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Agriculture
and Rural
Development

Agricultural productivity: introductory comments

2013 IATRC Symposium
Sevilla, 2-4 June 2013

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Director
Economic analysis, perspectives and evaluations
DG Agriculture and Rural Development
European Commission



Outline

- 1. Main drivers of world agriculture**
- 2. Main drivers of EU agriculture**
- 3. Why this topic?**

"Insecurities" driving the current policy debate

Commodity price developments

- *Price volatility*
- *Price co-movement*
- *Price level*

Demand concerns

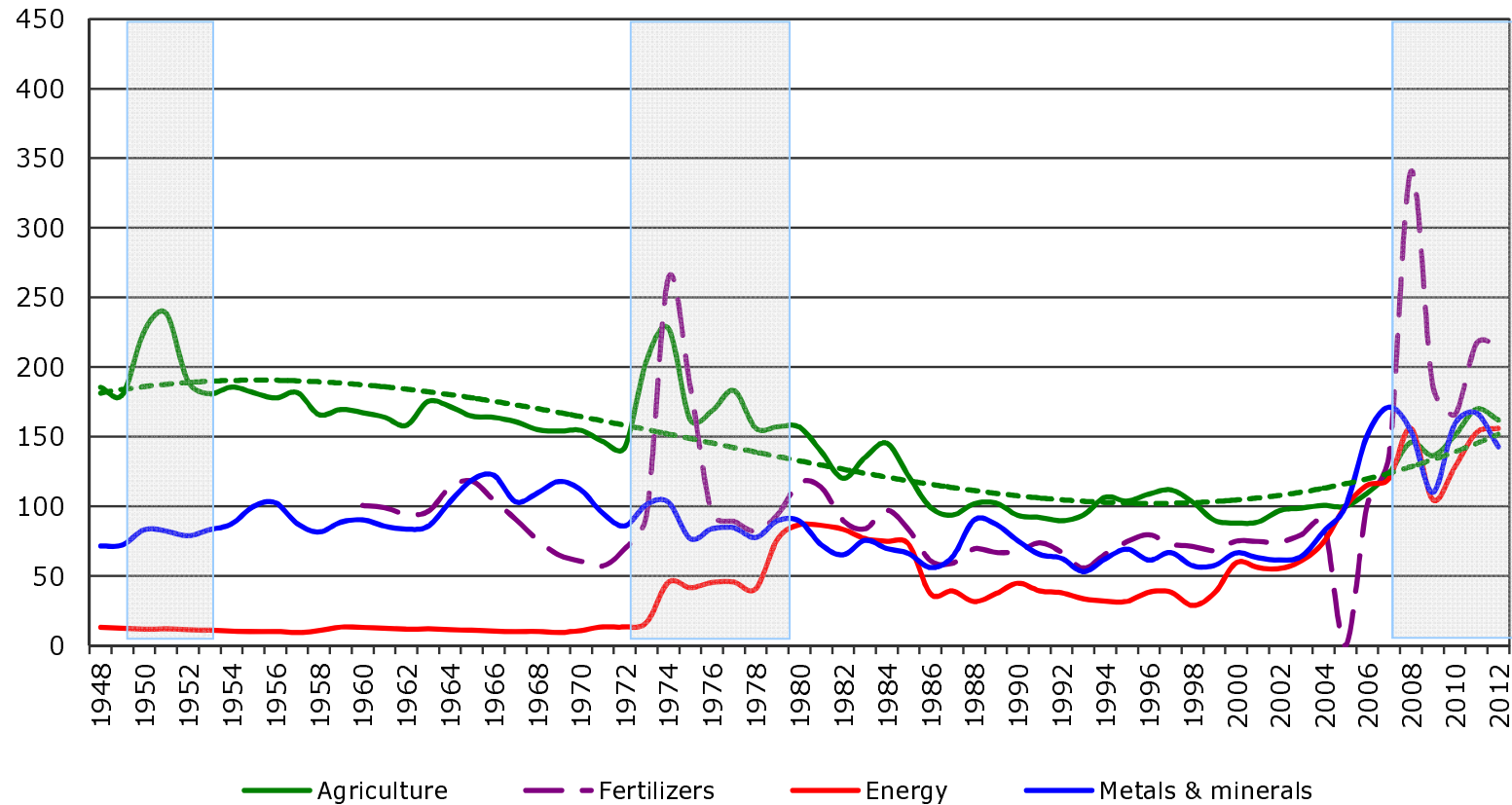
- *Food chain "bottlenecks" in price transmission*
- *Structural changes in food, feed and non-food demand*
- *Poverty concerns and the impact of the economic crisis*

Supply concerns

- *Terms of trade*
- *Climate change*
- *Productivity*

Long term commodity price trends

(World Bank MUV-deflated indices, 2005 = 100)



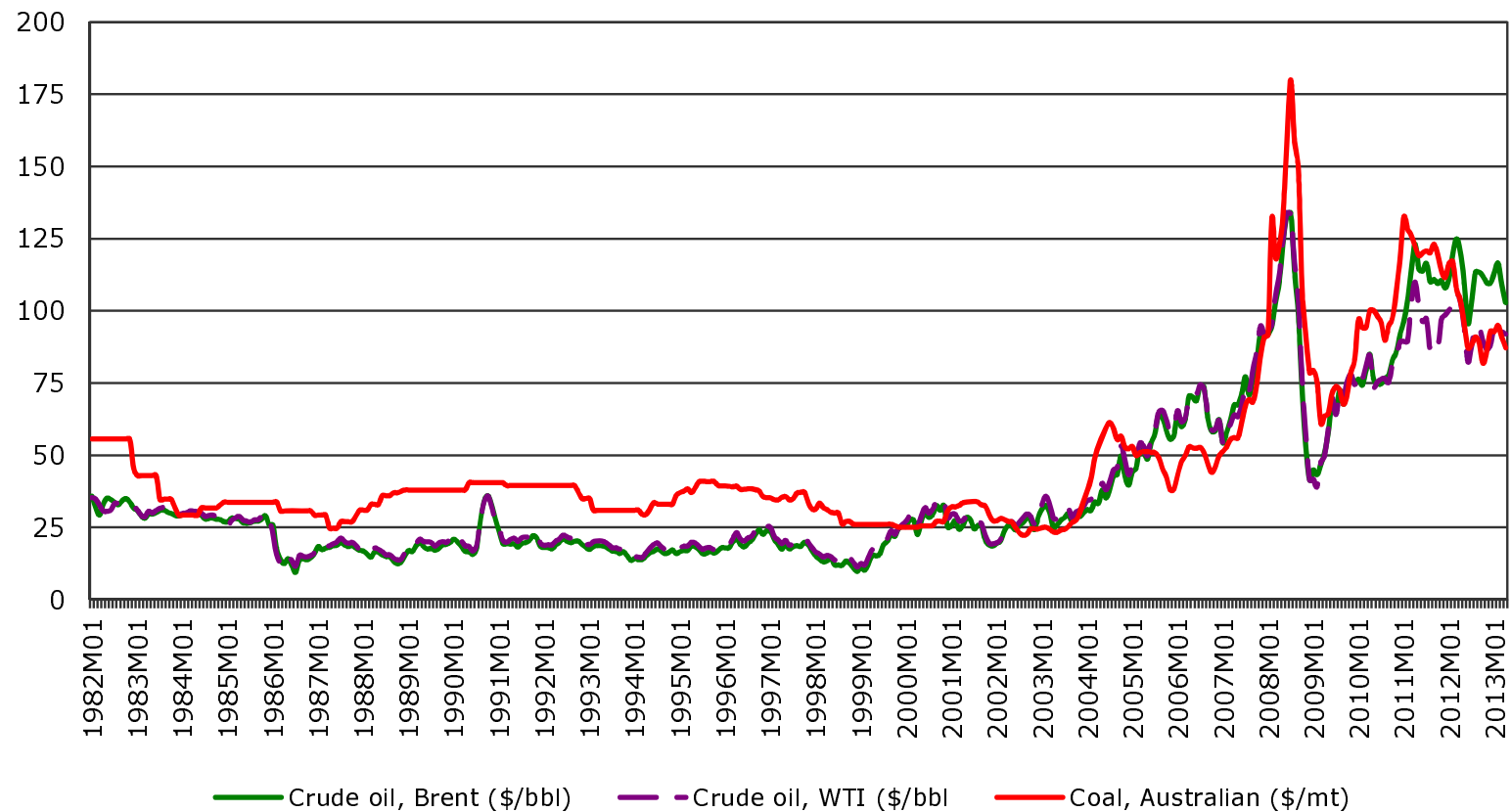
Source: World Bank..

Cumulative price change

| Period | 2000-12 | 2006-12 |
|-------------------------------|---------|---------|
| <i>Sector (real)</i> | | |
| Agriculture | + 82 % | + 61 % |
| Fertilisers | + 286 % | + 115 % |
| Energy | + 261 % | + 55 % |
| Metals & minerals | + 217 % | + 44 % |
| | | |
| <i>Crops (nominal)</i> | | |
| Wheat | + 275 % | + 163 % |
| Maize | + 337 % | + 245 % |
| Rice | + 278 % | + 185 % |
| Soybeans | + 279 % | + 220 % |

