

# PUTTING COMPETITIVENESS AT THE HEART OF EU AGRICULTURAL POLICY

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Alan Matthews

Professor Emeritus of European Agricultural  
Policy

Trinity College Dublin, Ireland

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alan.matthews@tcd.ie

- “The overarching objective for the future CAP should be **sustainable competitiveness** [:] *to achieve an economically viable food production sector, in tandem with sustainable management of the EU's natural land-based resources.*”

Source: European Commission 2011

- **Competitiveness**
- The ability to continue to produce food and other raw materials profitably and sustainably in competition with other EU sectors and with agricultural producers in other parts of the world

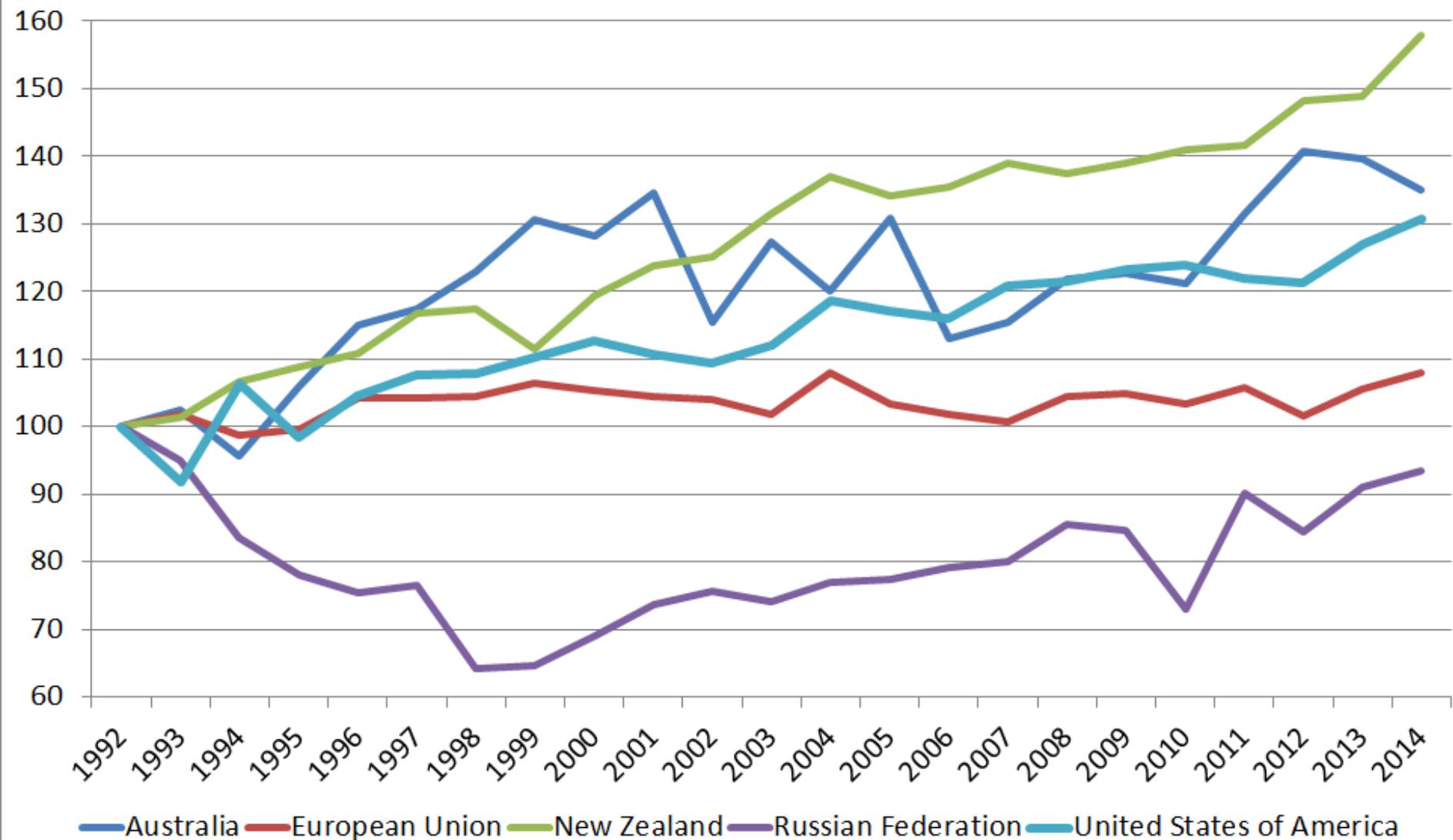
# Why emphasise competitiveness in the CAP?

- It's a Treaty objective!
- To contribute to the growth and jobs agenda
- Sustainable competitiveness – doing more with less
- To address lower trade barriers arising from trade agreements

# Outline

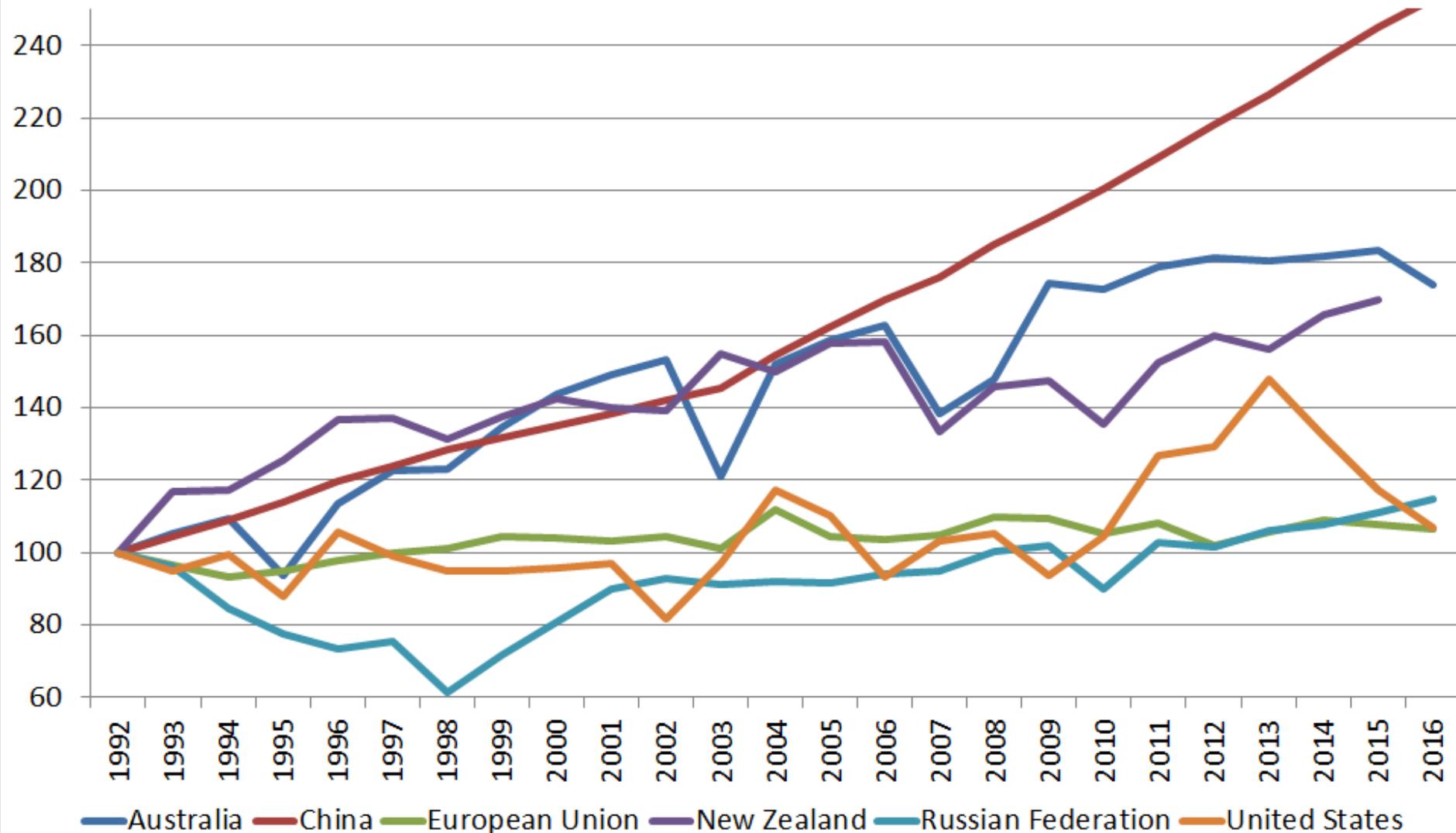
- What is the record of EU agriculture in terms of competitiveness and innovation?
- How might the CAP do more to promote agricultural competitiveness and innovation?
- *Note: I do not address food industry competitiveness in this talk*

