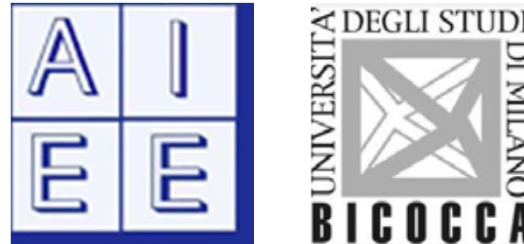


Current and Future Challenges to Energy Security



Environmental taxation in a globalised economy

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1st AIEE Energy Symposium Milan, November 30 - December 2, 2016

University Bicocca

- **Tradable pollution right**
- **Emissions Trading scheme**
- **Europe - leading by example**
- **The European “emissions fiscalità” and linking ETS**
- **Solution: Charge on Emissions**

Tradable pollution rights

State: sets the level of emissions allowed (**CAP**) distributed on the different sectors

Emission permits allocation to enterprises (**EUA**) in a quantity so as to reach, at the aggregate level, the set level of emissions reduction.



Each year must surrender permits equal to their real emissions in the previous year.

Company: can sell or buy permits on the market according to its convenience.

The Directive Emissions Trading Scheme was established as an European instrument for implementation of the Kyoto Protocol, but it works as a standalone system.

- 2005 -2007 - 1° pilot phase
- 2008 - 2012 - 2° phase (coinciding with Kyoto obligation)
- 2013 - 2020 - 3° phase (Directive 2009/29/CE)
- 2021 - 2030 - 4° negotiations on going

