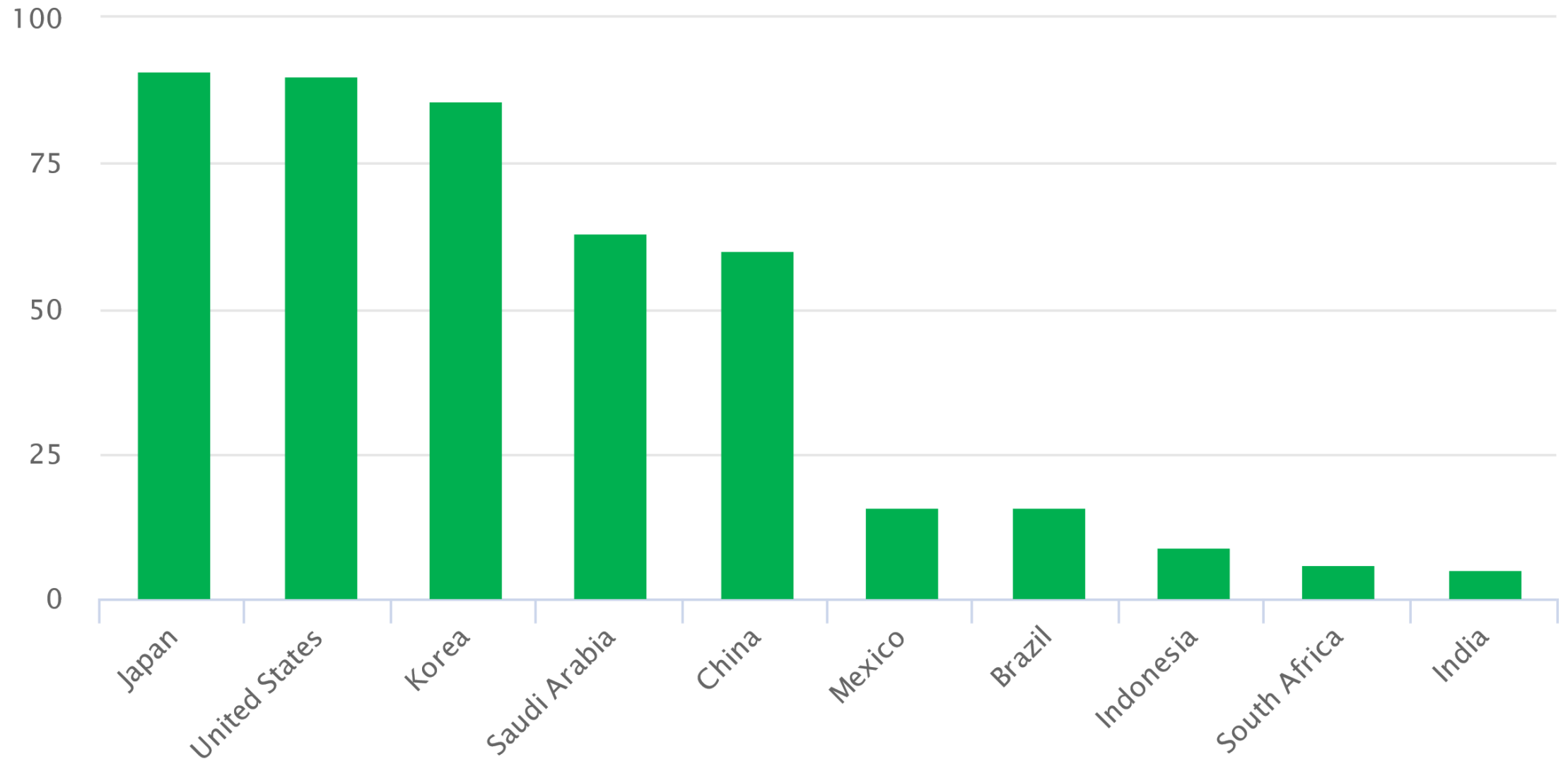


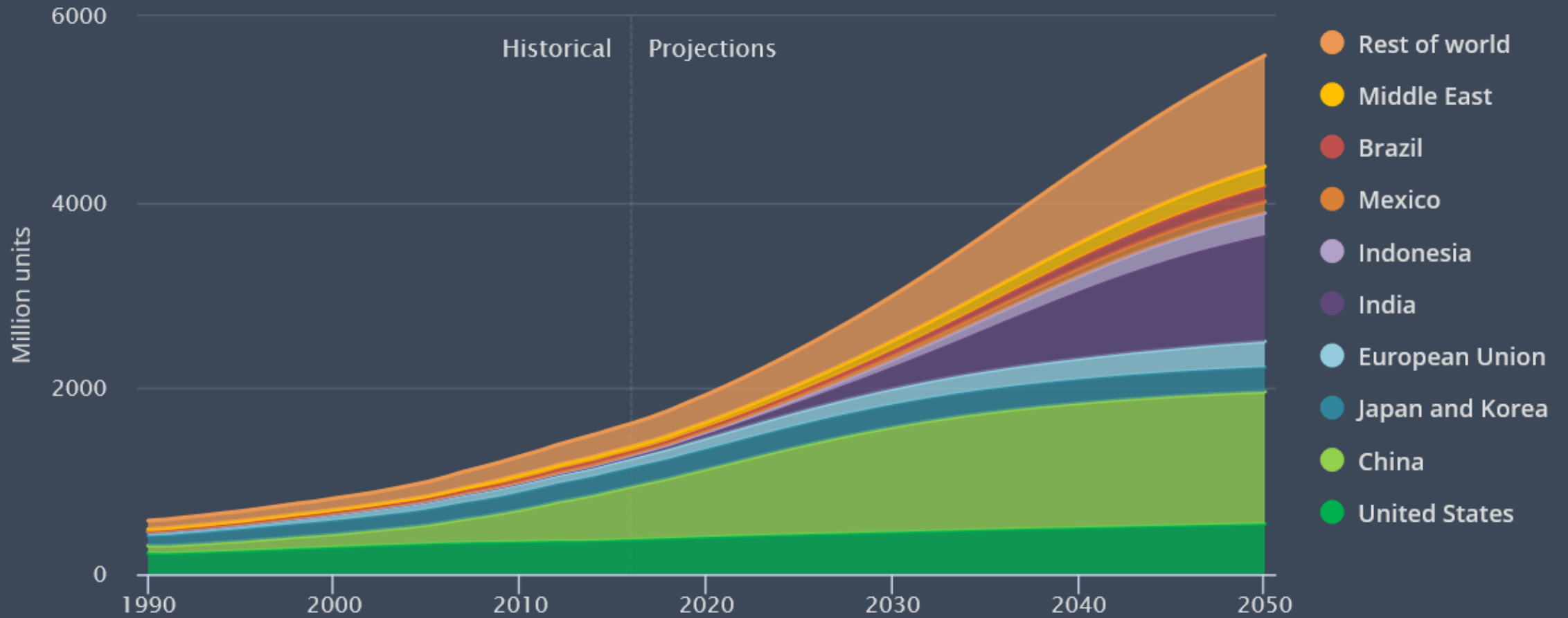
# ECONOMIC INSTRUMENTS FOR ENVIRONMENTAL PURPOSES

