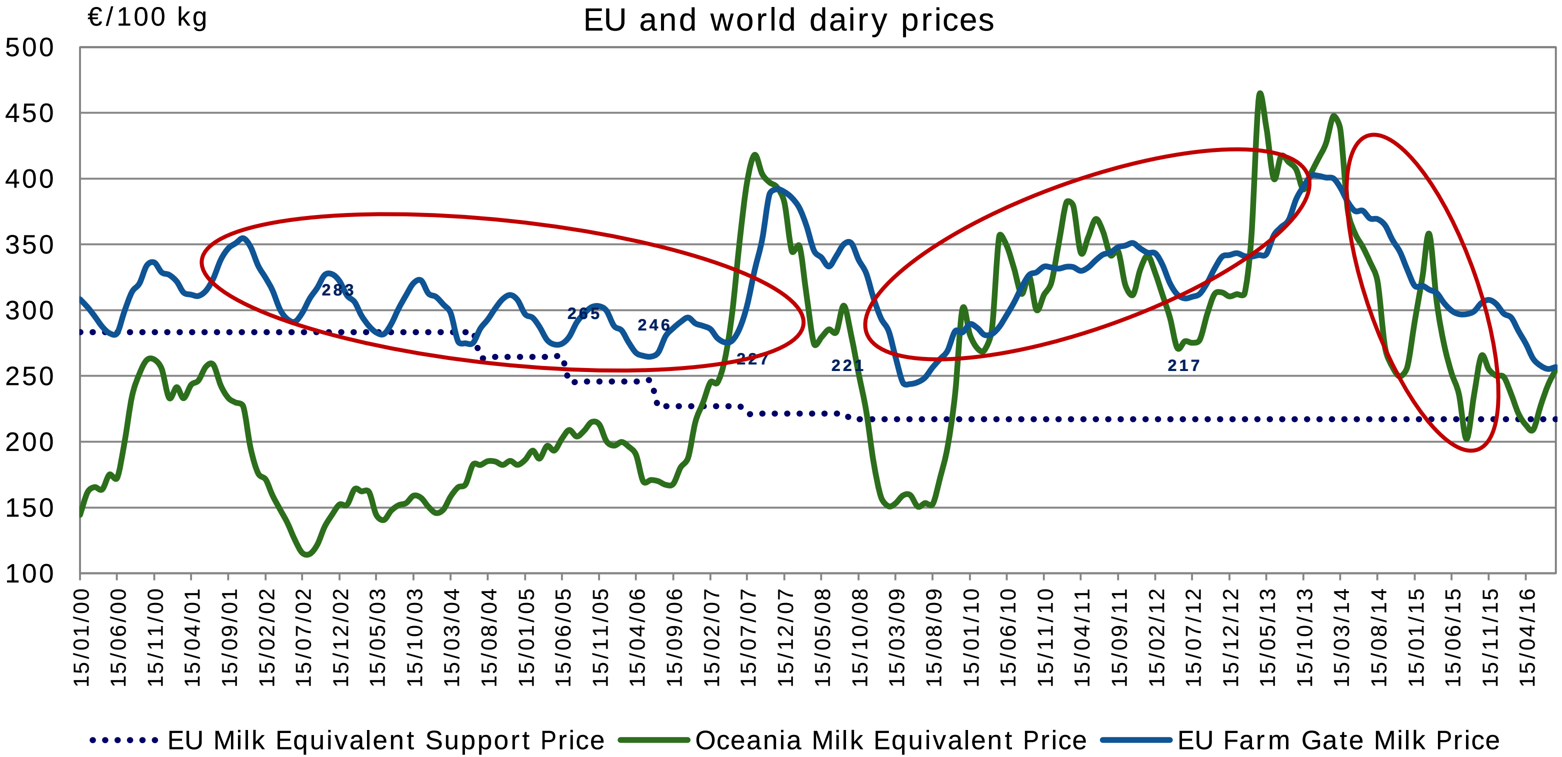
Source: DG AGRI.

… has bridged the gap between EU and world prices…



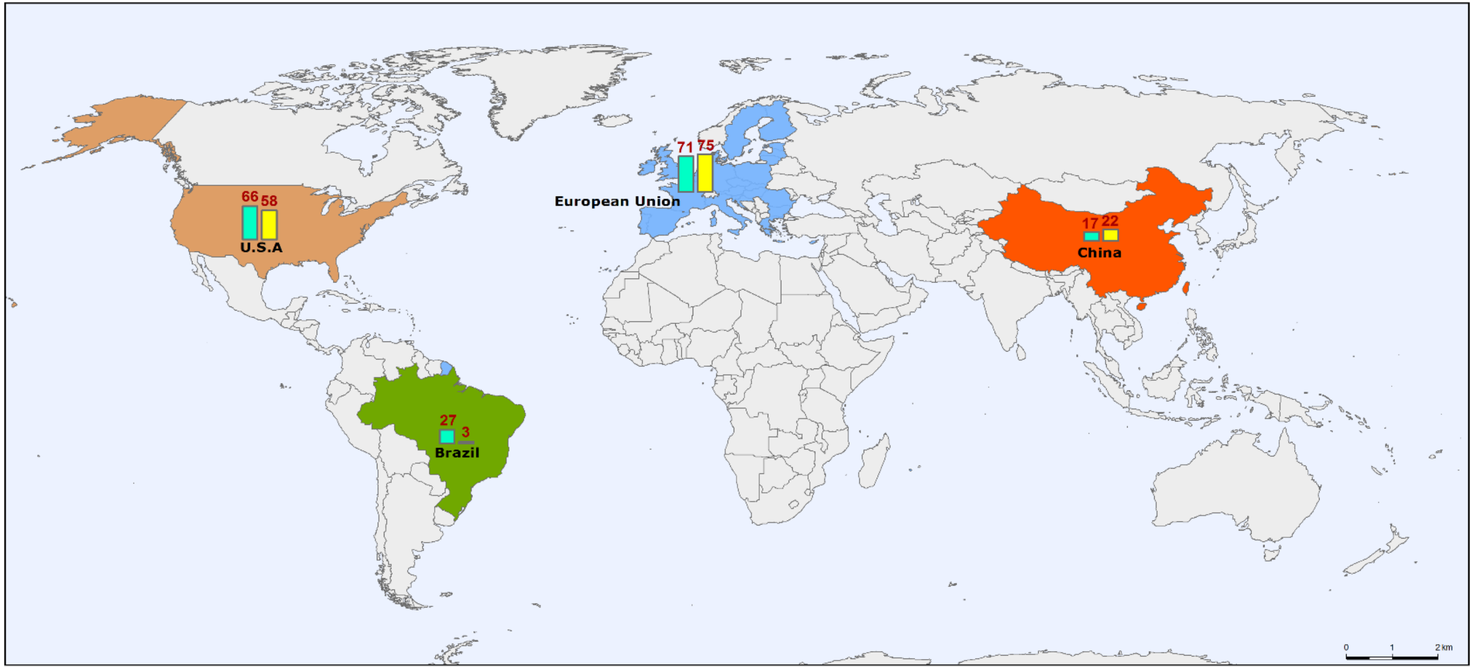
Source: AGRI calculations based on European Commission AGRI and OECD data.

…with all the pros and cons this brings…



Source: DG Agriculture and Rural Development calculations based on ESTAT and OECD/FAO data.