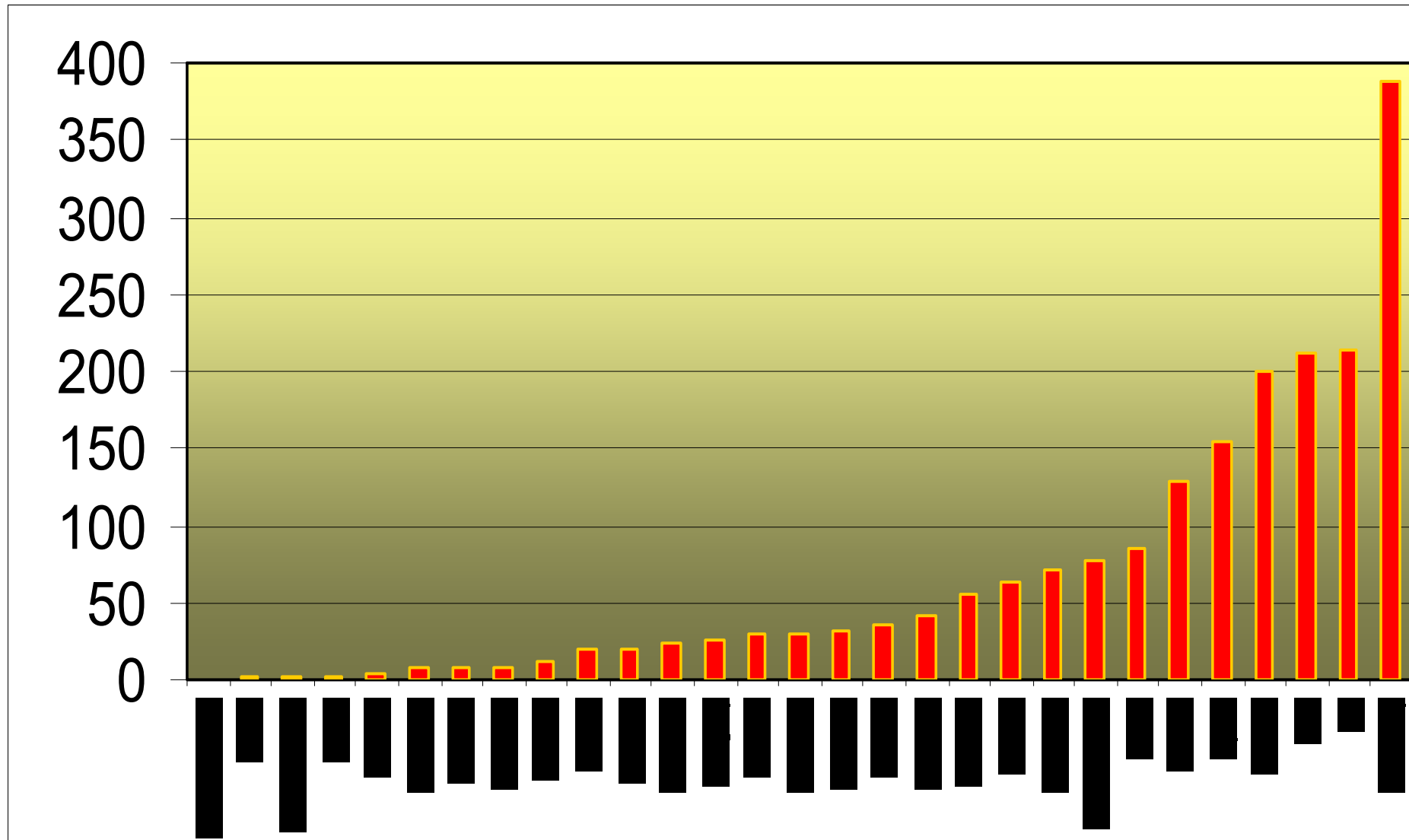
EU ETS covers 0,4% of global emissions

ETS: 2005 -2007



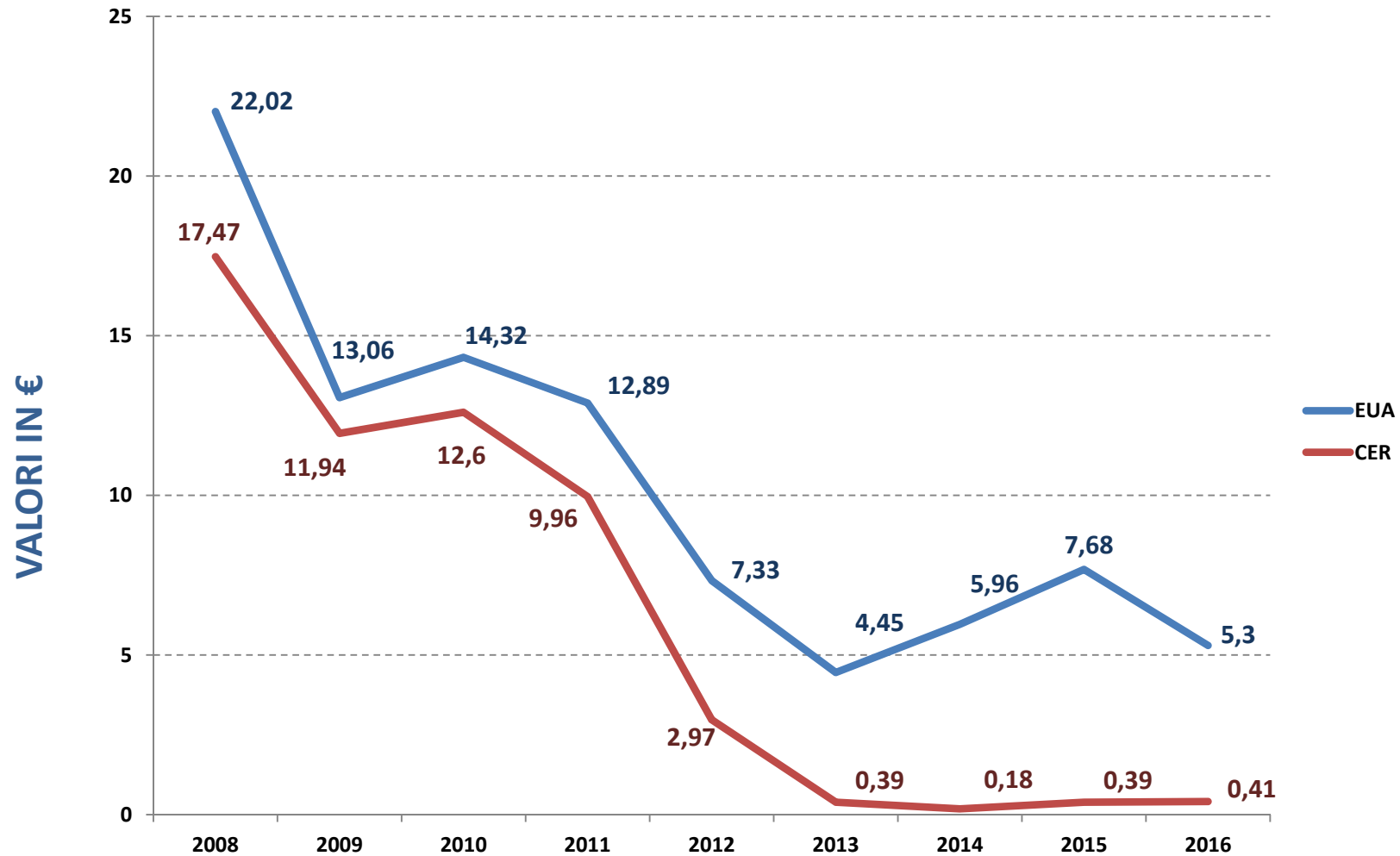
Source: BlueNext, EEX.

