

Fossil fuel subsidies and ECR-calculations in Sweden

Results from Eurostat grant financed project, 2021-2023

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Background

- A first pilot on “Monitoring greenhouse gas transfers” was done 2019-2020
- Eurostat grant project 2021-2023, just finalized
 - Methodological improvement in industry allocation of env. taxes
- A lot of development in the international statistical community, several countries produce statistics or pilots



Methodology paths and choices

- PEDS vs FFS?
- Explicit transfers – which and why?
- Implicit transfers – which and in relation to what?
- ECR calculations by fuel and industry
- Several recalculations and changes of directions during the project



Explicit transfers

- Direct transfers that can be found in central government budget
- Swedish EPA mapping of PEDS starting point
- No **direct links** to fossil fuel production and consumption (yet)
- Several explicit transfers linked to transport e.g. support for non-governmental airports, transport support to north of Sweden, support to shipping industry
- Outside the scope of FFS: e.g. support to fishing industry, agriculture, regional investment support
- The exact effect of a subsidy scheme is not possible to assess

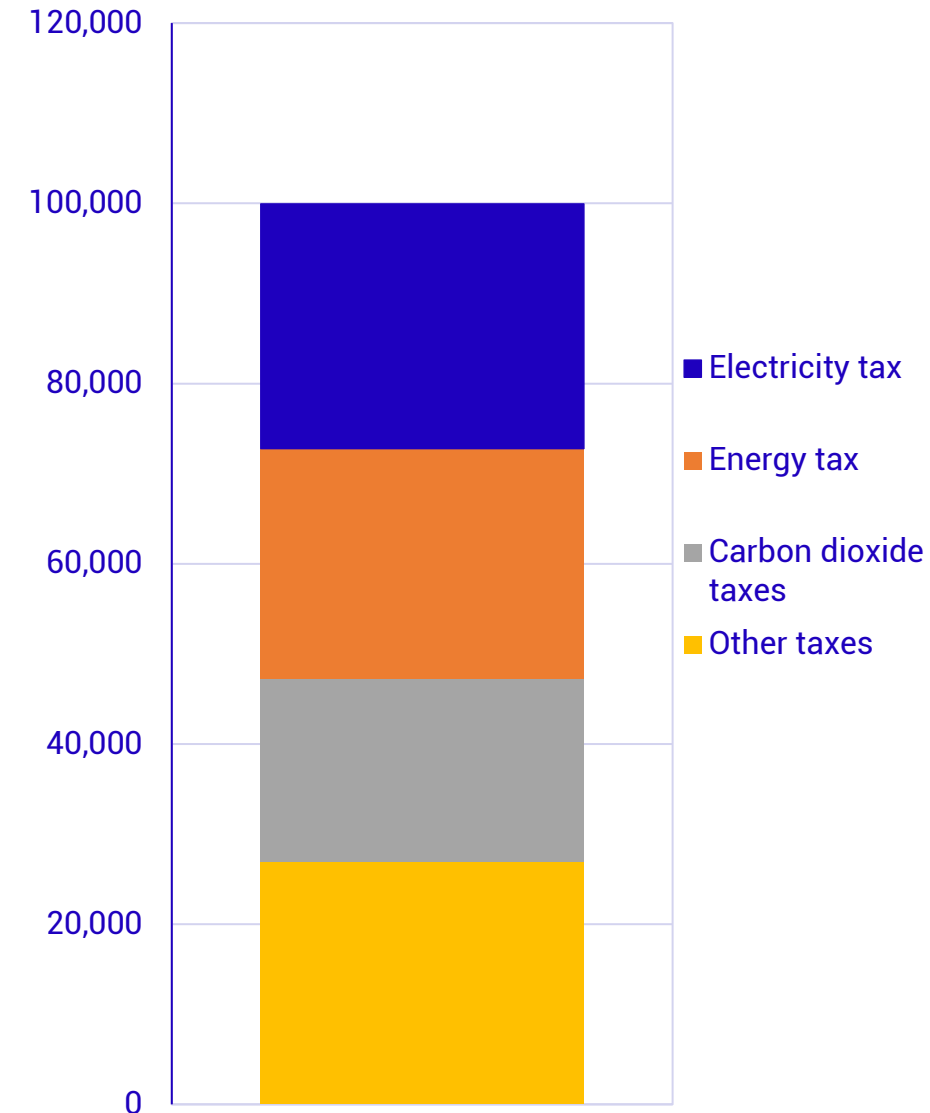
Implicit transfers

- Focus on tax abatement on fossil fuel taxes
- Calculated with revenue forgone method
 - ETEA is the basis
 - Tax exemptions are mapped out by industry (sometimes with a simplified approach)
- Energy tax, carbon tax and electricity tax (fossil share)
 - Tax abatement varies for different industries and between years
 - Diesel vs petrol discount included