…and turned the EU from major agro-trade player…



Agri-Food Trade (Avg 2003-2005 in billion USD)

Exports

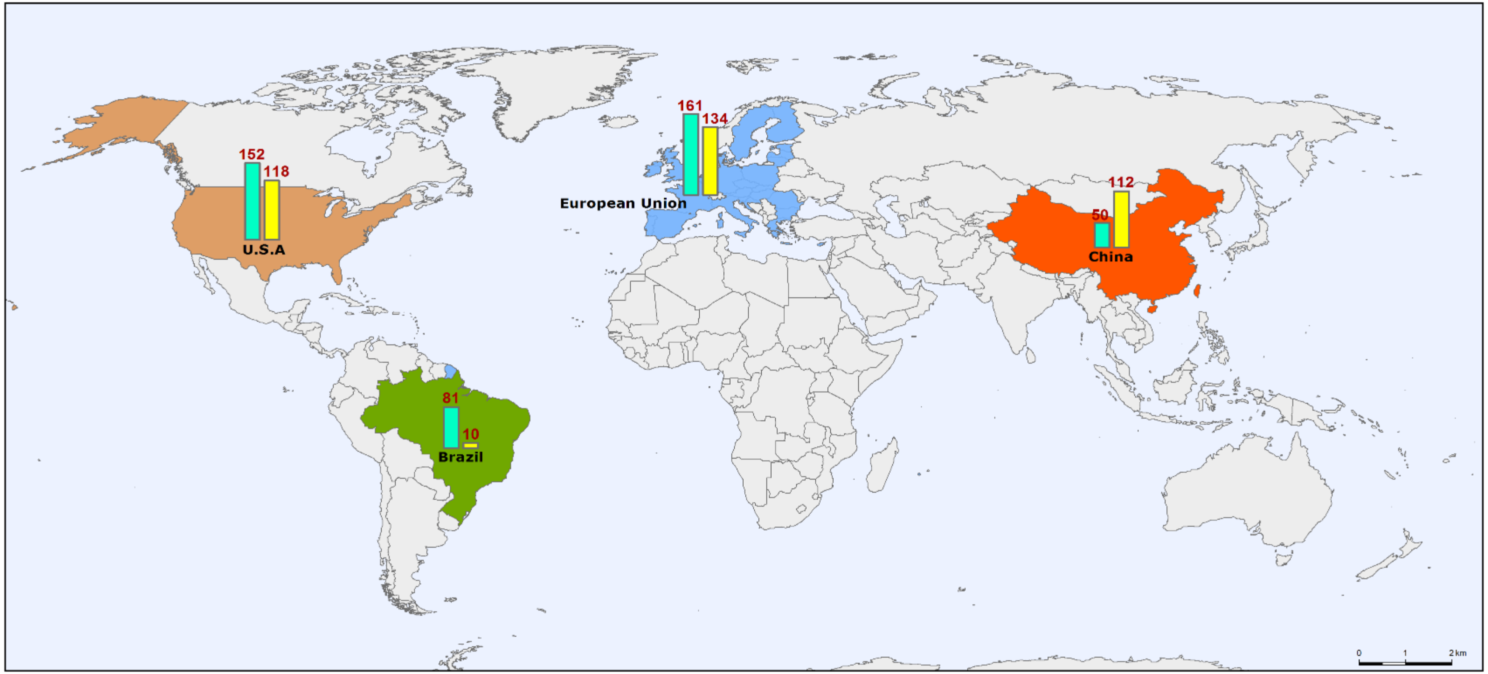
Imports

Source: COMEXT, GTA
Cartography: DG AGRI GIS-Team 12/2016

Map Projection World: Eckert III - Map Scale 1:110.000.000

Note : The borders of the map does not necessarily represent the official position of the EU. The map has only a statistical value.

…in a rapidly expanding world trade environment…



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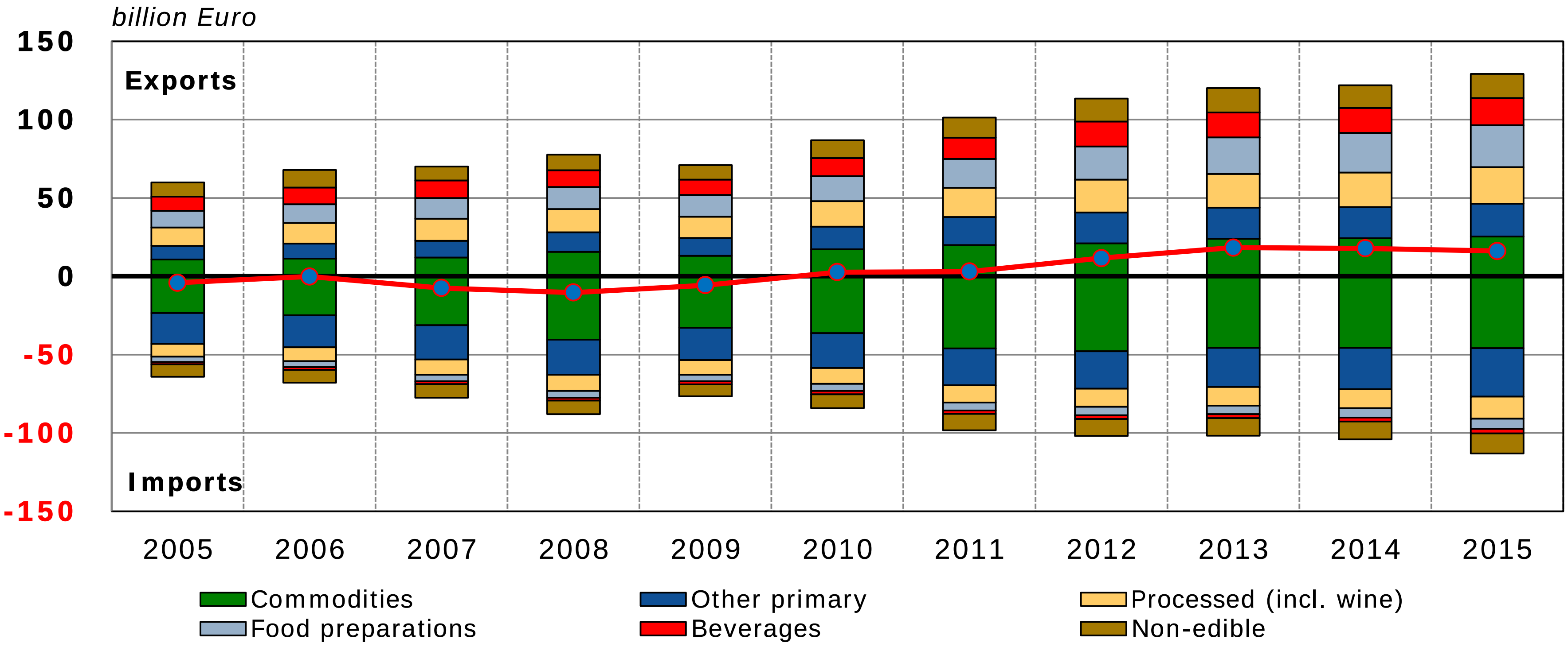
…into a net agro-food exporter…



Source: COMEXT.

