

Central and Eastern European Energy Efficiency C4E Forum

Multiple benefits of energy efficiency

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15. 06. 2018. Poland



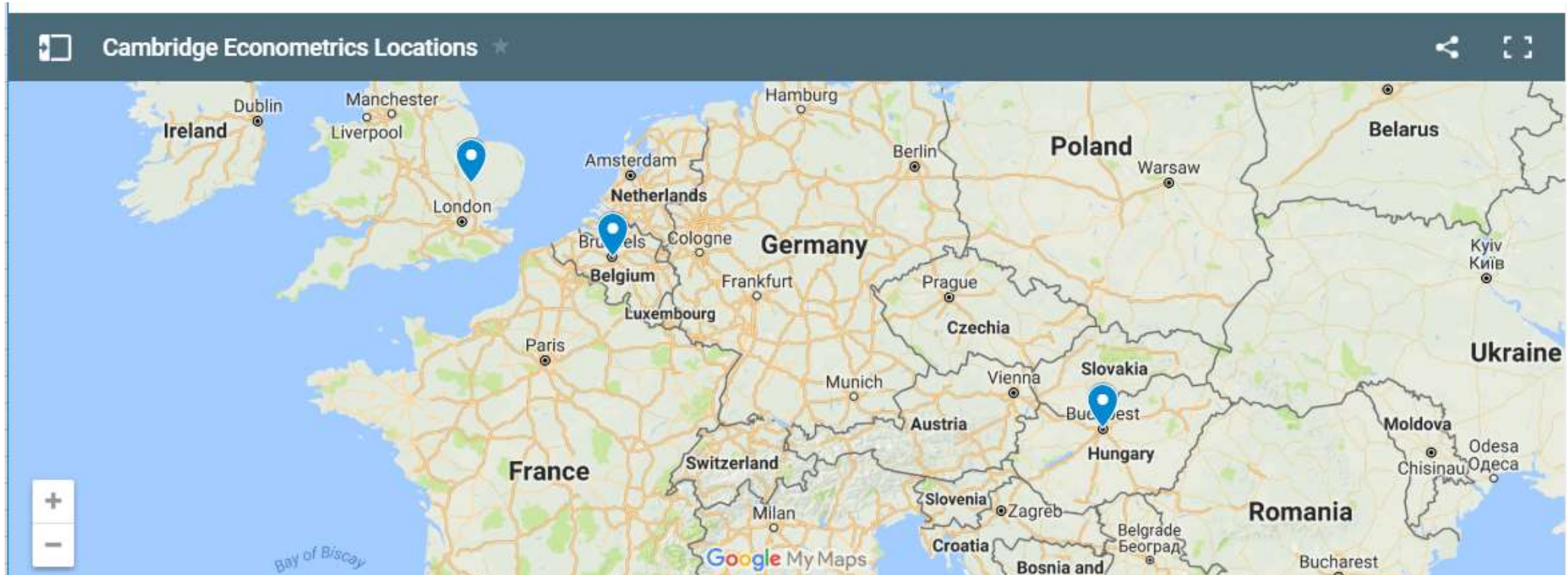
Overview

- Background
 - Cambridge Econometrics and your presenter
- Multiple benefits of energy efficiency
 - Why and how to model energy efficiency?
 - Examples of Cambridge Econometrics' work on energy efficiency
 - Key factors and role of policies in realising these multiple benefits