Allocations 2008

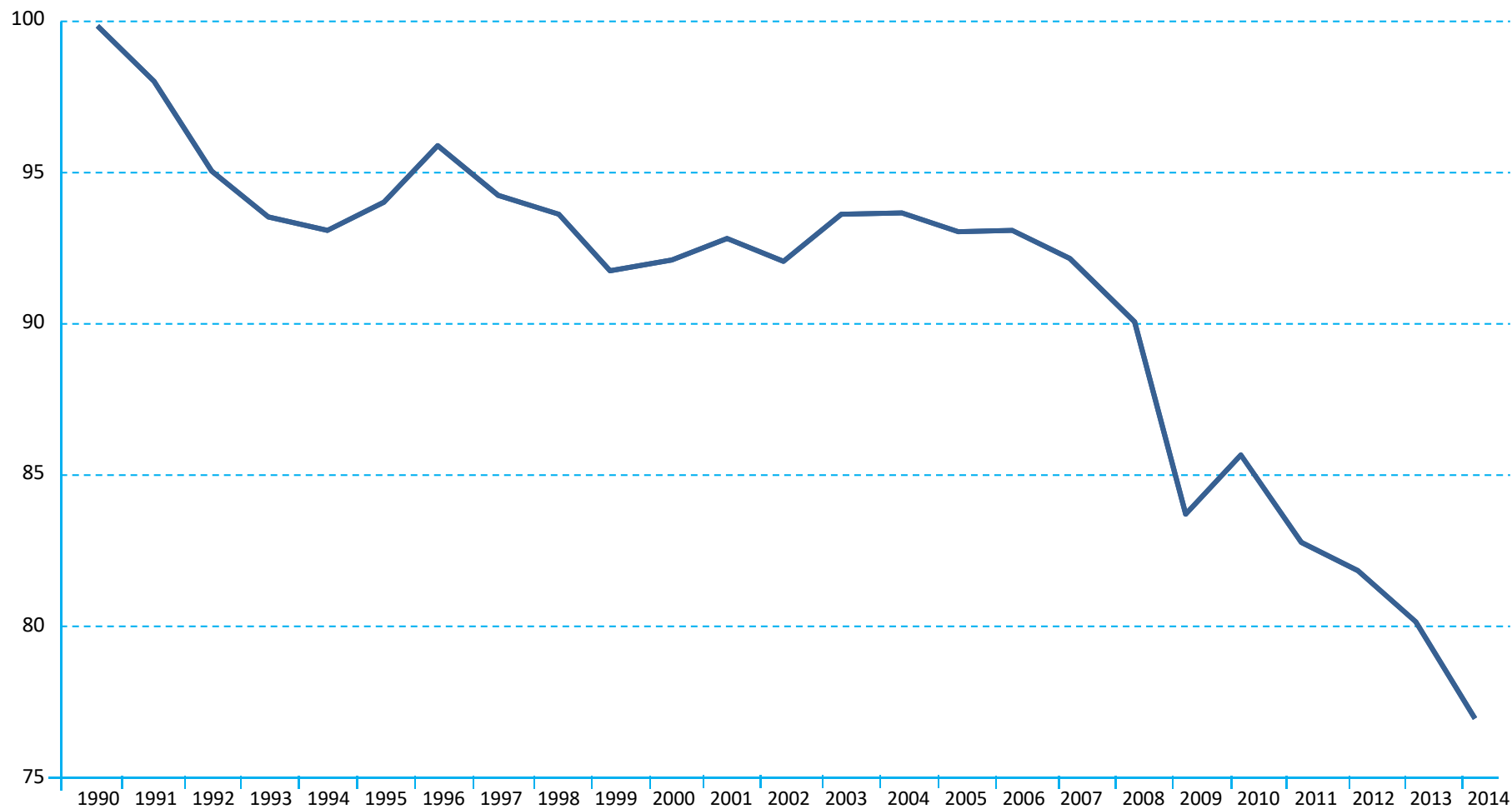


- Changes introduced by Directive 2009/29 EC:
 - It sets the objective of reducing ETS emissions of 21% compared to 2005 by 2020
 - The amendments to the Directive stated to have effect from 2013
 - 3rd period, the permits have a validity for eight years
 - New sectors under the ETS
 - aluminum production (N₂O)
 - the chemical industry (PFC)
- limited use of carbon credits generated by international projects outside EU