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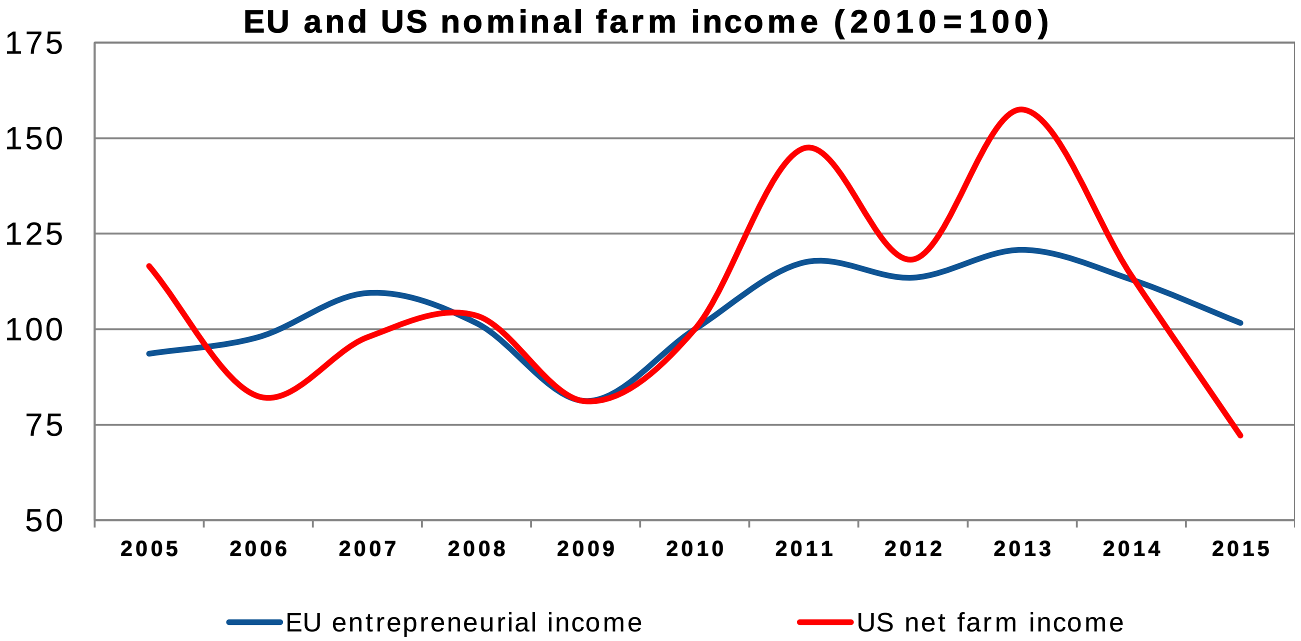
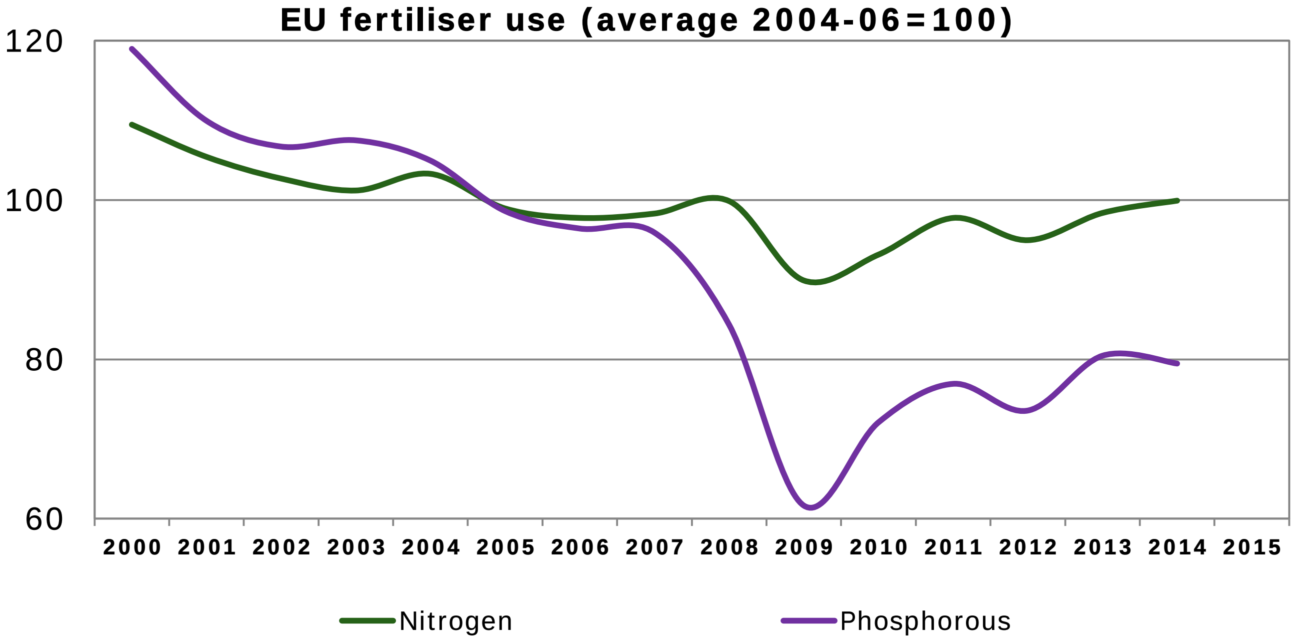
…while providing relative income stability…



Source: AGRI calculations based on ESTAT and ERS/USDA data.

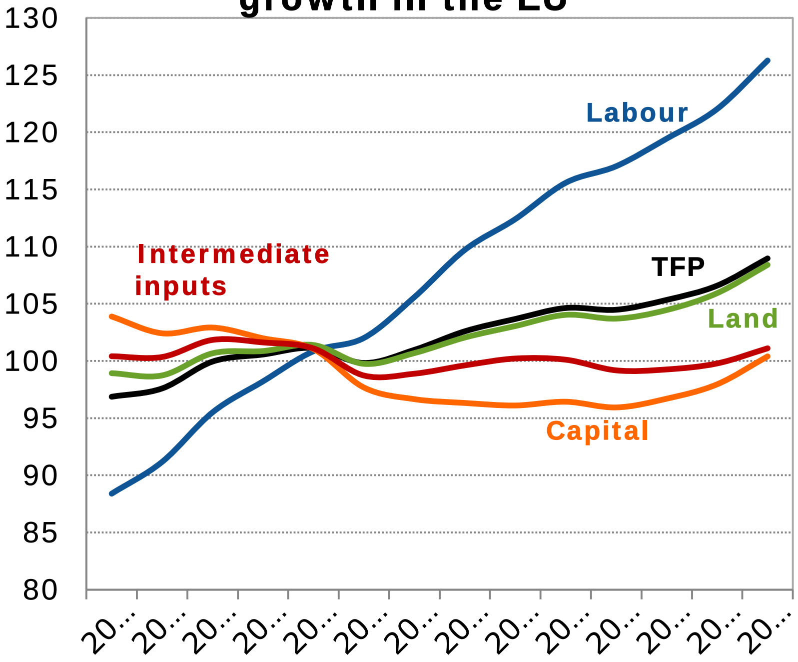
…and some positive environmental externalities



Source: AGRI calculations based on ESTAT data.

EU agricultural productivity grows slowly…

Overall and partial productivity growth in the EU



3-year moving average (2005=100)

- Sustainable growth in productivity is key to meet the challenge of feeding more people, better, in a resource constrained world

- Annual Total Factor Productivity TFP growth in the EU is <u>0.8%</u>
  - *Labour productivity gains are due to labour outflow…*
  - *…substituted by capital prior to economic crisis*
  - *…but now growing without increasing capital inflow*

