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# The impact of EU sugar quota removal on EU external trade in sugar: a bilateral perspective

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# EU sugar reform (2006)



## Objective:

- "... simplification and greater market orientation of the EU's sugar policy ... "
- "... integration of income support for sugar beet farmers into the direct payment system ... "

## How ?

- Stepwise reduction of the EU reference prices and minimum beet price for the production of quota sugar
- Restructuring of the sugar production (decrease of sugar quota:  
-5.8 mio tons; restructuring and diversification aid, ... )
- Final step : expiry of sugar quota in 2014/15

## CAPRI modelling system

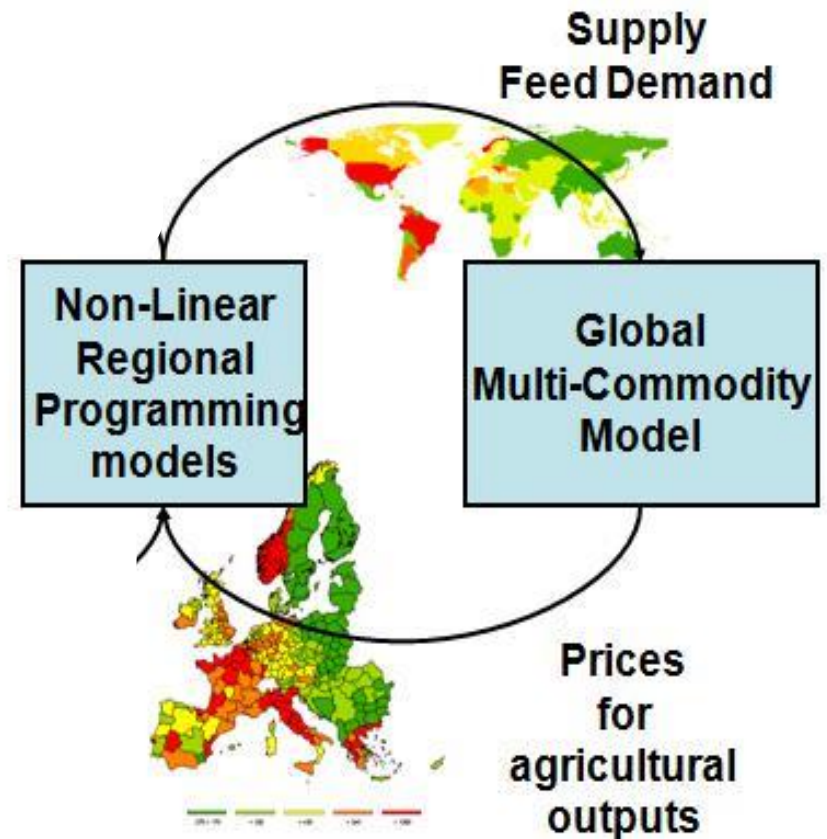
### *Market module:*

- **Bilateral trade**
- **47 products**
- **40 trade blocks**

### *Regional supply module:*

- **CAP, incl. EU sugar policy**
- **Trade restrictions**
- **Link to biofuel market**

**Iteratively linked**



## Scenario

- *comparative static analysis of situation in 2020*
- *EU sugar quota expiry (vs. no expiry in reference)*
- *no WTO limit on exports*
- *no change in other trade measures (TRQs or tariffs)*

*Caveat : no explicit modelling of isoglucose market*

# Scenario results



	Units of measurement	Reference (EU quotas continue)	Scenario (EU quotas removed)	Percentage difference
<b>EU27 sugar production*</b>	'000 tons	20,096.7	20,948.2	4.2
<b>EU27 sugar total use</b>	'000 tons			
<b>Human consumption</b>		16,380.3	16,507.4	0.8
<b>Industrial use</b>		6,339.9	5,289.6	-12.2
<b>EU27 sugar exports</b>	'000 tons	1,392.2	1,171.8	-15.8
<b>EU27 sugar imports</b>	'000 tons	4,030.8	2,314.0	-42.6