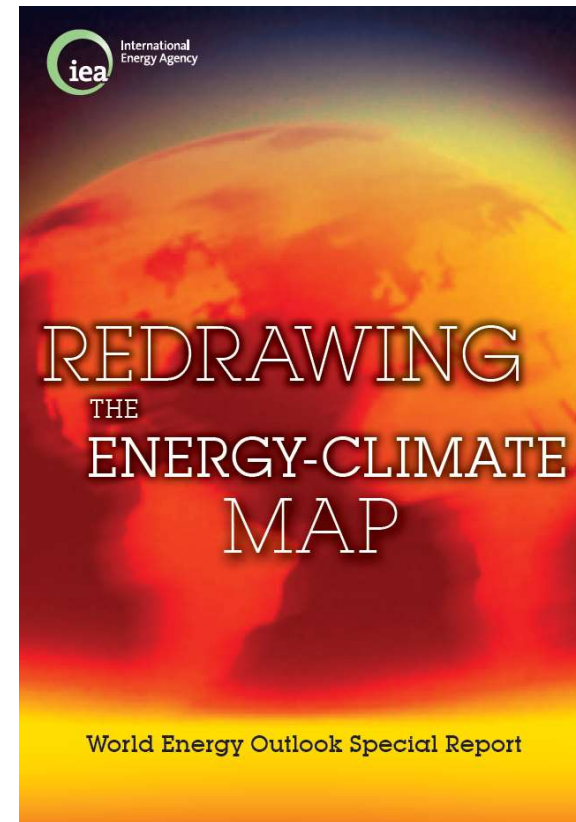
cambridge
econometrics
clarity from complexity