2. EU and world agriculture: trends, drivers and challenges…

Drivers of the agricultural outlook

Macroeconomic and trade environment

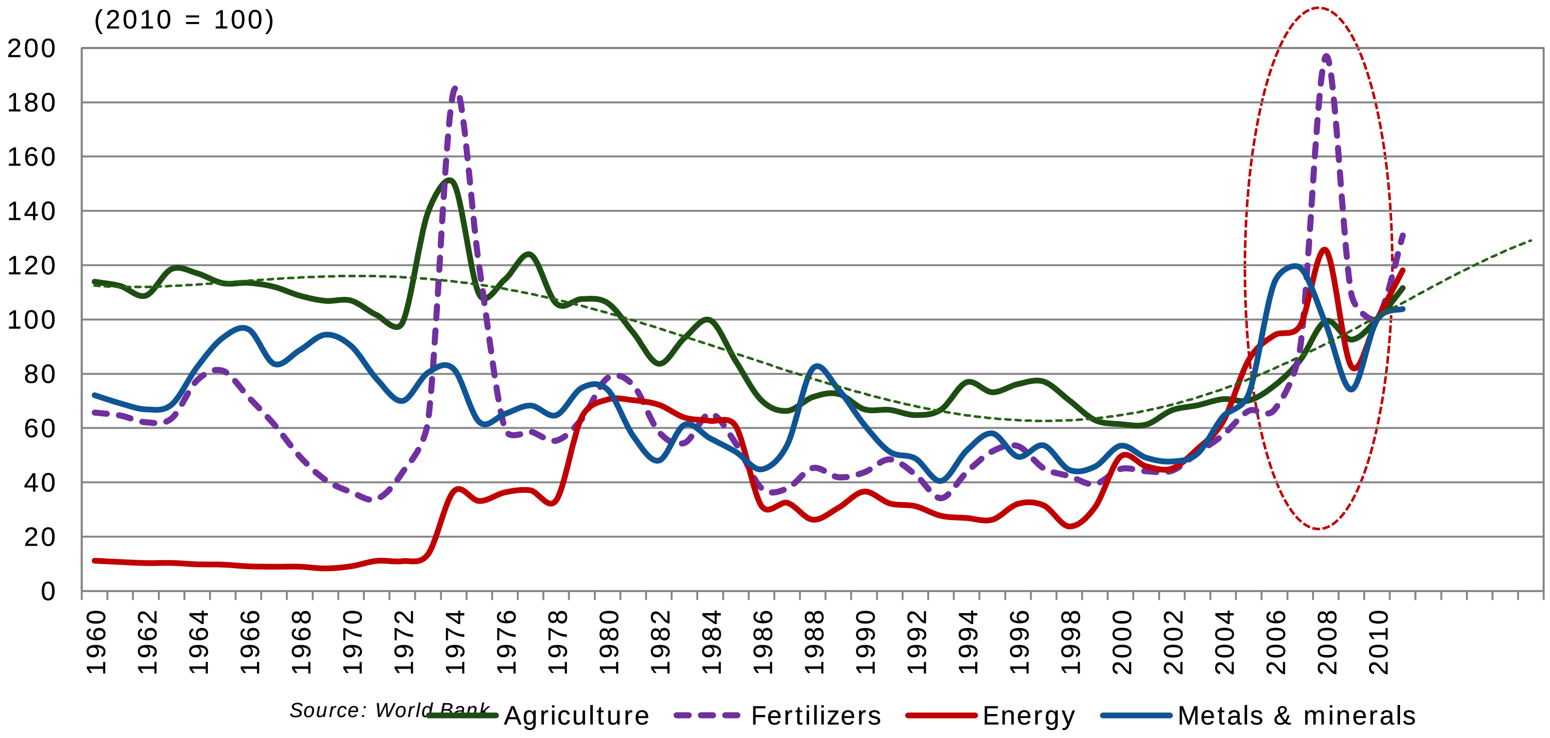
Population, diets and the food chain

EU food supply and demand interaction

Climate, energy and natural resources

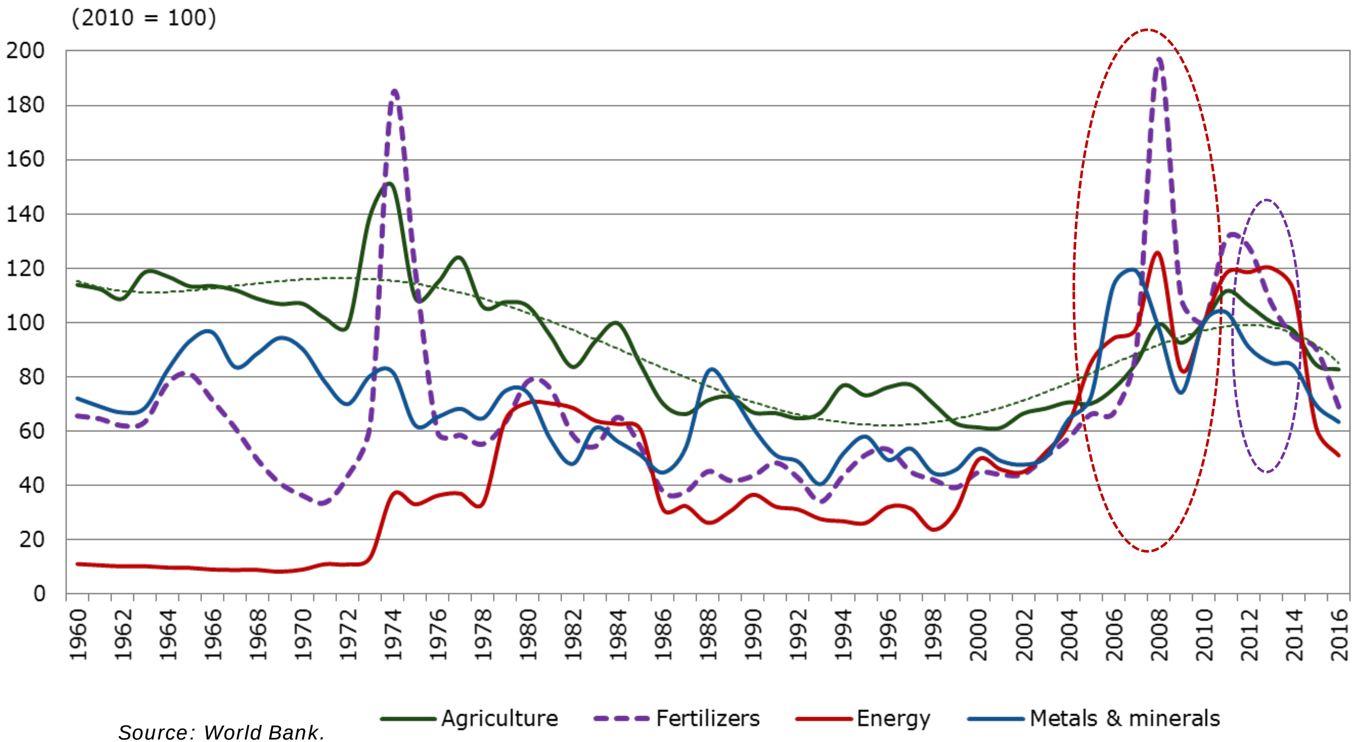
Price and income prospects: more uncertain than before

The trend in real commodity prices observed till 2011…



Source: World Bank

…has dramatically changed in recent years (incl. 2016)…



Source: World Bank.

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…leading to a deterioration of the Term of Trade for agriculture…

Period	Agriculture	Fertilisers	Energy	Metals & Minerals
2008/1997	**29%**	**336%**	**298%**	**83%**
2009/2008	**-7%**	**-45%**	**-34%**	**-25%**
2011/2009	**21%**	**20%**	**43%**	**40%**
2016/2011	**-26%**	**-47%**	**-57%**	**-39%**
2016/2008	**-17%**	**-65%**	**-59%**	**-35%**
2016/1997	**7%**	**83%**	**162%**	**54%**

Source: AGRI calculations based on World Bank data (updated: January 2017).

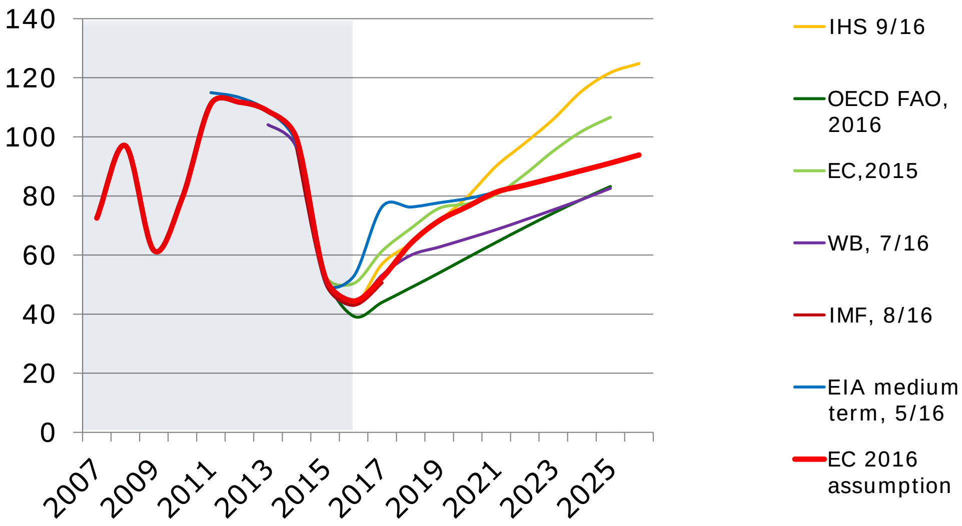
Main uncertainties

The macroeconomic picture

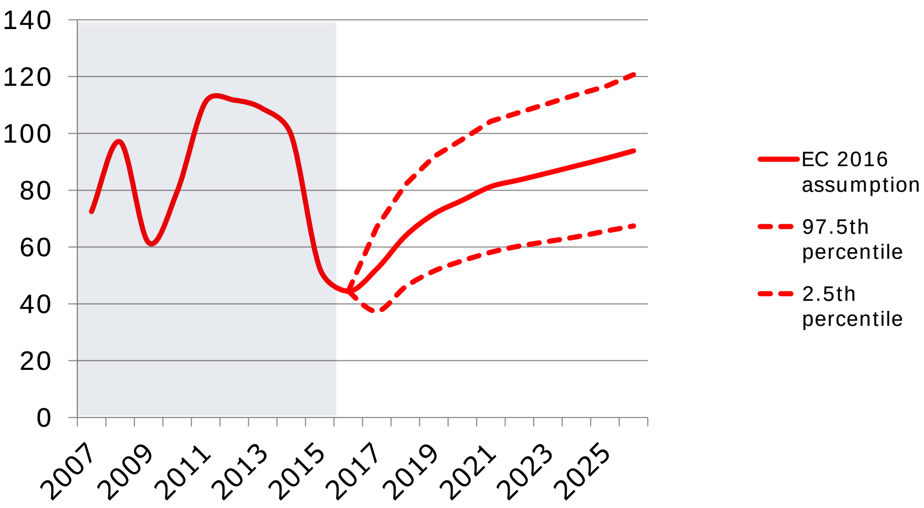
- *Which price environment for crude oil price - will disinvestment hit supply post-2020?*
- *Exchange rate volatility – farmers see prices in national currencies*
- *Slow GDP growth –expanding to emerging economies*