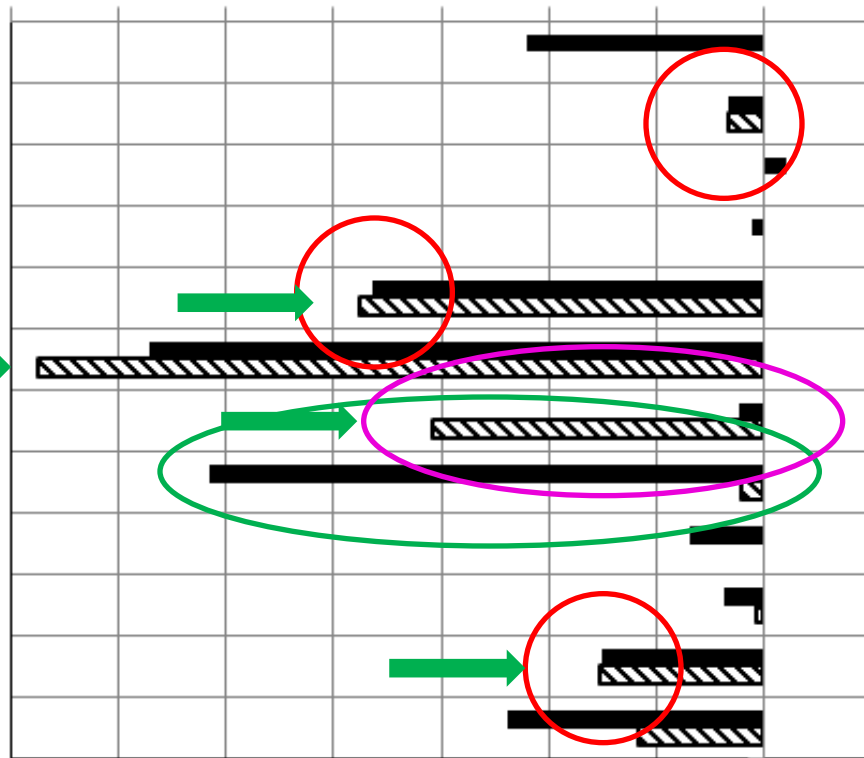
\* Sugar production includes the sugar equivalent of sugar beet that is directly processed into bio-ethanol

# Scenario results



Change in sugar exports , thousand tons, 2020

-700 -600 -500 -400 -300 -200 -100 0 100



- European Union 27
- Western Balkans
- Russia
- Ukraine
- Africa, all LDCs
- Rest of Africa
- Central and South America, all EPA
- Brazil
- Rest of Central & South America
- Australia and New Zealand
- Asia, all LDCs
- Rest of Asia

■ Total exports    ▨ Exports to EU27



## Welfare effects :

Total welfare gain : + 989 mio EUR

EU-27: + 845 mio EUR (consumers gain, sugar production loses)

Brazil: - 40 mio EUR (sugar producer and exporter loose)

Africa: + 28 mio EUR (consumers gain more than sugar sector loses)





## **Impact of removal of EU sugar quota on trade**

Direct impact: replacement by EU production of sugar imports from high-cost third country sugar exporters (LDCs, Africa, ... )

Indirect impact: Brazil is squeezed out of African markets by African sugar no longer exported to the EU

Overall welfare change is positive and goes mainly to the EU consumers, but consumers outside the EU gain as well thanks to the drop in local consumer price of sugar (Africa, Asia and North America)



