

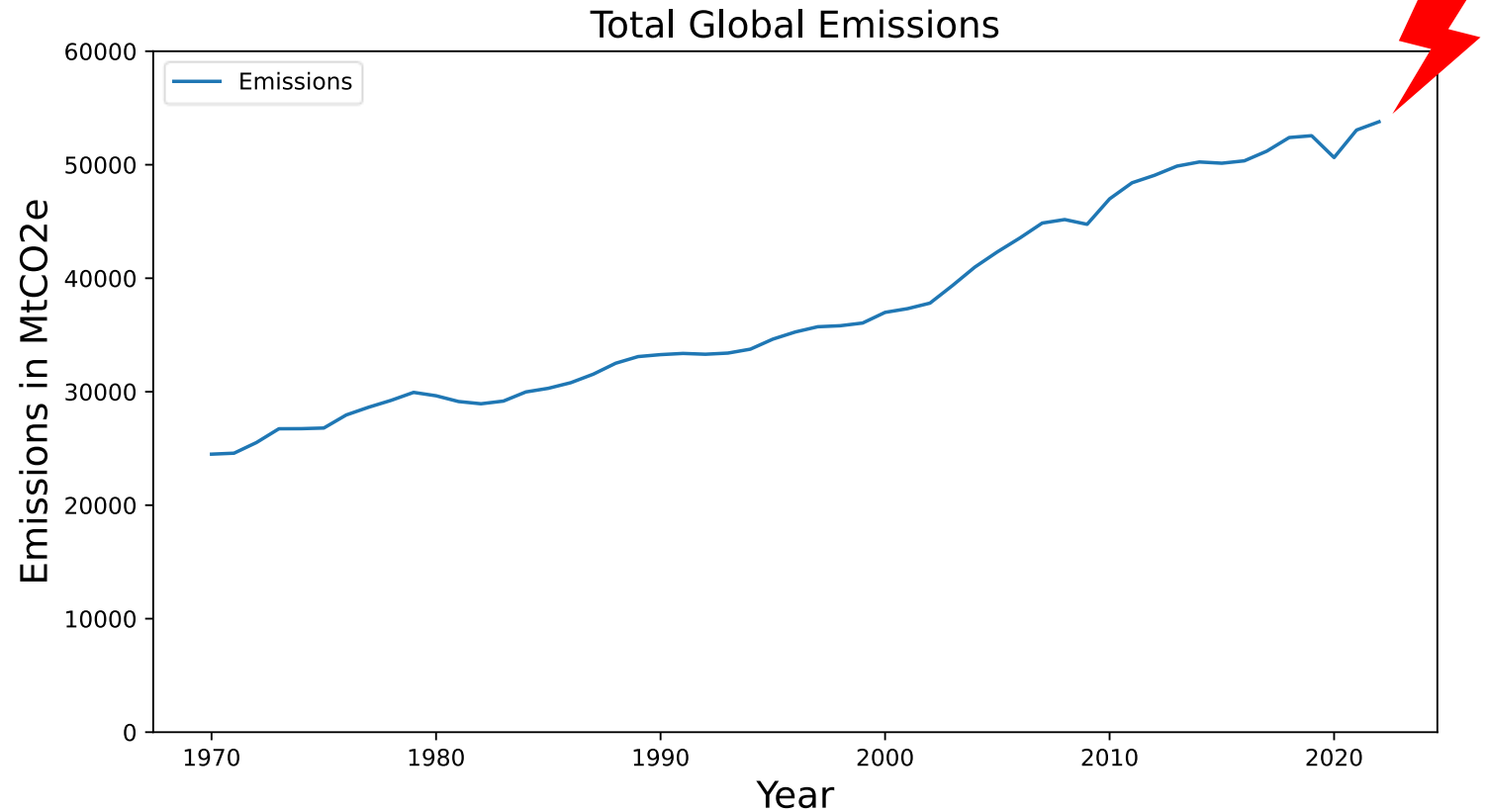
# Effectiveness of the EU Emissions Trading System

# Motivation

Global Emissions Are Rising

## Total Global Emissions

- 25.000 MtCO<sub>2</sub>e in 1970
- 54.000 MtCO<sub>2</sub>e in 2022
- Increase of 119%