Daniel Besley  
World Bank  
9 December, 2018

## Percentage of households that have AC today

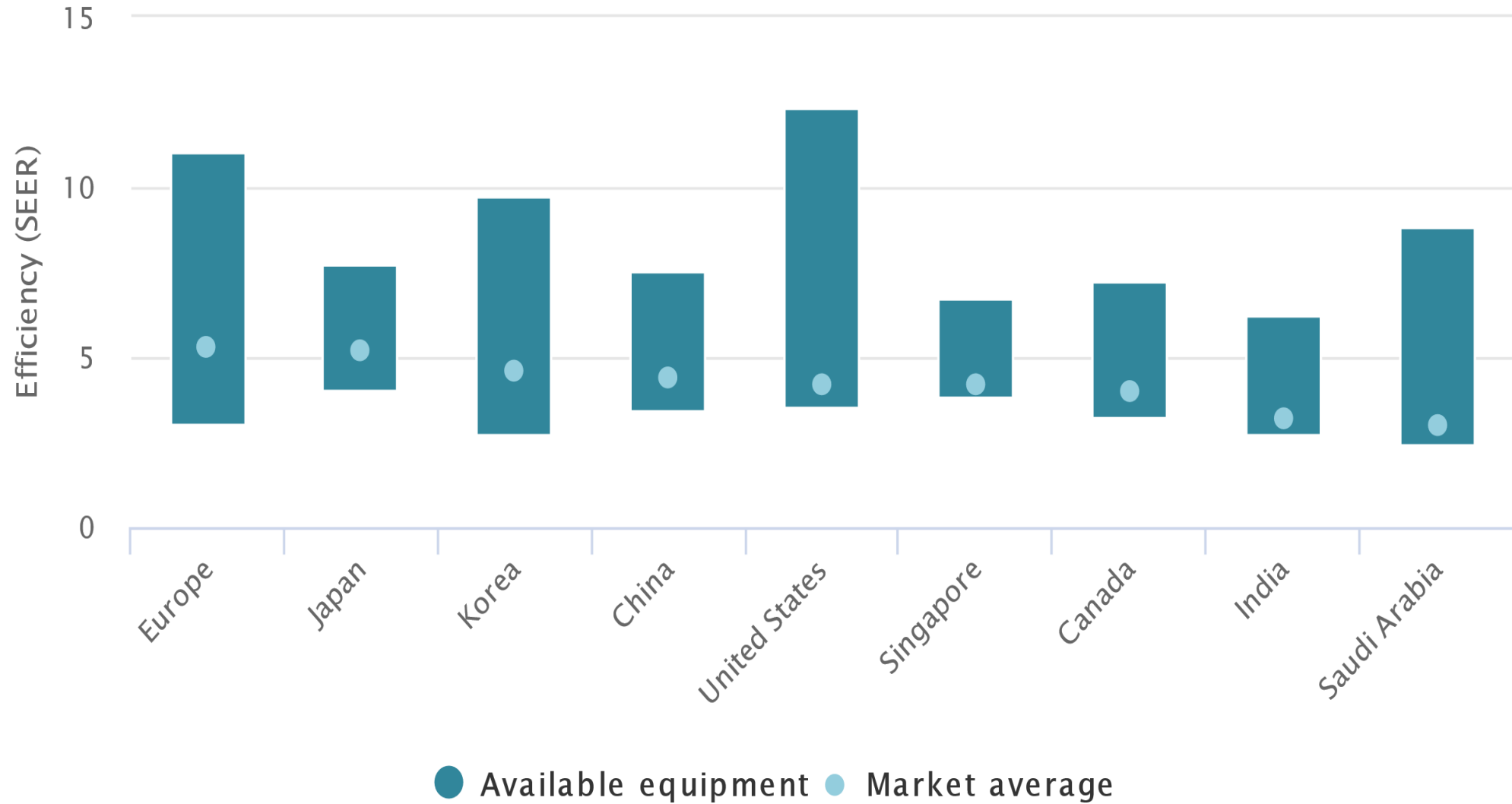


## Global air conditioner stock

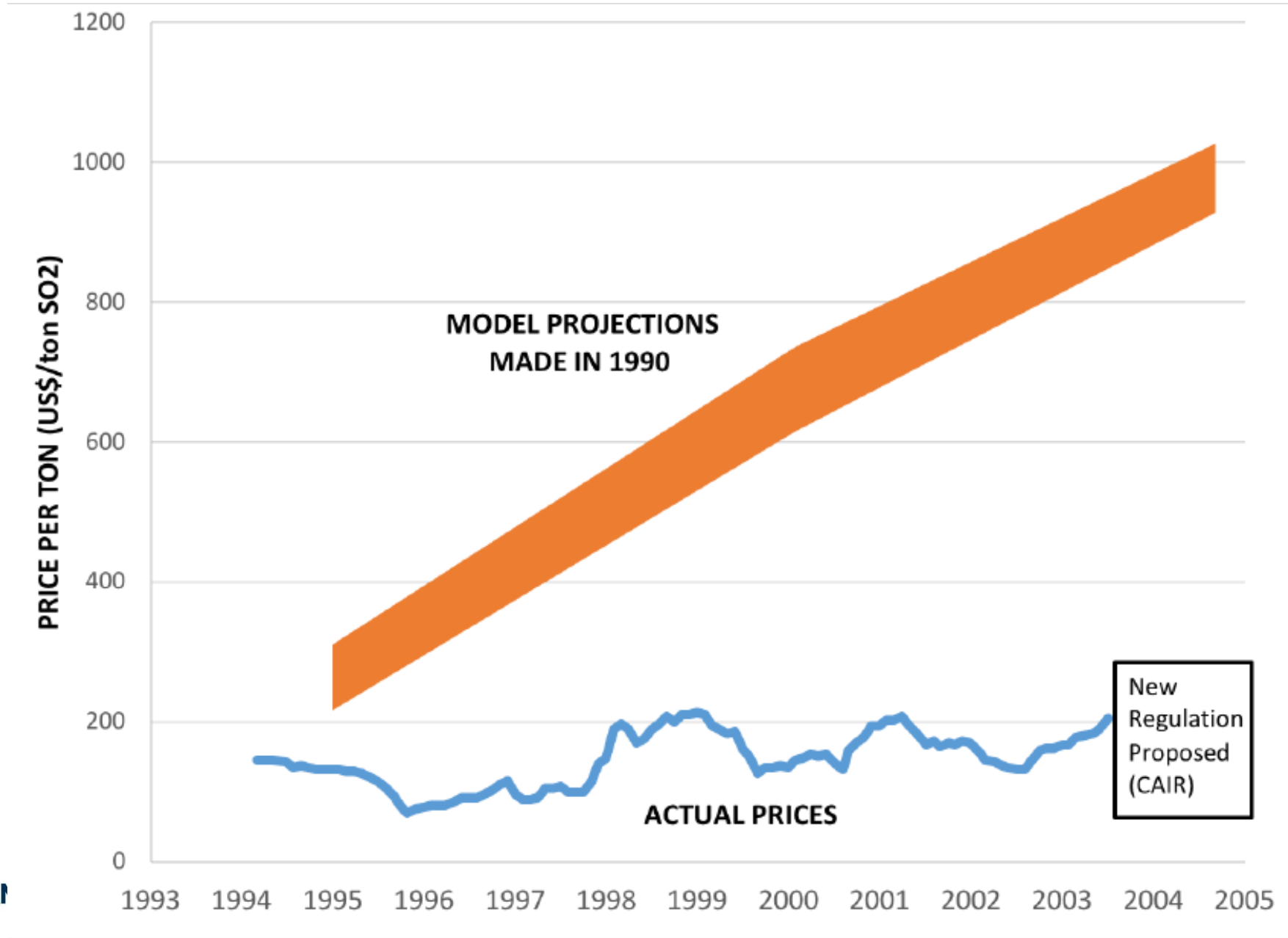


# Energy performance of air conditioners available today

The average efficiency of air conditioners sold today is less than half of what is typically available on the shelves – and one third of best available technology