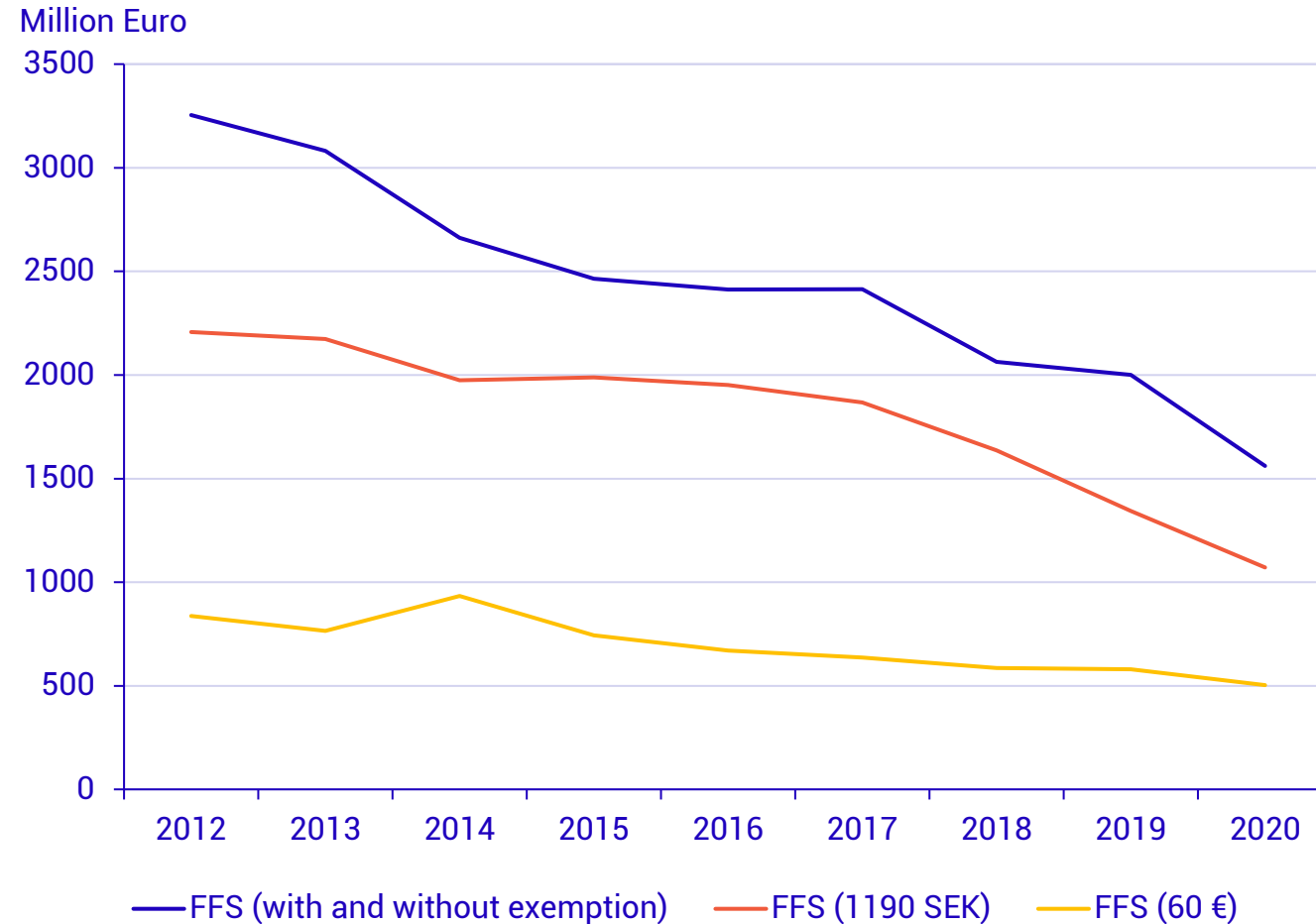


Environmental taxes in Sweden 2020

Million SEK

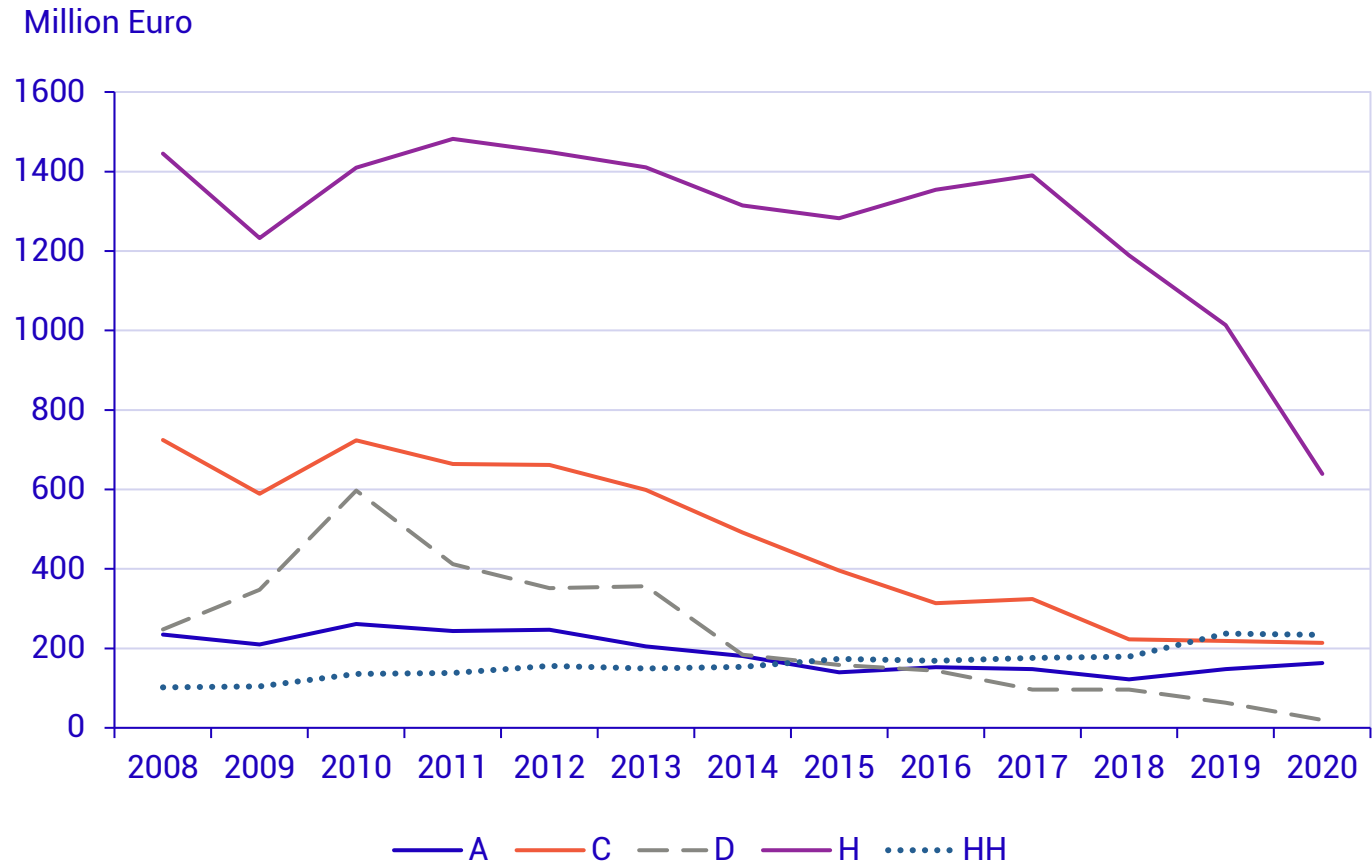


Implicit transfers - Results vary depending on the benchmark



Some results by industry– implicit transfers

- Based on assumption “with and without exemption”
- NACE H and C have highest implicit transfers
- But decreasing trend: Pandemic and changes in tax exemption