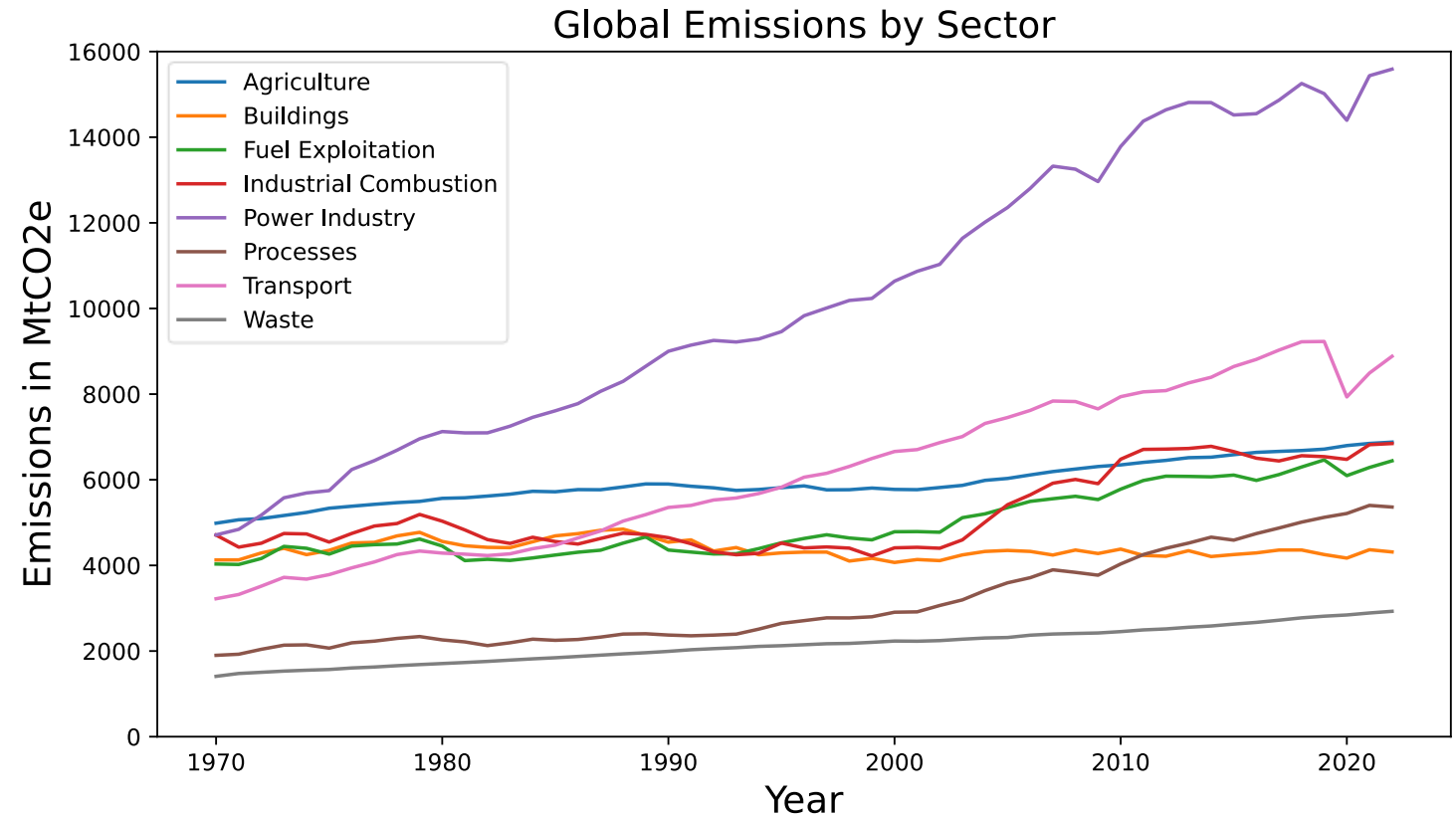
# Motivation

Global Emissions Are Rising

## Emissions by Sector

Largest Sectors:

- 1970: Agriculture
- 2022: Power Industry, Transport



## A Solution: Emissions Trading Systems - The EU ETS

### Regulate Companies

Cap the allowed CO<sub>2</sub> equivalent (CO<sub>2</sub>e) emissions via certificates

- Regulation for Power Industries and Transport sector
- Reduce the amount of emitted emissions

### Support Reducing Emissions

Companies can sell unused CO<sub>2</sub>e certificates

- Emission producers support emission reducer directly

### Sanction Producing Emissions

Companies must buy CO<sub>2</sub>e certificates to increase their CO<sub>2</sub>e emission cap

- Creates pressure to reduce emissions to avoid sanctions

*Does the European Union Emissions Trading System help in decreasing emissions in the EU and if so, does it also have an impact on global emissions?*