## Gross agricultural production constant prices

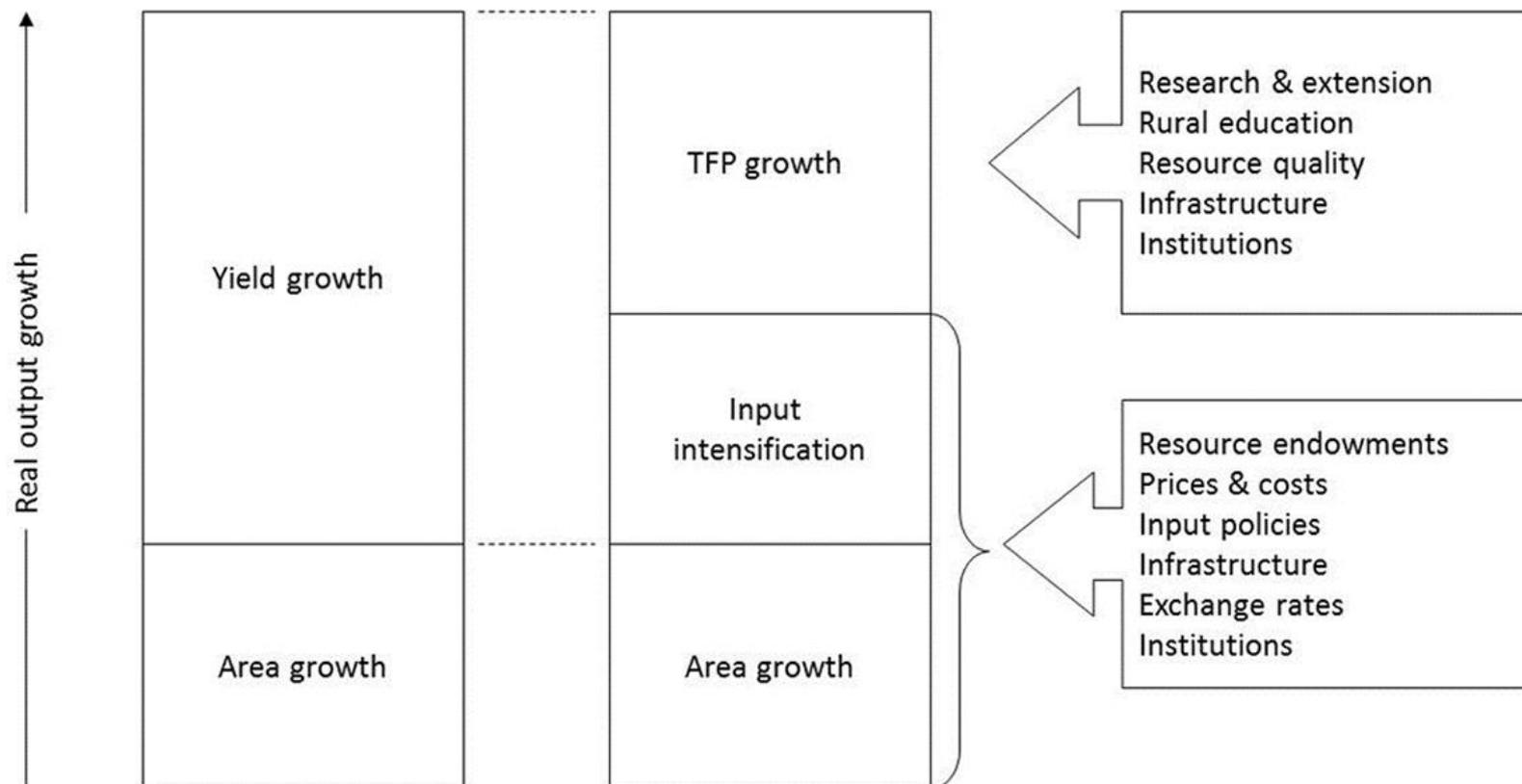


Source: Own elaboration based on FAOSTAT

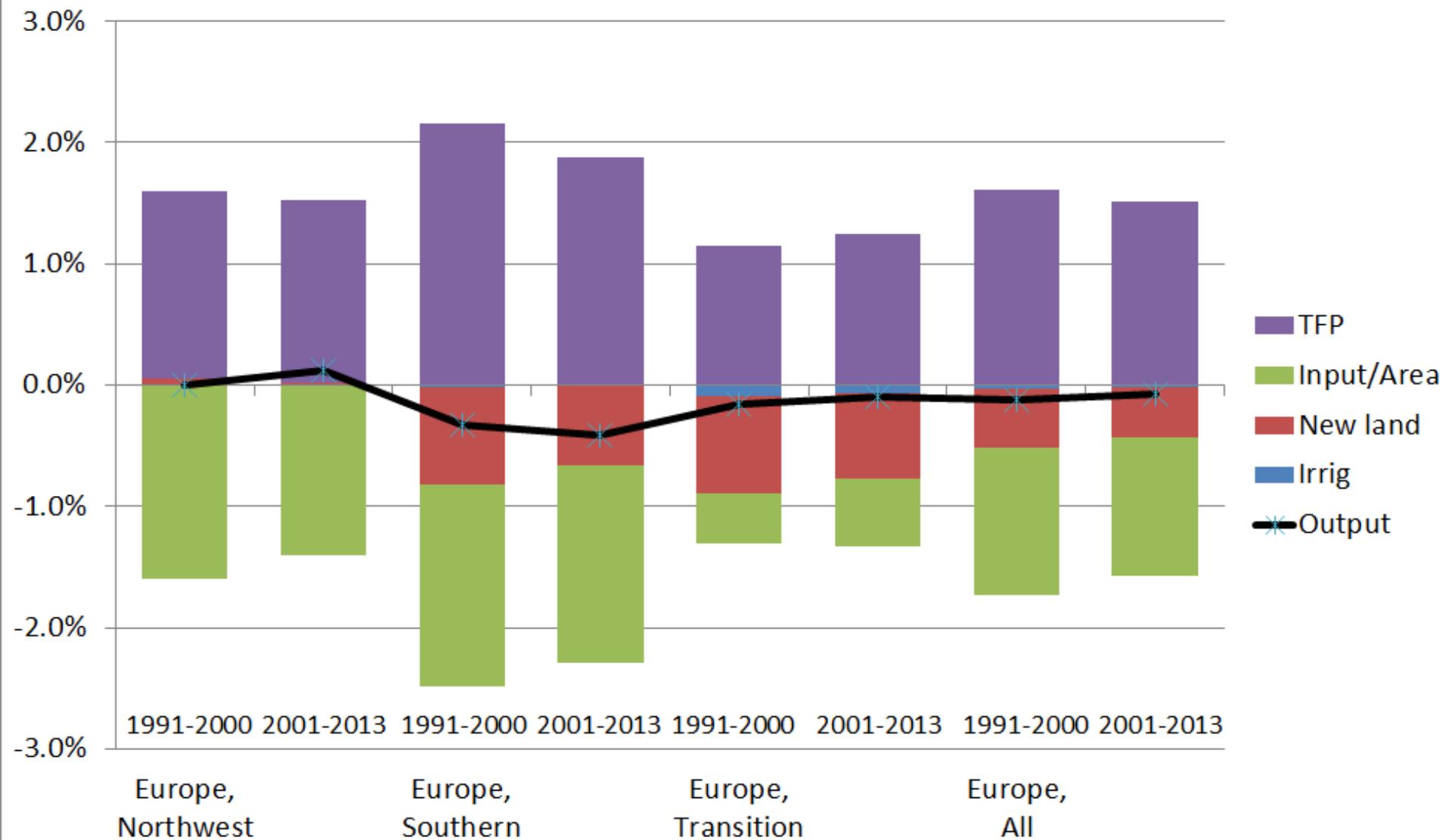
## Gross agricultural value added constant prices



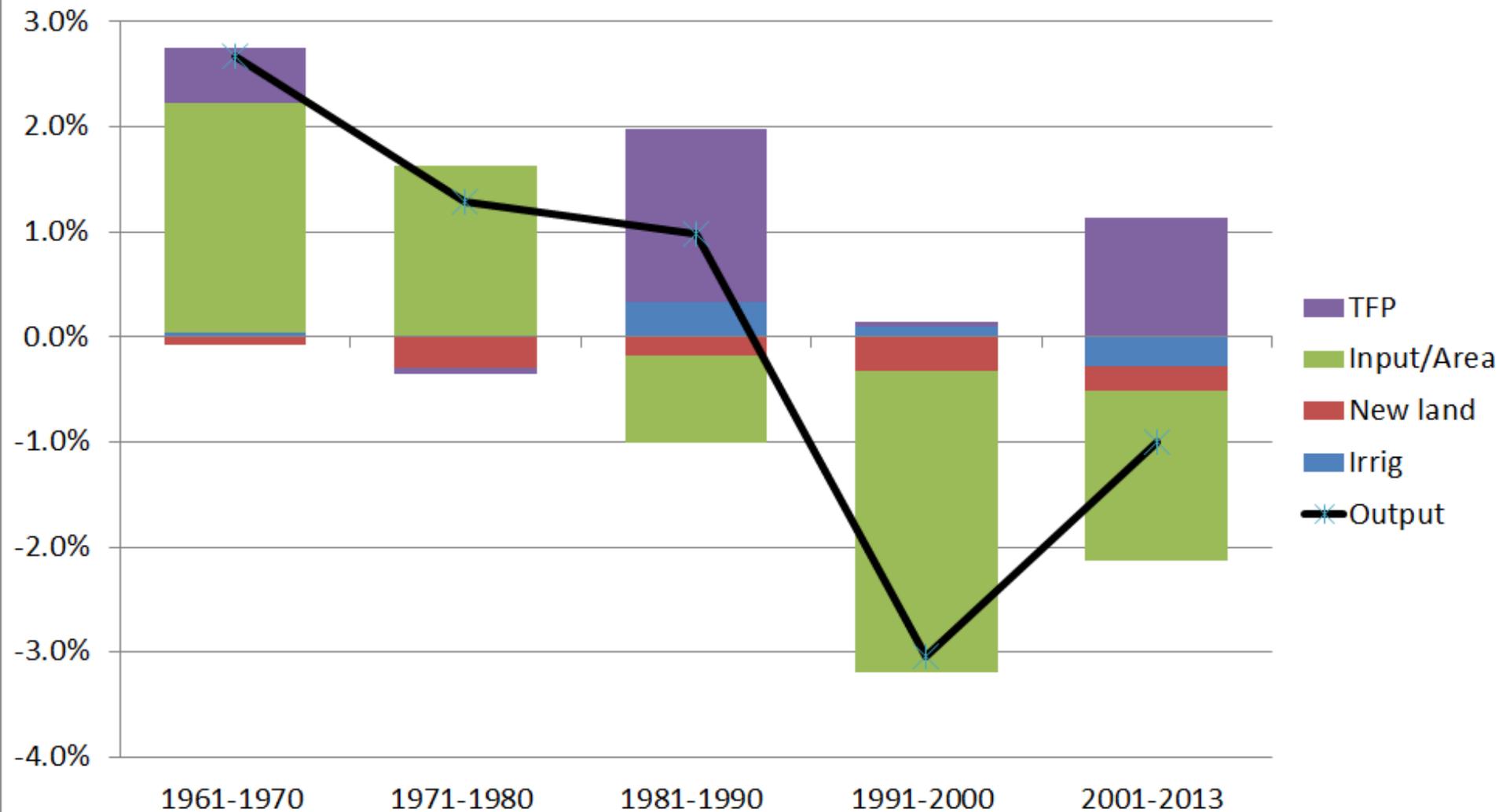
## Growth in output, yield, and total factor productivity