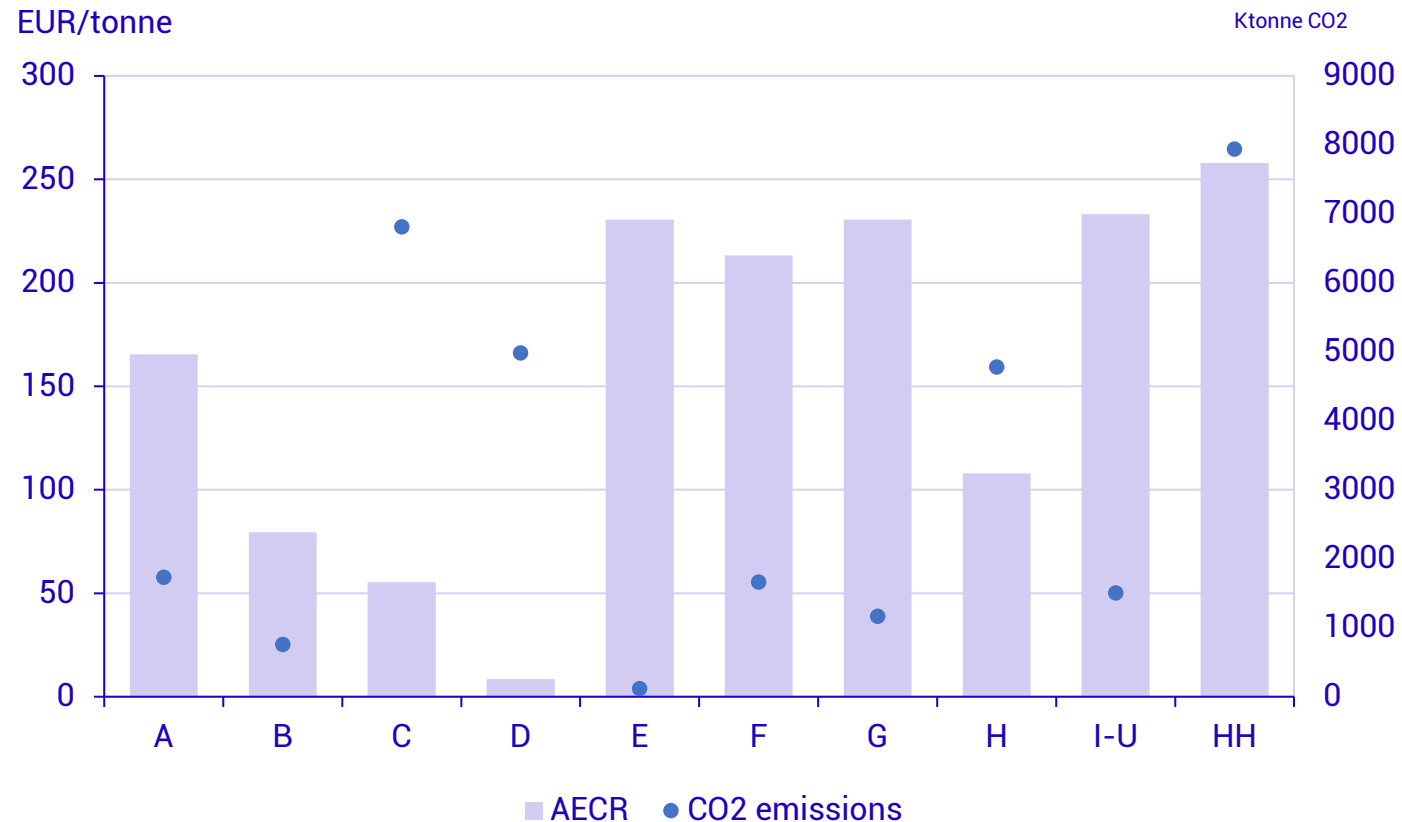


ECR calculations

- Combustion related CO₂-emissions (mobile and stationary)
- How is carbon priced?
 - Energy tax
 - Carbon dioxide tax
 - EUA price (need some refining)
- Average ECR is calculated EUR/Tonne for combustion related emissions
- Adjust for combustion of fossil fuels, sometimes easy sometimes less intuitive (ETS related emissions)