**Thank you for your attention.**

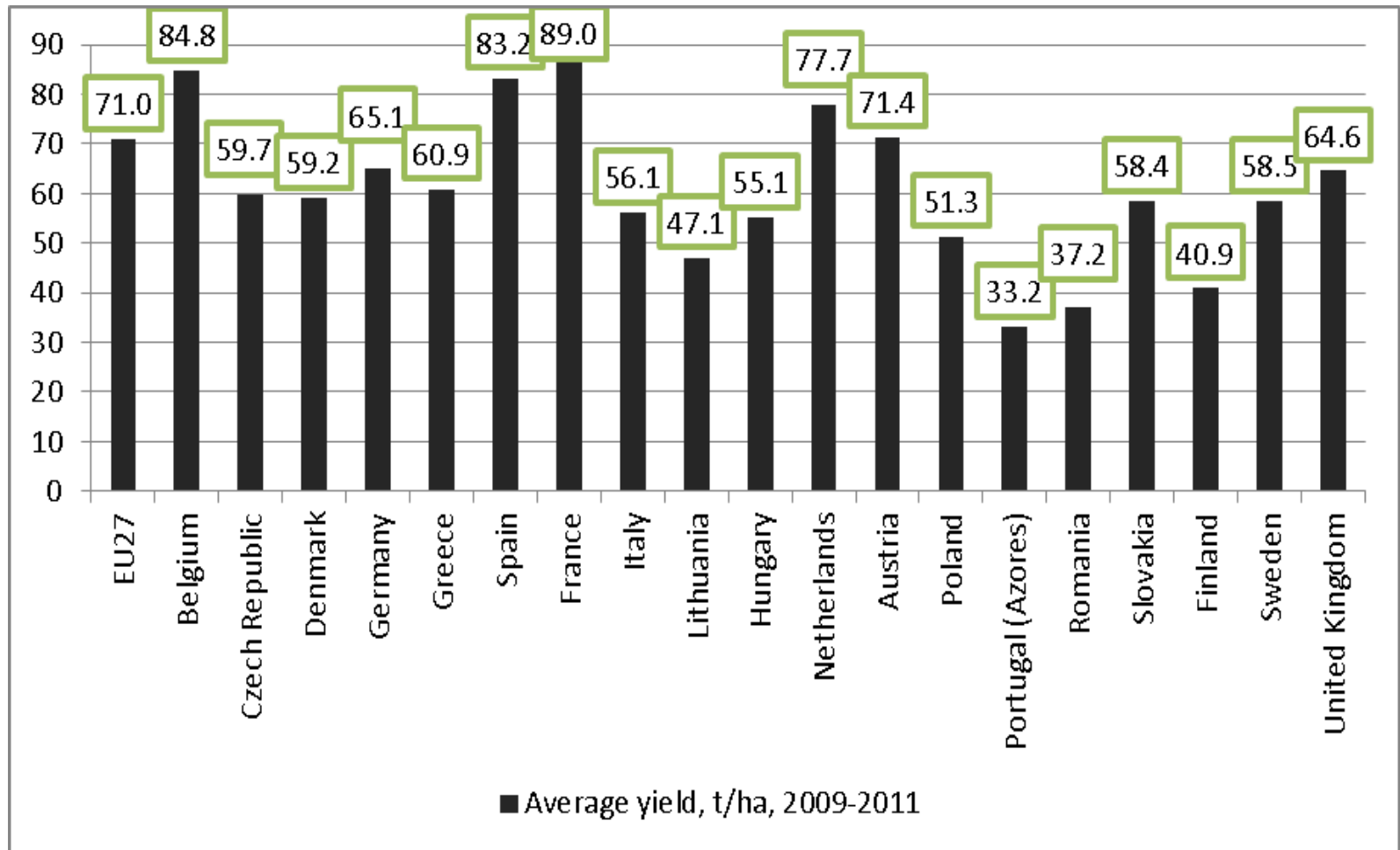
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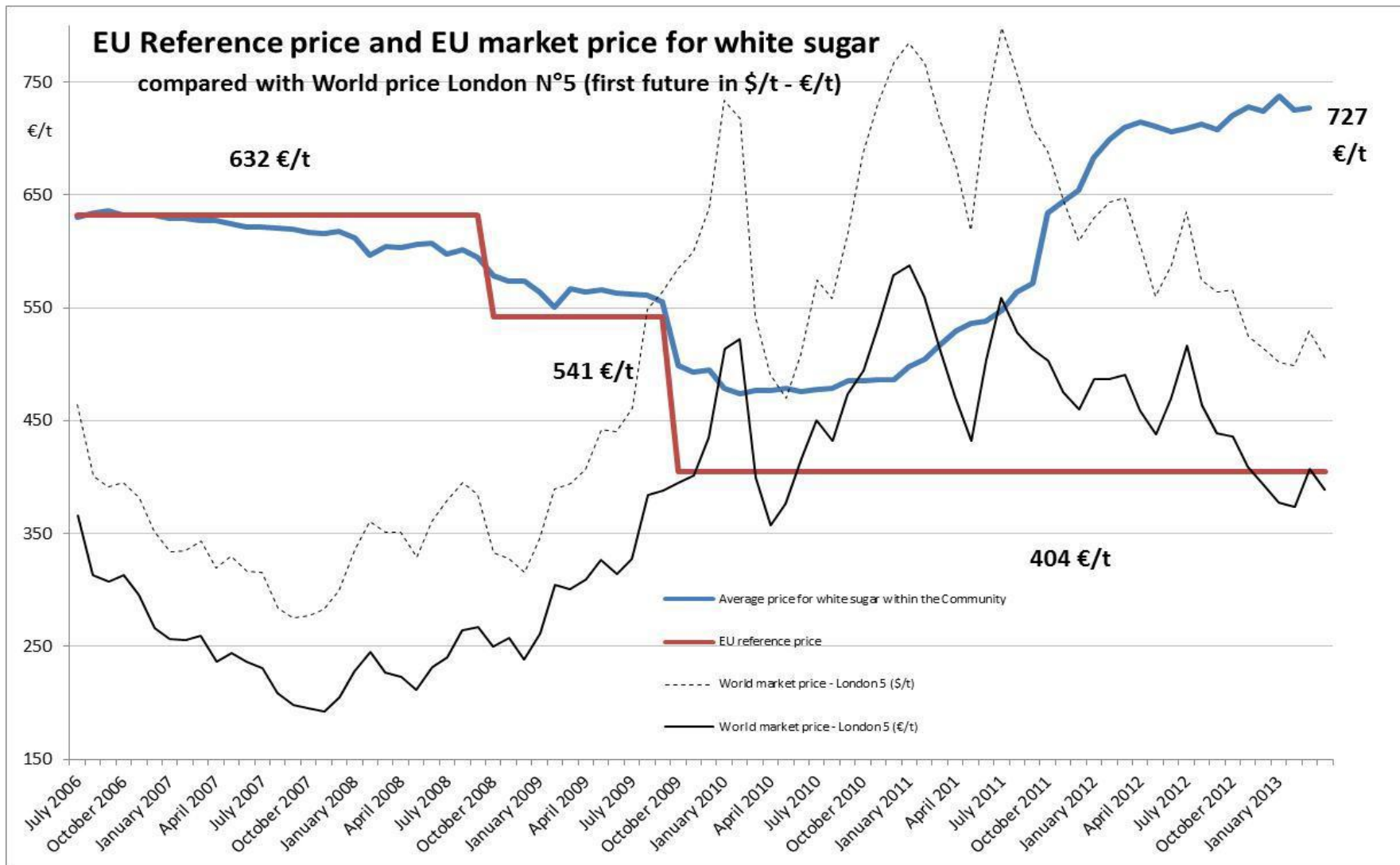
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# Annexes