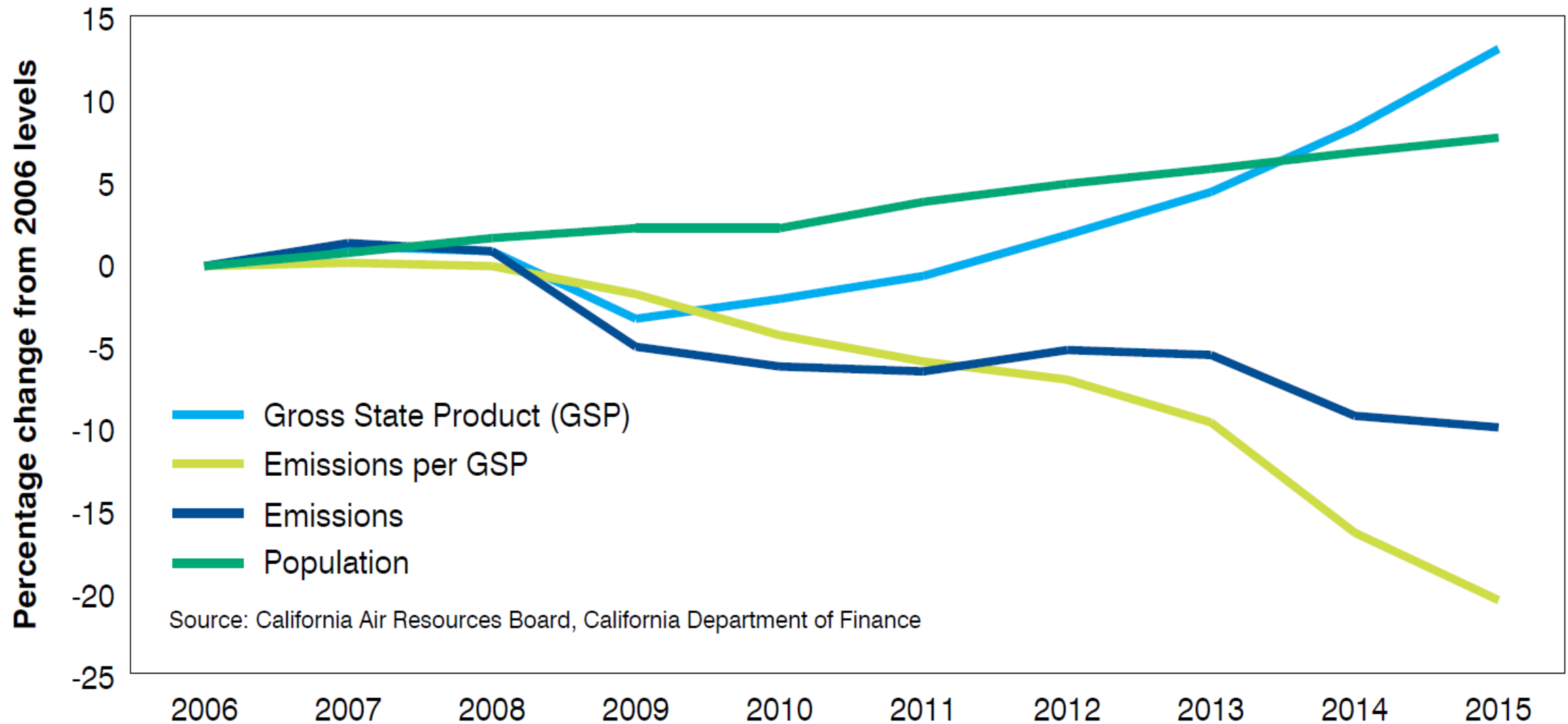


# Emissions trading to address acid rain (USA)

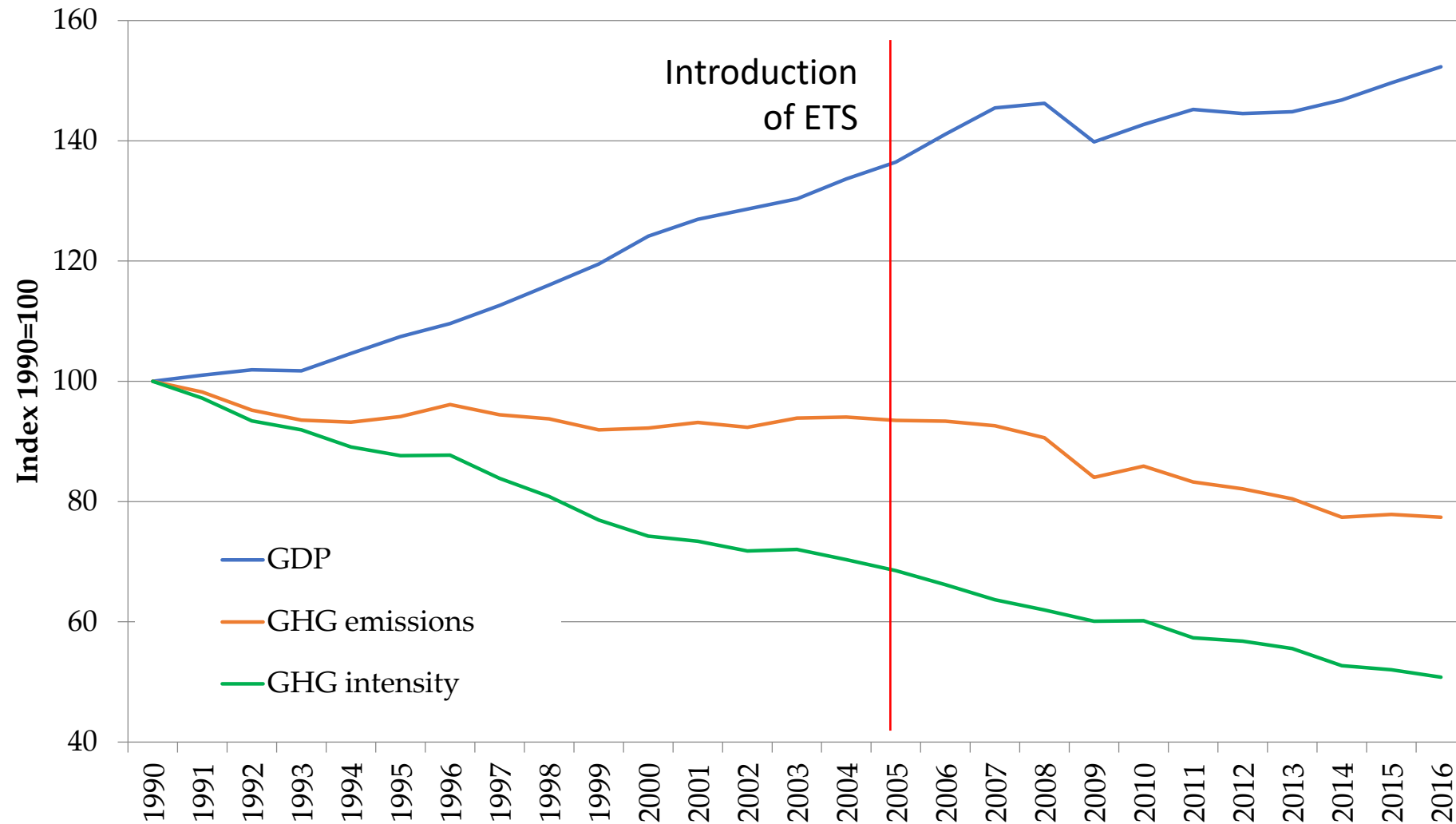


Source: Burtraw and Keyes, 2018

# California GHG emissions and