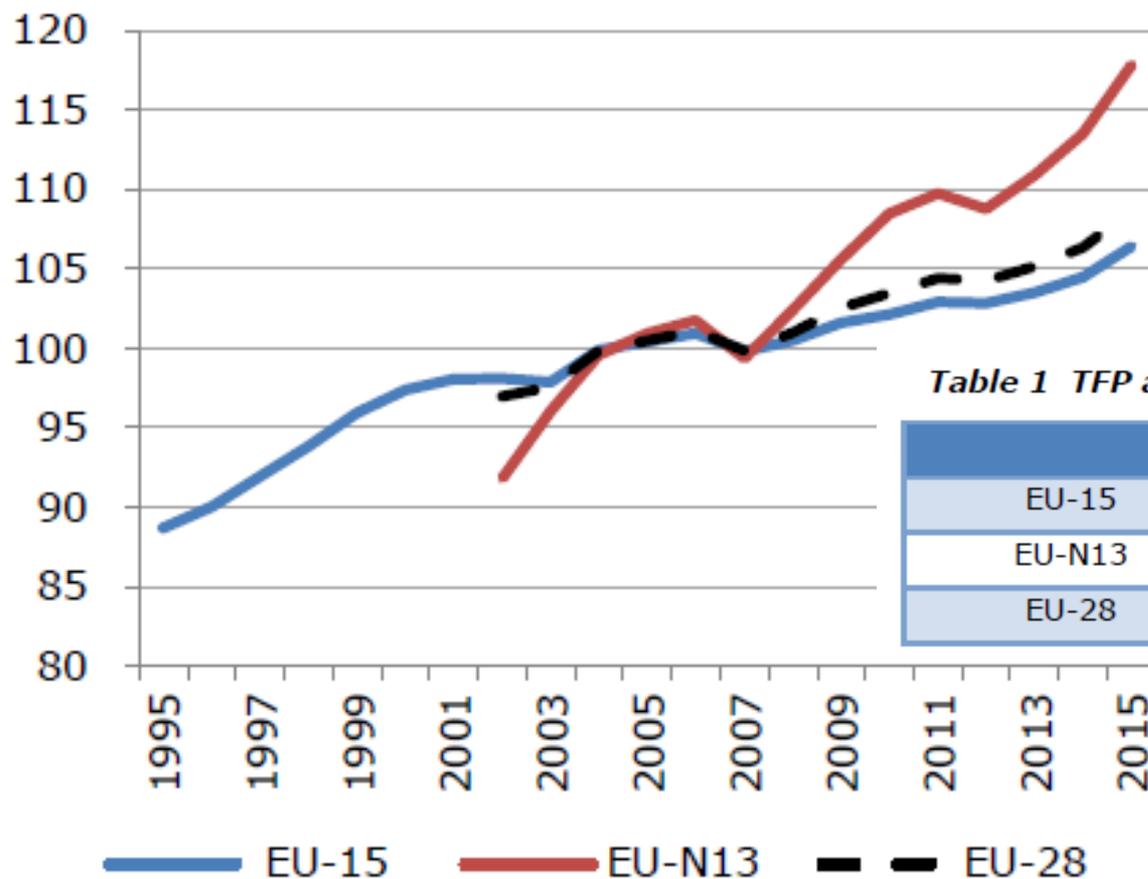
## Resource decomposition of agricultural output growth



## Resource decomposition 'Czechoslovakia' agricultural growth



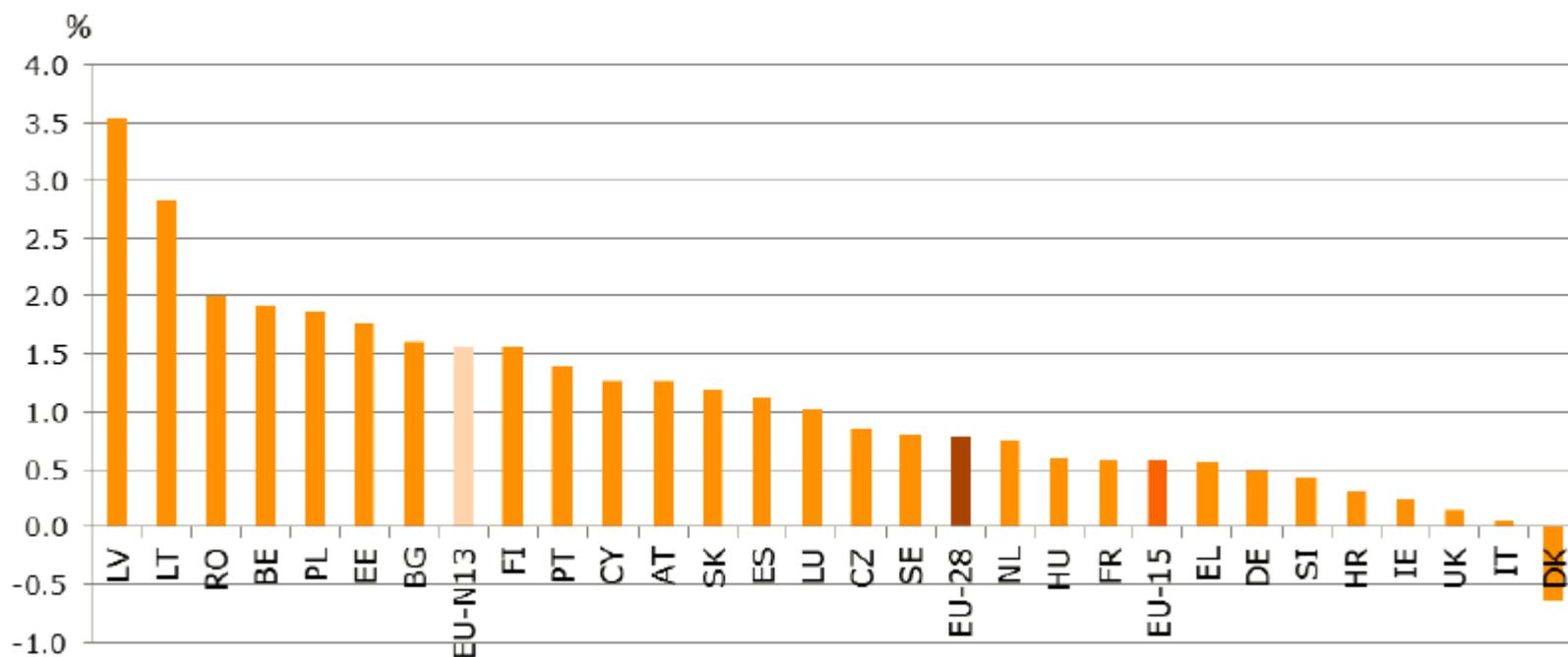
# DG AGRI TFP index, EU28, EU15, EU13 2005=100



*Table 1 TFP annual growth*

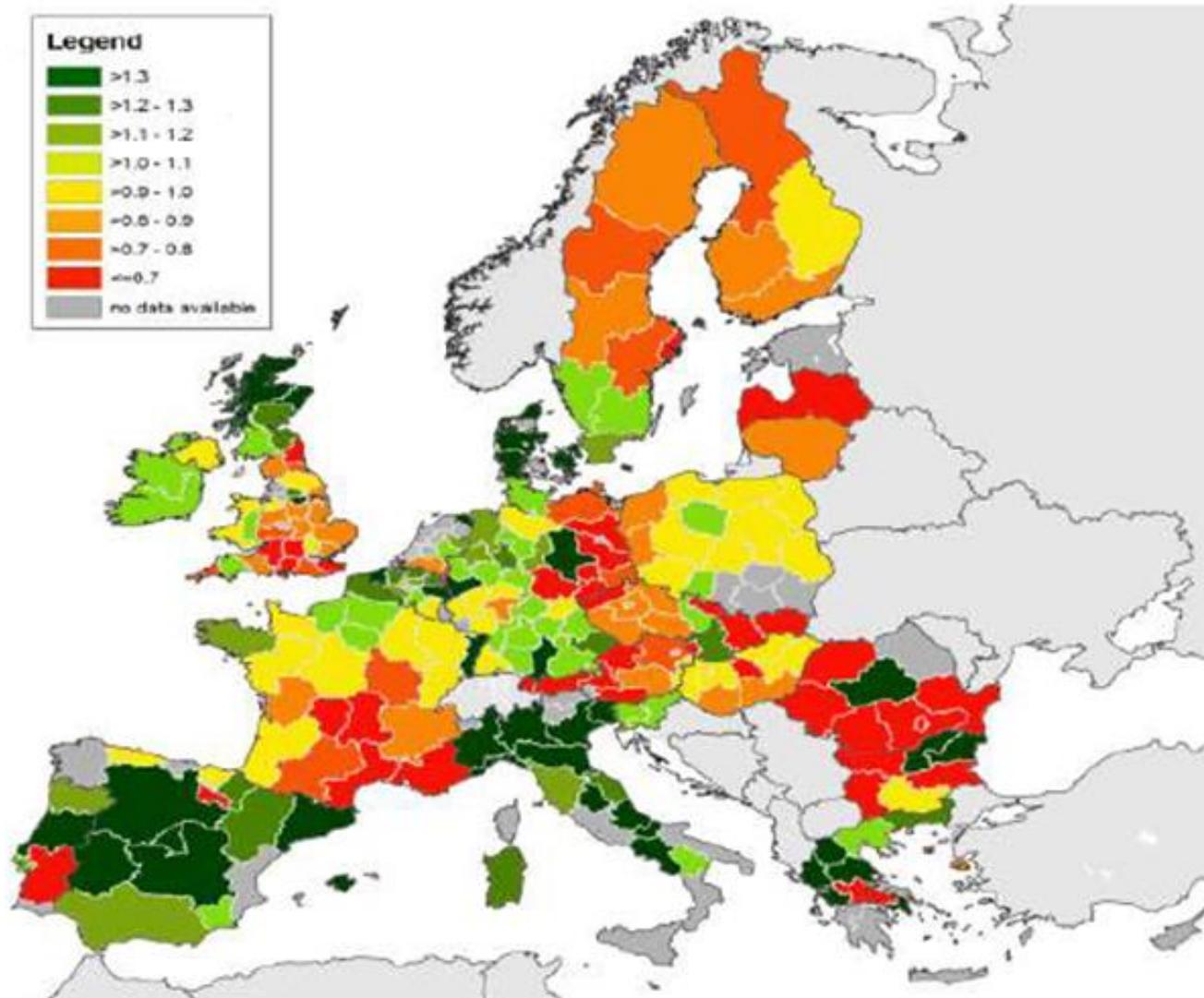
	1995-2005	2005-2015
EU-15	+1.3%	+0.6%
EU-N13		+1.6%
EU-28		+0.8%

