

Market-based instruments for environmental policy

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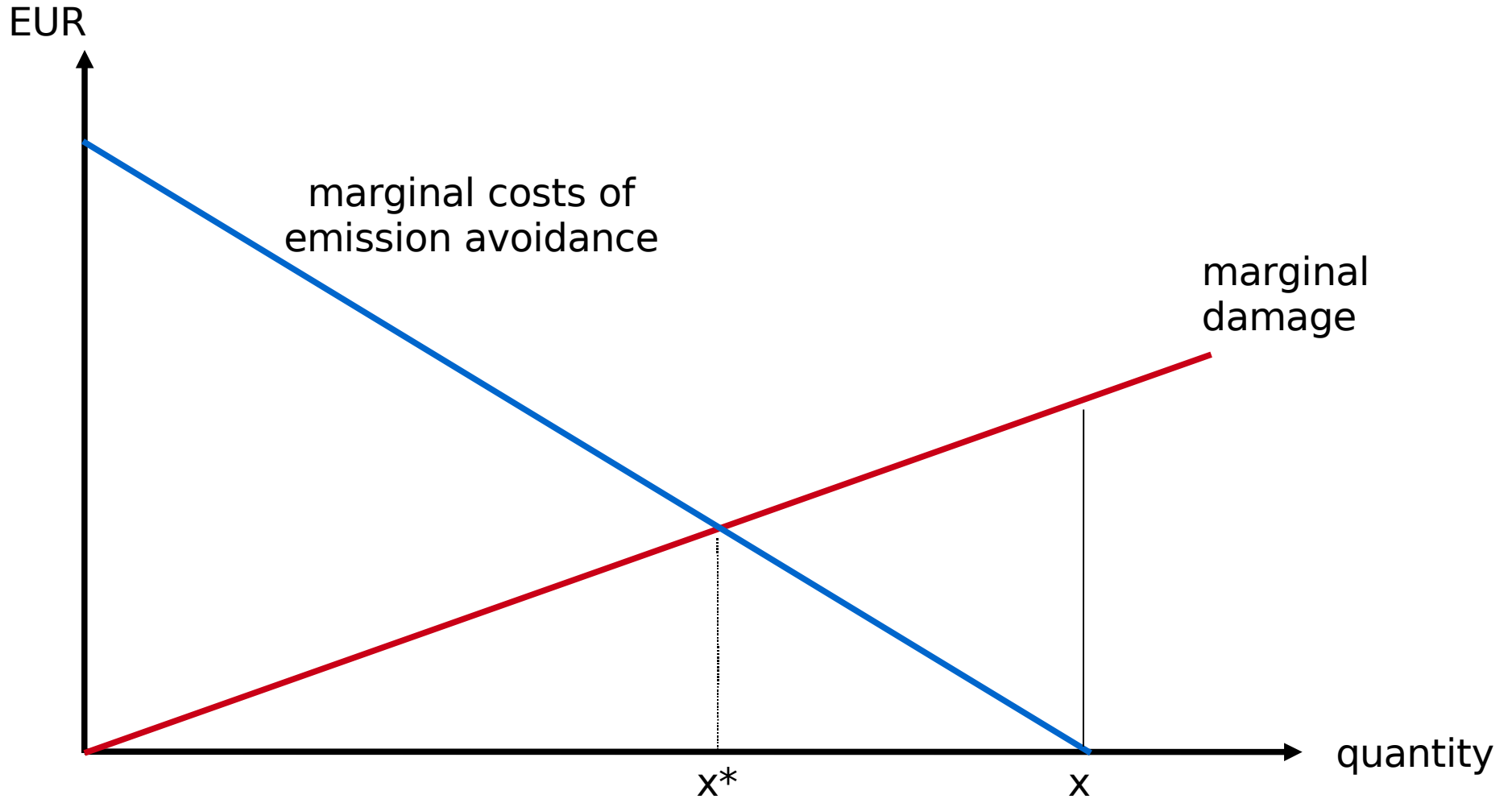