The uncertain world of crude oil prices

Diverging crude oil assumptions…



…and alternative scenarios



Main uncertainties

The macroeconomic picture

- *Which price environment for crude oil price - will disinvestment hit supply post-2020?*
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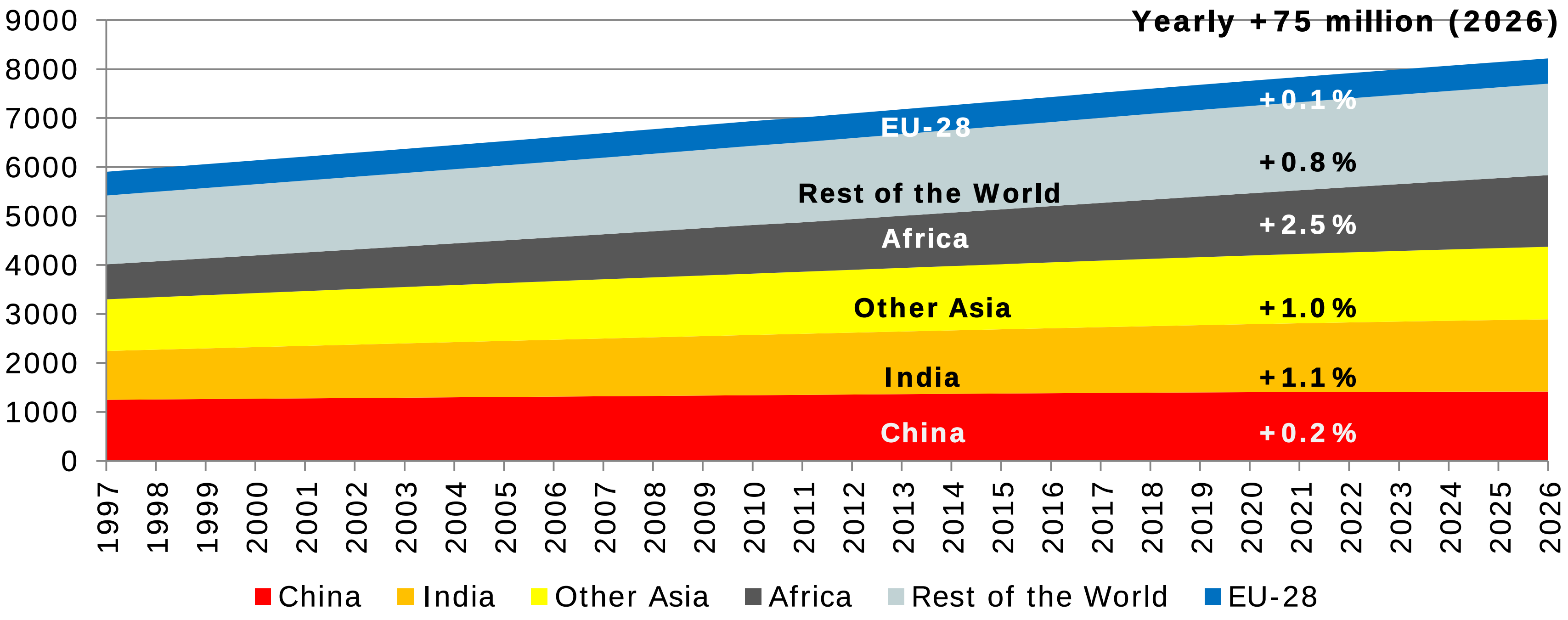
The demand side picture

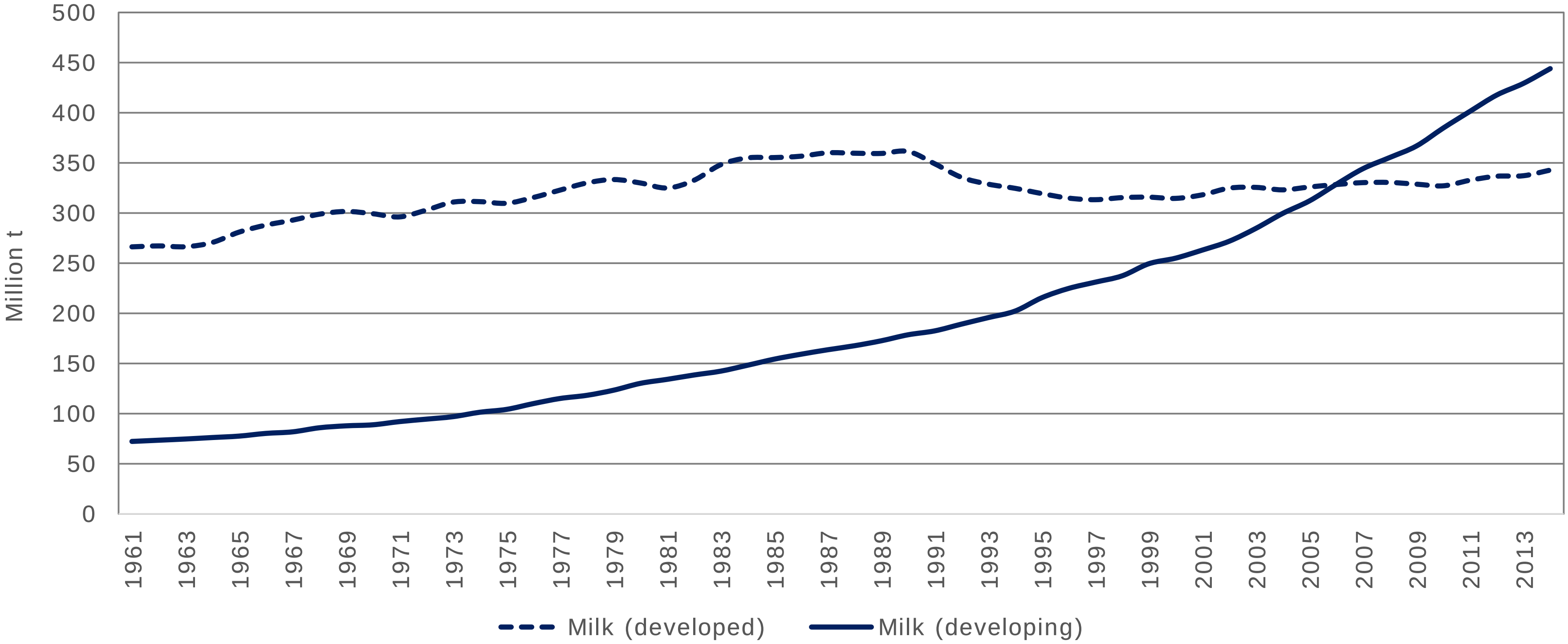
- *Long-term population dynamics, challenges and opportunities*
- *Global dietary patterns reflect different developments*
- *Diverging trends and cross-cutting effects exist within same group of commodities*

Population assumptions
(million, annual growth rate 2017-2026)



Source: Preliminary DG AGRI Outlook

Milk consumption



Source: DG AGRI based on FAOSTAT

Main uncertainties

The macroeconomic picture

- *The long-term level of the crude oil price - will disinvestment hit supply post-2020?*
- *The exchange rate volatility – when a price decline for some is increase for others*
- *The persistence of sluggish GDP growth – now expanding also to emerging economies*