# Average annual change in total factor productivity, 2005-2015



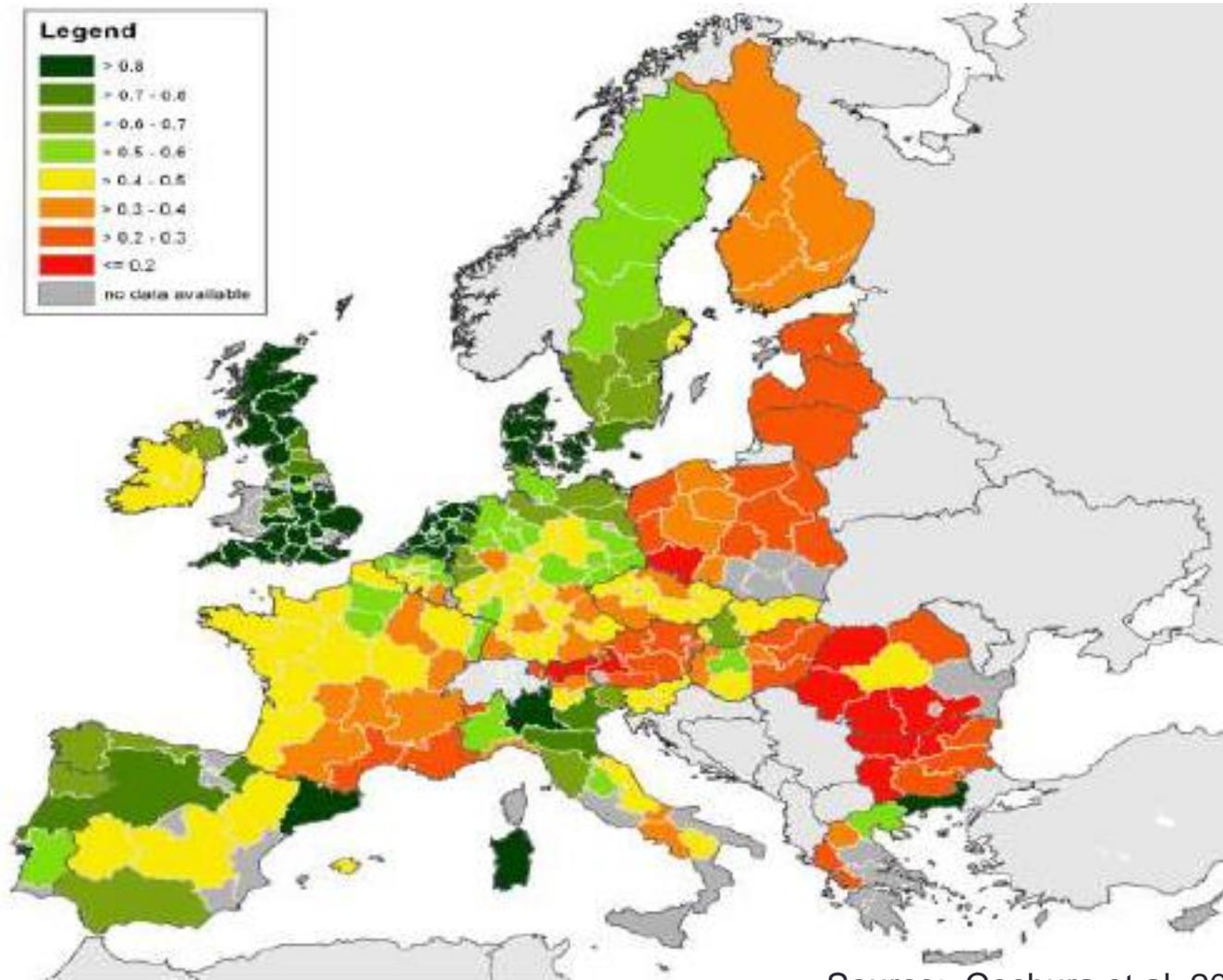
Source: DG AGRI, CAP Context Indicator 27 Total Factor Productivity, 2016 update