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  - 04 Comparison to Global Emitters
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# Analyzed Data

Data Source	Origin	License	Copyright	Format
CO2e Prices	Umweltbundesamt	§ 12a EGovG	© 2024 Umweltbundesamt	.xlsx
Global Emissions	The EU / EDGAR	CC BY-NC-ND 4.0	© European Union, 1995-2024	.xlsx



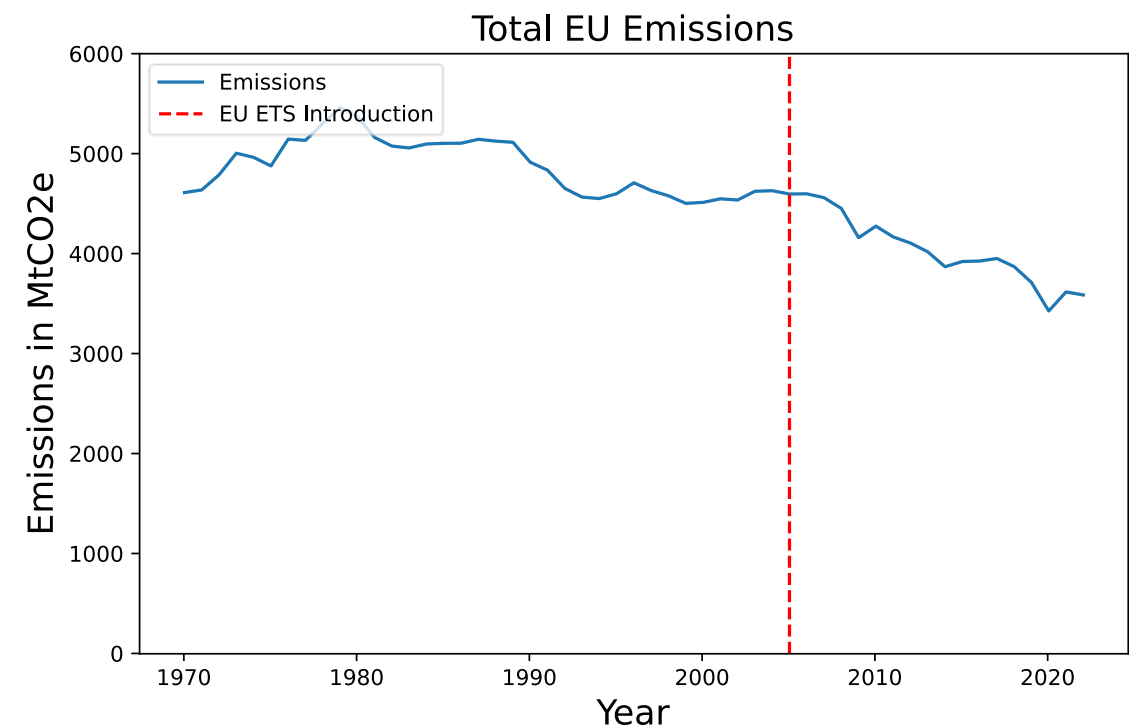
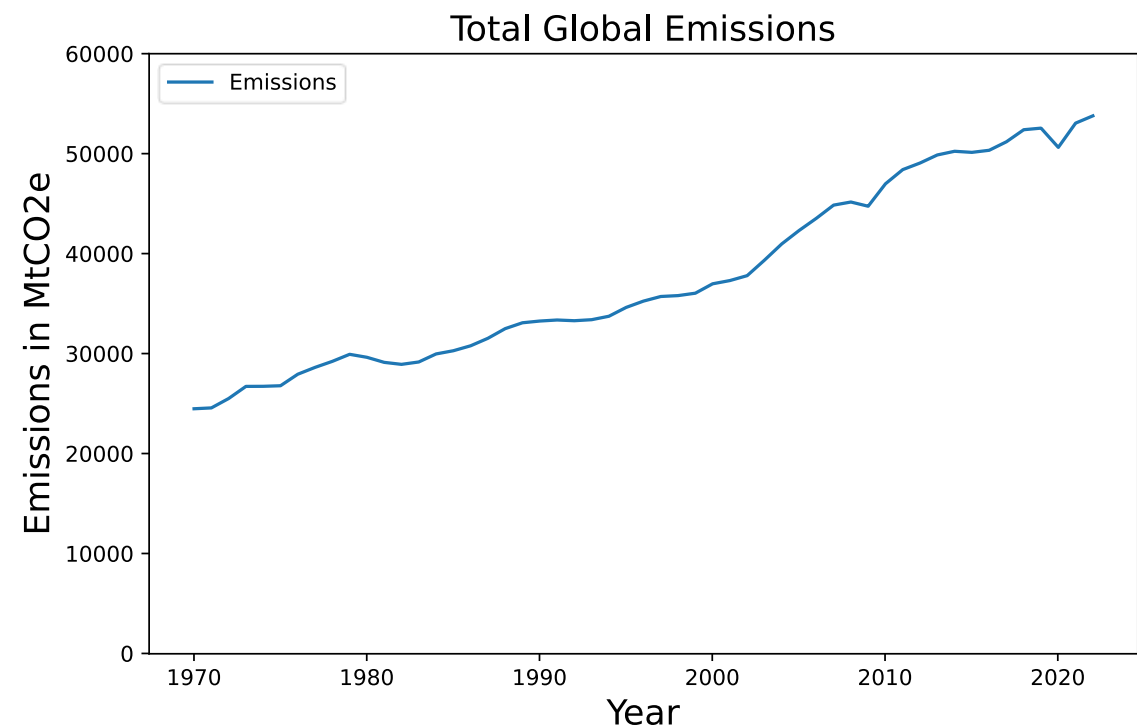