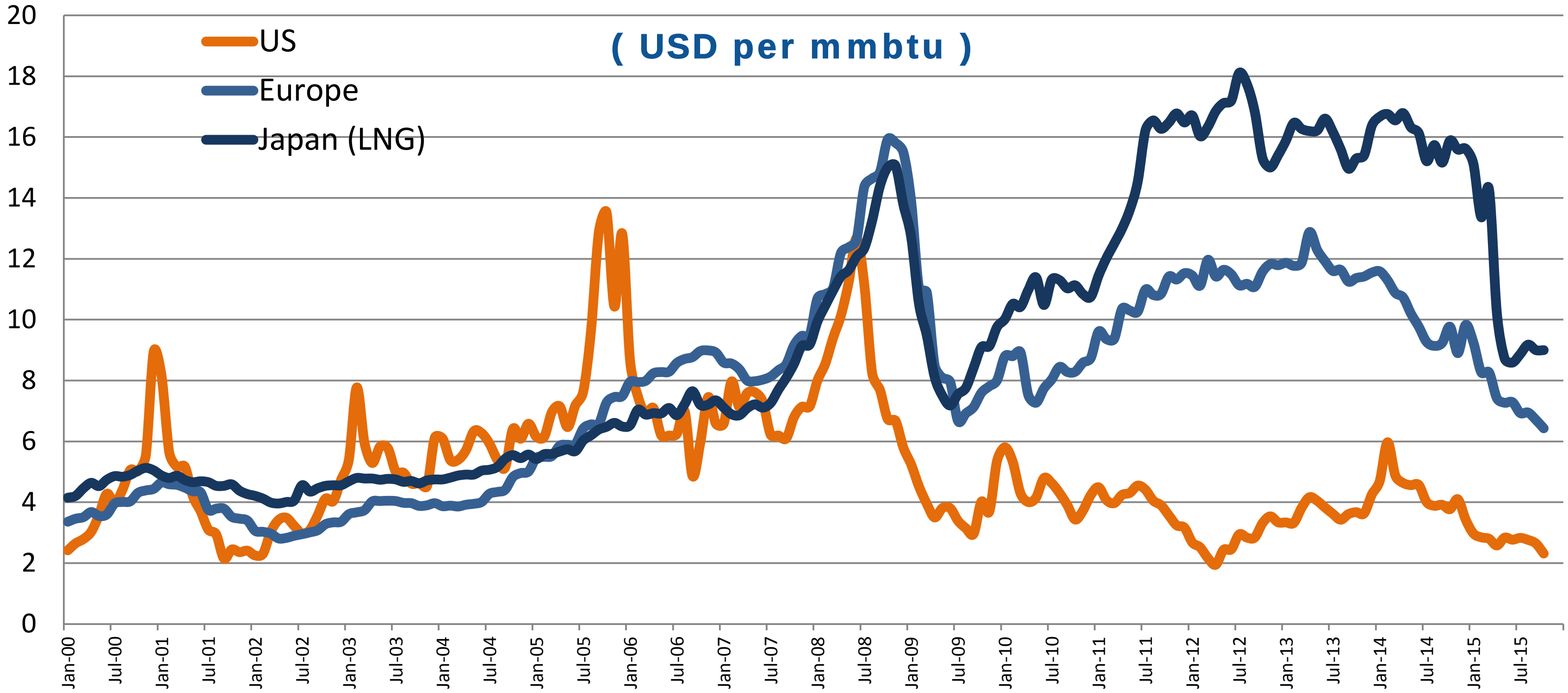
The demand side picture

- *Long-term population dynamics, challenges and opportunities*
- *Global dietary patterns reflect different developments*
- *Diverging trends and cross-cutting effects exist within same group of commodities*

The supply side picture

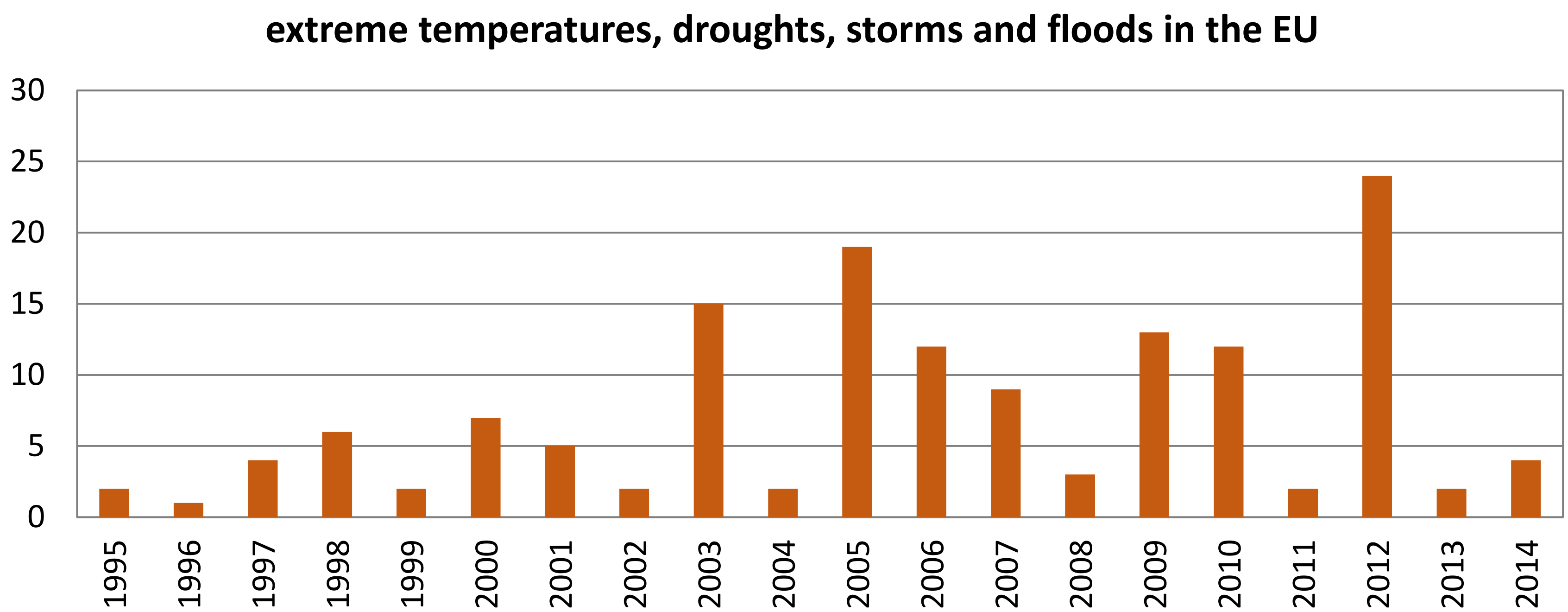
- *The wider energy picture – not just crude oil but also impacts from natural gas etc.*
- *Short-term and long-term impacts of climatic events, including from climate change*
- *Diverging productivity patterns*

Diverging world natural gas prices



Source: World Bank.

Frequency of extreme weather events



Data from EM-DAT The international Disaster Database

Main macro conclusions

The new market environment

- *Depends on price environment for crude oil price - supply response post-2020?*
- *Exchange rate volatility – farmers see prices in national currencies*
- *Slow GDP growth –expanding to emerging economies*

The new trade environment

- *Trade in both food commodities and food products remains strong*
- *Demand in most emerging economies will grow faster than their domestic production*
- *Yet, as always, in agricultural markets the surprise is around the corner…*

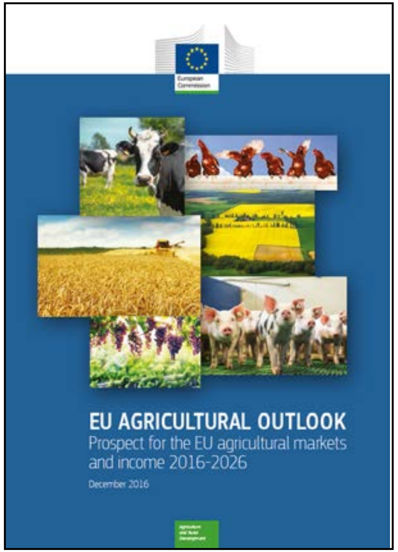
The new price environment

- *Despite significant declines, prices are still higher than pre-financial crisis levels*
- *The terms of trade for agriculture may improve some if energy prices stay low*
- *The likely price path lies between the highs and lows of the post-2008 situation*

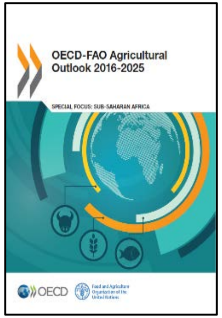
2. EU agricultural outlook what, how and why

What is the EU Agricultural Outlook?