# Regional differences in TFP – cereal production

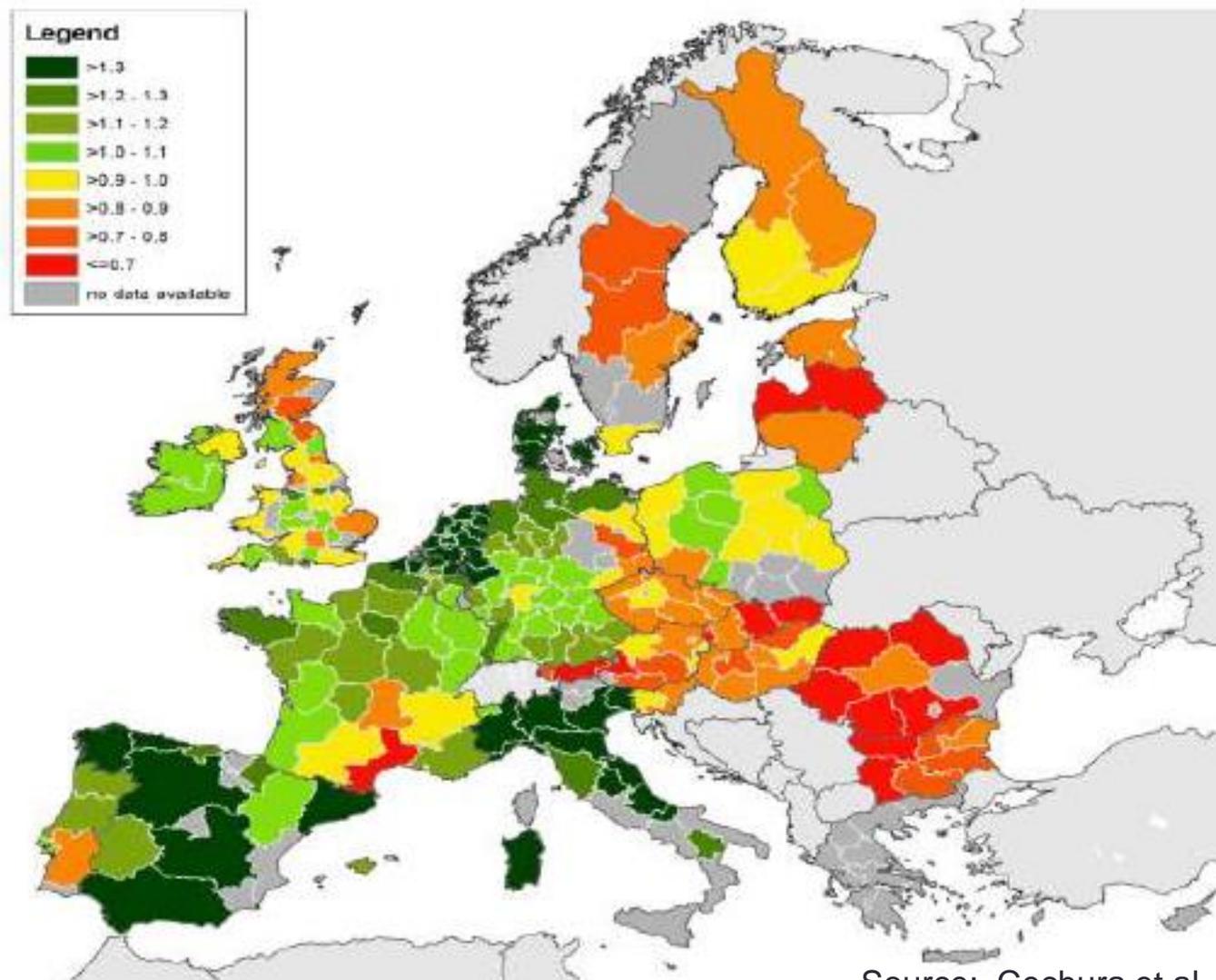


Source: Cechura et al, 2014 COMPETE project

# Regional differences in technical efficiency – milk production

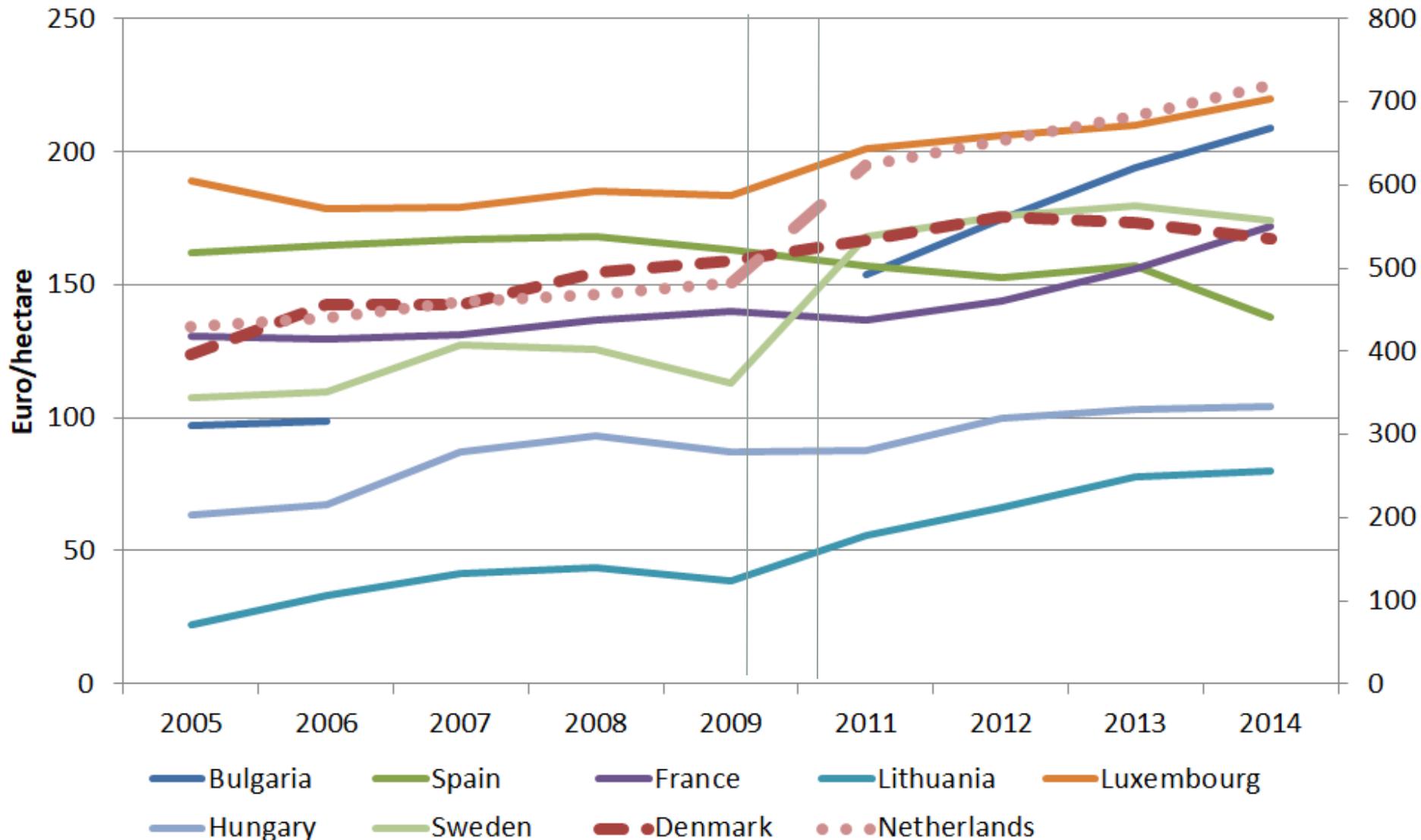


# Regional differences in TFP – milk production



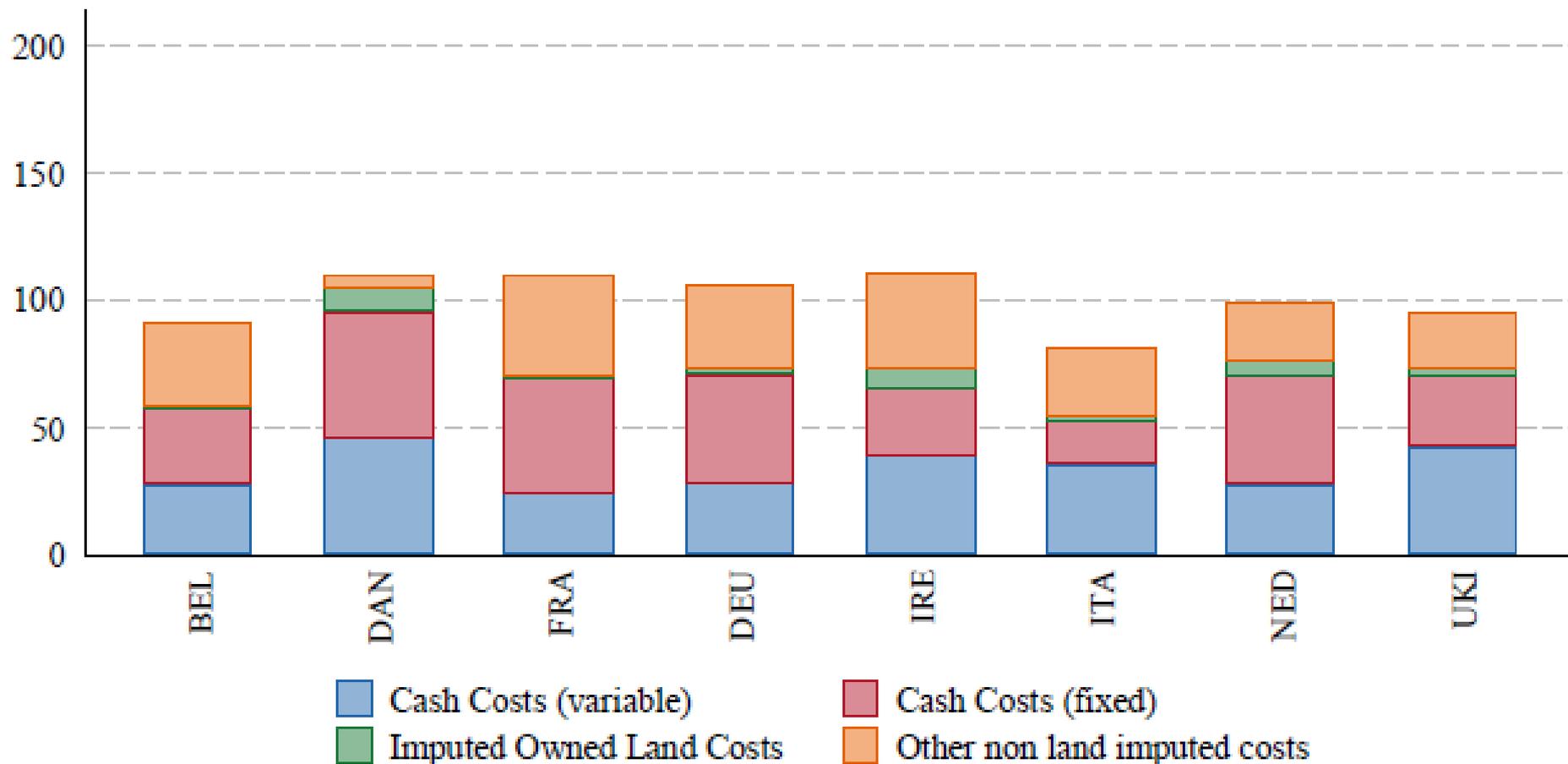
Source: Cechura et al, 2014 COMPETE project