ETS: carbon market

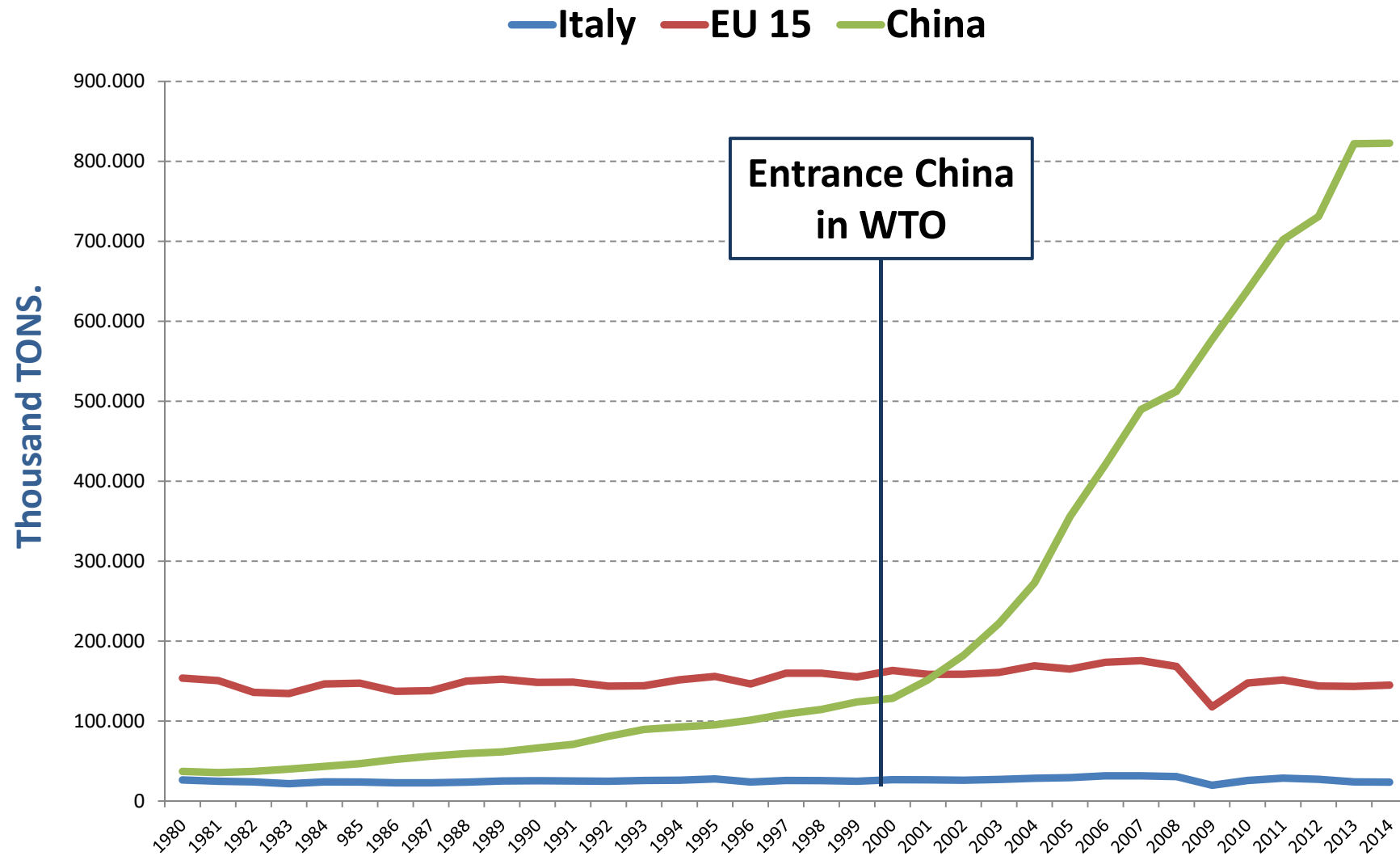


EU Emissions



Fonte EU DG Clima