e3me

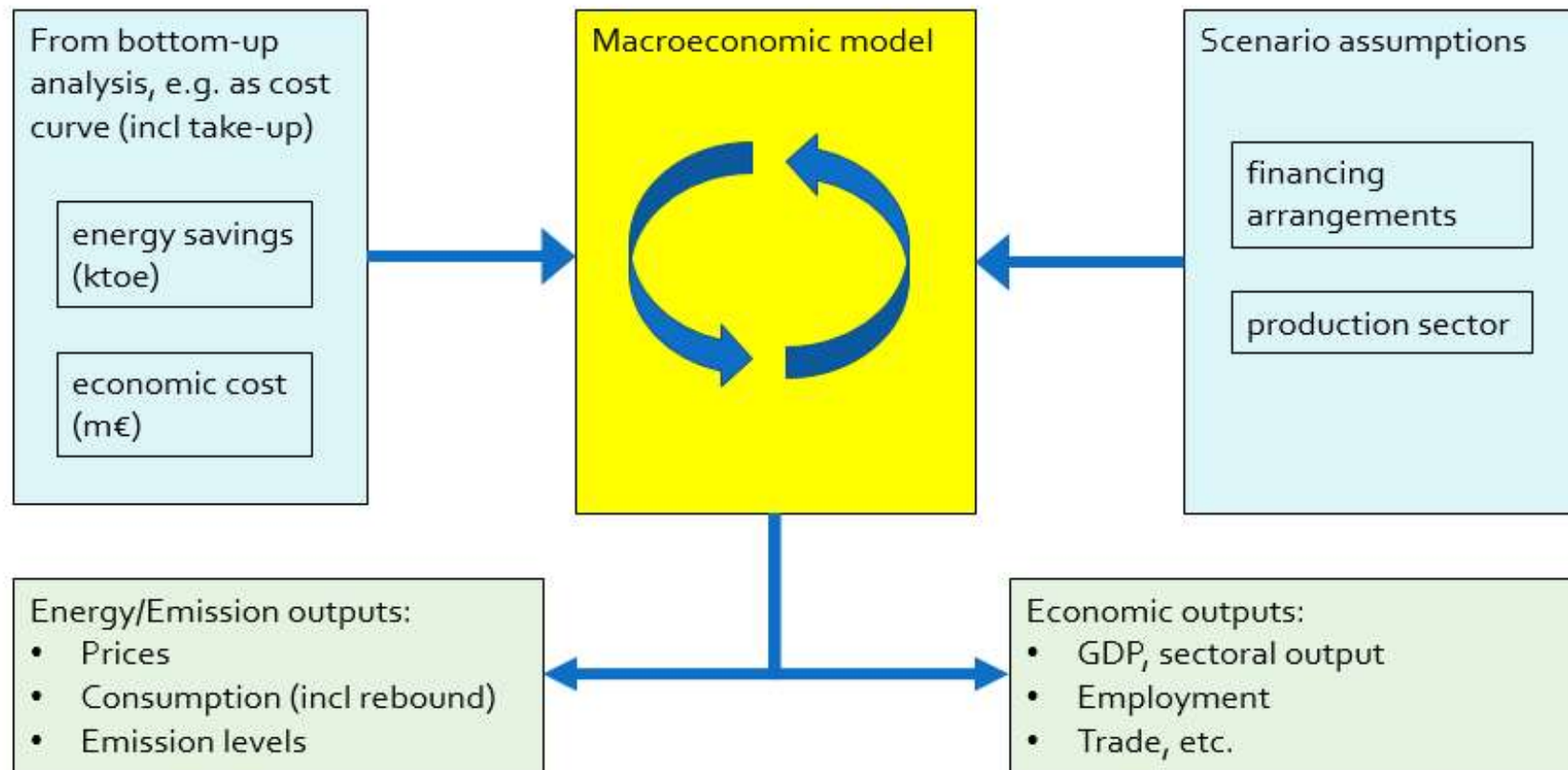


Why model energy efficiency?

- “Energy Efficiency First”
 - negative-cost abatement options
 - almost half emission reductions + zero or negative cost (IEA)