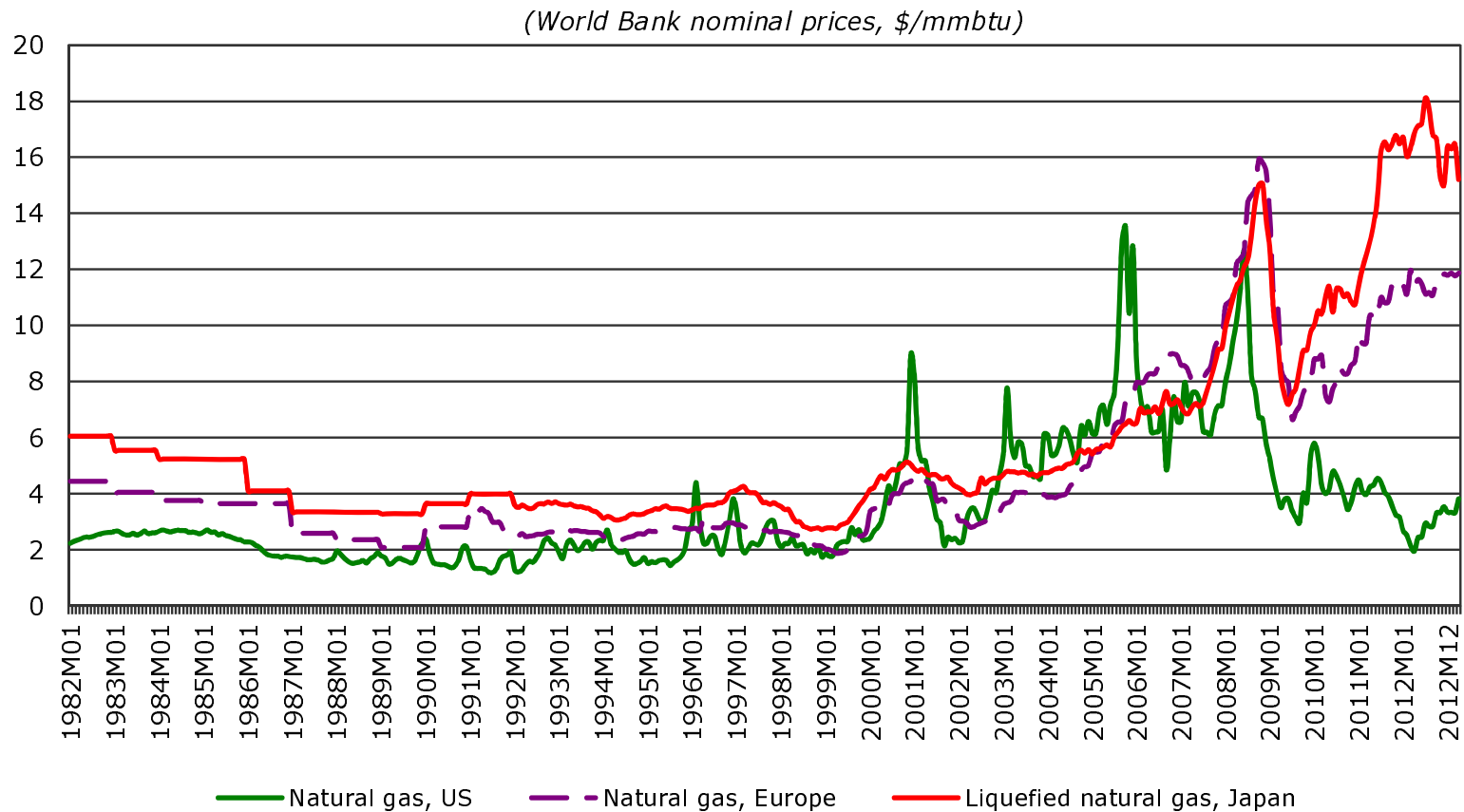
Long term energy price trends

(World Bank nominal prices)



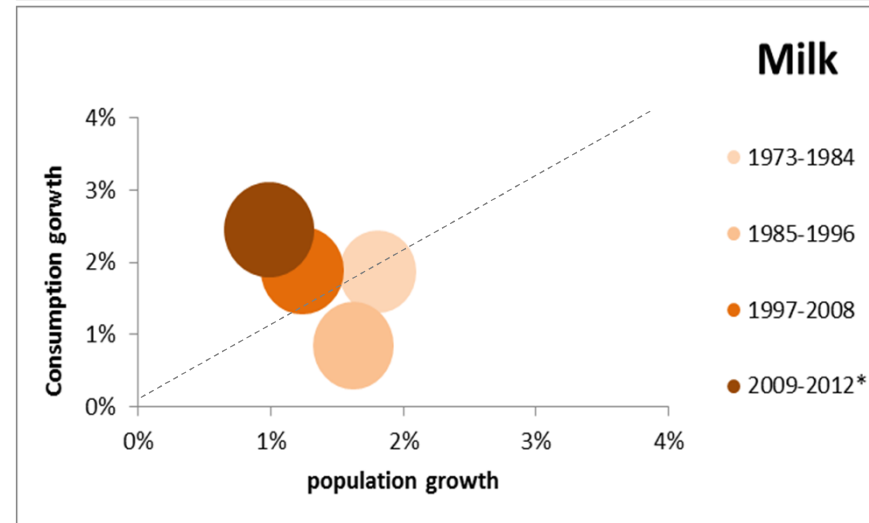
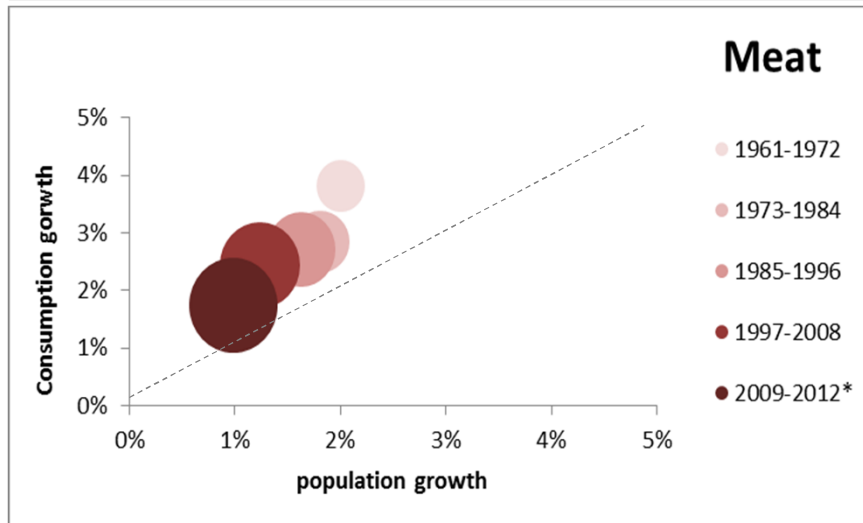
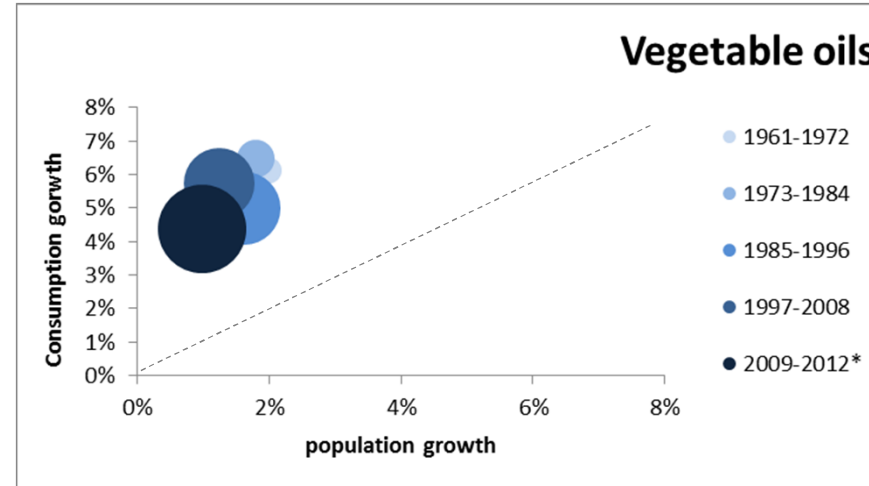
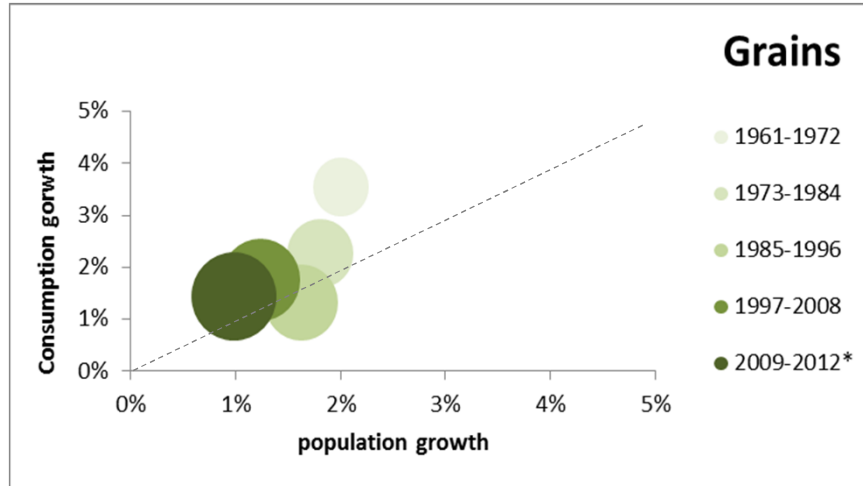
Source: World Bank.

Long term natural gas price trends



Source: World Bank.