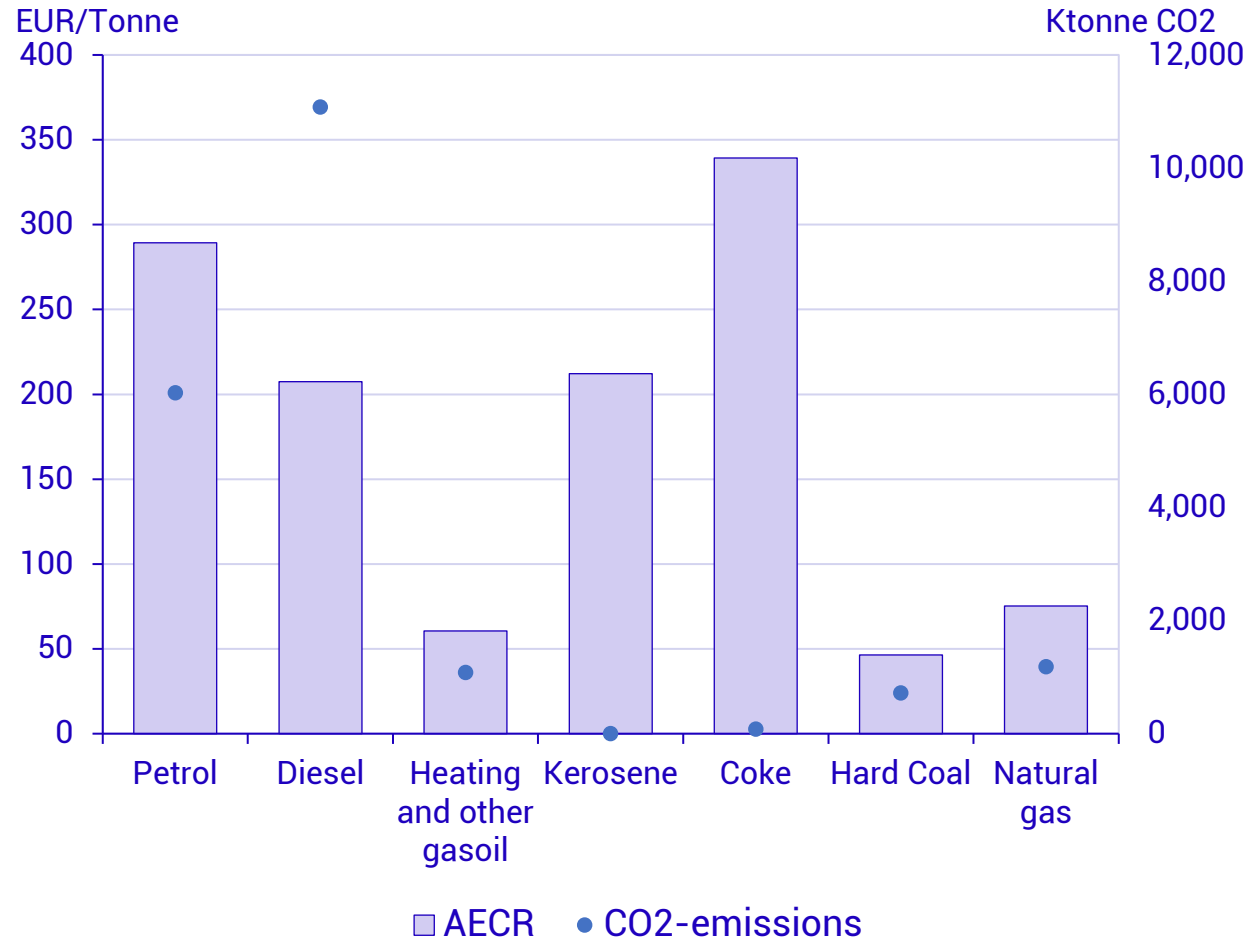


Average ECR by industry, 2020



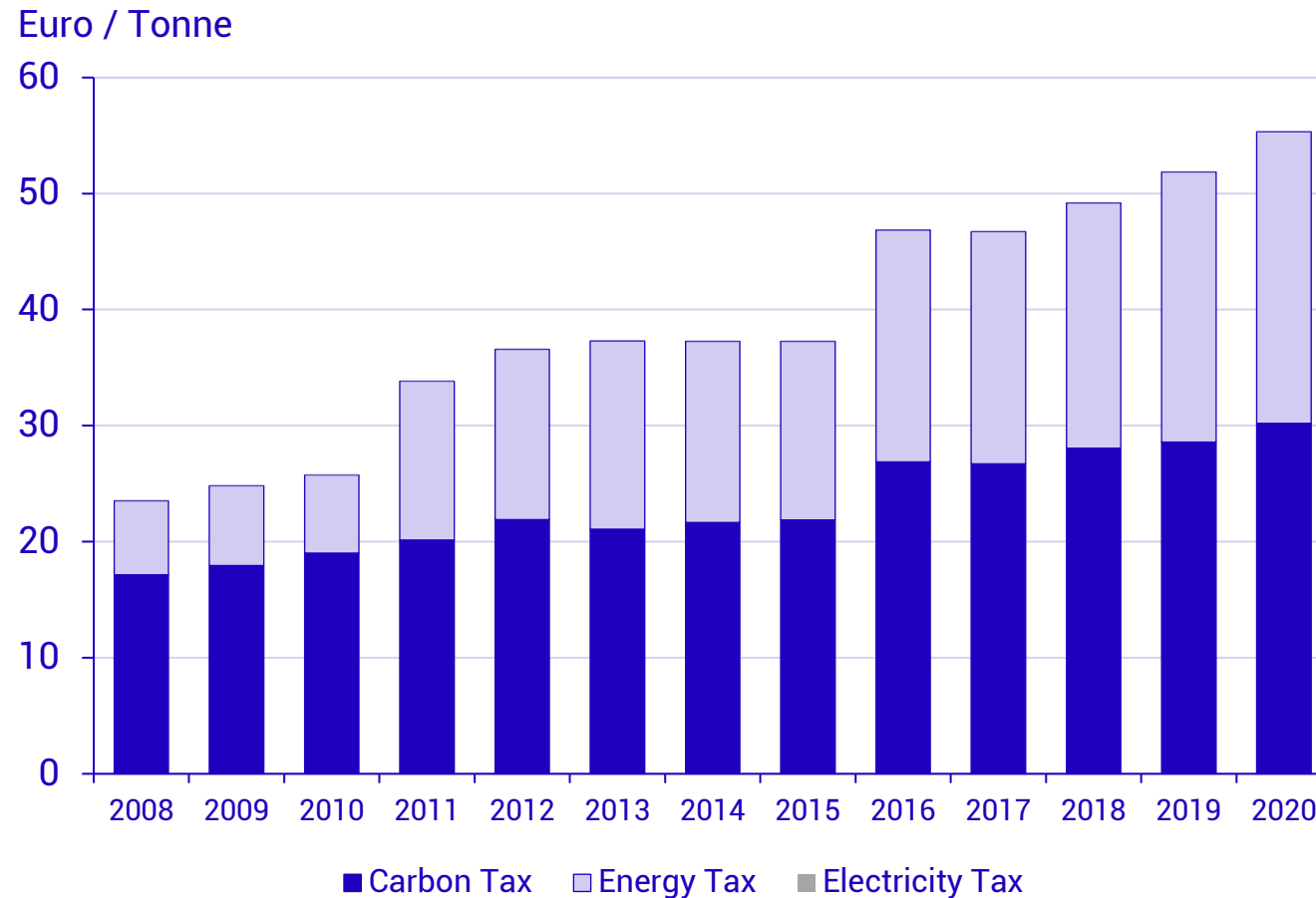
- Note, graph does not include ETS price – but should be adjusted for this (around 5 EUR/Tonne in 2020 in trading industries)