Europe - leading by example



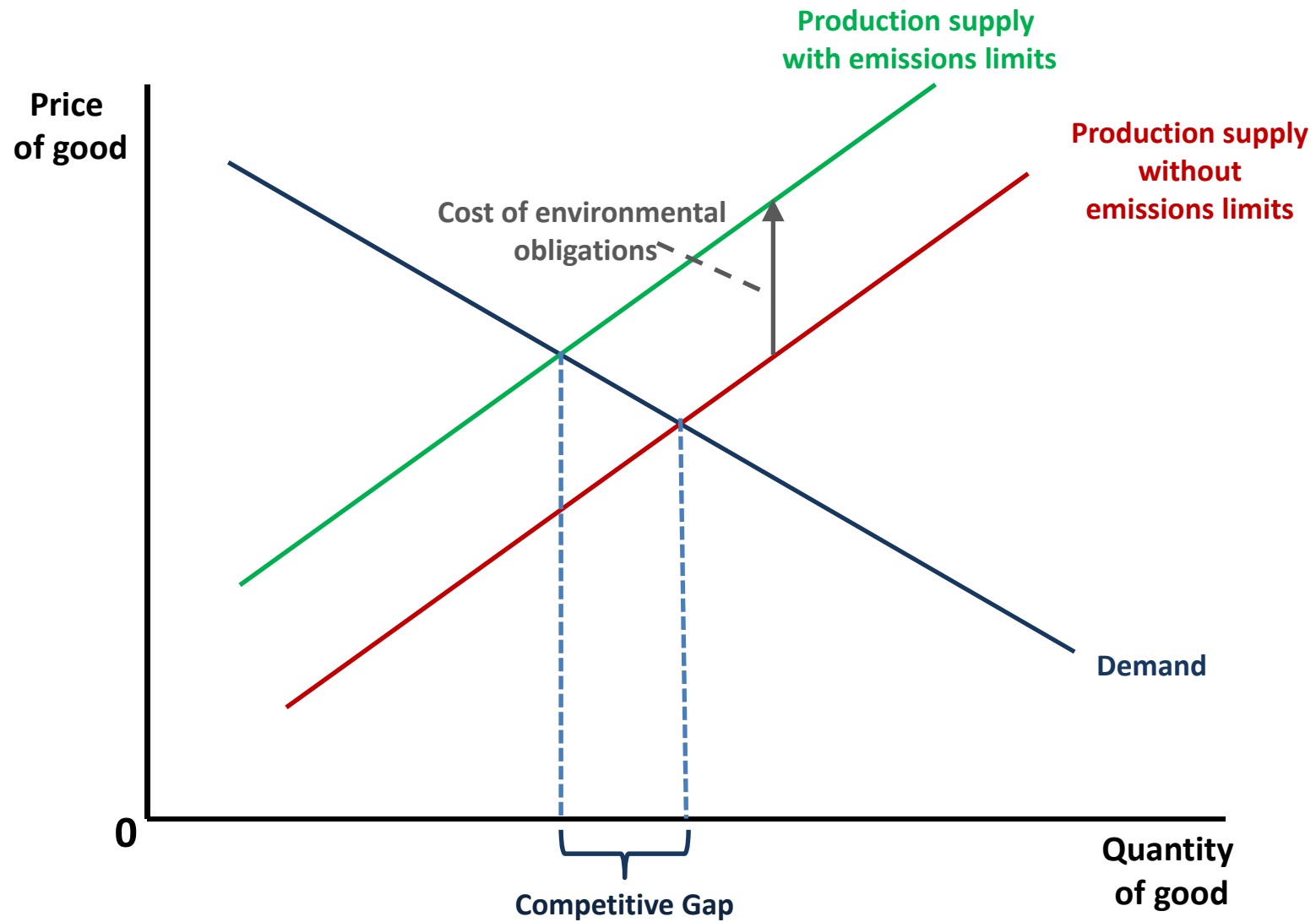
Steel production. Source : World Steel Association