4. World: annual growth in consumption/population (%)

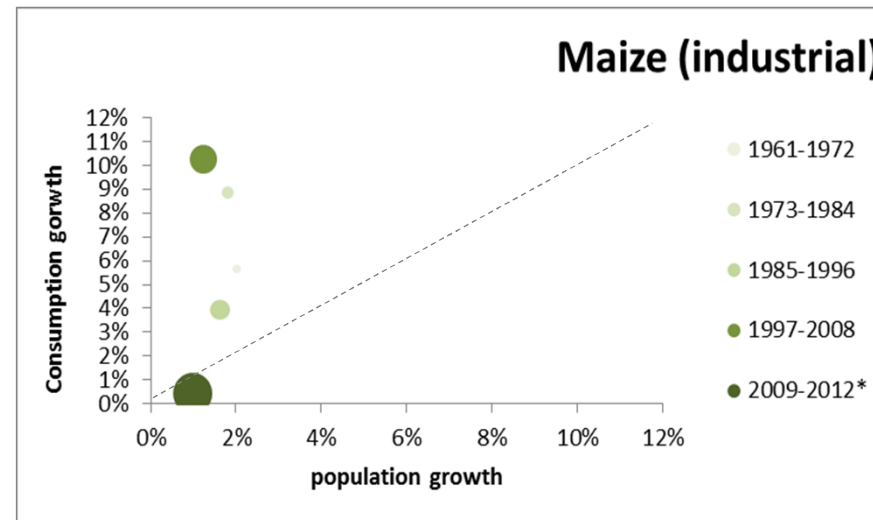
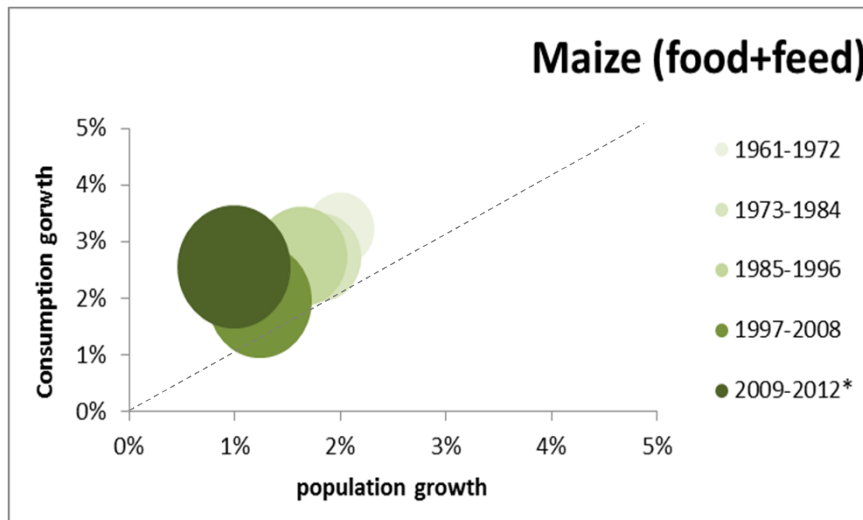
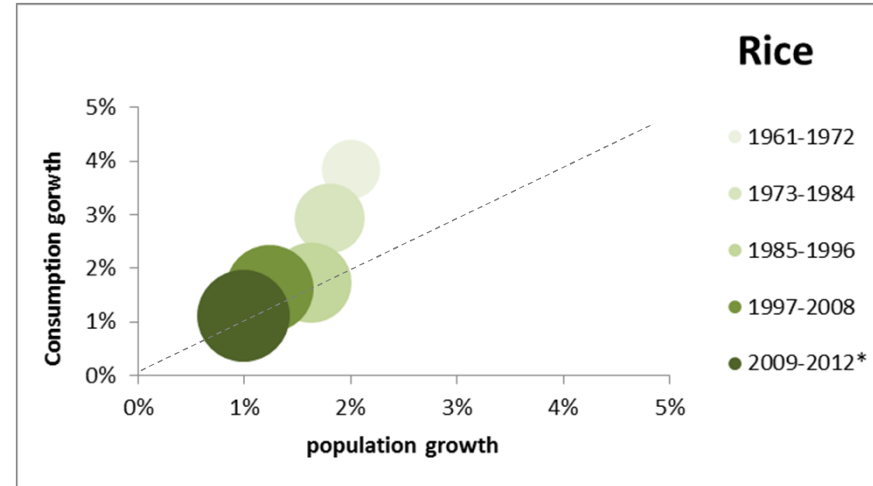
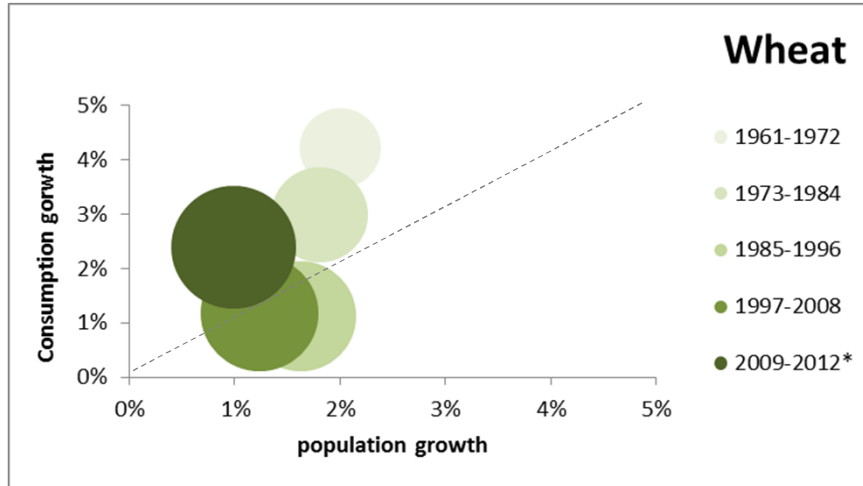


* Based on estimations for 2011-2012.

Size of bubbles represents total average consumption over a period.

Sources: FAO, USDA

5. World Grain demand: annual growth rates (%)

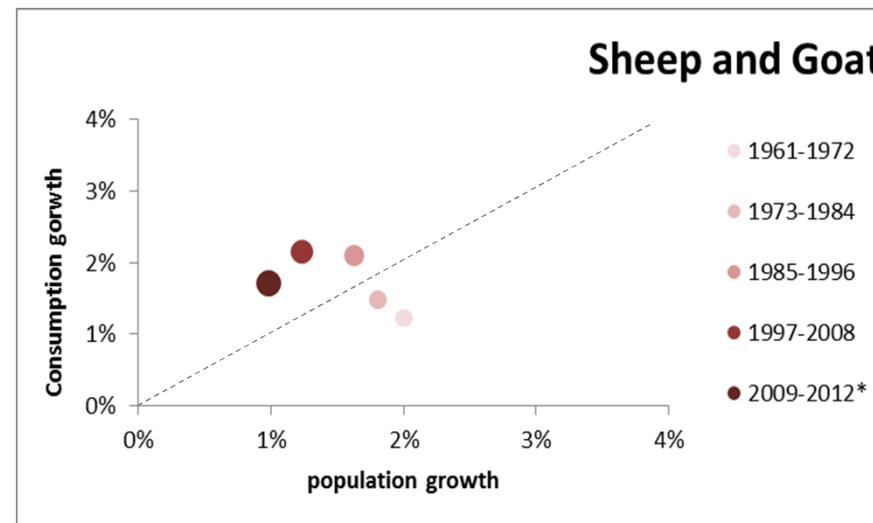
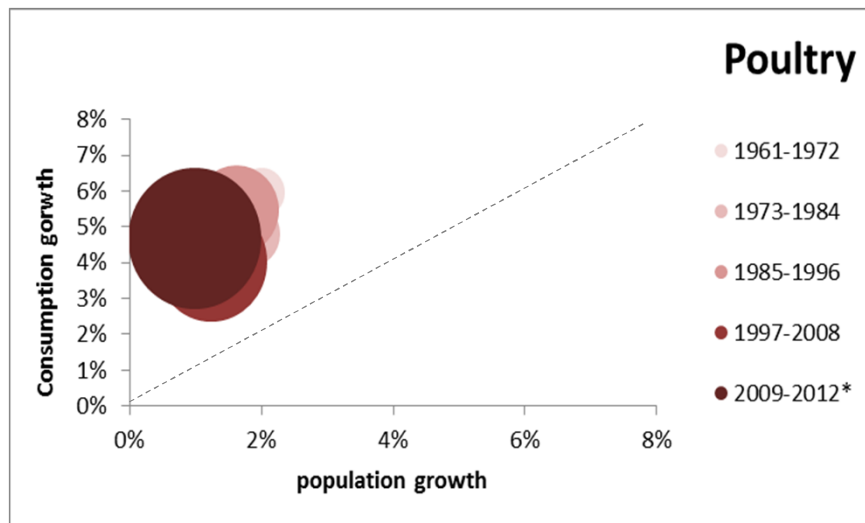
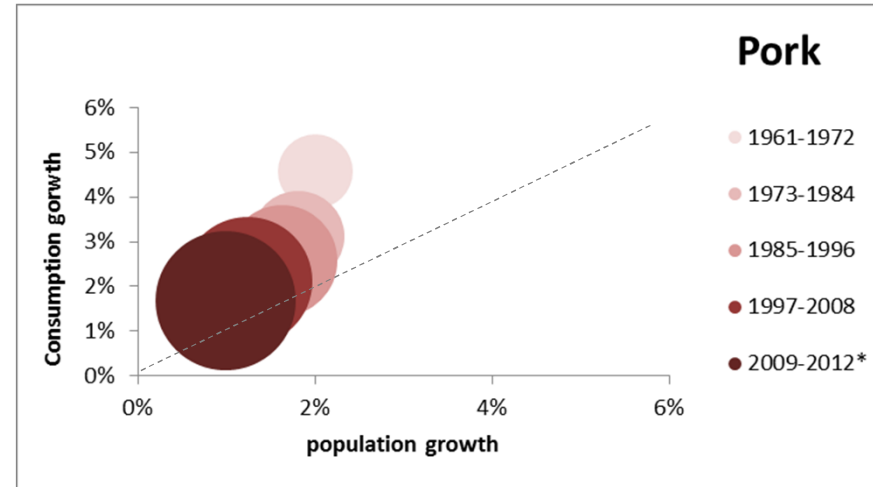
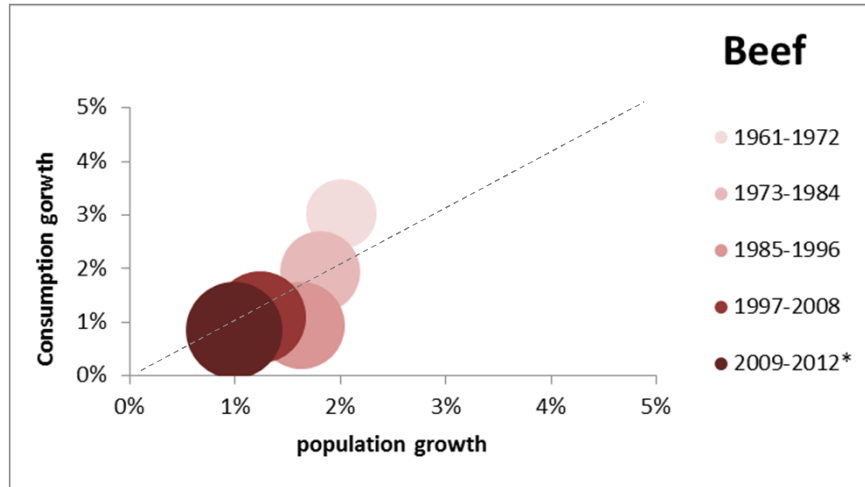


* Based on estimations for 2011-2012.

Size of bubbles represents total average consumption over a period.