- 10-year projections of agricultural markets and income, with focus on the EU
- 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 making the projections were judged plausible
- Main commodities covered (grains, meats, dairy, biofuels, sugar – being extended to olive oil, wine and some fruit & vegetables)
- Results in terms of supply balance sheets (production, consumption, imports, exports, stocks) and prices



<u>How</u> is the EU Agricultural Outlook done?



Starting point: OECD-FAO Outlook
(model, baseline 2016-2025)

Incorporation of Short-Term Outlook	Update of macroeconomic & policy assumptions	New model developments

Zero-Draft of the EU Outlook

Checking results, model debugging

Numerous repetitions and model adjustments

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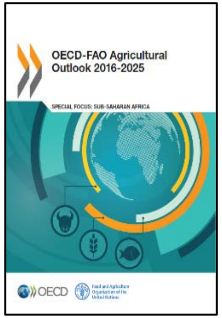

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Checking results, model debugging

Baseline week

Discussions between AGRI / JRC modellers and AGRI market experts and hierarchy; iterative process to obtain a <u>preliminary outlook</u>

How is the EU Agricultural Outlook done?

Starting point: OECD-FAO Outlook
(model, baseline 2016-2025)

Zero-Draft of the EU Outlook

Baseline week => Preliminary Outlook

Preliminary Outlook & uncertainty assessment presented and discussed at
JRC / DG AGRI Outlook workshop

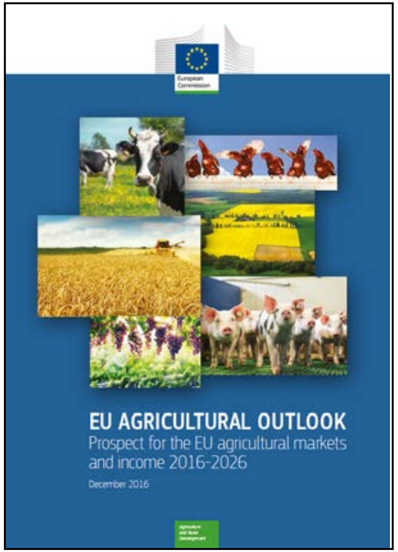
How is the EU Agricultural Outlook done?

This year:
6-7/12/2016

Final EU Agricultural Outlook
Publication & DG AGRI Outlook Conference

Why doing an EU Agricultural Outlook?

- To better understand markets and their dynamics
- To identify key issues for market and policy developments
- To have a benchmark for assessing the medium-term impact of future market and policy issues



2016 EU Agricultural Outlook: main market results

Main cereals more dominant in area, but yield growth low

Increase of production and use of main cereals mainly driven by feed use

Meals more important in oilseed complex

World dairy demand to expand, especially in Africa and Asia

The EU to become first world exporter, just in front of NZ

A moderate production increase in the EU

Stable meat consumption in EU but growing world demand by 2026

EU meat production to grow moderately

88-95% of EU meat production goes to domestic consumer

2016 EU Agricultural Outlook: main market results

World sugar market deficit resulting in higher prices

EU to increase production after quota expiry in 2017

Competition from isoglucose and lower biofuels use

Most of EU biofuels demand remains policy driven

EU still a biodiesel market but ethanol shows some increase

Recent policy proposal for after 2020 compatible with outlook

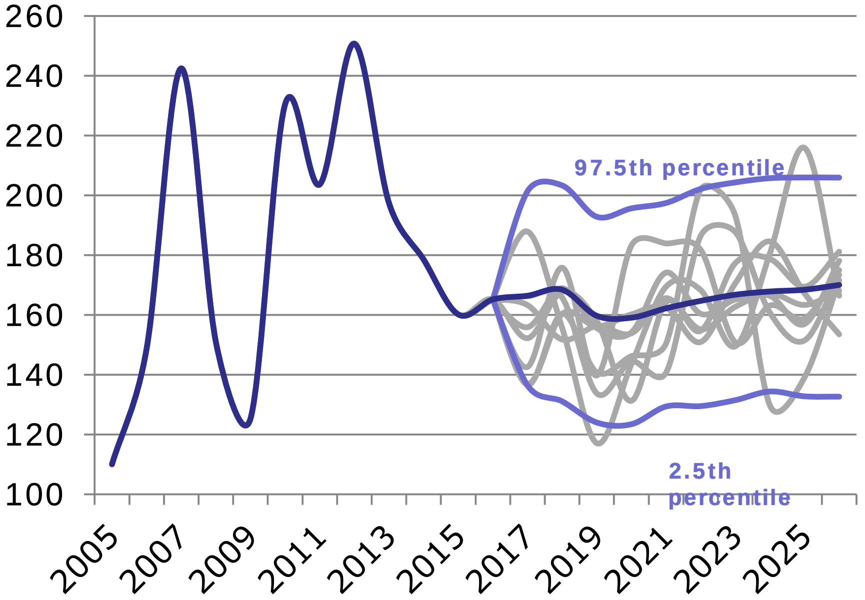
Wine, olive oil, fruit and vegetables: important sectors but diversity of situations

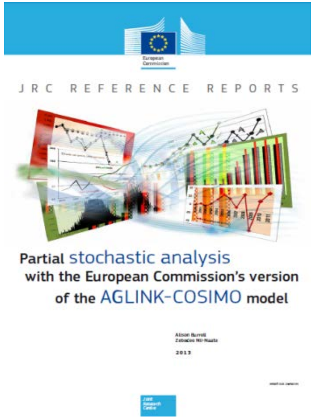
Relative stagnation/decline of domestic consumption but exports keep growing. Adding value is key.

How to address uncertainty in agricultural commodity markets outlook?

- **Partial Stochastic Analysis:** yield and macroeconomic uncertainties taken into account –> implemented by JRC, DG AGRI, OECD, FAO

Possible price paths for soft wheat in the EU (€/t)





Impact on agricultural income

- Real income per farmer to maintain or slightly increase
- The expected increase in production costs offset by increasing value of production

- Real income for the overall sector to decline
- Income not projected to follow a steady pattern

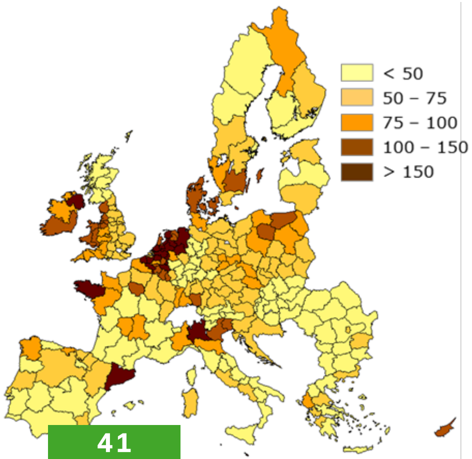
Environmental aspects

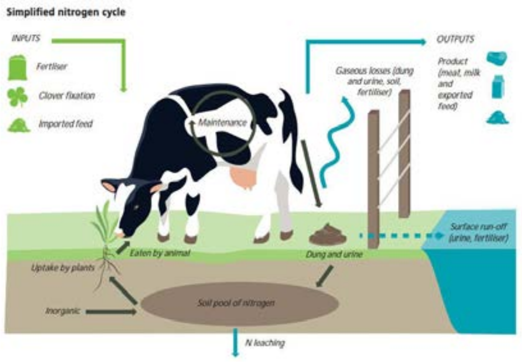
- For the first time try to translate market outlook into environmental indicators related to

Emissions:

- greenhouse gas (-1% for GHG):
- and air pollutants (-7% for ammonia)

Nutrient surplus: Stability at EU level, but N surplus in some regions





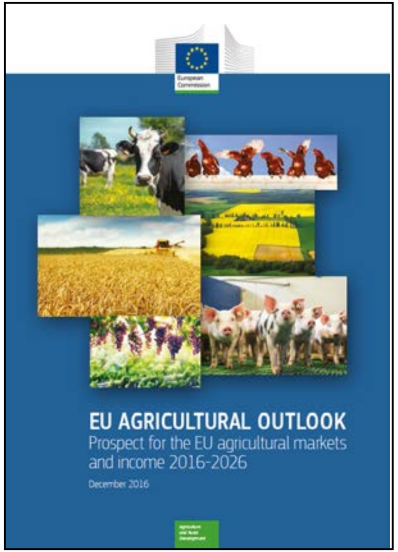
Outlook: so what?