economic growth since 2006

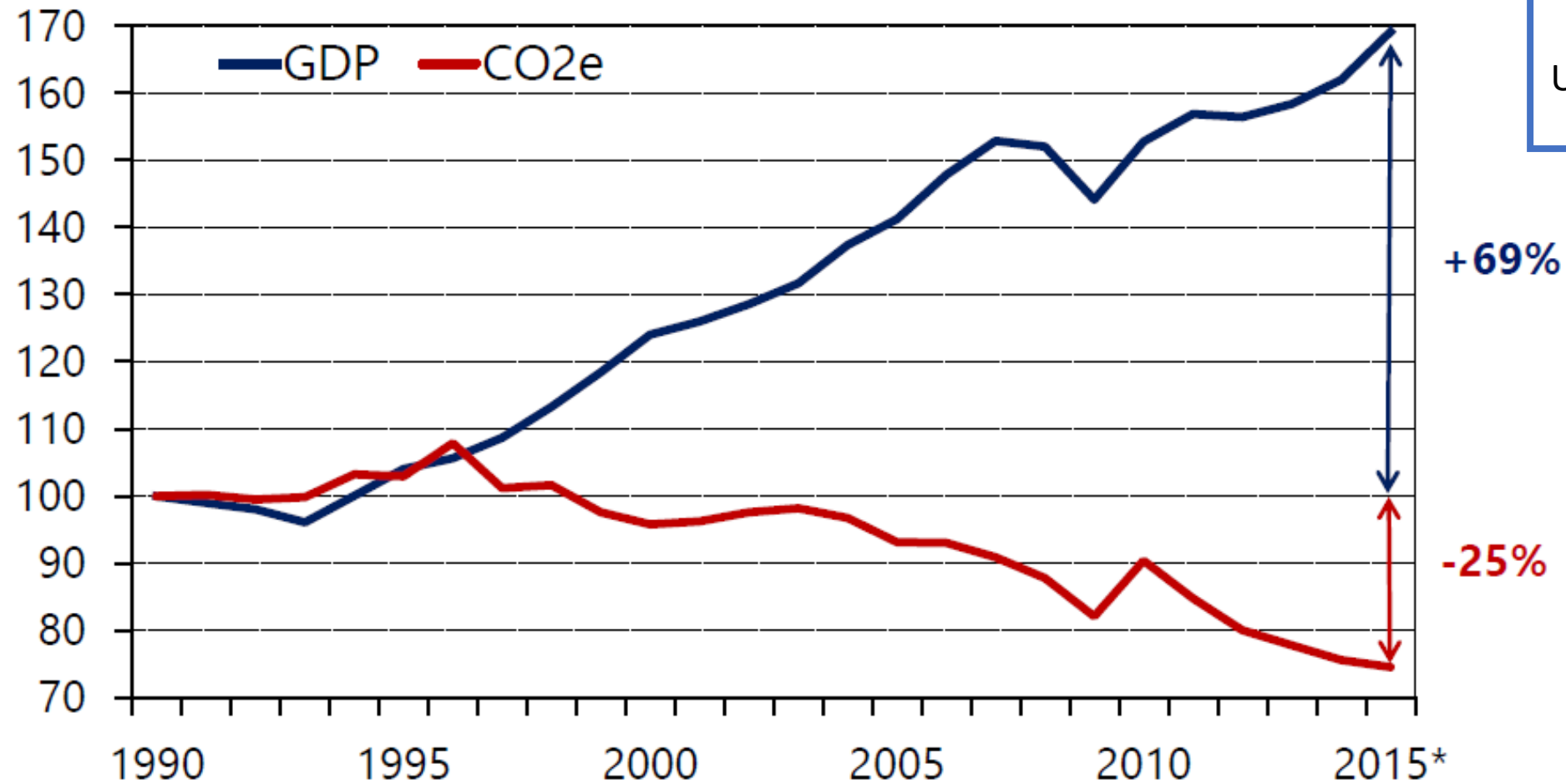


# Change in real GDP and GHG emissions in the EU, 1990-2016



# Real GDP and GHG emissions in Sweden, 1990-2015

Index (1990=100)