Sources: FAO, USDA

6. World Meat demand: annual growth rates (%)

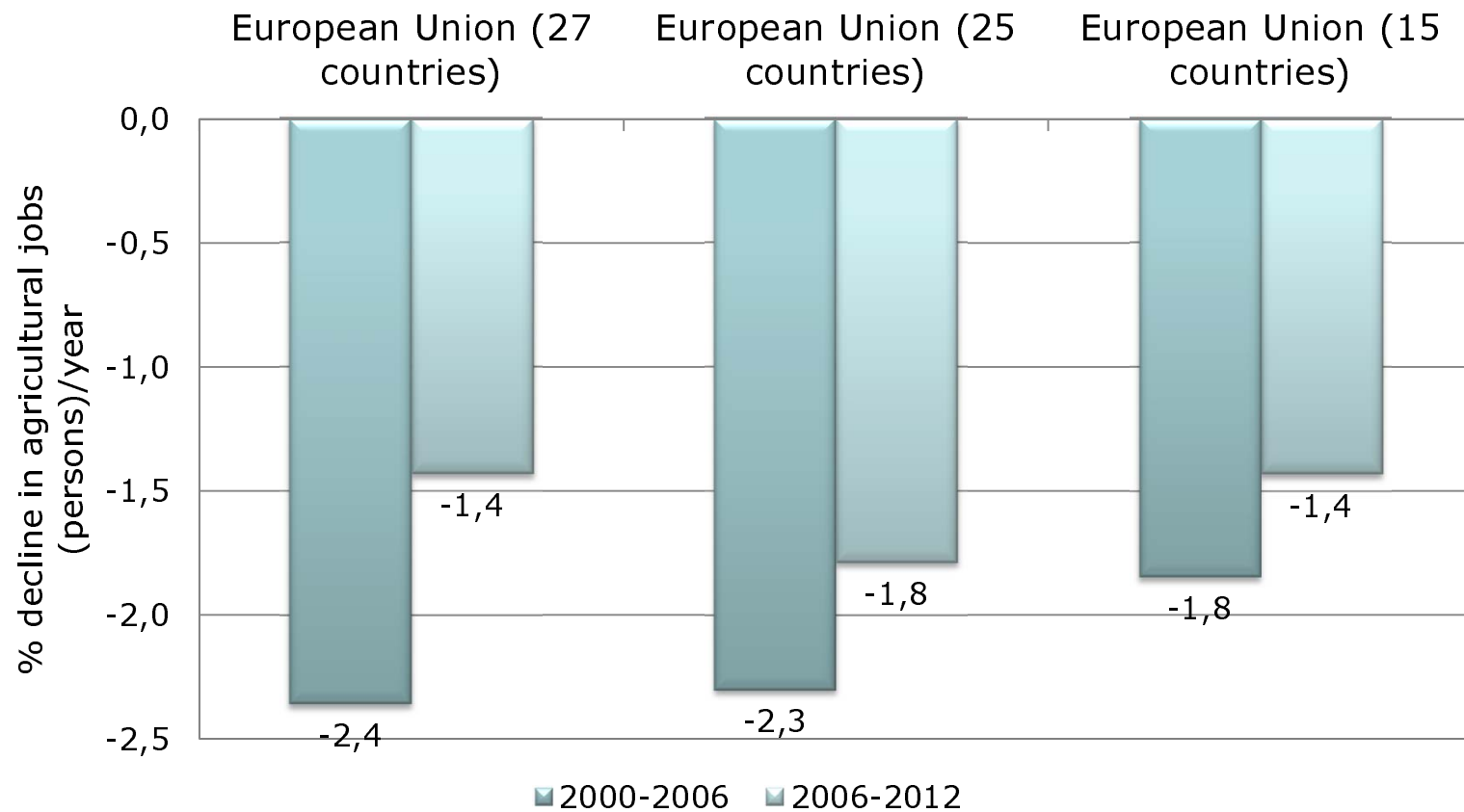


* Based on estimations for 2011-2012.

Size of bubbles represents total average consumption over a period.

Sources: FAO, USDA

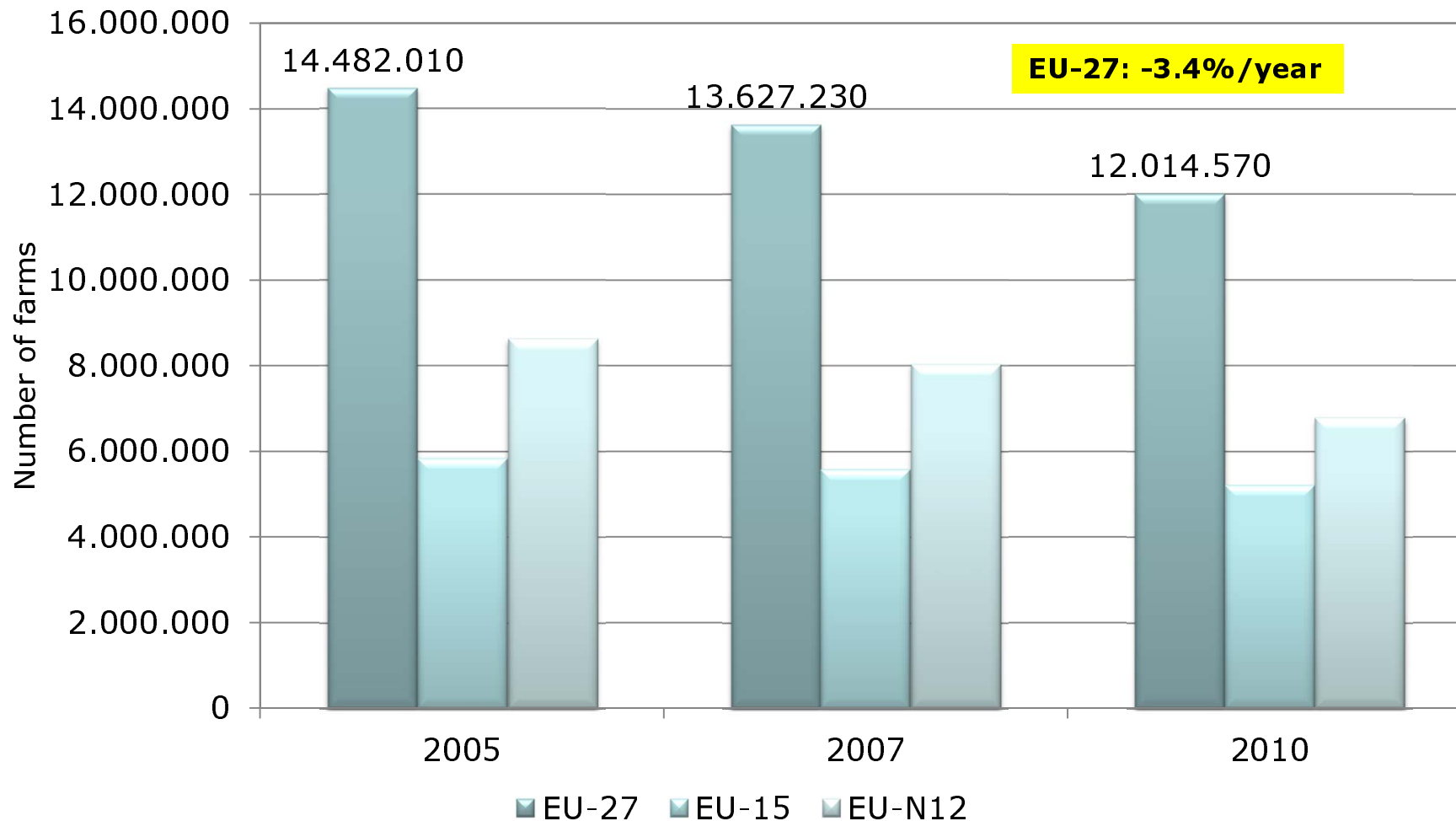
Agricultural* employment is still declining, but at a lower rate



* Branch A of NACE R2: agriculture, forestry and fishing; employment in number of persons

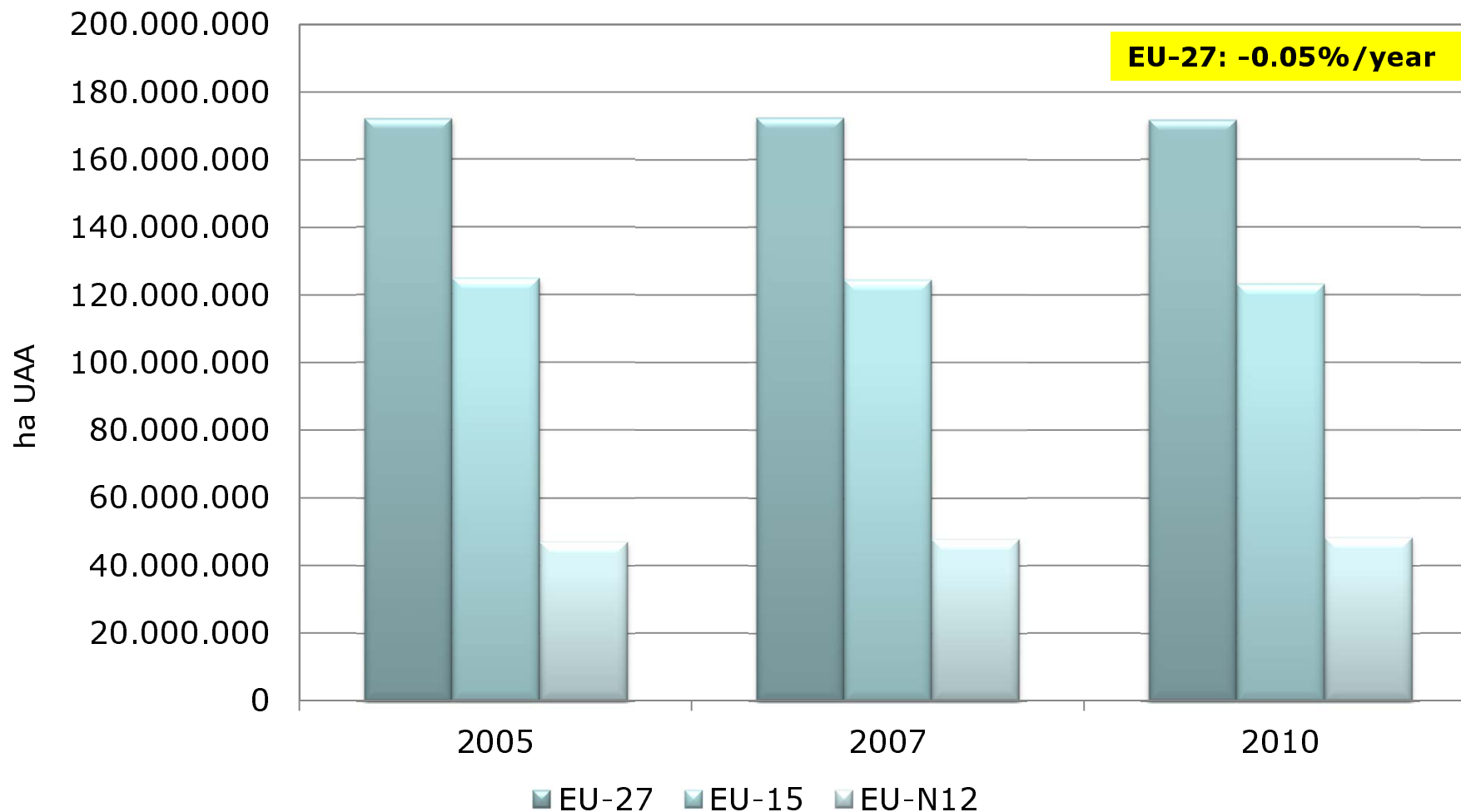
Source: Eurostat, National Accounts

The number of farms in the EU continues to decrease ...