## Land rents in selected EU Member States

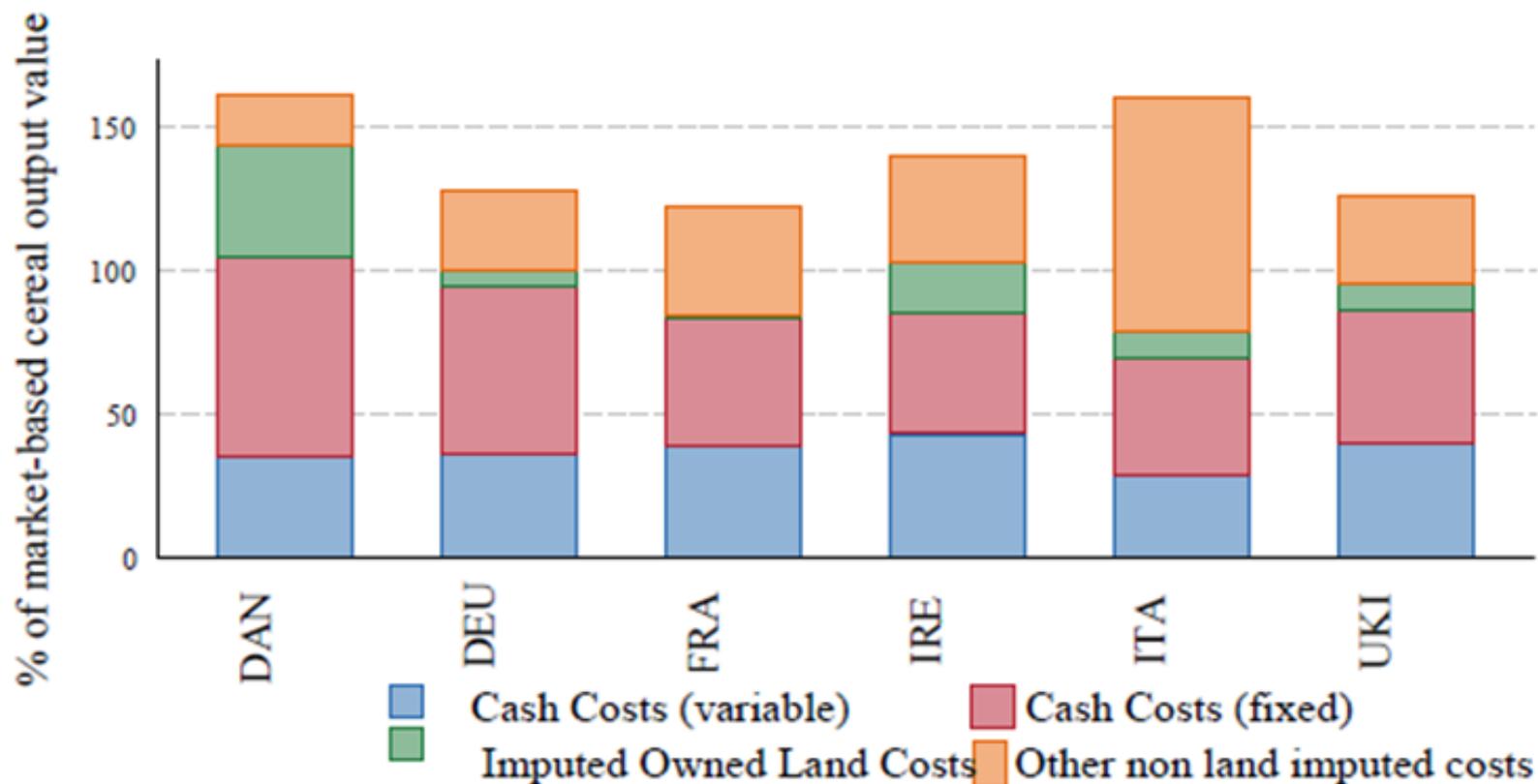


Source: Own calculation based on Eurostat data

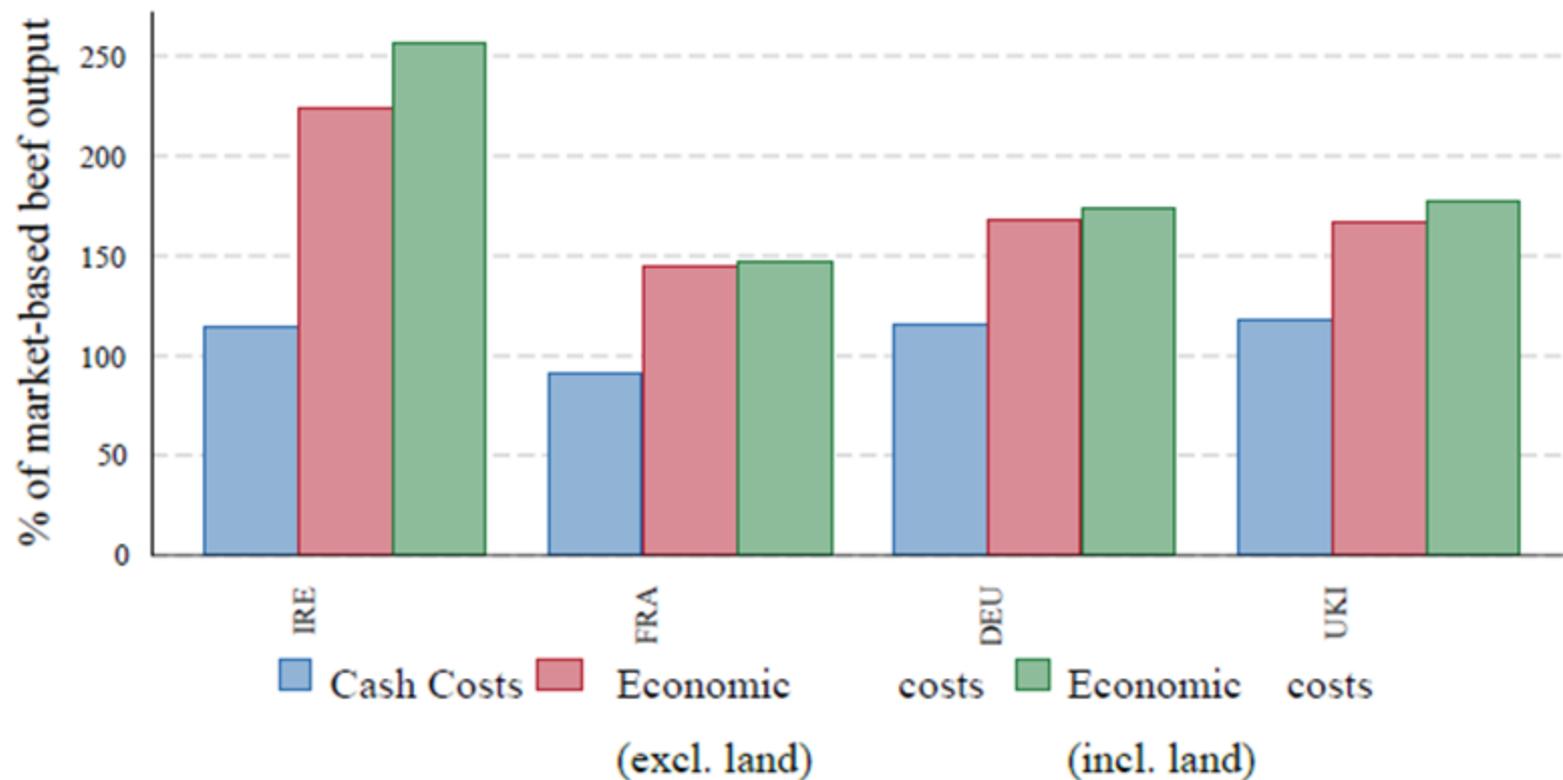
**Figure E1: Costs as a % of market based output for selected European 'Specialist dairying' farms (2009 – 2013)**



## Costs as a % of market output selected European cereal producers (’09-’13)



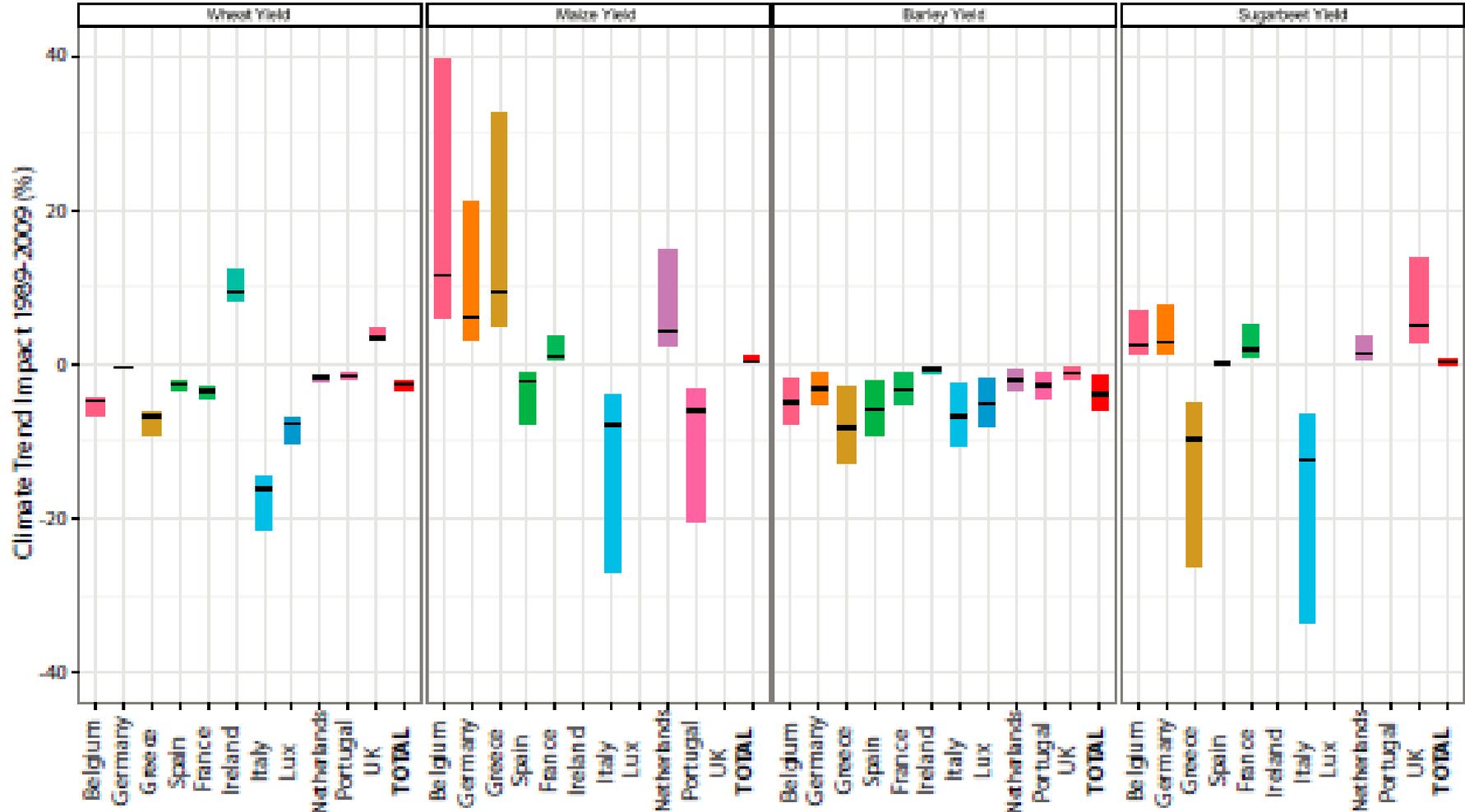
## Costs as a % of market based output for selected European 'Specialist cattle – rearing and fattening' farms (2009 – 2013)



# Explanations for poor productivity growth

- **low research expenditure** devoted to productive agriculture;
- a decline in natural capital such as soil organic carbon, pollinators due to poor farming practices;
- the adverse impact of **climate change** on yields
- the impact of EU environmental policy (e.g. tougher regulations, encouragement of organic farming and the requirement to manage certain lands primarily for nature conservation purposes)
- the potential influence of **direct payments** in reducing efficiency

# Climate change reduces wheat and barley yields



Source: Moore and Lobell, PNAS 2015

## The importance of Pillar 1 direct payments in EU agricultural policy

	<b>2003-05</b>	<b>2013-15</b>
	€ million	€ million
Pillar 1 Direct payments	31,075.09	<b>40,850.22</b>
CAP budget	45,474.80	<b>56,880.72</b>
EU budget	98,510.71	<b>145,403.05</b>
Memo items	%	%
Share of EU direct payments in CAP budget	68.3%	<b>71.8%</b>
Share of EU direct payments in EU budget	31.5%	<b>28.1%</b>

Source: Matthews (2016a). The successive enlargements of the EU in 2004, 2007 and 2013 should be kept in mind in interpreting these figures.