Based on three parameters:

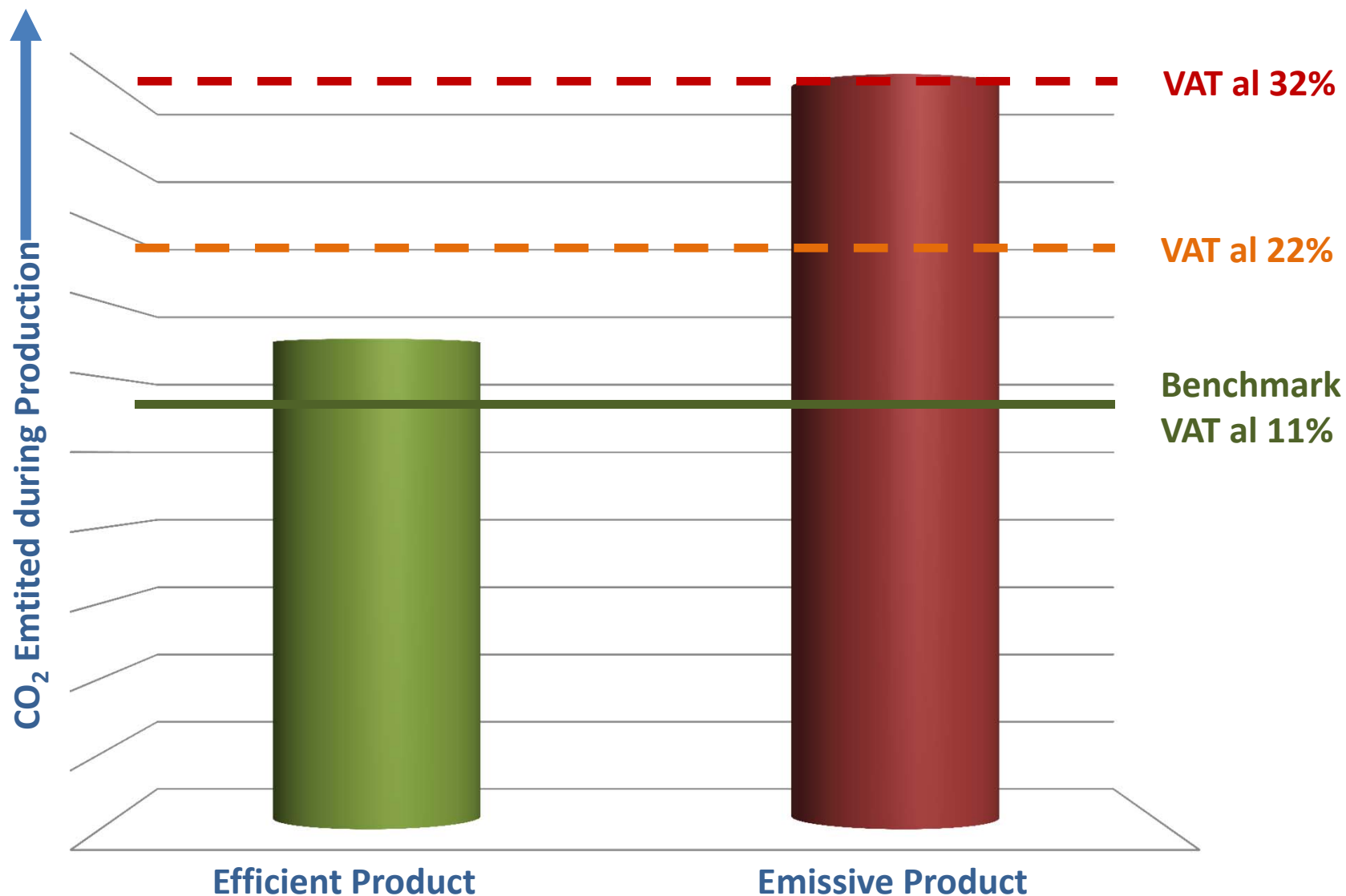
- Energy mix: Europe uses renewable, gas and nuclear
- Energy efficiency : especially in industry (i.e. obligation schemes)
- ETS: carbon market

