Carbon pricing in China

Emissions coverage by carbon pricing instrument, 2018-2021

In 2021, explicit carbon prices in China consist of emissions trading systems (ETS) permit prices, which cover 38.5% of CO\textsubscript{2} emissions from energy use. In total, 47.5% of CO\textsubscript{2} emissions from energy use in China are priced in 2021, up from 18.8% in 2018. The share of emissions covered by an explicit carbon price has increased by 28.7 percentage points since 2018 following the introduction of the national ETS. Fuel excise taxes, an implicit form of carbon pricing, cover 9.1% of emissions in 2021, unchanged since 2018.

Note: Priced means that a positive price applies after correcting for tax reductions and refunds. Due to overlapping coverage between instruments, the sum of components can be larger than the summary indicators (explicit carbon prices, effective carbon rates). Taxes are those applicable on 1 April 2021. Where applicable, ETS coverage estimates are based on the OECD’s Effective Carbon Rates 2021, with ad-hoc adjustments to account for recent coverage changes. Emissions refer to energy-related CO\textsubscript{2} only and are calculated based on energy use data for 2018 from IEA’s World Energy Statistics and Balances. The figure includes CO\textsubscript{2} emissions from the combustion of biomass and other biofuels. Percentages are rounded to the first decimal place.

Average carbon price by instrument, 2018-2021

Since 2018, carbon prices have increased in China. Explicit carbon prices have increased to an average of EUR 2.41 per tonne of CO\textsubscript{2}, up by EUR 2.13 since 2018 (in real 2021 euros). In 2021, fuel excise taxes amounted to EUR 6.18 on average, down by EUR 0.45 relative to 2018 (in real 2021 euros).

Note: Taxes are those applicable on 1 April 2021. The ETS price is based on information for the period in which the ETS was operational (China: 16/07/2021). Where applicable, ETS coverage estimates are based on the OECD’s, Effective Carbon Rates 2021, with ad-hoc adjustments to account for recent coverage changes. Emissions refer to energy-related CO\textsubscript{2} only and are calculated based on energy use data for 2018 from IEA’s World Energy Statistics and Balances. Carbon prices are averaged across all energy-related emissions, including those that are not covered by any carbon pricing instrument. The figure includes CO\textsubscript{2} emissions from the combustion of biomass and other biofuels. All rates are expressed in real 2021 EUR using the latest available OECD exchange rate and inflation data; change can thus be affected by inflation and exchange rate fluctuations. Prices are rounded to the nearest eurocent.
Effective carbon rates in China, average by sector and combination of instruments, 2021

Effective carbon rates are highest in the road sector, which accounts for 7.1% of the country’s total CO₂ emissions from energy use. With 7.4% of emissions priced, emissions coverage is lowest in buildings. The buildings sector accounts for 8.9% of CO₂ emissions from energy use in China.

Note: Emissions-weighted average by sector and combination of instruments (explicit carbon price only, fuel excise only, both, none). Taxes are those applicable on 1 April 2021. The ETS price is based on information for the period in which the ETS was operational (China: 16/07/2021). Where applicable, ETS coverage estimates are based on the OECD’s, Effective Carbon Rates 2021, with ad-hoc adjustments to account for recent coverage changes. Emissions refer to energy-related CO₂ only and are calculated based on energy use data for 2018 from IEA’s World Energy Statistics and Balances. The figure includes CO₂ emissions from the combustion of biomass and other biofuels. All rates are expressed in real 2021 EUR using the latest available OECD exchange rate and inflation data; change can thus be affected by inflation and exchange rate fluctuations. Prices are rounded to the nearest eurocent.

Want to know more?

- Which domestic policy instruments are included as carbon pricing instruments? View the background information: www.oecd.org/tax/tax-policy/carbon-pricing-background-notes.pdf.
- Download the data shown in the country notes: www.oecd.org/tax/tax-policy/carbon-pricing-country-notes-data.xlsx

More information

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