congestion charges

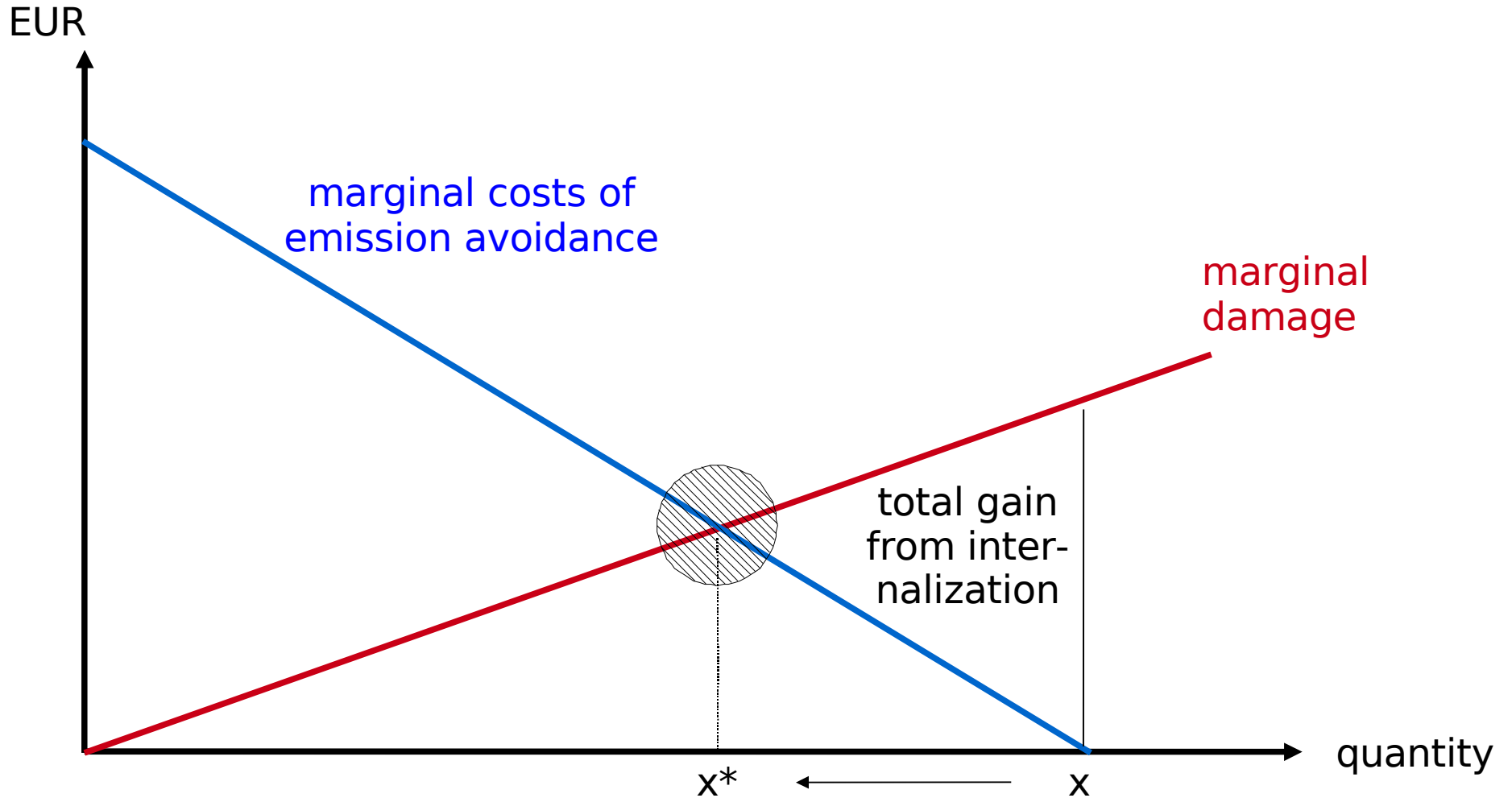


emission trading

External costs



External costs



Example I: Road traffic

External costs of road

transportation in EU-15:

- 600 billion €/a*, that is >4% (7,8%⁺) of GDP in EU
- transport volume increasing faster than GDP

Economic growth is traded for increasingly externalizing (diffuse) costs (health, stress, future life quality)

*European Environmental Agency, 2007

⁺OECD, 2006

Technologies exist:

- 3-liter cars, hybrid cars
- Bus rapid transit
- eliminate redundant transport (logistics)

BUT:

prices don't reflect true costs

Singapore

Congestion charge -> innovative telematics

Bottomline: The success of environmental innovations depends on markets that internalize costs of, e.g., diseases and environmental disasters, and integrate the price of ecological services.

Measures for transportation

Question to Unilever & GE: Can supply chains be remodeled such that transport intensity (km / final product) decreases?

Specific recommendation:

- Introduce congestion charges for road traffic, including inner cities
- Put measures into place to increase the transportation load in railways, especially: Do not privatize railway infrastructures (negative examples: UK, Argentina, positive example: Switzerland)
- Emission trading and kerosene taxation for aviation

Example II: electricity market

Antipodal profit interest

- power suppliers make money with large-scale coal plants, resist internalization
- highly efficient micro co-generation plants would open the market for small business reducing market shares for EON & Co

Steps to go:

- split electricity grid from generation (SUPPORT the EU commission!)
- Introduce micro grids, demand based prices, intelligent networks
- Top runner programs

Conclusion: Governments should send strong signals that costs will be more and more internalized. Industry should see the opportunities and negotiate the appropriate time-scale.