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## **Unilaterally Removing Indirect Subsidies for Maritime Fuel**

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# Agenda



**1 Problem**

**2 Elasticities and the tax base**

**3 Mechanism for taxation**

**4 Legal issues**

# Tax subsidies for maritime fuel are unjustified

## Fiscal cost estimates

- USD 36bn (US), 89bn (UK) and 103bn (DE)

## Climate damage

- 3.3% of emissions, total amount to double/triple by 2050 (IMO 2009)

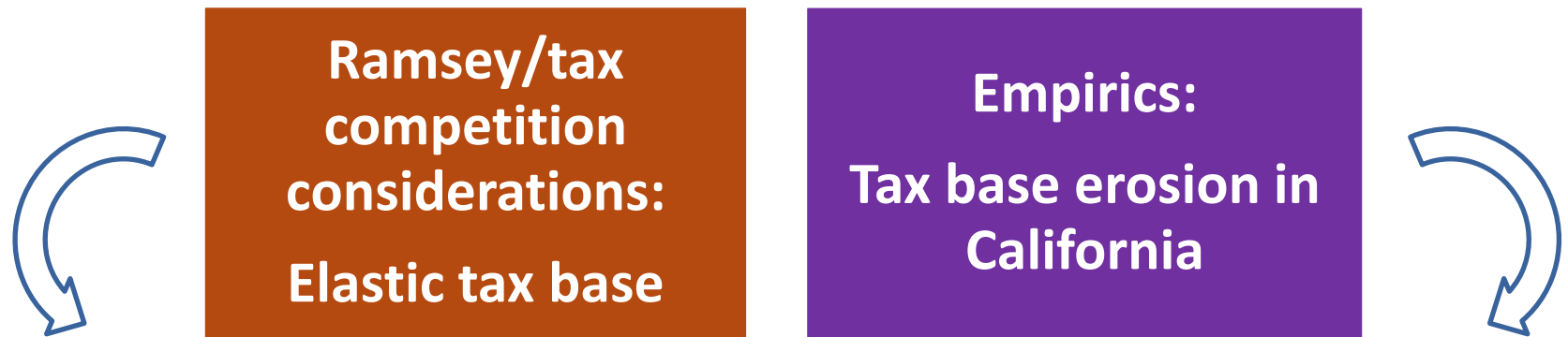
## Local pollution

**Reduction potential for carbon emissions:**

**Up to 60% per t-km by 2050**

**according to IPCC (2014)**

# Perceived unanimity requirements block action



**Cautious view prevalent:**

*“Extensive cooperation in designing and implementing international transportation fuel charges would be needed – especially for shipping – to avoid revenue erosion and distortions”*

**IMF and World Bank (2010)**

# We suggest a feasible unilateral mechanism

## Problem

- The absence both of a unanimous agreement and of unilateral options leads to a gridlock in international climate negotiations

## Motivation

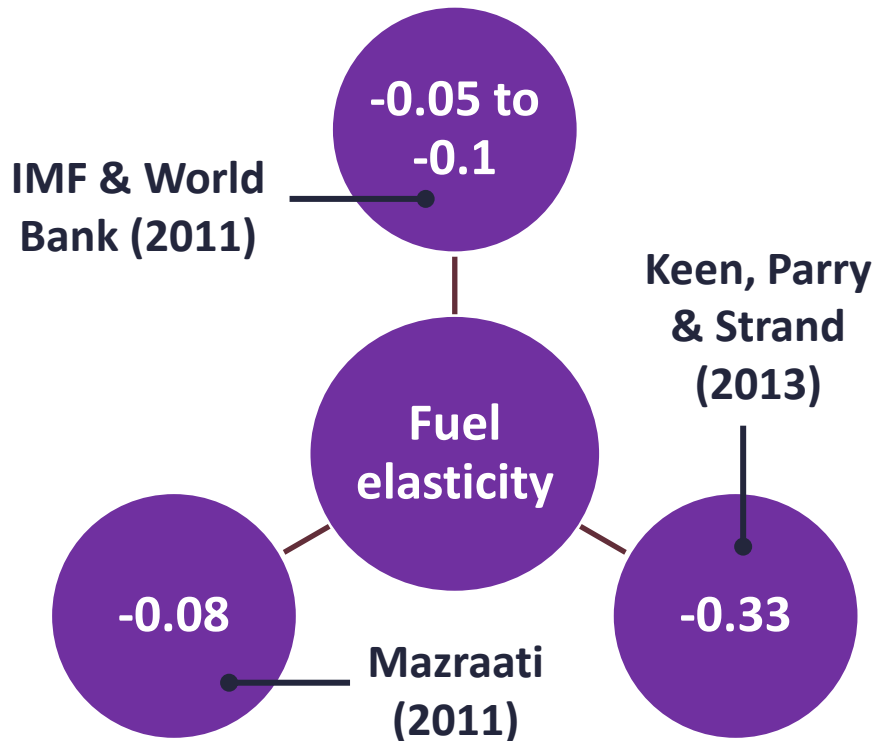
- Finding a unilateral mechanism that safeguards some net benefits of reform for early implementers

