



# Frakten är på väg – men varför fraktar så få via sjö och järnväg? Kartläggning av styrmedel för överflyttning av gods

*Cecilia Gustafsson<sup>1</sup>, Johanna Takman<sup>1</sup>, Inge Vierth<sup>1</sup>, Noor Sedehi Zadeh<sup>1</sup>,  
Anastasia Christodoulou<sup>2</sup>, Marta Gonzalez-Aregal<sup>2</sup>, Kevin Cullinane<sup>2</sup>*

<sup>1</sup>Swedish National Road and Transport Research Institute. Stockholm

<sup>2</sup>School of Business, Economics, and Law. University of Gothenburg

# Agenda

1. Background
2. Taxonomy of policy instruments
3. Industry insights
4. Tentative conclusions

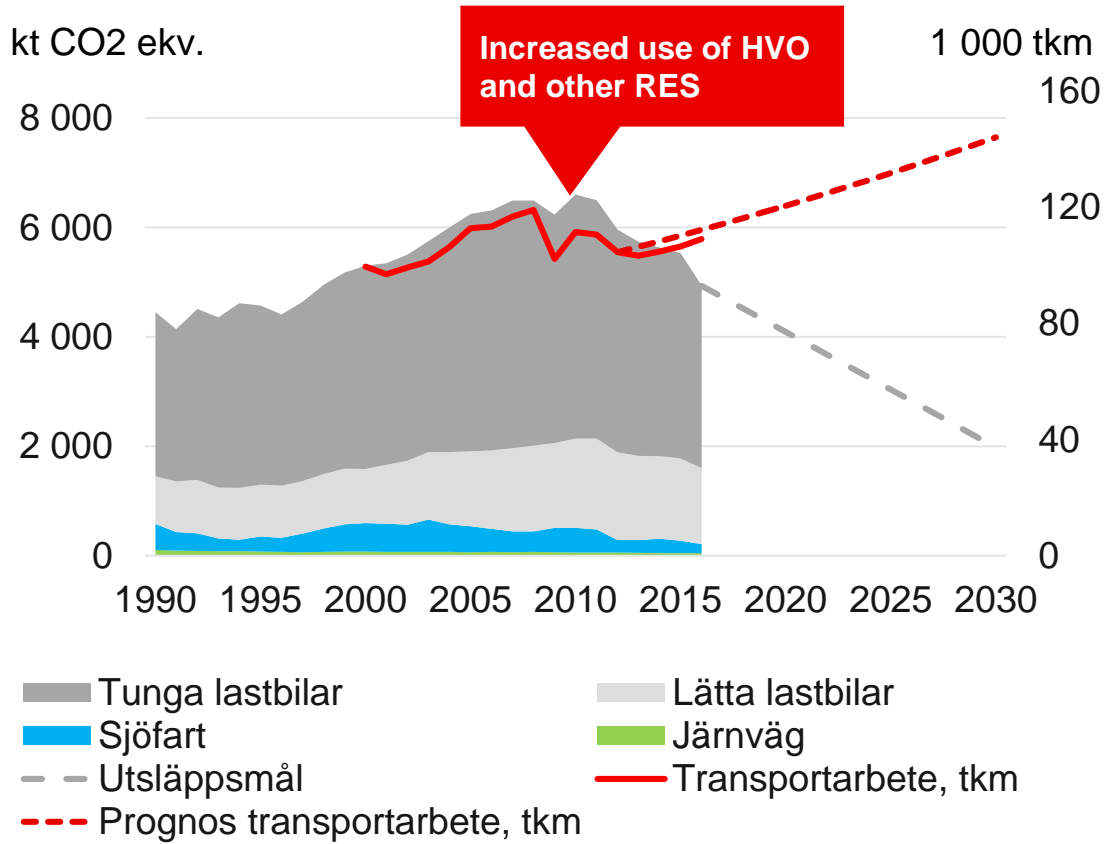


# 1. BACKGROUND

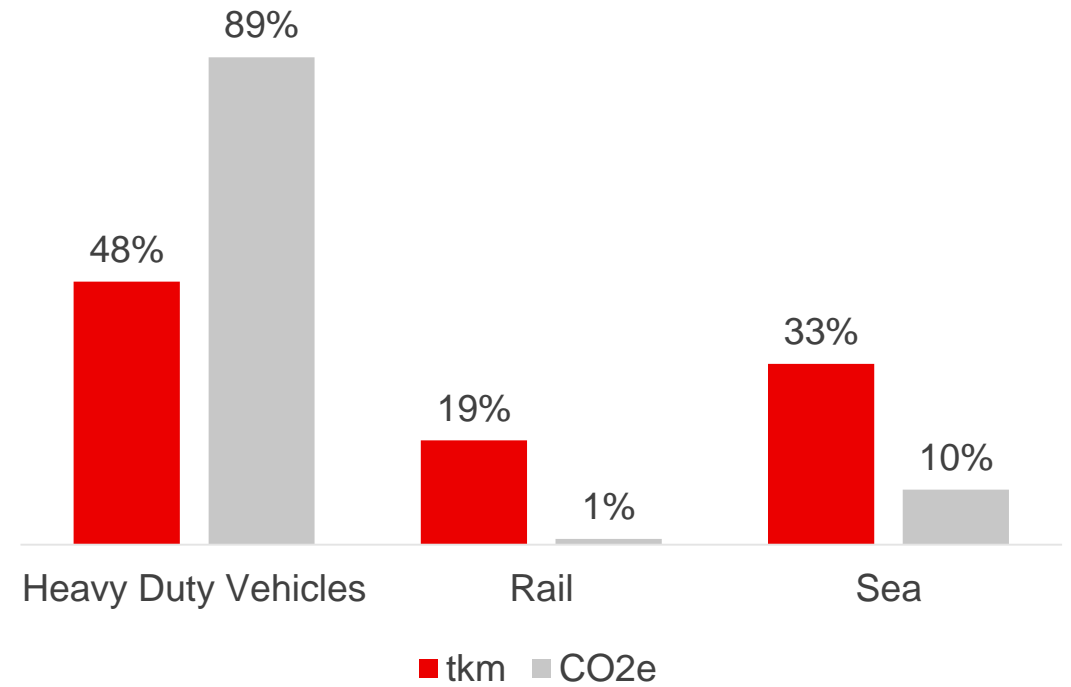
# 1. Background

## Why care about a modal shift?

**Emissions from domestic Swedish goods transport**



**Goods transports and CO<sub>2</sub>-emissions by mode, 2015**



**~8% of Swedish goods transports are > 300km**

## 1. Background

# Objective

What potential does modal shift have to contribute to the fulfilment of the Swedish environmental objectives? Including the desired reduction of CO<sub>2</sub>, NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>2.5</sub> and noise.

**Which are the most effective policies to achieve a modal shift?**

1. Which policy instruments have the goal to shift goods from road to less environmentally damaging modes?
2. Which policies would be most effective in a Swedish context?

← **This study**

1. Environmental effects

← **Next study**

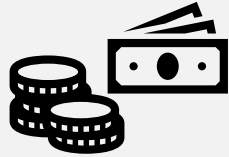
## **2. TAXONOMY OF POLICY INSTRUMENTS**