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# Emissions in the EU

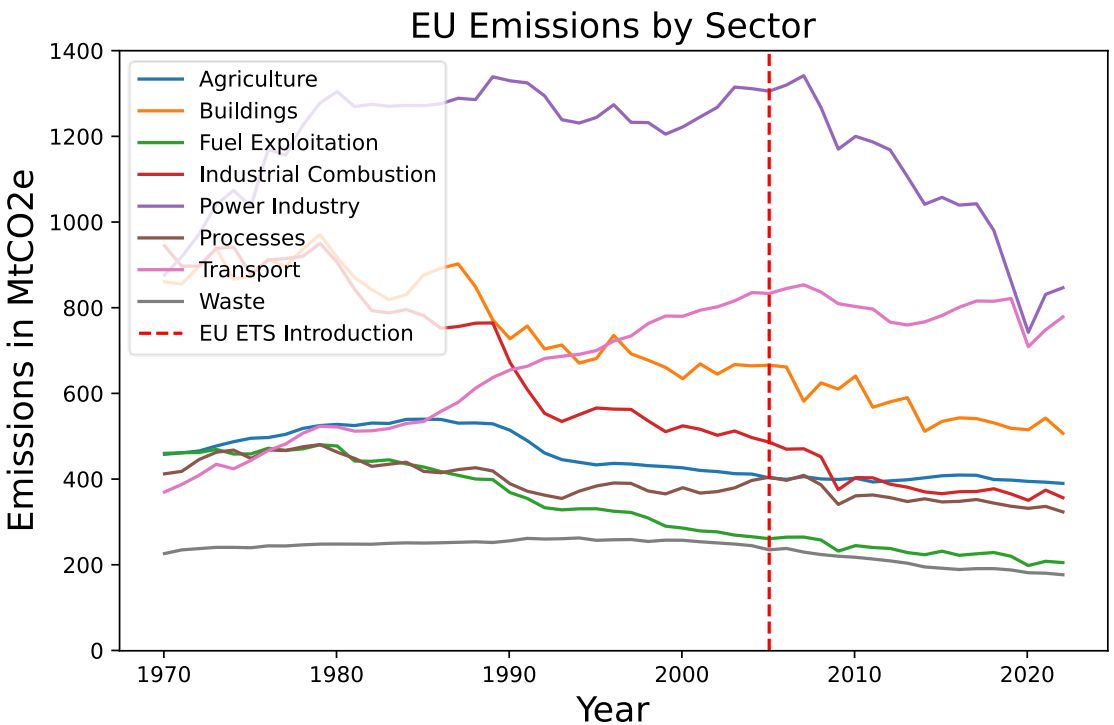
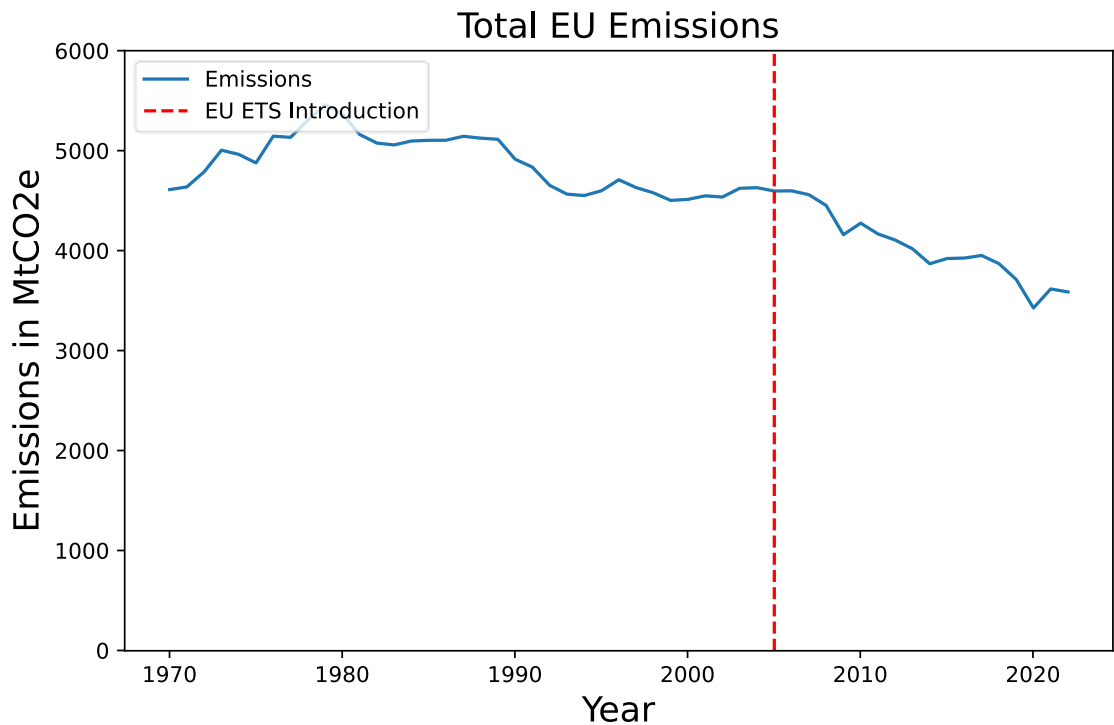
# Emissions in the EU