## Importance of direct payments by farm system, EU-27, 2011-2013

	Field crops	Horticulture	Wine	Other permanent crops	Milk	Other grazing live-stock	Grains - vorees	Mixed	Total
<b>Farm income depending on direct aids</b>	55%	7%	9%	29%	41%	70%	22%	61%	44%
<b>Farm income depending on other subsidies</b>	13%	3%	5%	7%	17%	31%	8%	21%	15%
<b>Farm income depending on market factors</b>	32%	90%	87%	64%	42%	-1%	69%	18%	41%

Source: Own calculations based on DG AGRI, FADN public database

## Direct payments, efficiency and productivity

- On balance, the evidence suggests that direct payments do attract additional resources into the agricultural sector.
- Whether overall production is higher or not depends on the productivity (efficiency) with which those resources are used.
- Impacts in theory are ambiguous:
  - Payments lead to soft budget constraint
  - Payments slow down structural change
- But..
  - May relieve credit constraints, lower risk
- An empirical issue

# Direct payments, efficiency and productivity

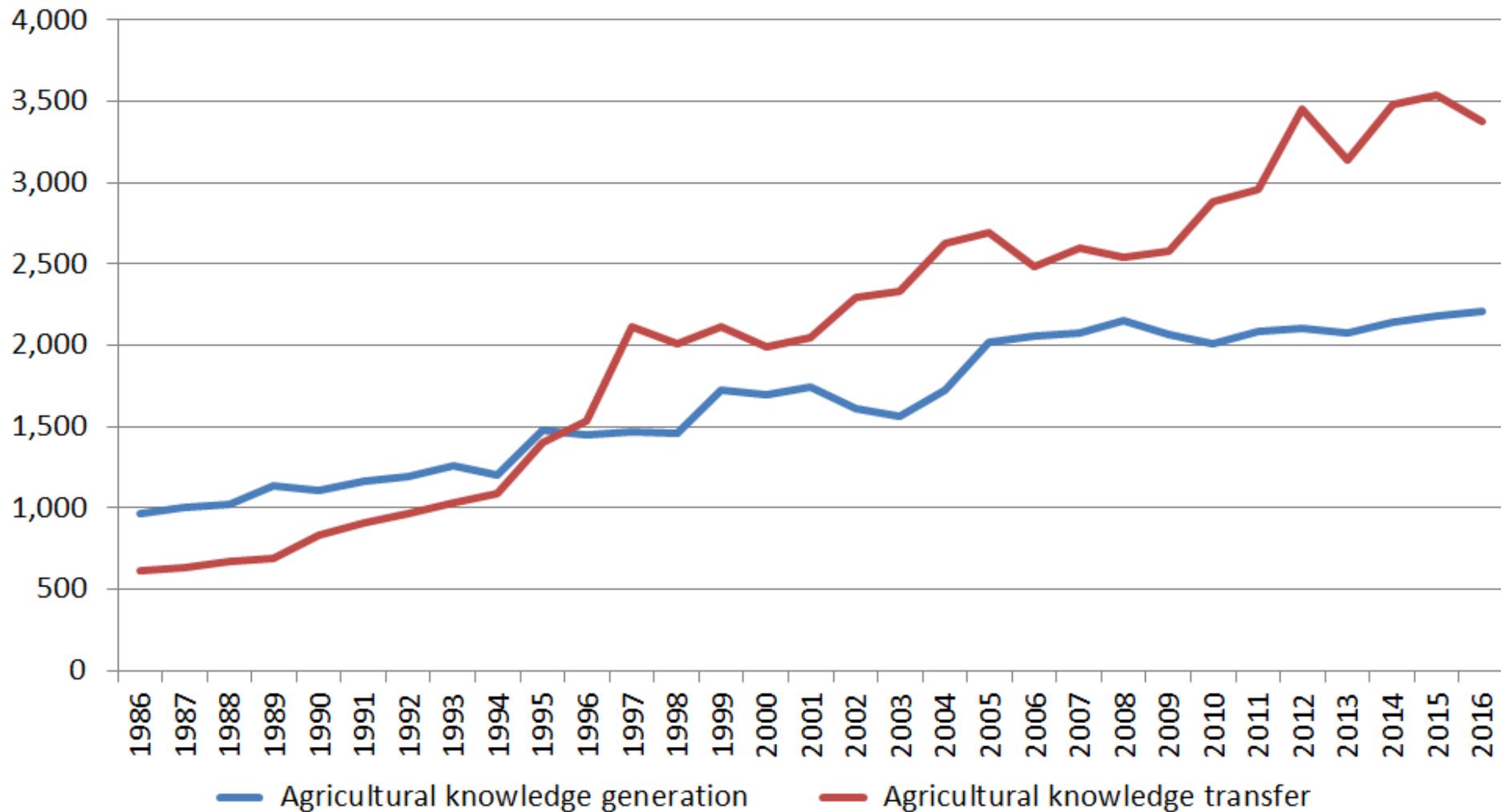
- **Empirical evidence**

- Farms with higher levels of subsidy dependence had lower levels of technical efficiency (Zhu and Lansink, 2010)
- Negative relationship between MacSharry partially-couple subsidies and TFP growth (Mary 2013; Risov et al, 2013)
- Shift to decoupled payments after 2005 had positive impact on productivity
- Further shift to eliminate direct payments.... ??

# R&D and innovation measures in CAP

- Horizon 2020 dedicates around €4 billion to research in agriculture. Concrete topics supported are: food security, sustainable agriculture and the bioeconomy.
- Fostering agricultural competitiveness now one of three overarching objectives for Pillar 2 RD spending and relevant in at least four of the six RD priorities
  - Fostering knowledge transfer and innovation
  - Enhancing the viability/competitiveness of all kinds of agriculture and promoting innovative farm technologies
  - Promoting food chain management, inc. risk management
  - Promoting resource efficiency and shift towards low-carbon and climate-resilient agricultural sector
- Includes European Innovation Partnership Network for agricultural productivity and sustainability (EIP-AGRI) to enhance effectiveness of innovation actions in Pillar 2

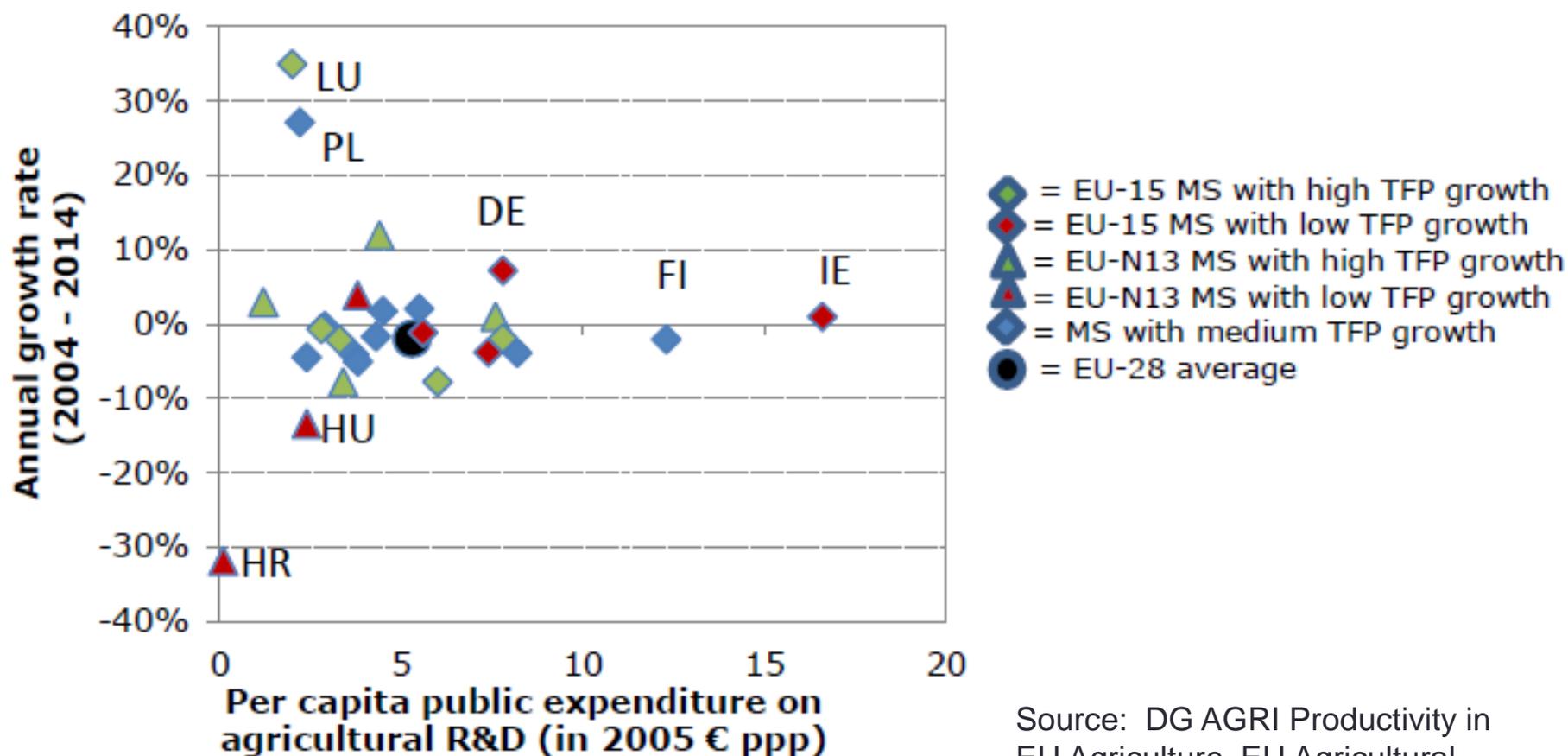
## Public expenditure on agricultural innovation R&D € million