## 2. Taxonomy of policy instruments

# Classification of policy instruments and measures



**Administrative**



**Economic**



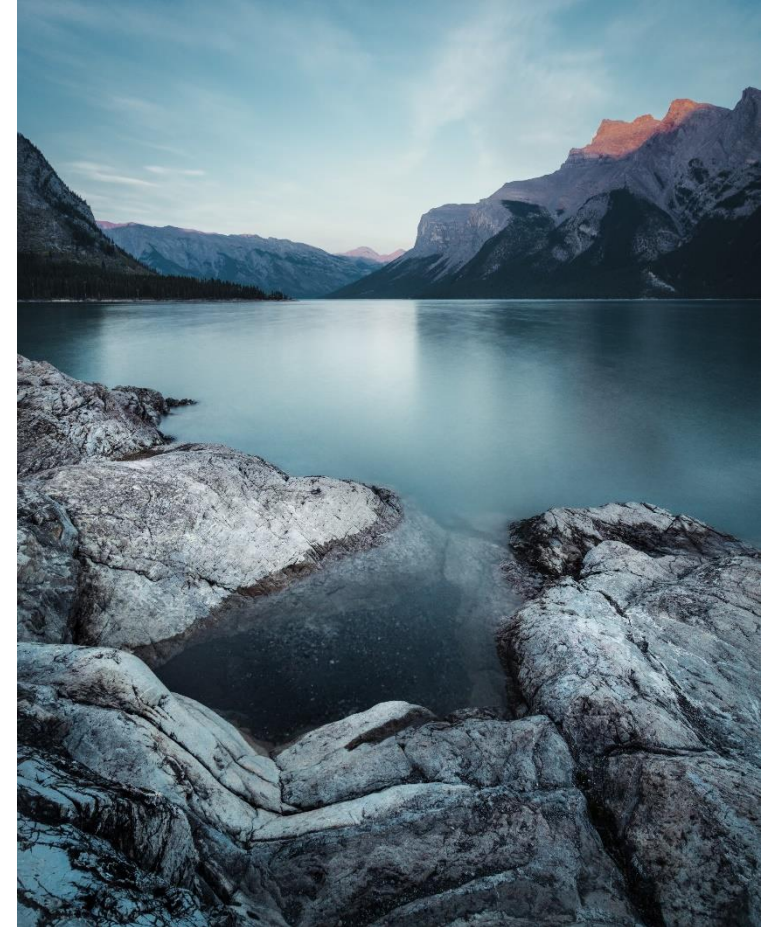
**Infrastructure**



**Informative**



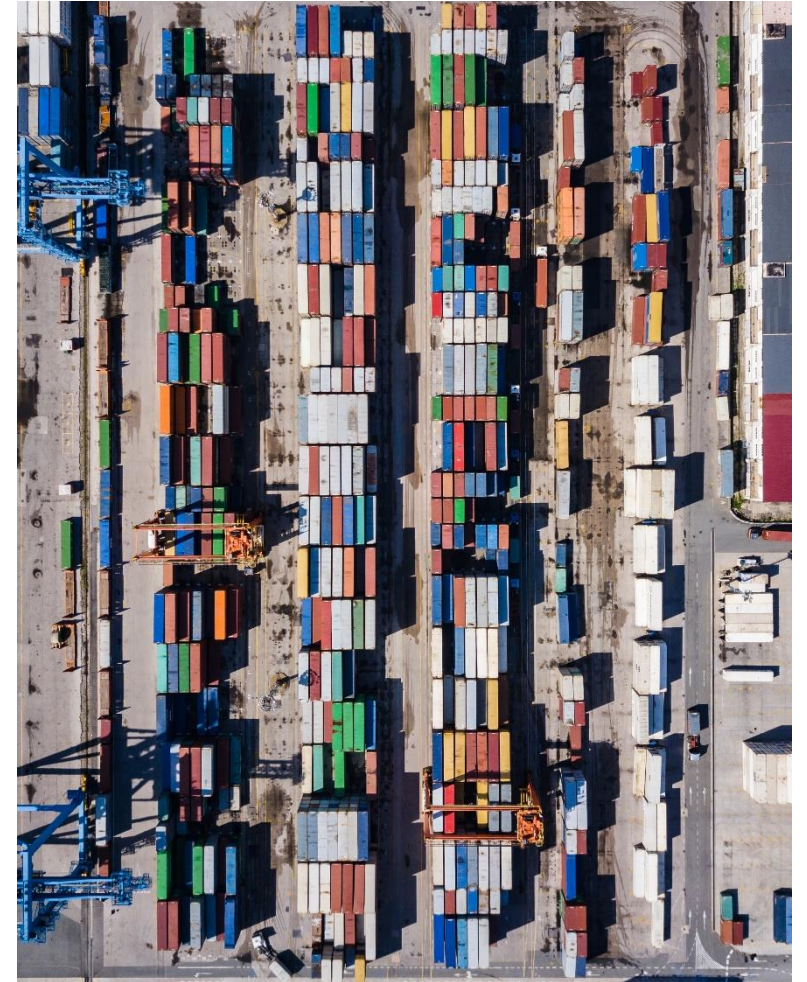
**Research**



## 2. Taxonomy of policy instruments

### Data collection

- Past, present and planned policies in Europe
- Lack of quantified targets
- Lack of evaluations
- Lack of impact assessments
- Available evaluation mainly concern EU-measures
- Key data unavailable
- Need for alternative method