EU Emissions Are Decreasing



# Emissions in the EU

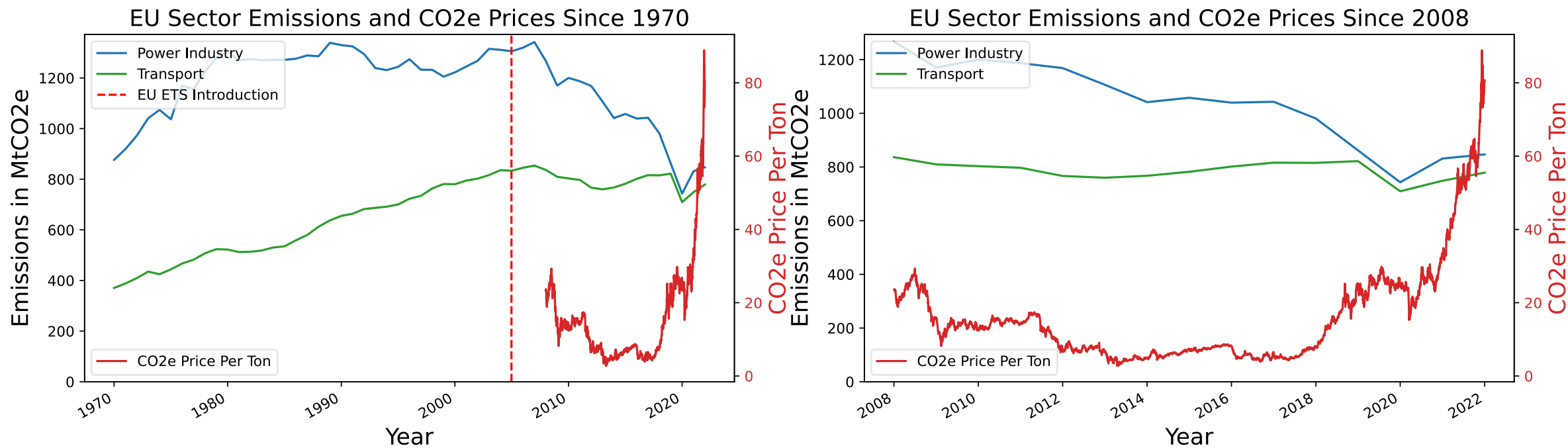
Power Industry and Transport as Biggest Sectors