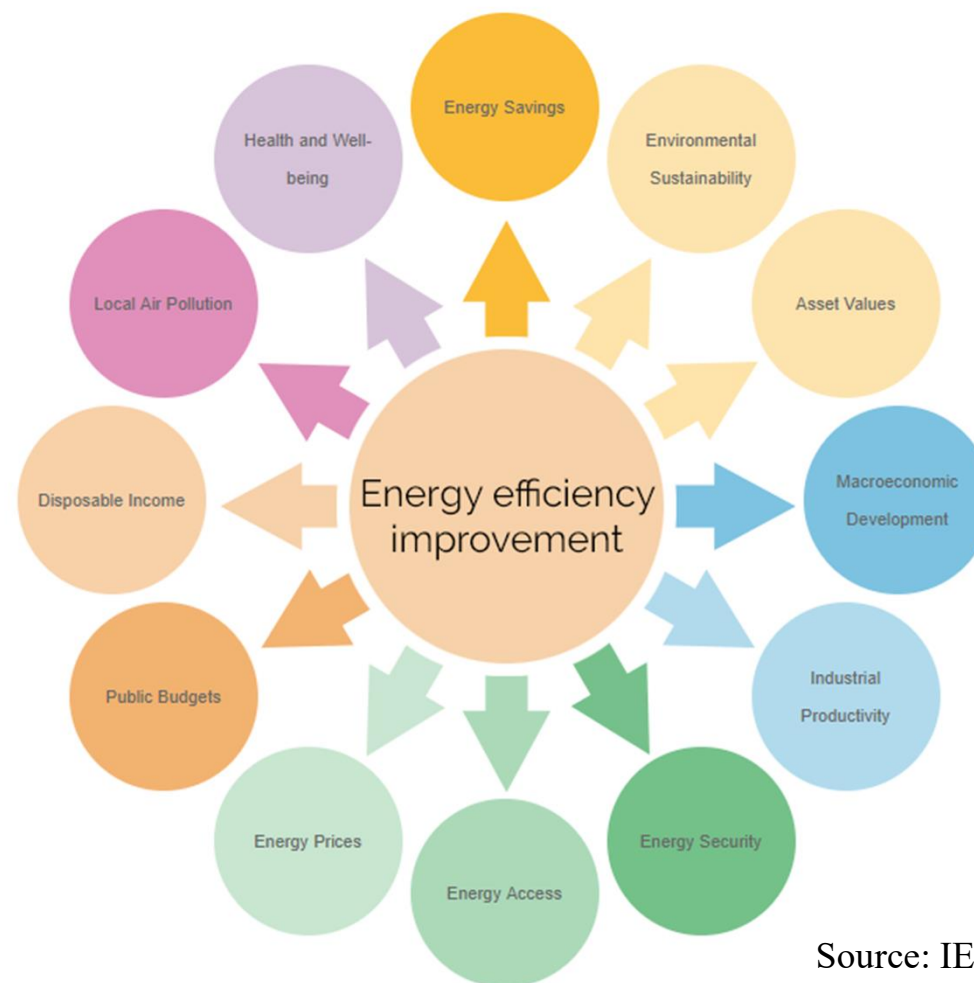


What can a macroeconomic model tell you?



What are the main impacts of the key multiple benefits?

- Economic impacts
 - Macro economy
 - Labour market
 - Public budgets
 - Industrial competitiveness
- Social impacts
 - Health
 - Energy poverty
- Environmental impacts



Source: IEA

Examples of E3ME EE analysis





Assessing the Employment and Social Impact of Energy Efficiency


Final report
Volume 1: Main report
November 2015

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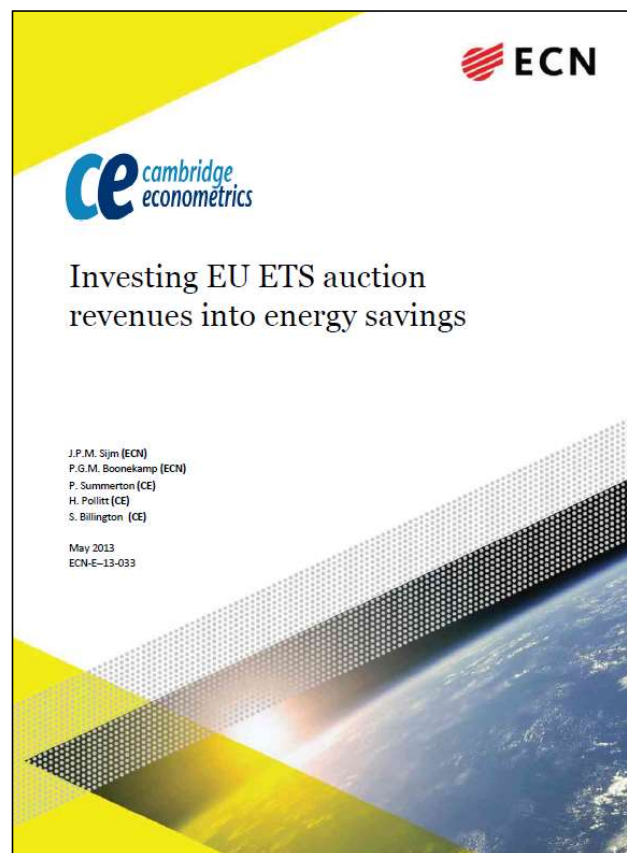
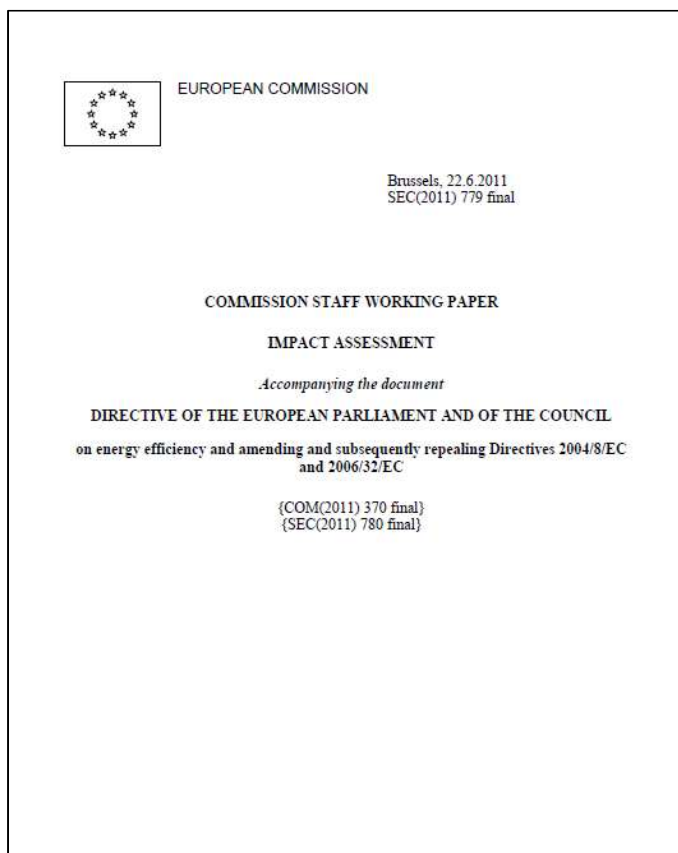