## 2. Taxonomy of policy instruments

Preliminary results

# Taxonomy of policy instruments

Majority EU-grants and local port infrastructure measures

Economic policy mostly grants

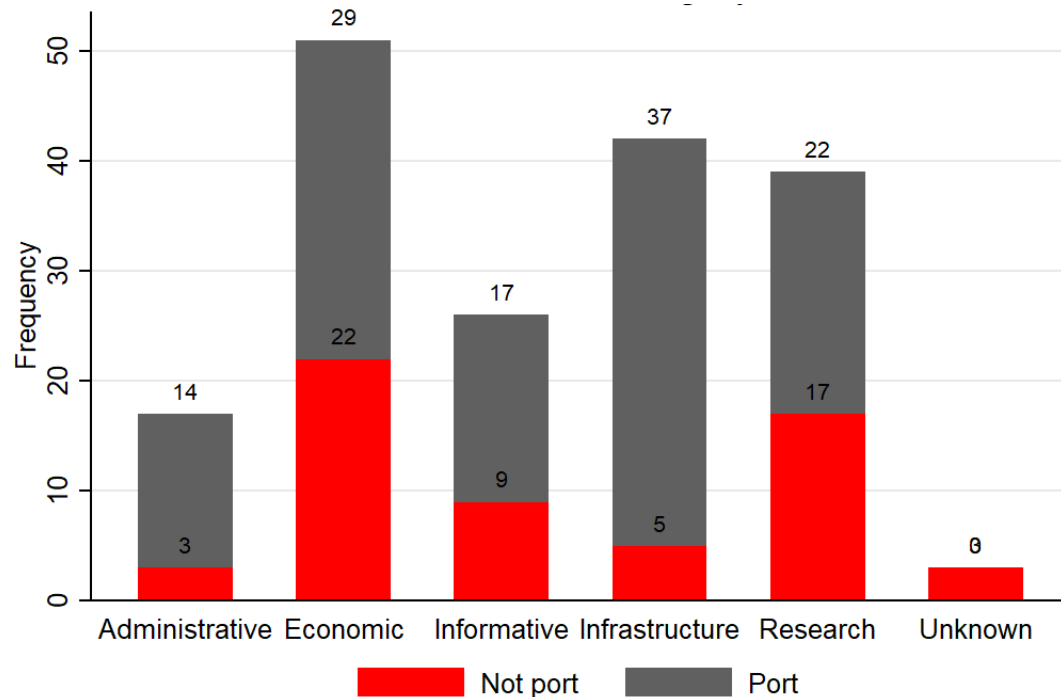
70% are ports

Many local port initiatives

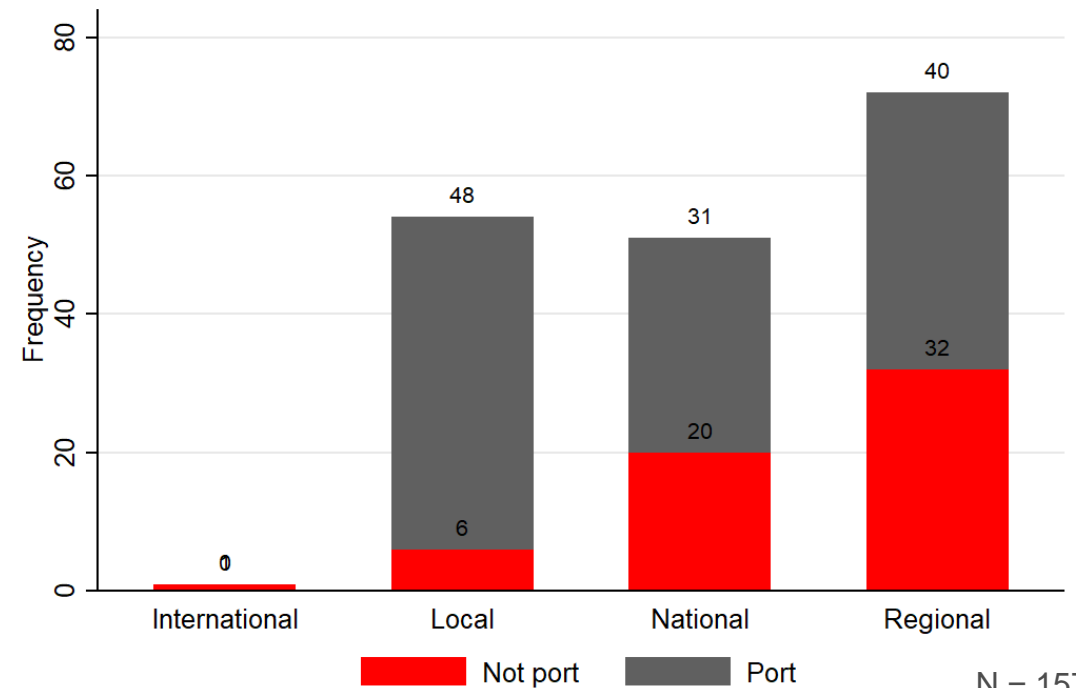
Other policies usually national or regional (EU)