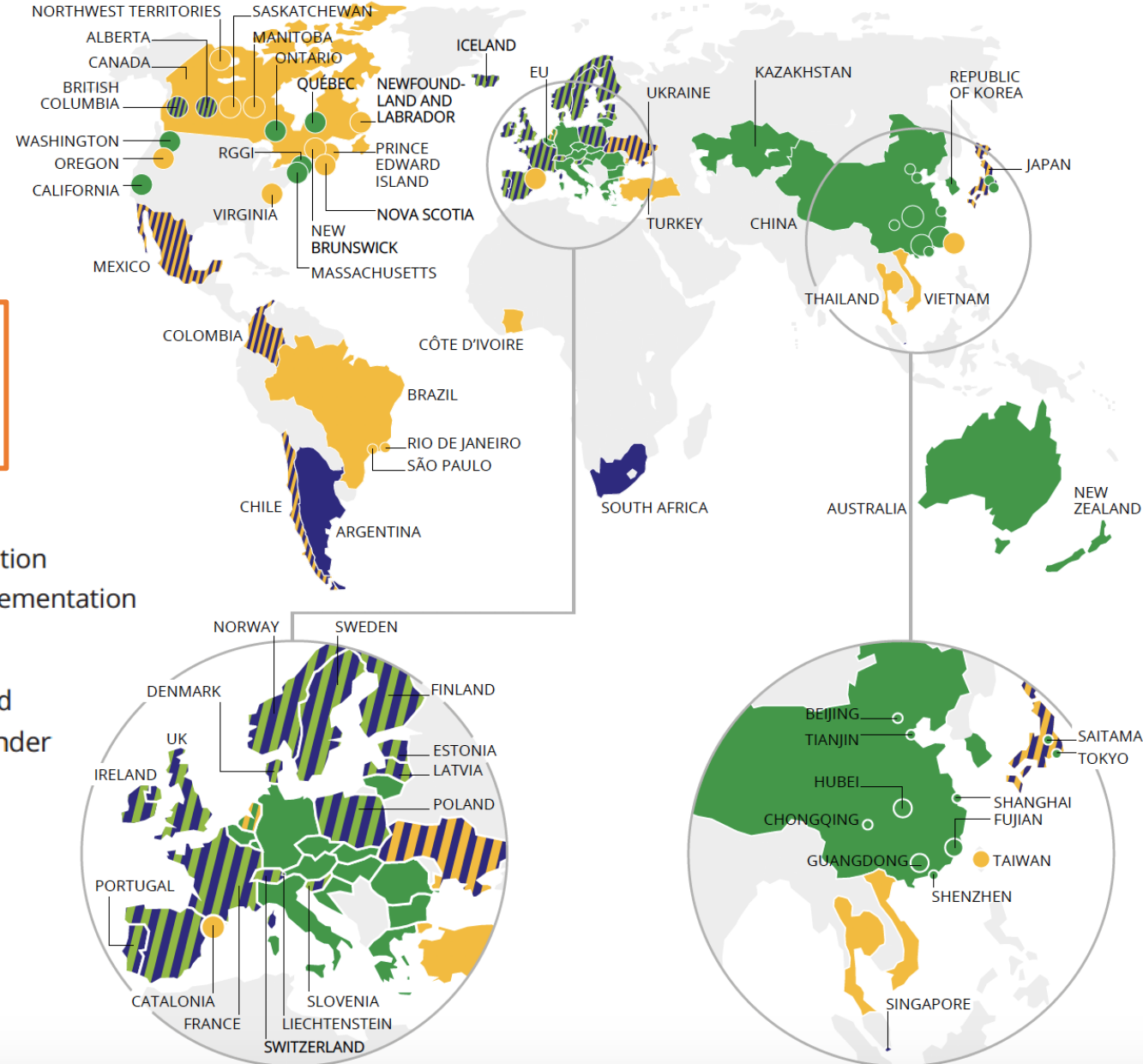


Carbon tax is  
USD\$126/tCO<sub>2</sub>-e

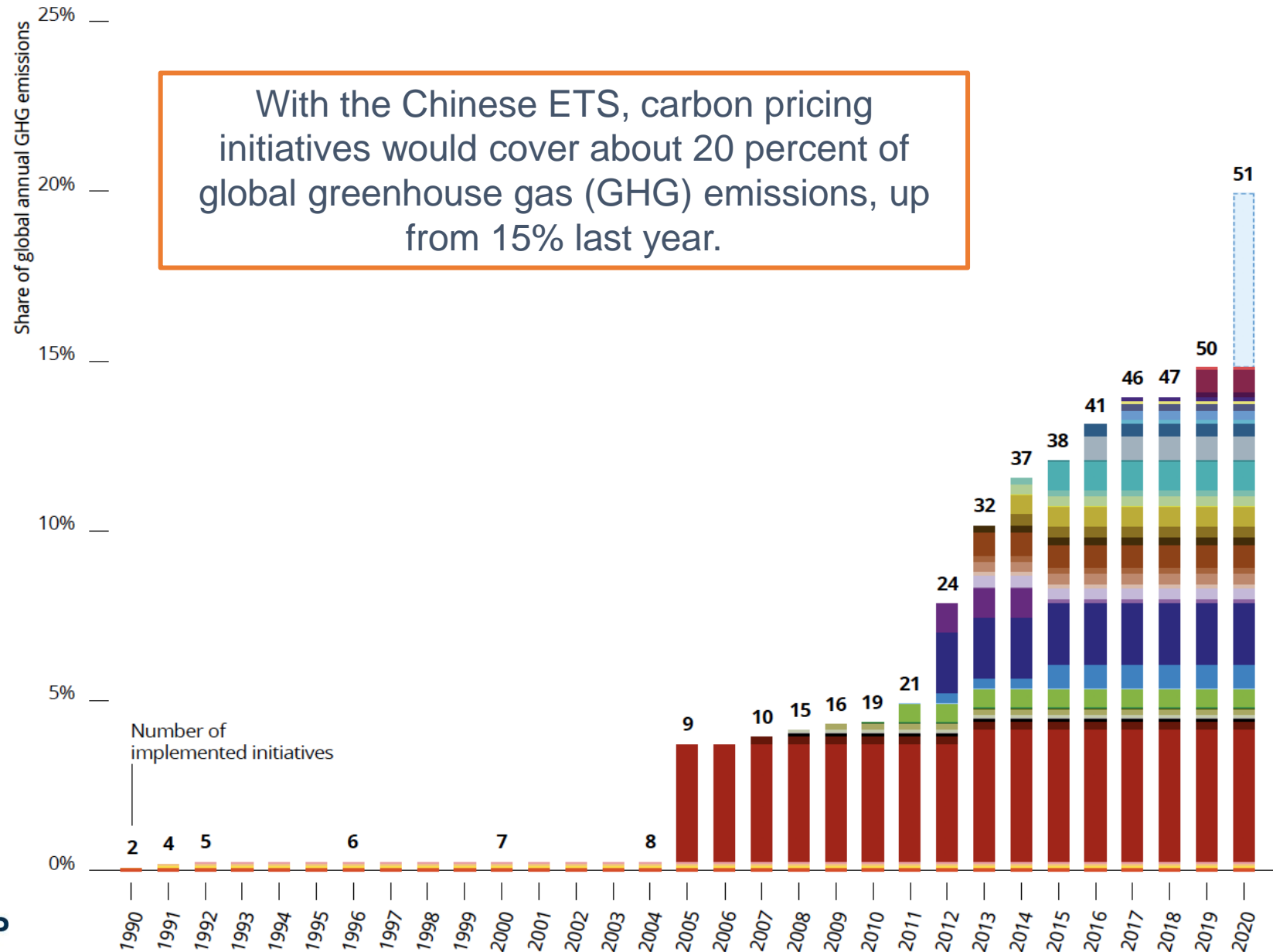
# Carbon pricing continues to emerge around the world