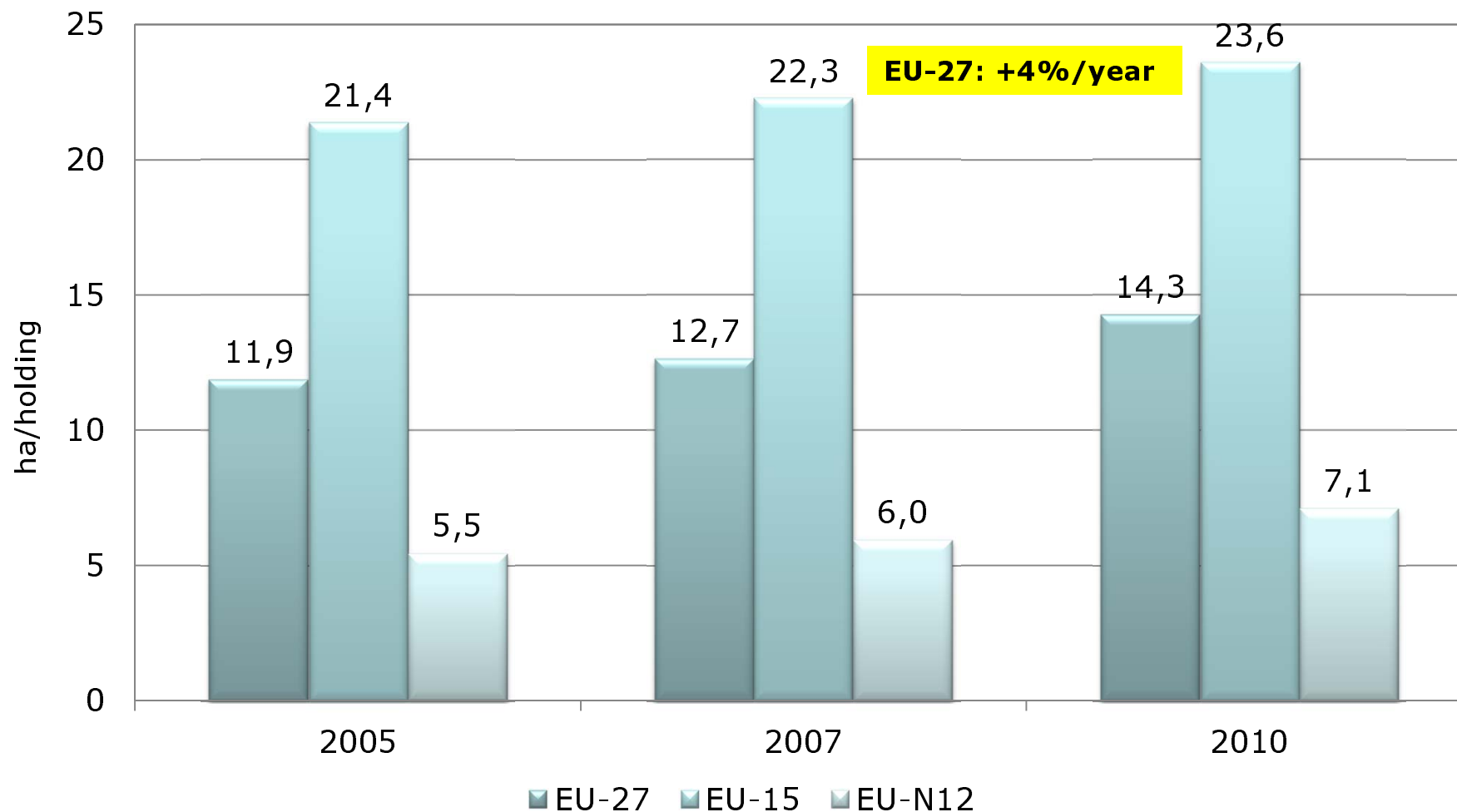
Source: Eurostat, Farm Structure Survey

... while the agricultural area has stayed stable



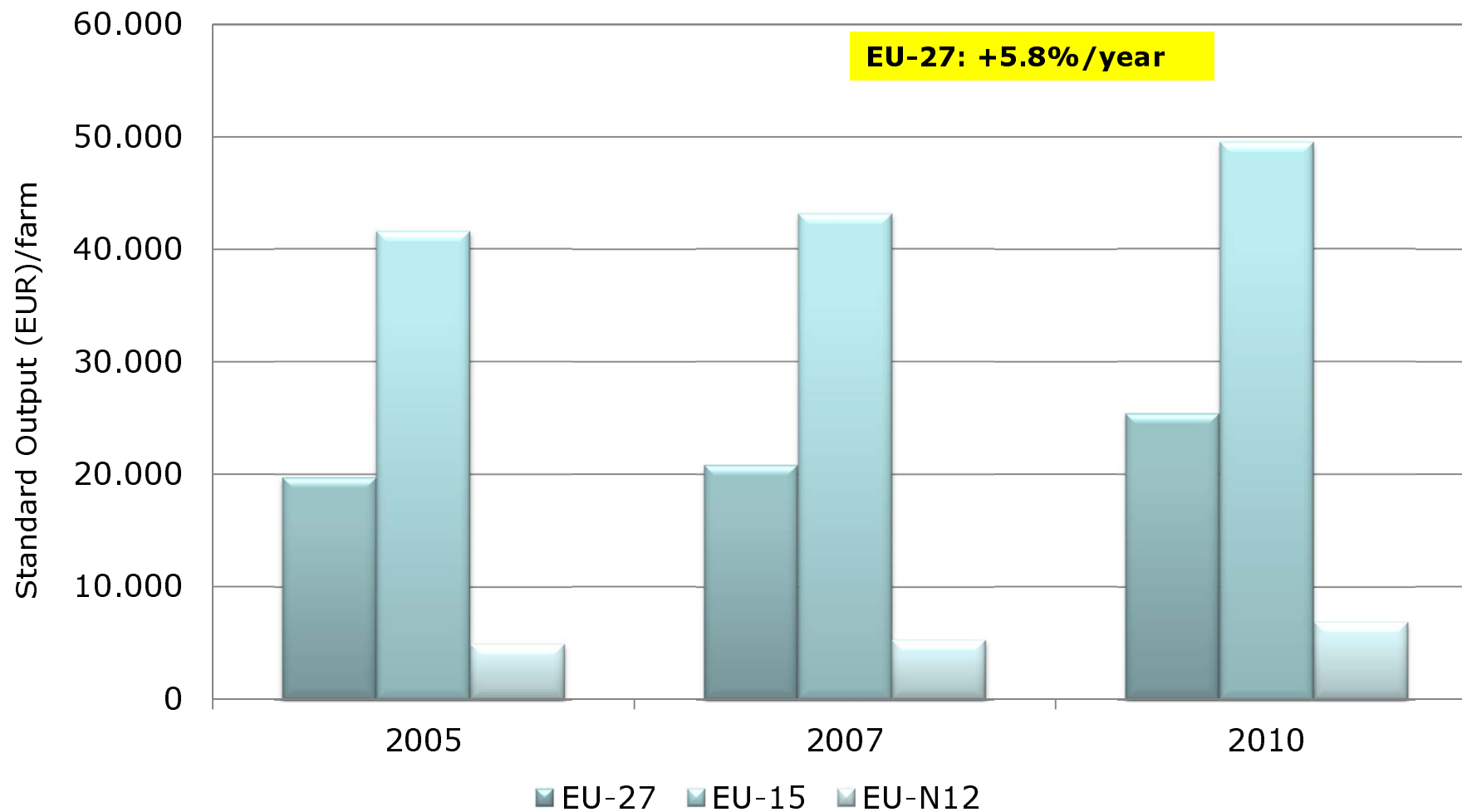
Source: Eurostat, Farm Structure Survey

Farms that remain are bigger in both ha UAA/farm...