Available evaluations and impact assessment mainly concern EU-grants.

### Instrument category



### Geographical level



N = 157

## 2. Taxonomy of policy instruments

Preliminary results

# Taxonomy of policy instruments

Most policies target a shift to rail.

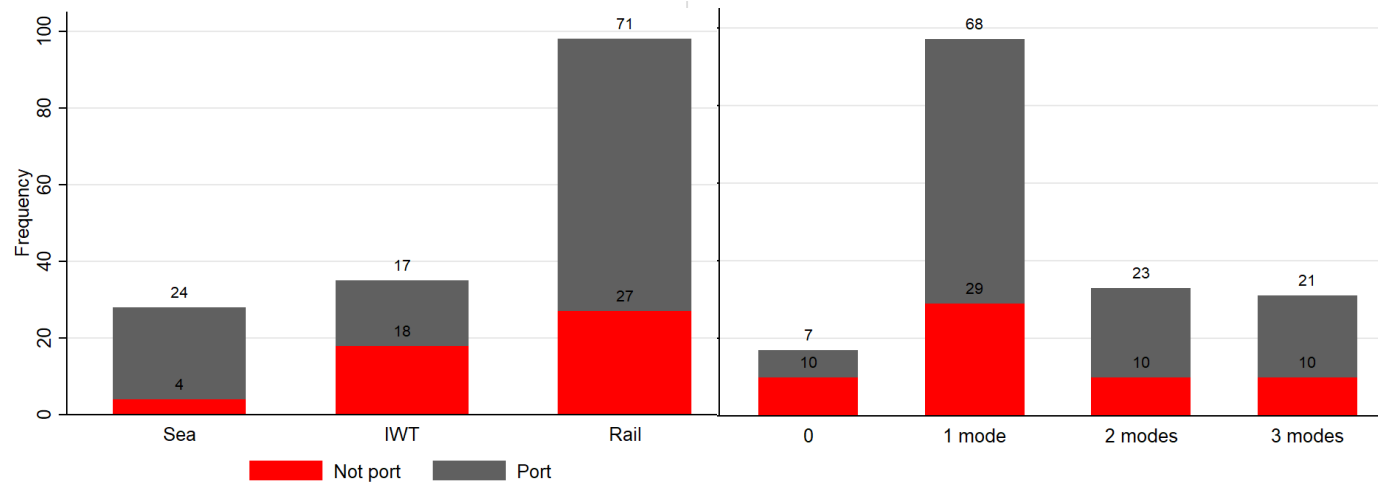
The majority of policies only target one mode