**46 national and 25 subnational jurisdictions**  
are putting a price on carbon

- ETS implemented or scheduled for implementation
- Carbon tax implemented or scheduled for implementation
- ETS or carbon tax under consideration
- ETS and carbon tax implemented or scheduled
- Carbon tax implemented or scheduled, ETS under consideration



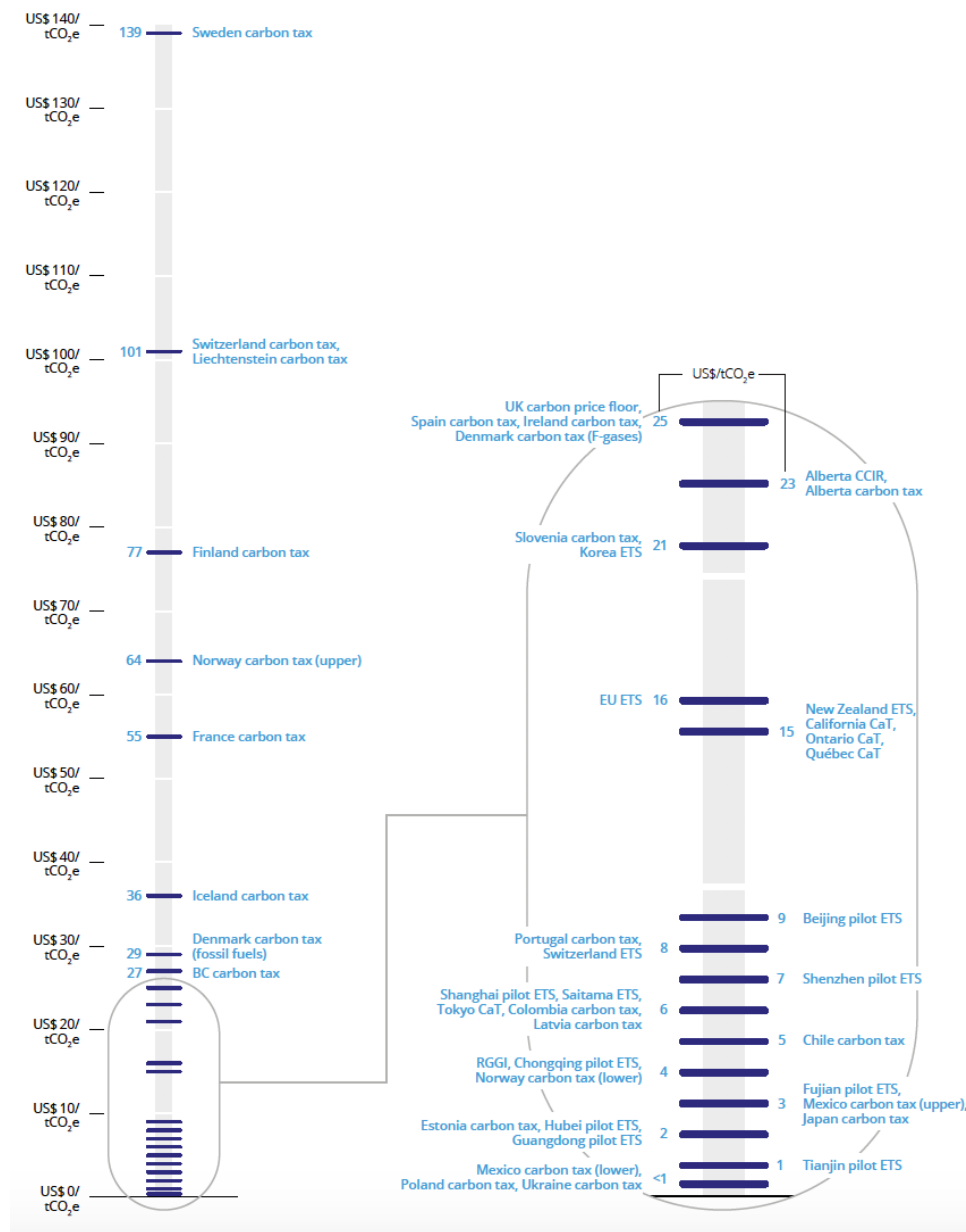
# Carbon pricing – growing share of global emissions