Building the Future:
The economic and fiscal impacts of making homes energy efficient

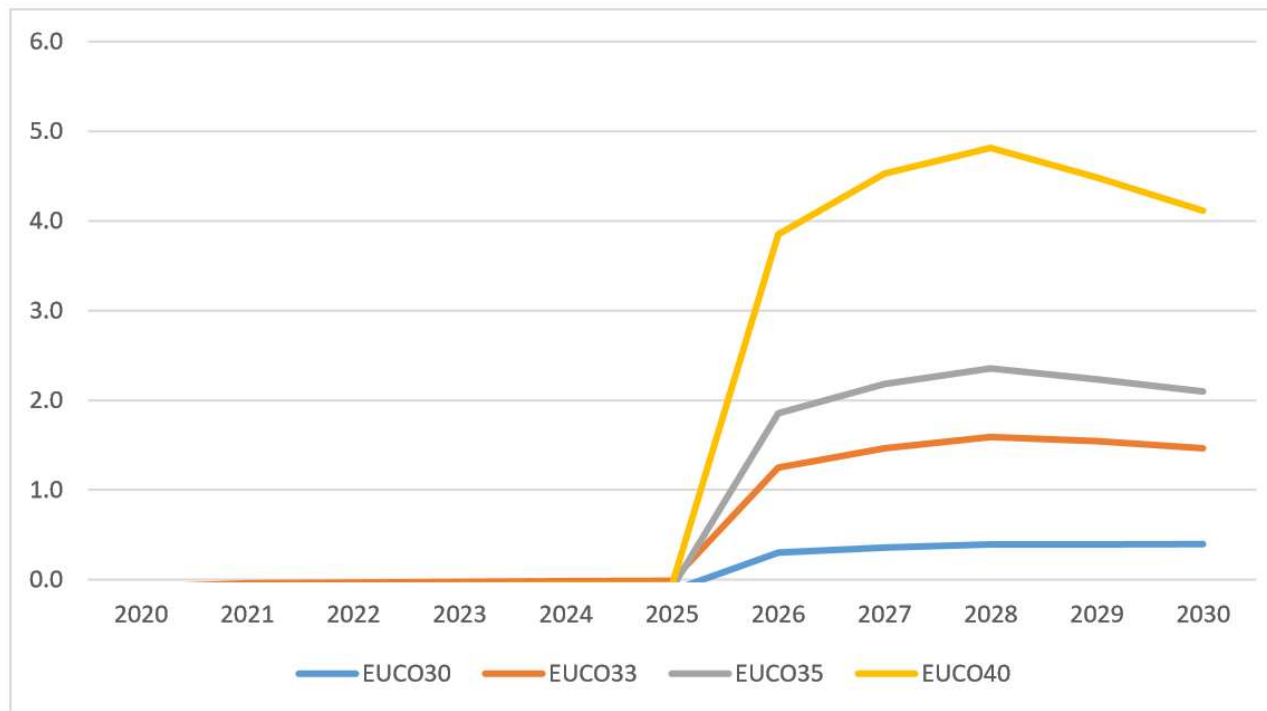


Examples of E3ME EE Analysis



A taster... more energy efficiency is better for the European economy

Figure IV.2 EU28 GDP, 2016-2030, % from EUCO27 scenario (no crowding out)