Average ECR by fuel, 2020



Average effective carbon rates

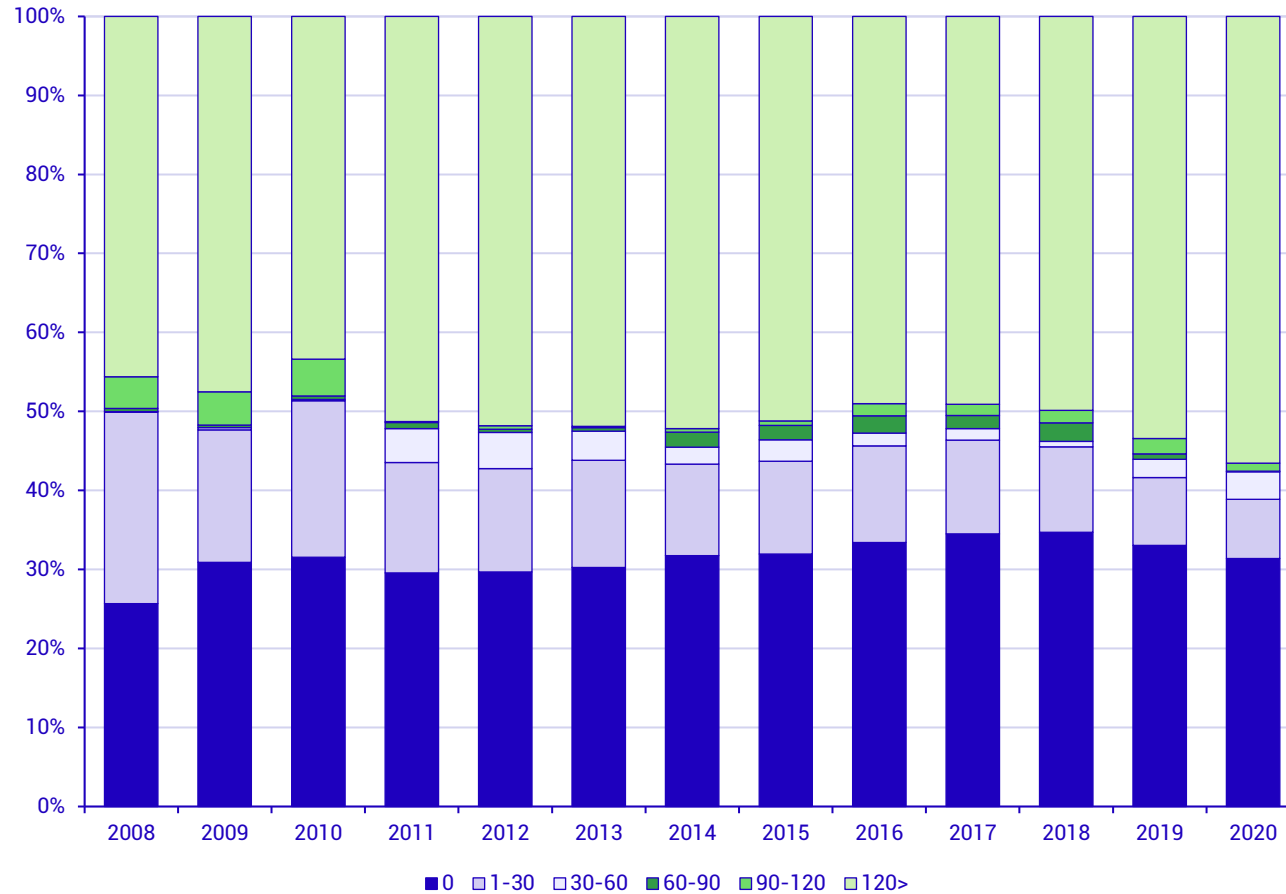
In NACE C, by component



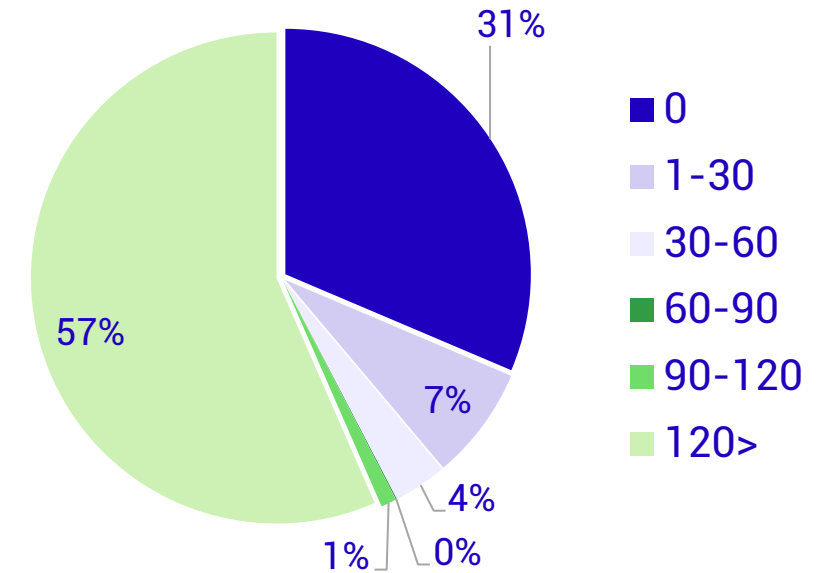
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Share of total CO₂ emissions from fossil fuels in Sweden priced within ECR bands [Euro / Tonne]

2008-2020



2020



Conclusions and issues to address further

- Adjustment of ETS related emissions– importance is increasing
- New policy approaches to subsidies which needs to be taken into account
- Reference price for implicit transfers otherwise understanding PEDS can be tricky
- Average ECRs are more intuitive to compare across countries
- International collaboration highly valuable



[EU Carbon Permits - 2023 Data - 2005-2022 Historical - 2024 Forecast - Price - Quote \(tradingeconomics.com\)](#)

Elstöd till hushåll

Den 20 februari påbörjar Försäkringskassan utbetalning av elstöd till hushåll i södra och mellersta Sverige.



[Energikrisen - Regeringen.se](#)



Tillfälligt sänkt skatt på drivmedel och sänkt skatt på bränslen i viss värmeproduktion

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Thanks!

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