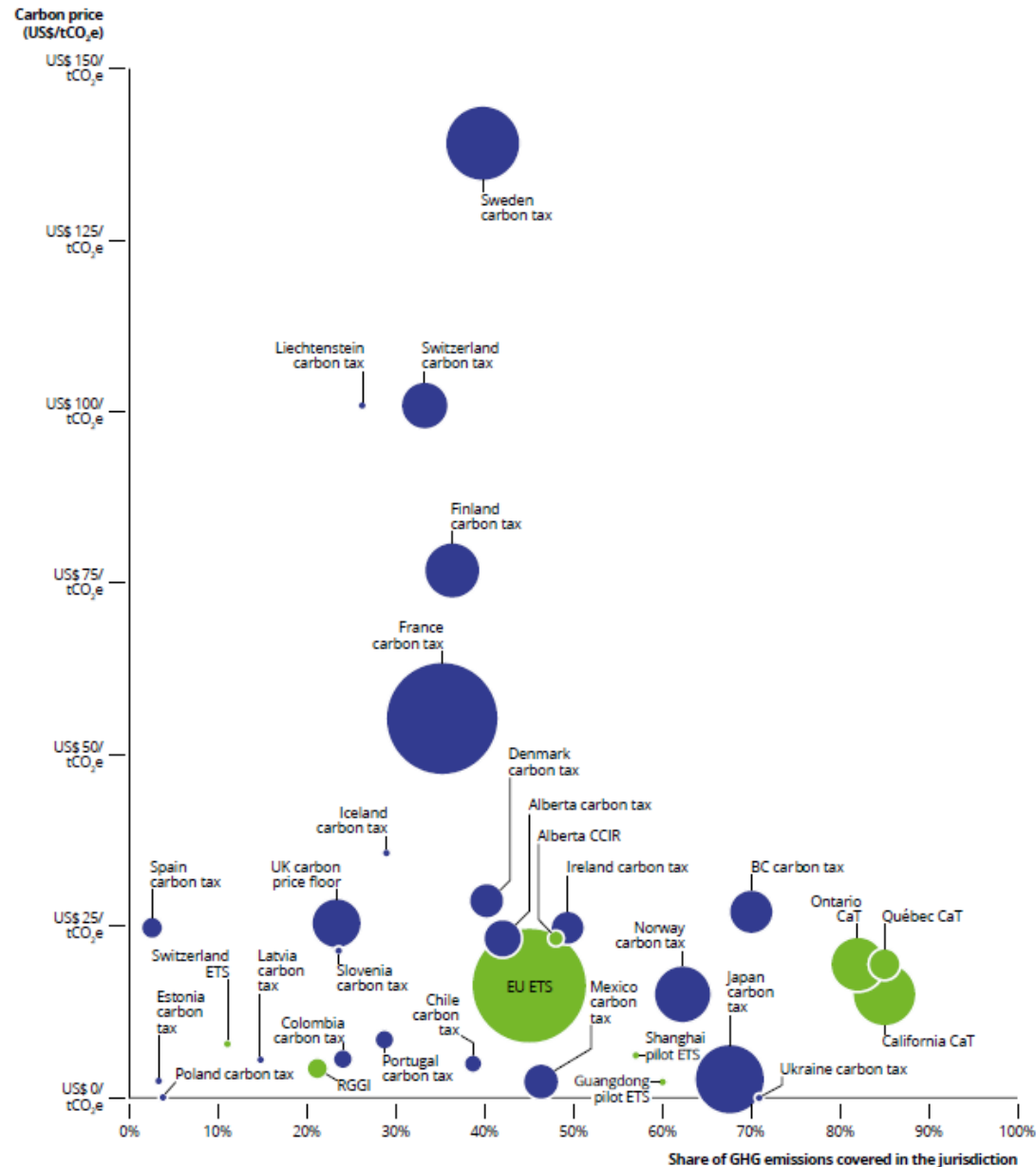
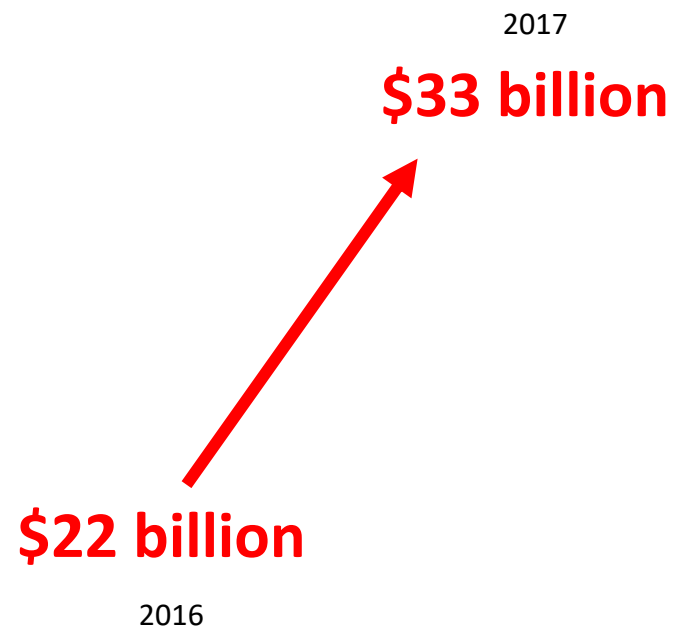
# Prices in implemented carbon pricing initiatives

While they remain too low,  
carbon prices in most initiatives  
are rising

About half of the emissions are  
now covered by carbon pricing  
initiatives priced at over  
US\$10/tCO<sub>2</sub>e  
compared to one-quarter of  
emissions covered in 2017



# Carbon pricing revenues are rising



# Thank you

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