Most policies are public initiatives.

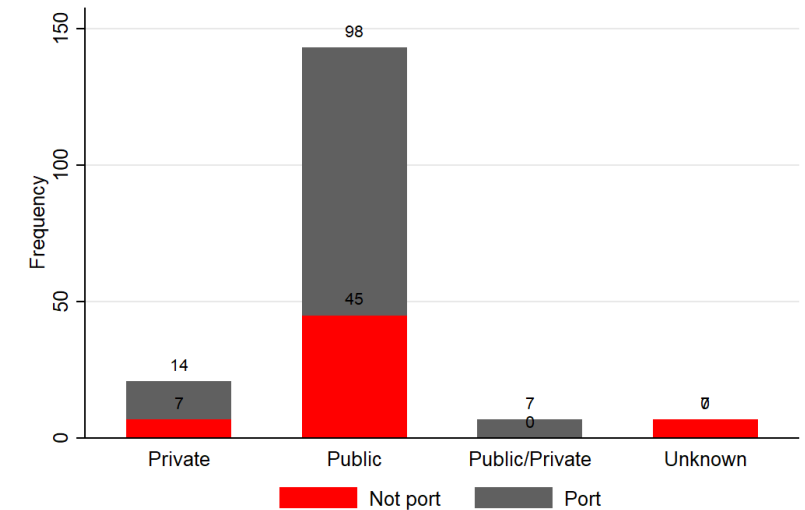
13% of policies private

4% public private partnerships

### Mode targeted for modal shift



### Sector behind the initiative



N = 157

# 3. INDUSTRY INSIGHTS

# Complexity of multimodal transport chains and ineffective regulation are important barriers to modal shift



Ineffective regulation



Flexibility



Tax and fee disincentives



Poorly maintained infrastructure



Low demand-side interest



STOP

Capacity limits



Prices / Costs



Coordination



Reliability

# Targeted infrastructure investment and efficient regulation have great potential to alleviate barriers

## INSTRUMENT

1. Policy evaluation / Research
2. Information campaigns
3. Ex-ante investment support
4. Review the structure of the authorities
5. Review risk management
6. Reduced railway charges
7. Bottlenecks / Urban focus
8. Increase environmental compensation

## BARRIER

- Regulation, Tax incentives
- Demand, Costs, Flexibility, Coordination
- Costs
- Regulation, Costs
- Regulation, Reliability
- Tax incentives, Costs
- Costs, Reliability, Flexibility, Maintenance, Coordination
- Costs, Tax incentives

## **4. TENTATIVE CONCLUSIONS**

#### 4. Tentative conclusions

## Conclusions and further studies

Lack of quantified targets makes it difficult to evaluate policies and learn from experience

Most policies are economic but all decision factors matter

Lack of interest is an important explanatory for failure of EU-policies (no applications)

The nodes are important factors in an intermodal transport system

Bad reputation (well deserved?) and low knowledge about available options

What is success/effectiveness?

There are policies which do not firstly target a modal shift, but which in fact do so

→ look at indirect effects

What influences the choice of transport mode of over time?

→ Econometric analysis

→ Literature review

Environmental effects from policy scenarios

Recommendation for most effective policy mix