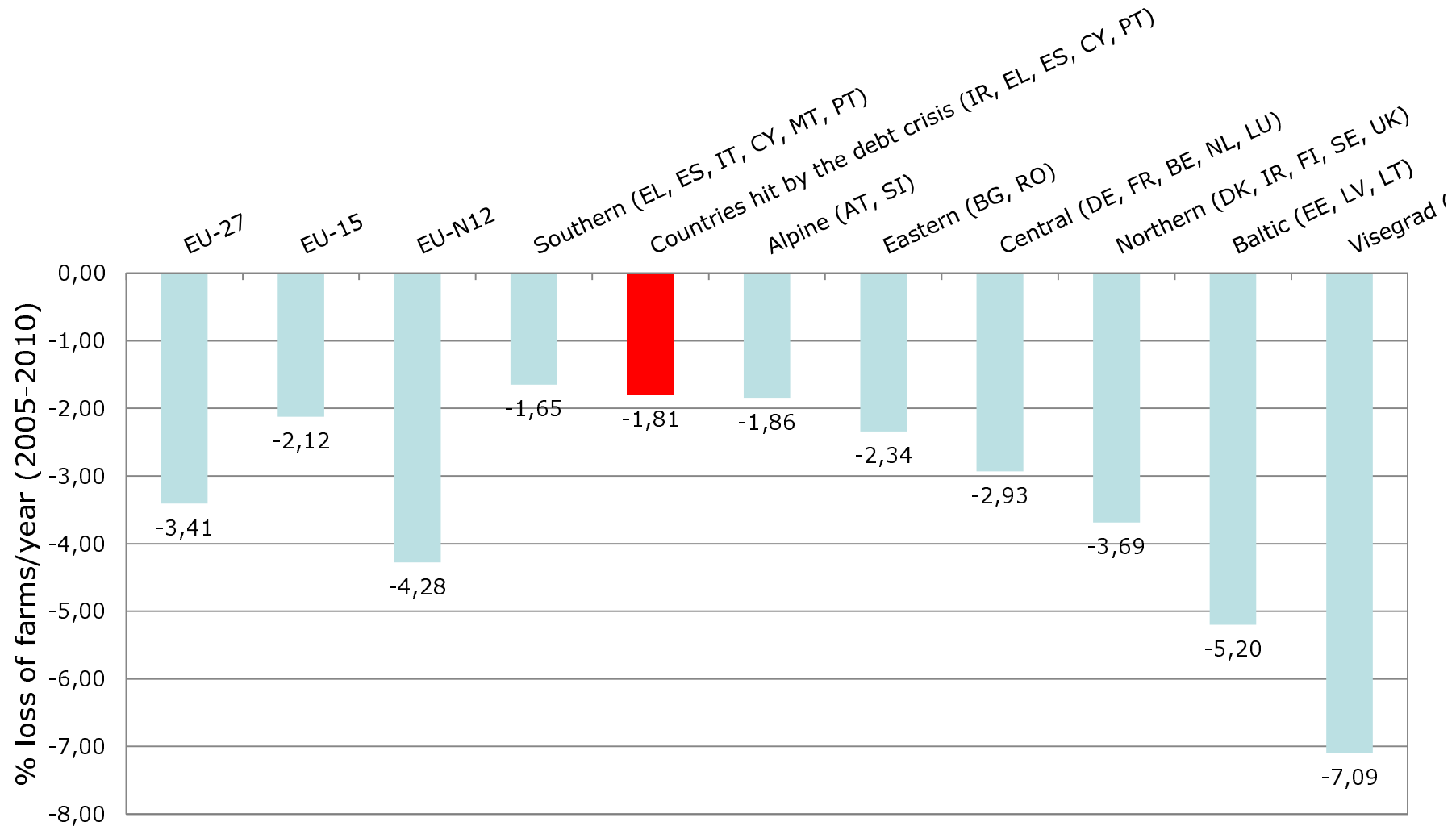
Source: Eurostat, Farm Structure Survey

... and in economic terms (Standard Output/farm)



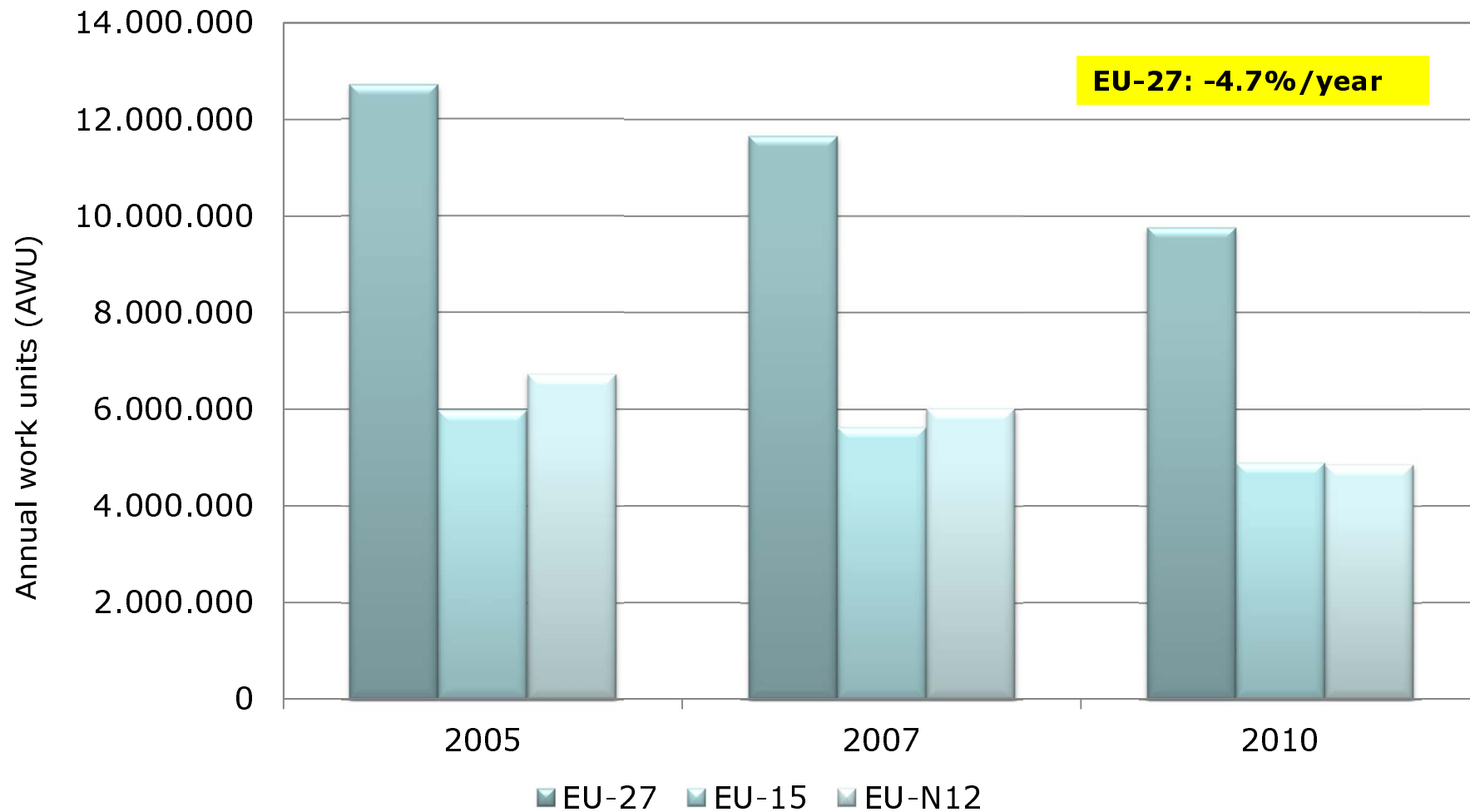
Source: Eurostat, Farm Structure Survey

In countries most affected by the debt crisis, people try to hold on to their farms



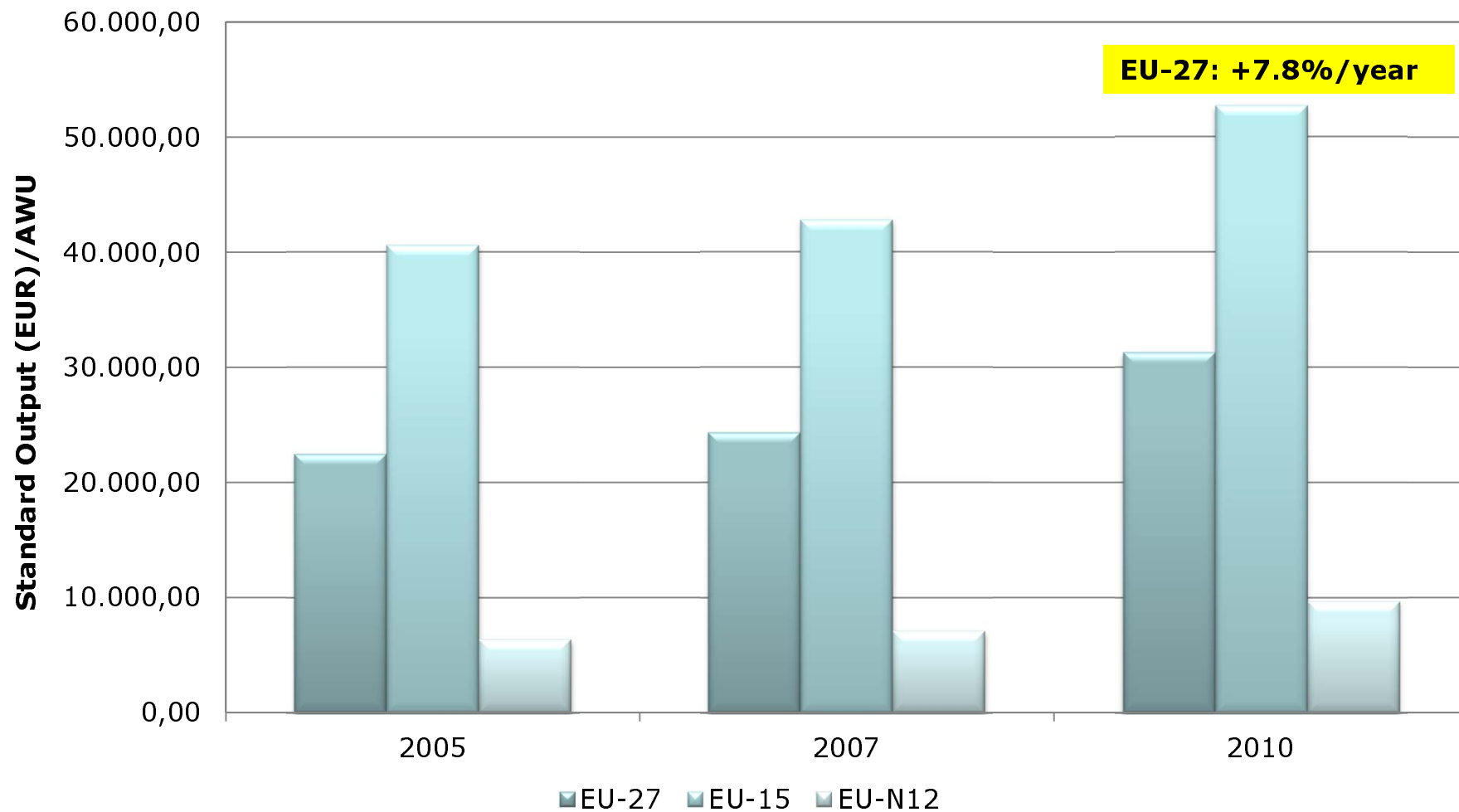
Source: Eurostat, Farm Structure Survey

Labour use in agriculture is declining ...



