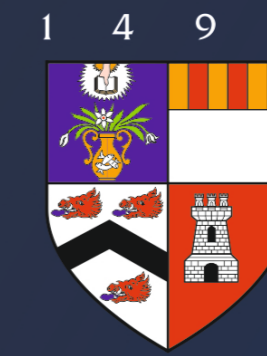


Towards Economic Efficiency in Cross-Border Capacity Allocation in EU Gas Markets. Market Coupling and Implicit Allocation

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Introduction

Significant inefficiencies in cross-border capacity allocation present in EU gas markets, leading to sub-optimal welfare and illiquid markets.

Study discusses the effectiveness of the existing proposals of market coupling and implicitly allocating cross-border capacity rights.

Methodology

Neoclassical economic theory of markets & elements of transaction cost economics.

Quantification economic inefficiencies & welfare gain estimation:

- Uneconomic cross-border gas flows.
- Reverse flow ratio's

Other indicators:

- Price convergence & correlation
- Churn ratio's
- Bid-ask-spreads

Inefficiencies in CAMs

Regulated CAMs can lead to the under-booking or over-booking of capacity rights.

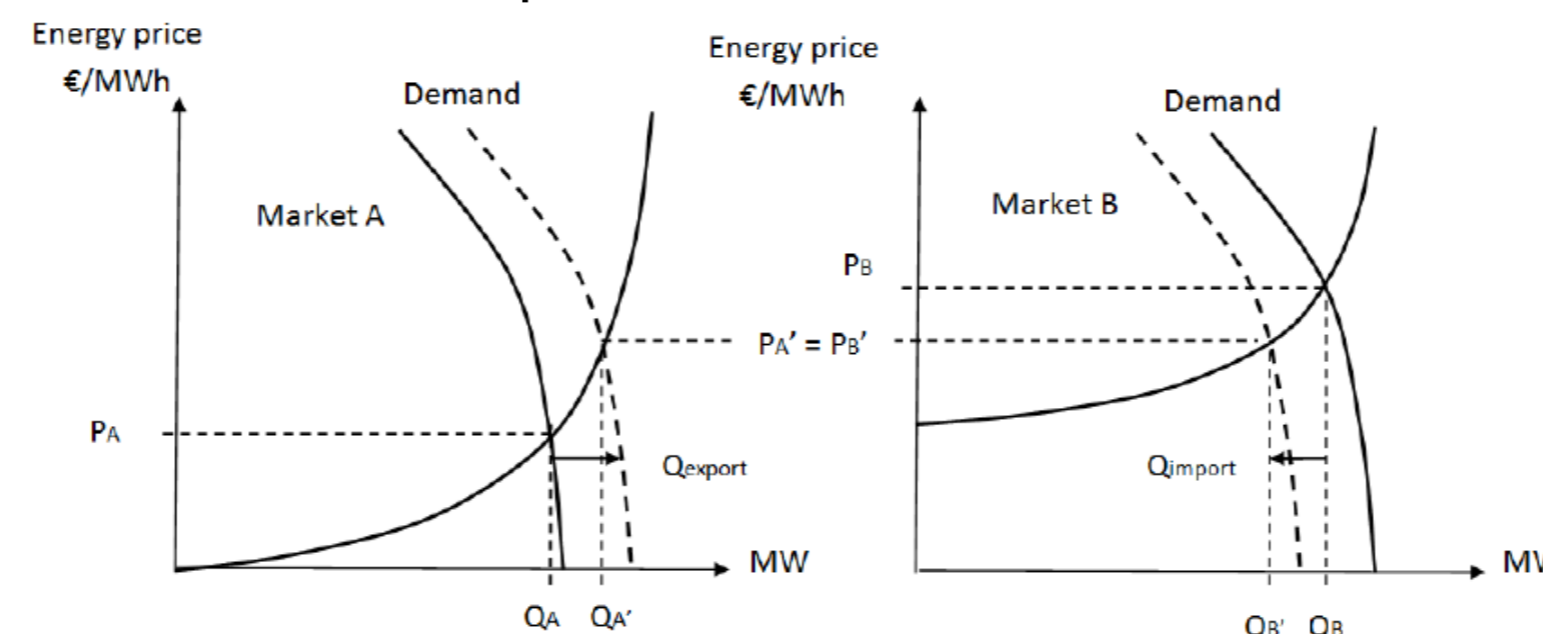
Market-based auctions can lead to a mismatch of capacity rights. Shippers are either long or short on capacity rights due to a coordination problem.

Inefficiencies become even more apparent when the grid is congested.

Market Coupling & Implicit Allocation

Bundling cross-border capacity rights & implicitly or automatically allocating required capacity rights.

Improves market liquidity and takes away the coordination problem.



Results

Welfare gains at Interconnection Points:

NL-BE: ± €5mIn/year

NL-GER: ± €15mIn/year

Potential for welfare gains:

Interconnection	Reverse Flow Ratio
Netherlands Belgium	0%
Belgium France	0%
Germany France	0%
UK Belgium	14%
Netherlands UK	18%
Netherlands Germany	20%
Austria Germany	24%
Germany Belgium	38%

Conclusions

- Inefficiencies can be effectively taken away by market coupling & implicit allocation, although the associated welfare gains are relatively small.
- Nonetheless, market liquidity and integration should improve substantially.
- Further empirical studies required to reliably estimate welfare gains.