- Outlook and other advanced economic analysis are resource intensive exercises

- Need good balance between building up the tools (e.g. Agricultural Outlook) and using them (i.e. for policy simulations)

- They require at least 4 ingredients

People	**Tools**
Data	**Evidence-based policy Culture**



Need to modernise and simplify the EU Common Agricultural Policy

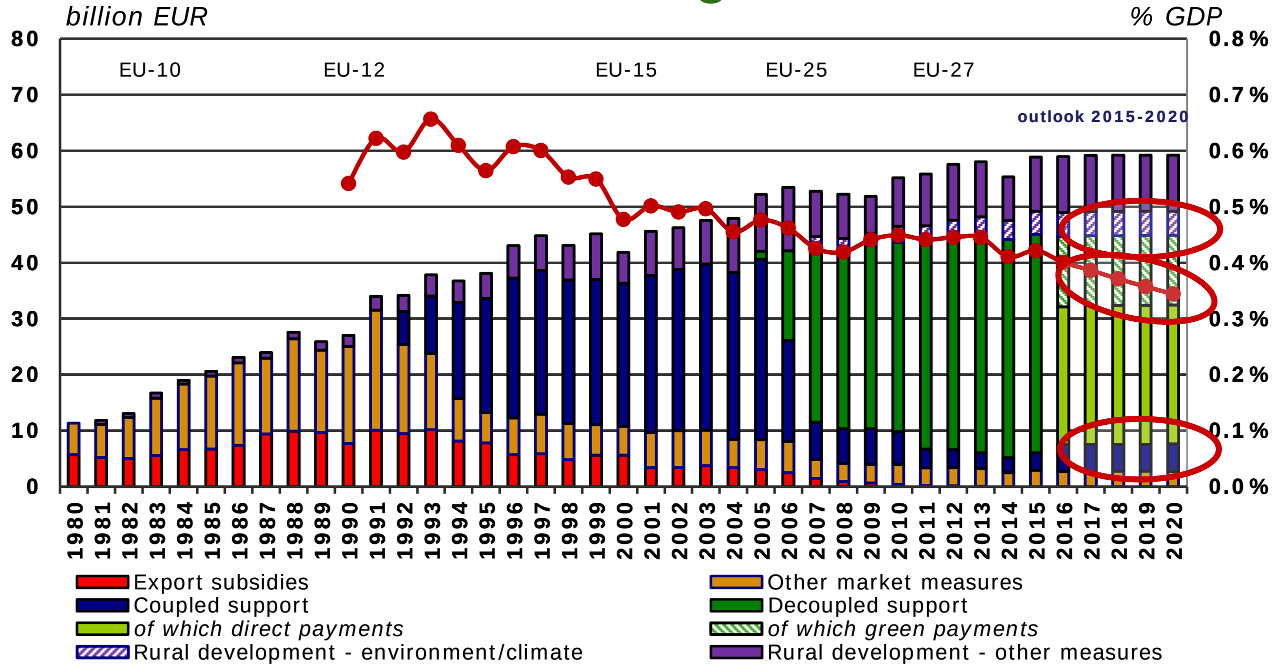
Addressing challenges for EU agriculture

Economic — Coping with volatility and price uncertainty, and their impact on competitiveness

Environmental — Better managing natural resources and addressing climate change

Social — Promoting generational renewal to foster rural jobs and growth

The CAP reform path points to future challenges



Source: DG AGRI.

Different ways to address similar challenges

Agriculture as a sector (the 2 % EU sector)

- *Narrow focus on sectorial interests exposes agriculture's low overall economic weight*
- *Product-driven concerns are real; product-driven responses divide policy objectives*
- *Farm policy often on the defensive to justify its spending, not its broader objectives*

Agriculture as land coverage (the 40 % EU sector)

- *Land use, new focus of the CAP, addresses both environmental and climate challenges*
- *Input use challenges shift focus on "product" attributes and their impact on sustainability*
- *Addressing the supply chain functioning is also relevant for land-use and food waste*

Agriculture as food provision (the 100 % sector for all)

- *Food demand-driven policy concerns unify the food policy focus and reform opportunities*
- *Up-stream, down-stream and horizontal linkages are potentially growth and job enhancing*
- *Technology and innovation will determine net employment and environmental effect*

European Commission

Reports and data available at:

http://ec.europa.eu/agriculture/index_en.htm

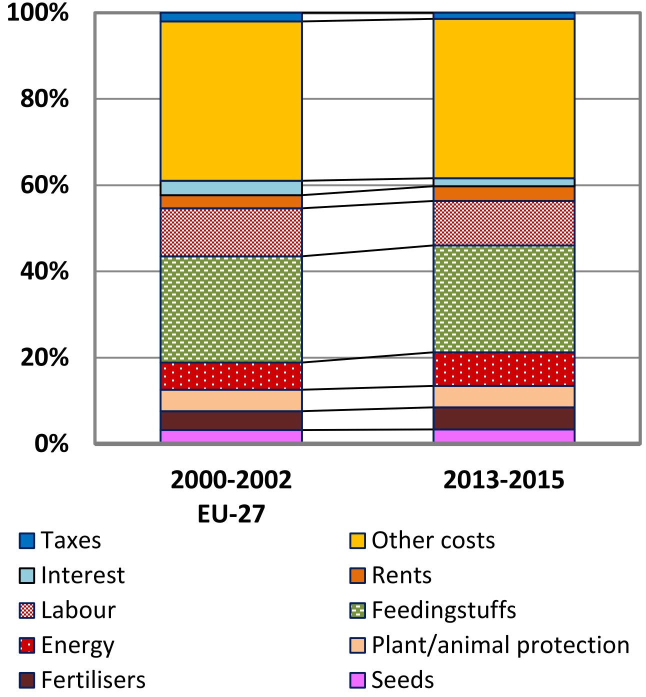
http://ec.europa.eu/agriculture/markets-and-prices/index_en.htm

http://ec.europa.eu/agriculture/policy-perspectives/index_en.htm

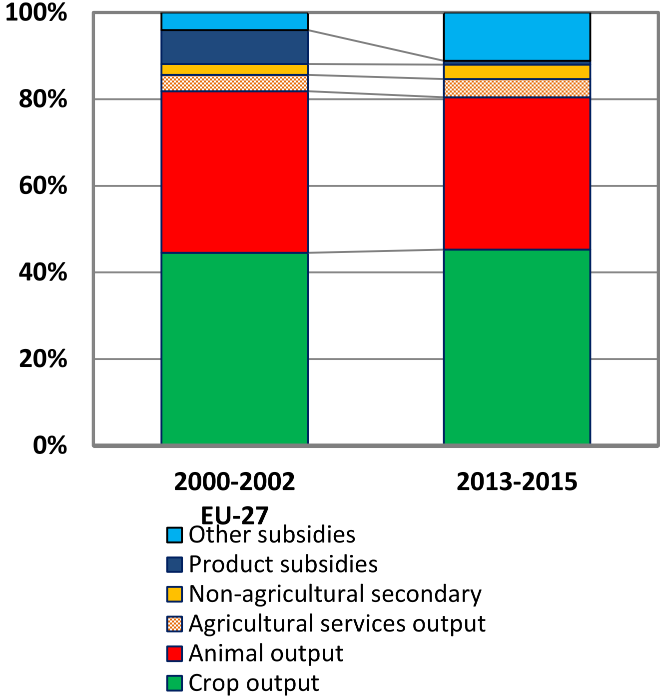
Thank you for your attention!

EU's farm cost and revenue structure changes

Cost Structure



Revenue Structure



Source: AGRI calculations based on ESTAT data.