The EU ETS cannot be linked with other domestic market due to costs gap

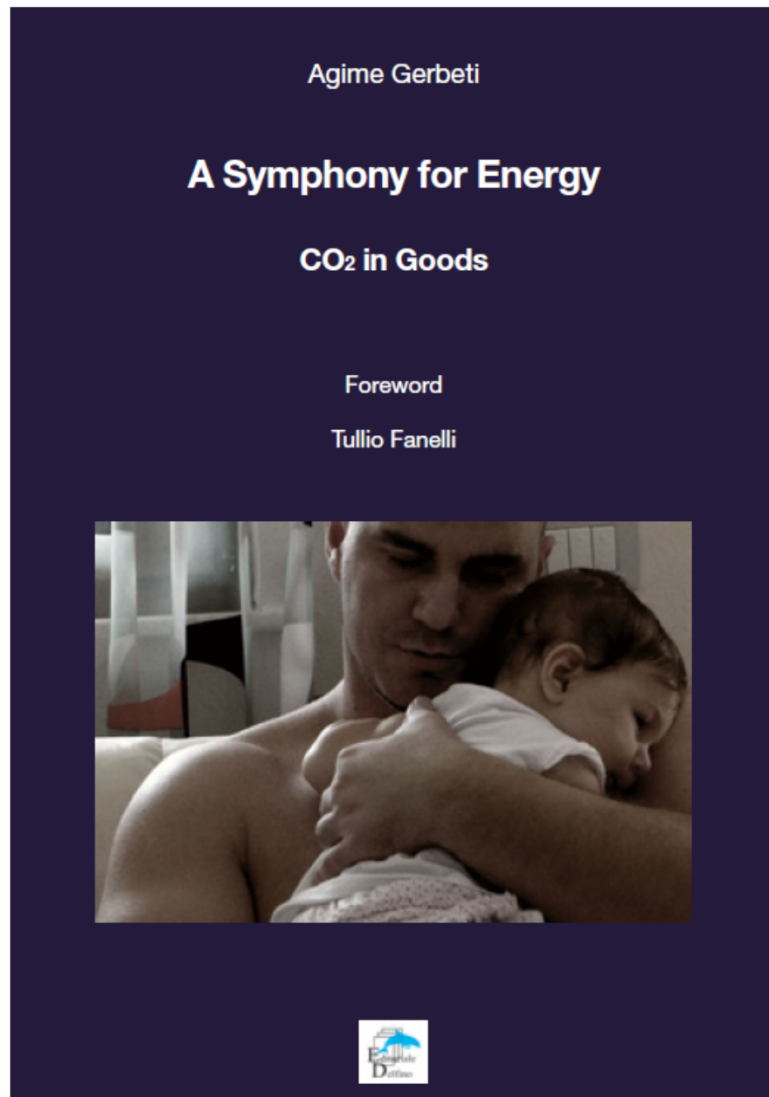
Industry Competitive Gap



*Solution: «Charge on Emissions»



*Solution: «Charge on Emissions»



*Solution: «Charge on Emissions» is described in details in the book «A Symphony for Energy¹»

¹Available on I-Tunes

Thank you
for your kind attention

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«A Symphony for Energy»



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