## Sugar beet yields by EU Member State, t/ha, average 2009-11.





## References

- Adenäuer, M. (2005). Modelling the European Sugar Sector: Incentives to Supply Sugar Beets and Analysis of Reform Options, PhD Thesis, Institut für Agrarpolitik, Marktforschung und Wirtschaftssoziologie, University of Bonn.*
- Agrosynergie (2011). Evaluation of CAP measures applied to the sugar sector. Report to DG AGRI, European Commission under Framework Contract N° 30-CE-0309243/00-66.*
- Britz, W. and Witzke, H.P. (2008). CAPRI model documentation 2008: Version 2. Available at <[http://www.capri-model.org/docs/capri\\_documentation.pdf](http://www.capri-model.org/docs/capri_documentation.pdf) >.*
- European Commission (2011a). Impact Assessment: Common Agricultural Policy towards 2020. 20.10.2011, SEC(2011) 1153 final/2. Annex 5.*
- European Commission (2011b). Prospects for agricultural markets and income In the EU 2011–2020, Directorate General for Agriculture and Rural Development, December 2011.*
- LEI (2011). Sugar quotas: Yes or no? Economic consequences for sector, chain, international market situation and third world. Report prepared for the Dutch government.*
- Nolte, S., Buysse, J. and Van Huylenbrouck, G. (2012). Modelling the effects of an abolition of the EU sugar quota on internal prices, production and imports. European Review of Agricultural Economics 39 (1): 75-94.*