Source: Own calculations based on OECD GSSE database

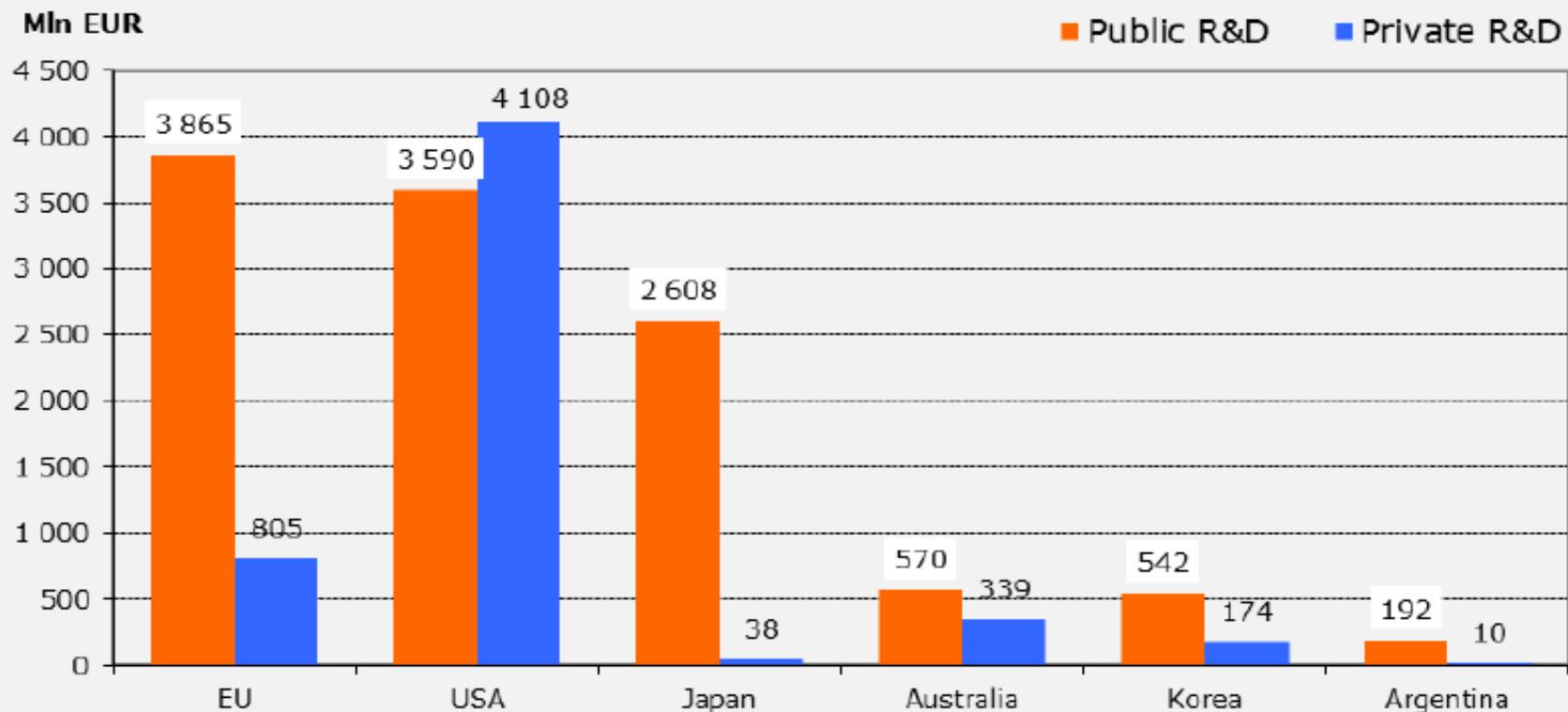
# Expenditure on agric R&D is stabilising

Graph 13 Per capita public expenditure on R&D in agriculture in 2014



Source: DG AGRI Productivity in EU Agriculture, EU Agricultural Markets Briefs No. 10 Dec 2016

## Agricultural R&D expenditure in selected countries (converted to EUR million)



**Note:** Data are for 2011 (EU); 2010 (Japan, Korea and Argentina); and 2008 (USA).

Source: García Álvarez-Coque et al, European Parliament, 2014

# Competitiveness measures in Pillar 2

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## Measures

Knowledge transfer and information actions

Advisory services

Investments in physical assets

Farm and business development

Quality schemes for agricultural products

Young farmer start up aid

Risk management

Formation of producer groups and organisations

Local Action Groups (LAGs)

Financial instruments

EIP – European Innovation Partnership

Agricultural research fund linked to Horizon 2020

Infrastructure (esp. broadband rollout)

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# Generational renewal

## Share of young farmers (< 45 years)

	2005	2007	2010	2013
Share of holdings (no.)	23.0%	21.8%	24.2%	21.3%
Share of standard output (euro)	37.3%	35.0%	33.7%	30.4%
Share of UAA (ha)	33.5%	31.8%	31.6%	30.0%
Share of UAA on holdings over 100ha (ha)	34.6%	33.2%	33.3%	33.1%

## Share of older farmers (> 65 years)

	2005	2007	2010	2013
Share of holdings	31.9%	32.7%	29.6%	31.1%
Share of standard output (euro)	10.6%	10.9%	10.3%	11.2%
Share of UAA (ha)	13.6%	14.0%	12.6%	14.1%
Share of UAA on holdings over 100ha (ha)	8.1%	8.6%	8.3%	10.0%

## Competitiveness and the regulatory burden (1)

- Society makes growing demands of farmers reflected in higher regulatory standards attached to the 'licence to farm'
- Higher standards raise costs for farmers...
- ... but they also improve consumer perception of EU-grown products, stimulate innovation, help avoid disease outbreaks, and can contribute to earning a higher return
- High EU standards are often adopted by competitors
- *De facto* standards now often set by final buyers and apply to domestic production and imports alike

## Competitiveness and the regulatory burden (2)

- Compliance costs with animal welfare, environmental and food safety legislation (CRPA 2011)
  - Added 1 – 3.5% production costs on crop farms
  - Added 2-3% of production costs for dairy, beef and sheep farms
  - Added 5-10% of production costs for pig and poultry farms
- Relatively small relative to other reasons for differences in production costs (productivity, labour costs, feed prices and other input costs) (Andersson 2011)
- Higher costs not always a reason for compensation where justified to internalise negative externalities

## Competitiveness and the regulatory burden (3)

- In those cases where higher standards reflect societal preferences, can be a case for transitional assistance
- Future worries
  - Attitudes to new technologies (GMOs, crop protection products, alternative meats...)
  - Is a more competitive agriculture compatible with the desired structure of European agriculture?

# Brexit and competitiveness of EU agriculture

- Brexit will impact on EU agriculture through various channels (Matthews, 2016)
  - Budget, market, decision-making, research
- In market terms, Brexit means:
  - Higher trade costs in trading with the UK
  - Potentially re-introduction of tariffs on EU-UK trade
- Very different direct exposure by Member States
  - Ireland (1% of EU GDP) would pay 20% MFN tariff revenue
- Trade disruption likely to cause market disruption for some commodities (next slide)
- Time is running out to avoid the 'cliff-edge' scenario

# Importance of net trade with the UK, 2016

€ million

HS	Product	UK	EU-28 Extra
<b>UK is a net importer from EU</b>			
02	Meats	3,214	6,231
07	Vegetables	2,271	-1,492
20	Fruit and veg preps	2,263	-620
22	Beverages and spirits	2,159	21,982
19	Cereal preps	2,130	9,557
04	Dairy	1,965	8,696
08	Fruit	1,962	-16,158
16	Meat preparations	1,832	-3,921
18	Cocoa products	1,365	-2,567
21	Misc edible preparations	1,311	5,053
06	Plants	1,266	436
17	Sugar	397	173
<b>UK is a net exporter to EU</b>			
10	Cereals	-236	2,943
03	Fish	-397	-16,159

# Conclusions - 1

- EU agriculture is **losing market share** at a global level
- **Productivity growth** trends are ambiguous, but there are significant differences in **productivity levels** across countries
- Cost efficiency measures show the **high dependence on direct payments** of many farm enterprises and the role played by land costs
- Partially-coupled (MacSharry) direct payments had a **negative effect on technical efficiency** which has been reversed with move to decoupled payments

## Conclusions - 2

- Measures to strengthen competitiveness can be found in **Pillar 2 Rural Development** programmes, but effectiveness may depend on national implementation
- Greater effort has been put into in **agricultural R&D, farm extension and innovation networks**, but impact needs to be demonstrated
- Improving competitiveness faces **demographic challenges** which must be addressed with consistent national as well as EU policies
- **Regulatory burden** on competitiveness often over-emphasised, but transitional assistance can be justified when standards are raised
- Maintaining competitiveness will require **structural change** where definite limits are set by social preferences

# References

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