## Solution

- By introducing a credible unilateral tax scheme for internalising cost from maritime fuel emissions, the threat value in negotiations will be raised, making a unanimous agreement possible

# Maritime fuel elasticities are only low in the absence of arbitrage opportunities

## Under an international agreement



## Under a regional scheme

**Price elasticity of demand is substantially high if tax evasion is possible**

- **No direct taxation of maritime fuels**
- **Instead indirect taxation of fuel emissions**

# Thus not fuel, but emissions should be taxed

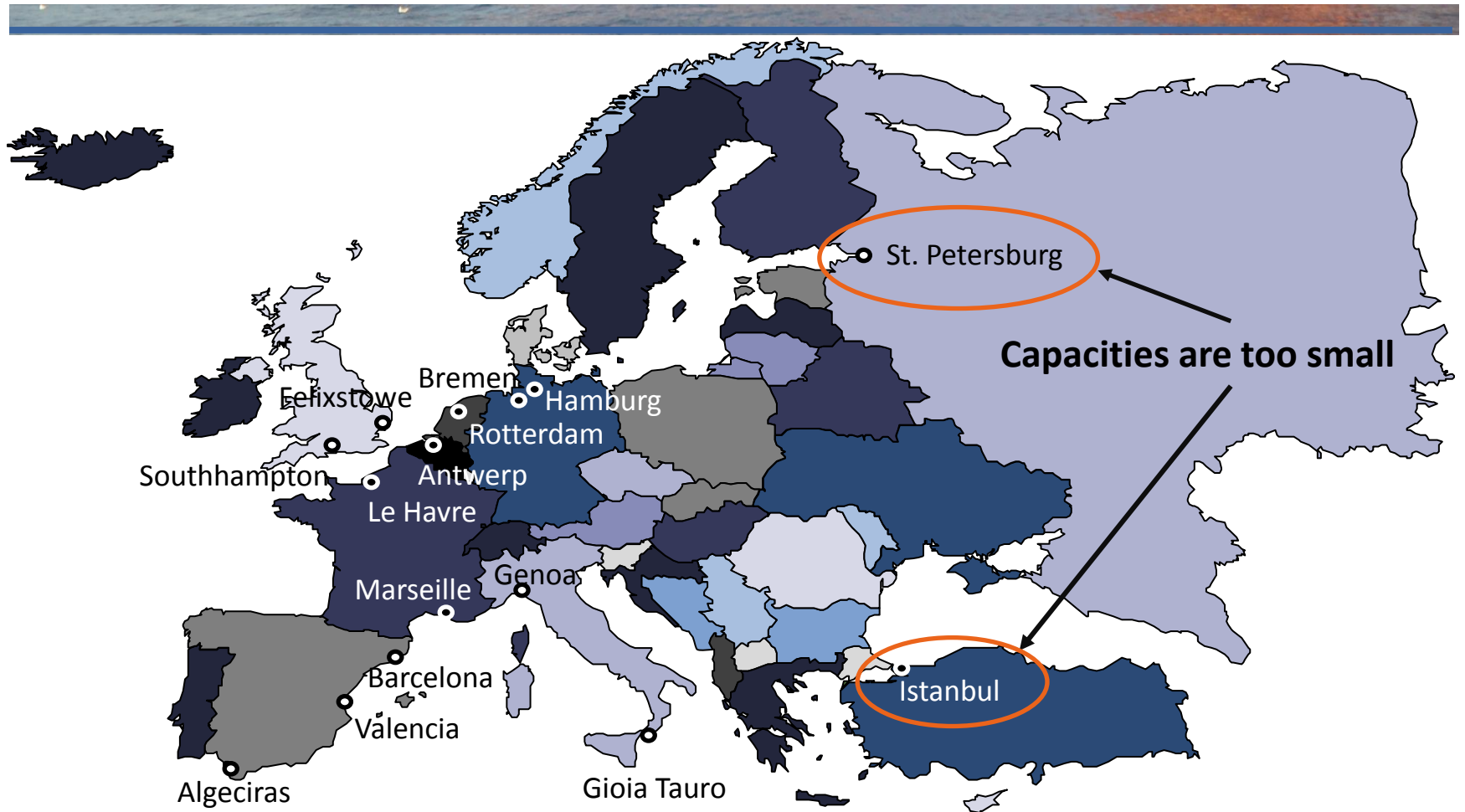
## Advantages of taxing released fuel emissions:

- Exploiting the natural link between transport emissions and cargo discharging
- Under a regional mechanism, elasticities of port choice are much lower than price elasticities of fuel demand

Elasticities for transshipment are much higher than for cargo discharging, though

→ To avoid trade distortions and double taxation, transshipment is excluded from taxation

# There are no alternatives to EU destination ports





# The calculation of the tax base is simple

## Calculation rule<sup>1</sup>

Taxable emissions per container transported =  
Container weight \*  
Distance transported \*  
Fuel consumption per t-km

(at the average speed travelled, at the weather conditions and capacity usage given)

<sup>1</sup>Necessary data is available from existing systems.

# There are several options for the tax rate

## Internalisation of climate damage

- Global damage: Global Shadow Price of Carbon (or SCC)
- EU damage: fraction of above suffered in the EU

## Internalisation of local pollution damage

- Global data on sea-level PM concentrations, dose-response relations available (GBD 2014), population exposure (e.g. LandScan)
- No data yet on intake fractions

# Administration costs are low



- Tax mechanism is based on existing data sources
- Similar processes are applied in customs administration
- Customs is the most unified and well-staffed area of EU tax policy
- Number of tax subjects is relatively small
- Data collection is automatable
- Cross-checks of ship manifest data with GPS data and fuel cost reported in balance sheets are possible

# Compliance costs are also low



Generally, the necessary data is already provided to the authorities and thus little extra efforts are to be expected

# Compliance with WTO law: Art III GATT

## Art III GATT:

Equal conditions of competition between imported and non-imported goods within a market

- Imported products are not taxed in “excess” of domestic products
  - The tax is applied to domestic and traded products
  - The same rate is applied per amount of emissions
  - The total tax bill is different due to varying distance, but the difference is proportional to the varying externalities

# Compliance with WTO law: Art XX (b) GATT

## Art XX (b) GATT:

Establishes an exception for a measure that is “*necessary to protect human, animal or plant life or health*”

- The tax constitutes a material contribution to the protection of the environment:
  - The EU already pursues several programmes to reduce GHG emissions
  - The mechanism potentially incentivises other jurisdictions to enact similar regulations

# Compliance with WTO law: Art XX (g) GATT

## Art XX (g) GATT:

Requires that a measure *“relating to the conservation of exhaustible natural resources”* is *“made effective in conjunction with restrictions on domestic production or consumption”*, respecting *“certain minimum standards for transparency and procedural fairness”*

- The tax is applied directly to the emissions, not to some farfetched proxy variable
- This provision might require earmarking revenues or preventing fiscal cushioning through compensating expenditure policies

# Compliance with WTO law: Chapeau Art XX GATT

## Chapeau Art XX GATT:

The tax must not constitute unjustifiable or arbitrary discrimination. The tax shall not constitute a disguised restriction on international trade

- Article is interpreted as a Good Faith principle
  - The EU promotes international cooperation to prevent climate change
  - The tax is applied both to domestic and foreign ships



# Mechanism is likely to comply with WTO law

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Despite the unilateral tax scheme  
could be challenged under Art III GATT,  
It is likely to be justified under Art XX GATT

# Mechanism is likely to comply with UNCLOS

## Art 89: Extraterritoriality

- Port state jurisdiction has territorial sovereignty over vessels located in ports
- Extraterritoriality – territorial extension
  - CJEU Case C-366/10 The Air Transport Association of America and Others [2011] ECR I-13755
- Voluntary presence of ships in an EU port creates a territorial connection

## Art 17, 26: Right of innocent passage

- Tax not applied for passage, but for environmental reasons in port waters

# Conclusion

A unilateral tax does encounter problems that an ideal unanimous global agreement avoids

But in absence of such an agreement (or to create the necessary threat value to bring it about) a unilateral mechanism is possible:

- Reasonably administration and compliance costs
- Can be based on existing data systems
- No insurmountable legal challenges



Thank you for your attention.  
Comments are very welcome.

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