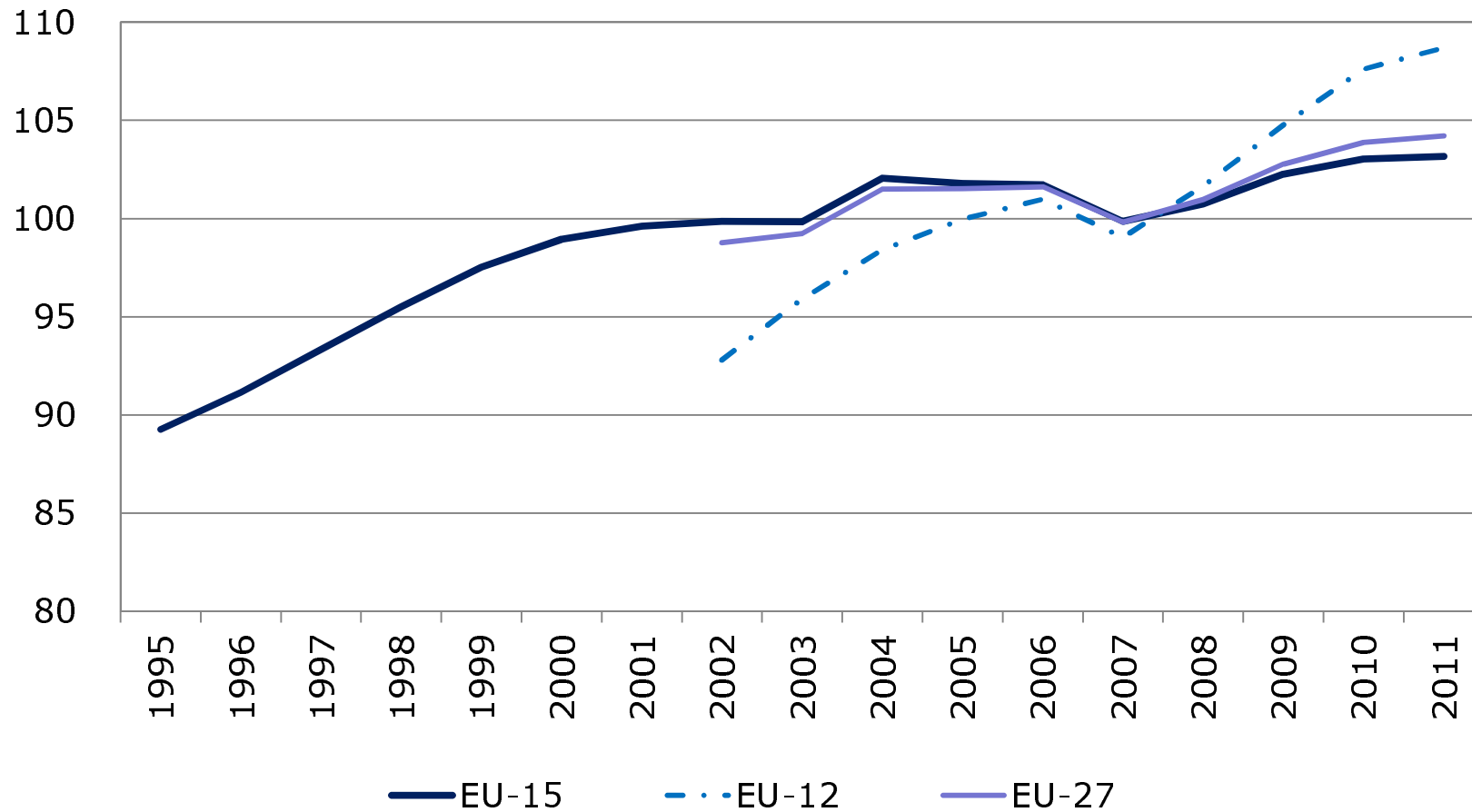
Source: Eurostat, Farm Structure Survey

... but labour productivity has increased significantly

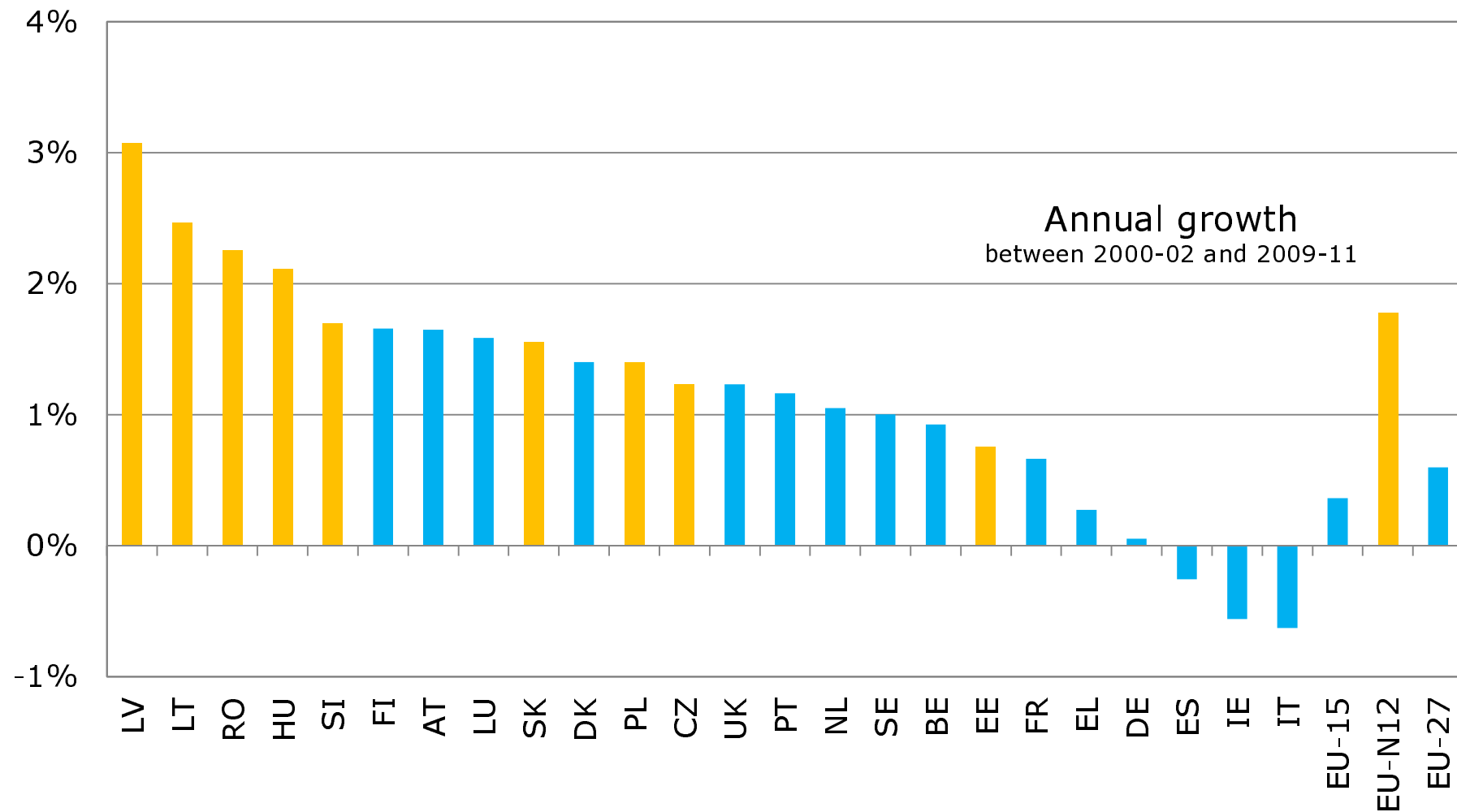


Source: Eurostat, Farm Structure Survey

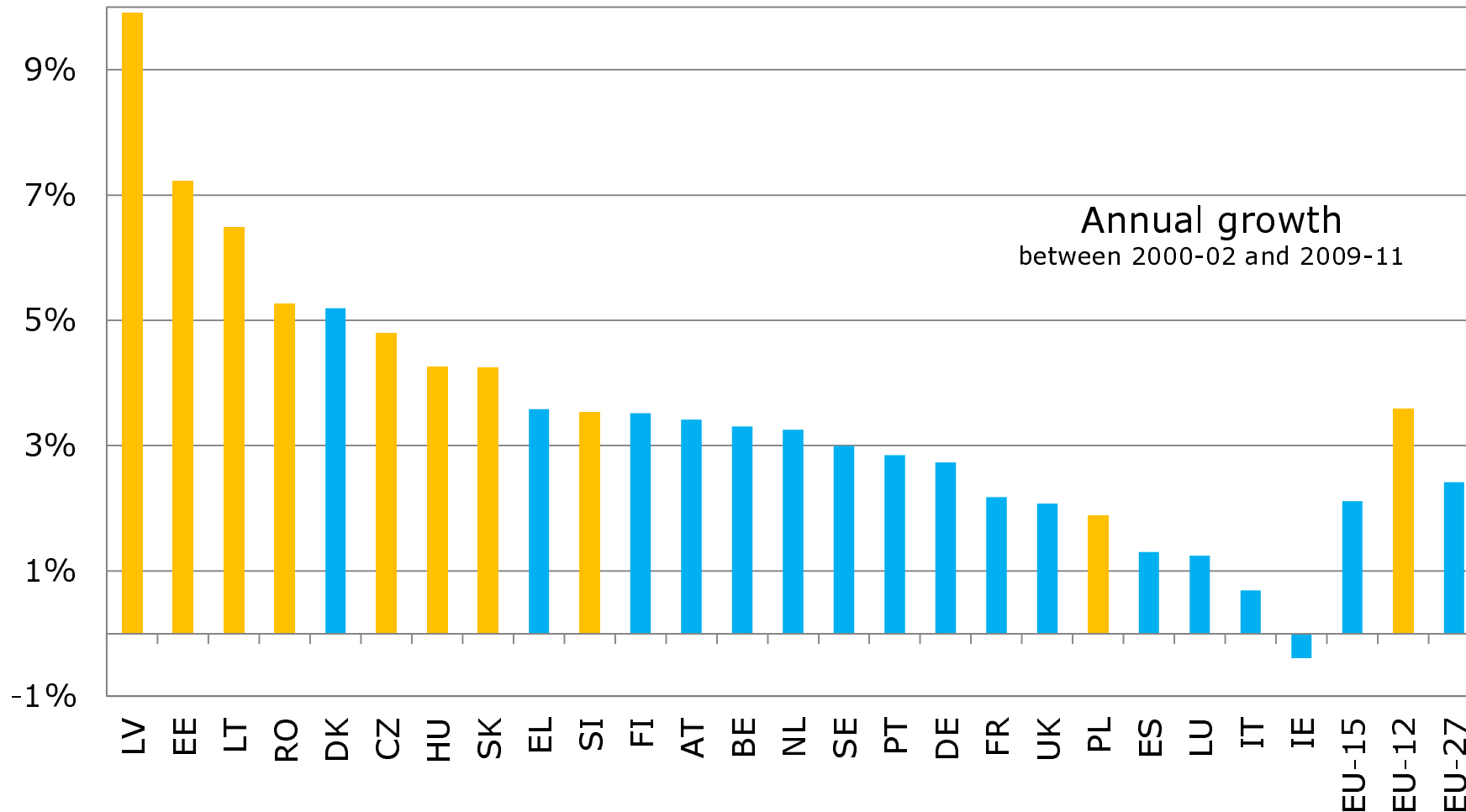
Annual TFP in the EU – 3 year moving average 2005 = average (2003, 2004, 2005)



A higher TFP growth in the EU-12...