# Emissions in the EU



CO2e Prices Are Connected to CO2e Emissions

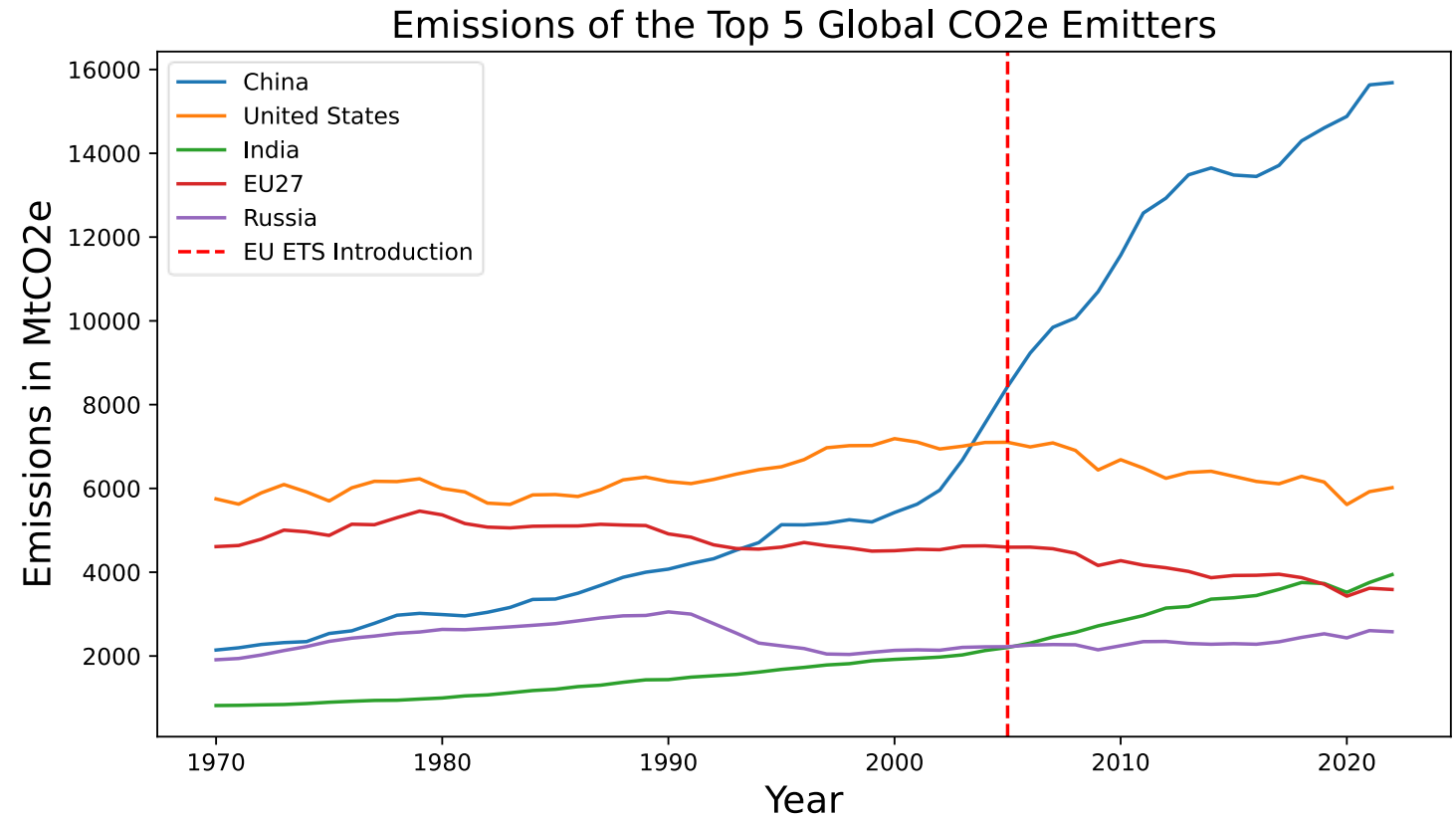


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# Comparison to Global Emitters

## Global Comparison

- USA and EU decreased emissions
- Emissions of the others increased



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# Conclusion

*Does the European Union Emissions Trading System help in decreasing emissions in the EU and if so, does it also have an impact on global emissions?*

- Yes, there is a direct connection between CO<sub>2</sub>e prices and CO<sub>2</sub>e emissions
- The EU decreased CO<sub>2</sub>e emissions significantly since 2005
- Nevertheless, global emissions are still rising

**Emissions Trading Systems have to be introduced in more states**