Source(s): E3ME, Cambridge Econometrics

Higher rates of energy efficiency mean that CEE countries may reduce their dependence on imported energy

- Energy poverty
- Energy security

(% of total gas supply)	Largest supplier	2 nd largest supplier	3 rd largest supplier
Czech Republic	Russia	Norway	
	98.7	1.3	
Lithuania	Norway	Russia	
	55.9	44.1	
Latvia	Russia		
	100.0		
Poland	Russia	Norway	Netherlands
	90.5	5.8	3.7
Slovakia	Russia	UK	Norway
	56.1	13.5	11.7

What is the role of policies in realising the multiple benefits of energy efficiency?

- Carefully designed policy is needed to realise full benefits
- Environmental and health benefits would be larger if additional regulatory measures were taken to prevent coal from playing a major role in the energy mix.
- To reduce energy poverty to the maximum extent possible, policies should be tailored to target fuel-poor households.
- The impacts on social welfare and income distribution could be enhanced if there were specific measures to target energy efficiency in buildings at low income households.
- The challenges for policy makers relate to an efficient implementation and ensuring proper enforcement.

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Thank you for your attention

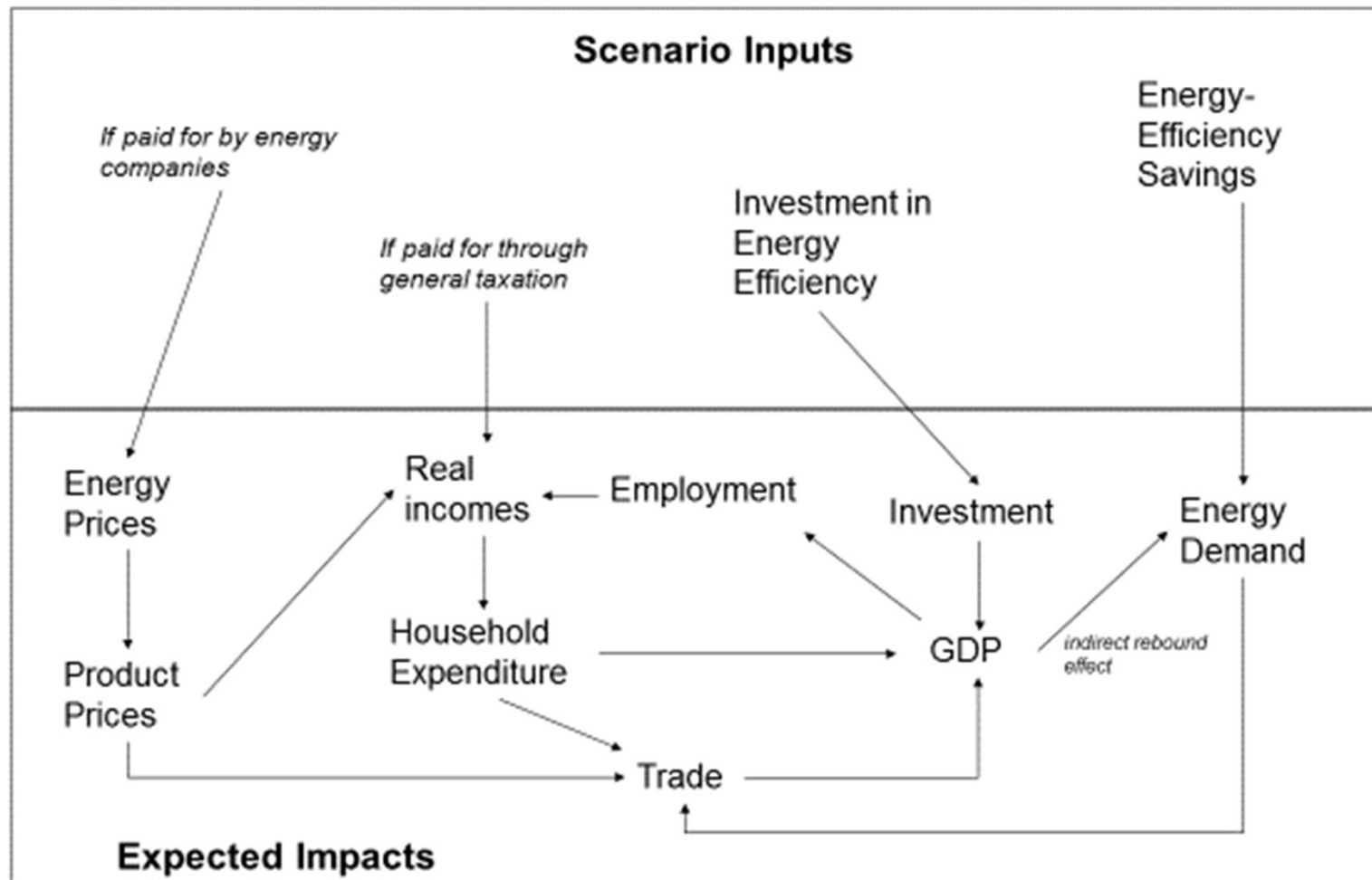
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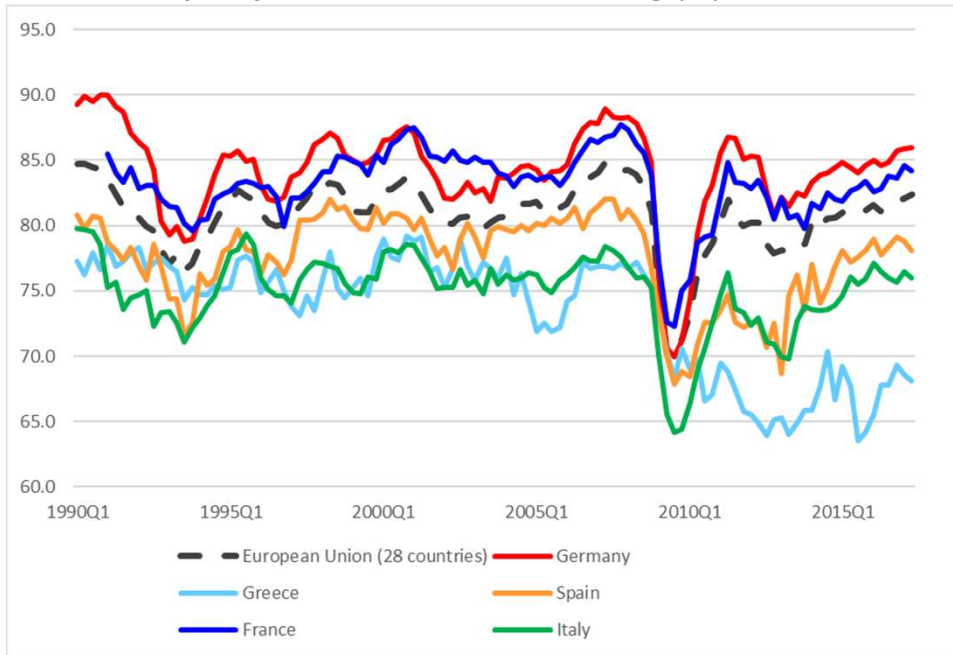
Appendices

Why E3ME is suitable for modelling energy efficiency?



Constraints on capacity and potential crowding out are recognised as key uncertainties in the model results

Rates of capacity utilisation in manufacturing (%)



Construction firms reporting no constraints on production (% of total)