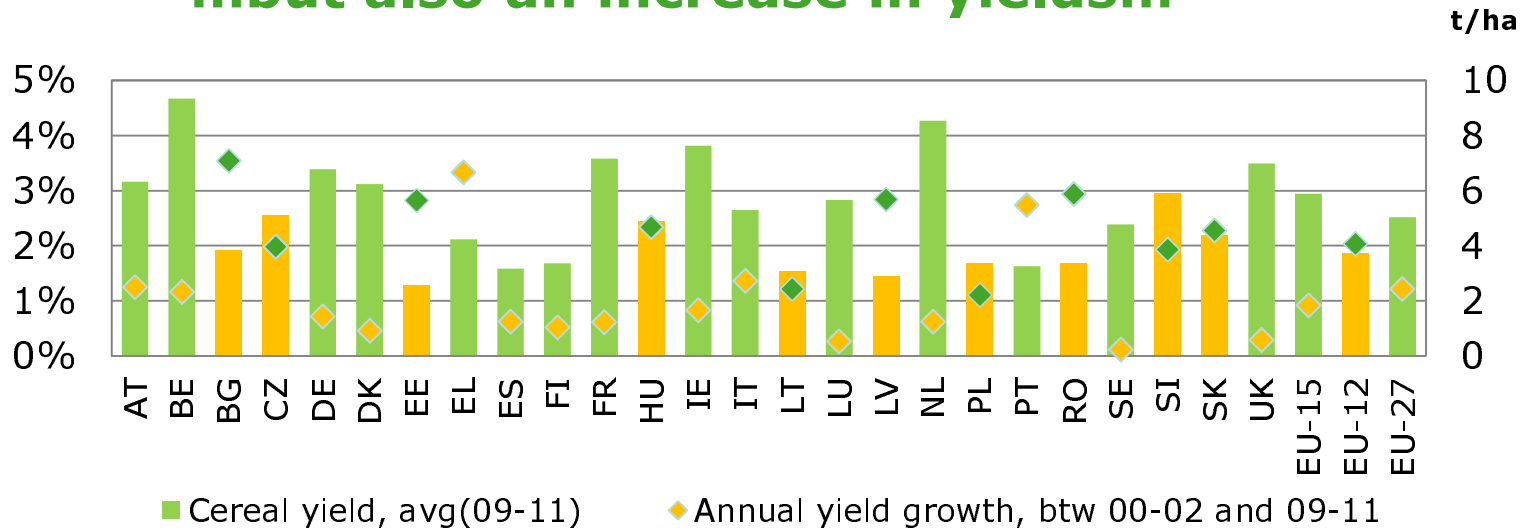


...mainly driven by an increase in labour productivity

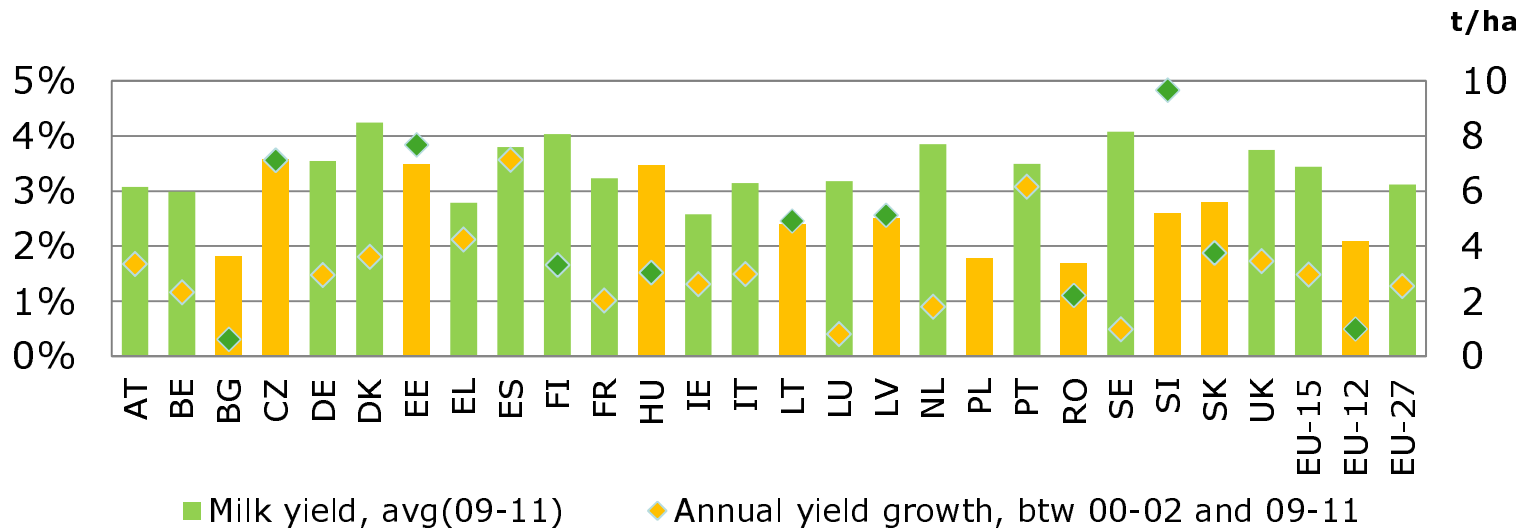


...but also an increase in yields...

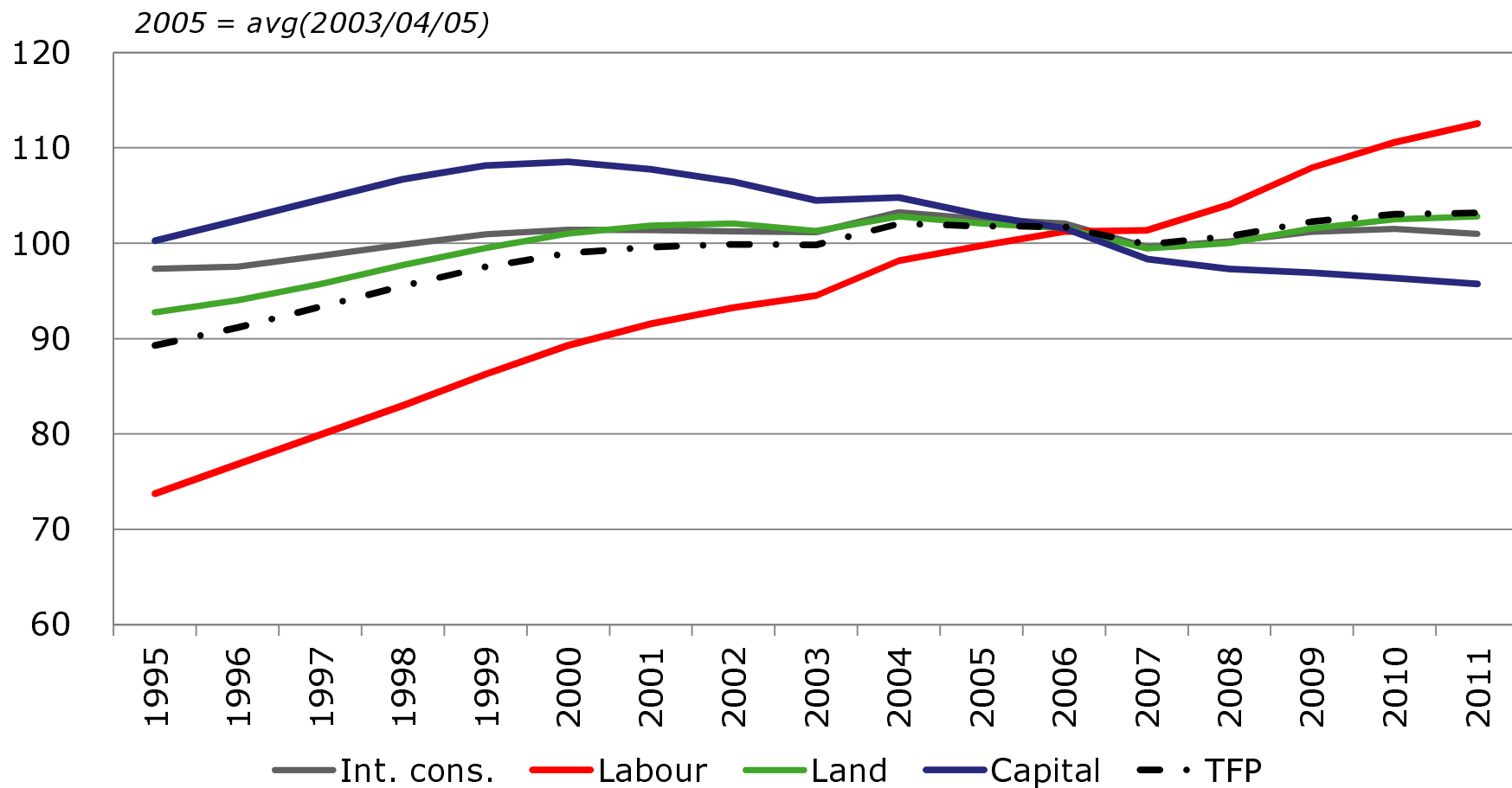
Cereals



Milk



...and a decrease in capital productivity in the EU-15





Thanks for your attention!

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

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