

EFFECTIVE CARBON PRICES

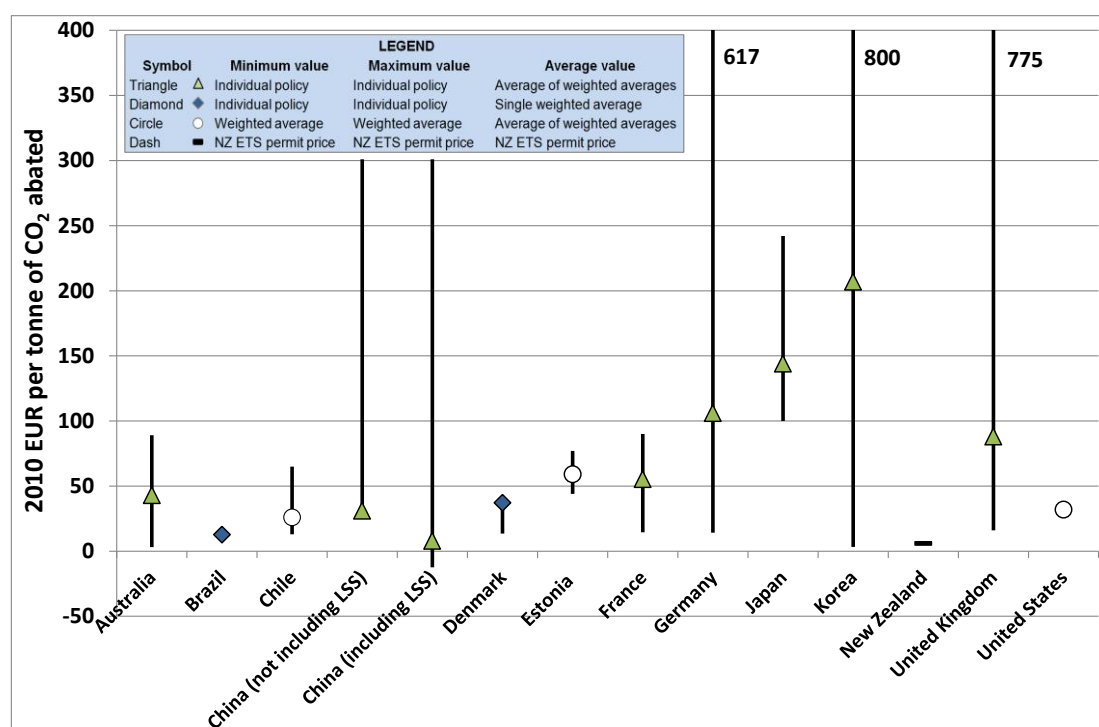
Country note on BRAZIL: High costs of biofuel mandates in road transport

These country notes present a brief synthesis of the costs to society of reducing CO₂eq emissions in selected countries. They are based on an examination of a broad range of policy instruments used in electricity generation, road transport, pulp and paper, cement and in the household energy sectors.

The 2013 OECD report on *Effective Carbon Prices* found wide variations in the costs of abating each tonne of CO₂eq within and among countries.¹ Effective carbon prices arise either explicitly via carbon taxes or emission trading systems, or implicitly via the abatement incentives embedded in other policies that influence greenhouse gas emissions. When interpreting the results, it is important to be aware that high effective carbon prices can stem from either ambitious policy or from ineffective policy. These case studies found that taxes and trading systems are generally more cost-effective than other policy instruments such as capital subsidies or feed-in tariffs.

The estimated abatement costs in the electricity generation sector in Brazil are among the lowest of the countries covered, both per tonne of CO₂eq abated (Figure 1) and compared to GDP (Figure 2).

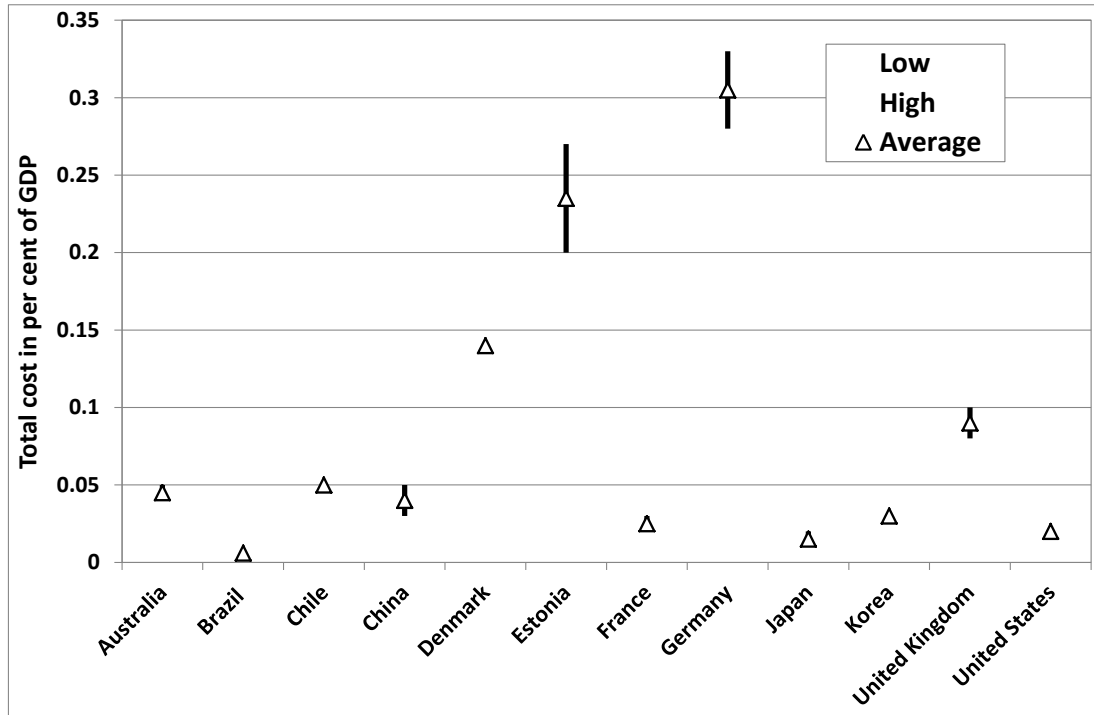
Figure 1. Estimated average effective carbon prices in the electricity sector, by country



Note: The estimate for Estonia includes only supply-side abatement. For China, "LSS" refers to the "Large Substitute for Small" programme.

1. The countries covered in the book are Australia, Brazil, Chile, China, Denmark, Estonia, France, Germany, Japan, Korea, New Zealand, South Africa, Spain, United Kingdom and United States.

Figure 2. Total costs of carbon-related policies applied in the electricity sector, in per cent of GDP



On the other hand, in road transport, the average effective carbon prices in Brazil are the highest found (Figure 3). This stems from the biofuel mandates, with costs of around EUR 200 per tonne of CO₂ abated (Figure 4). These mandates affect a large share of the road transport sector, thus contributing to a high average effective carbon price for the sector.

Figure 3. Estimated effective carbon prices in the road transport sector, by instrument type

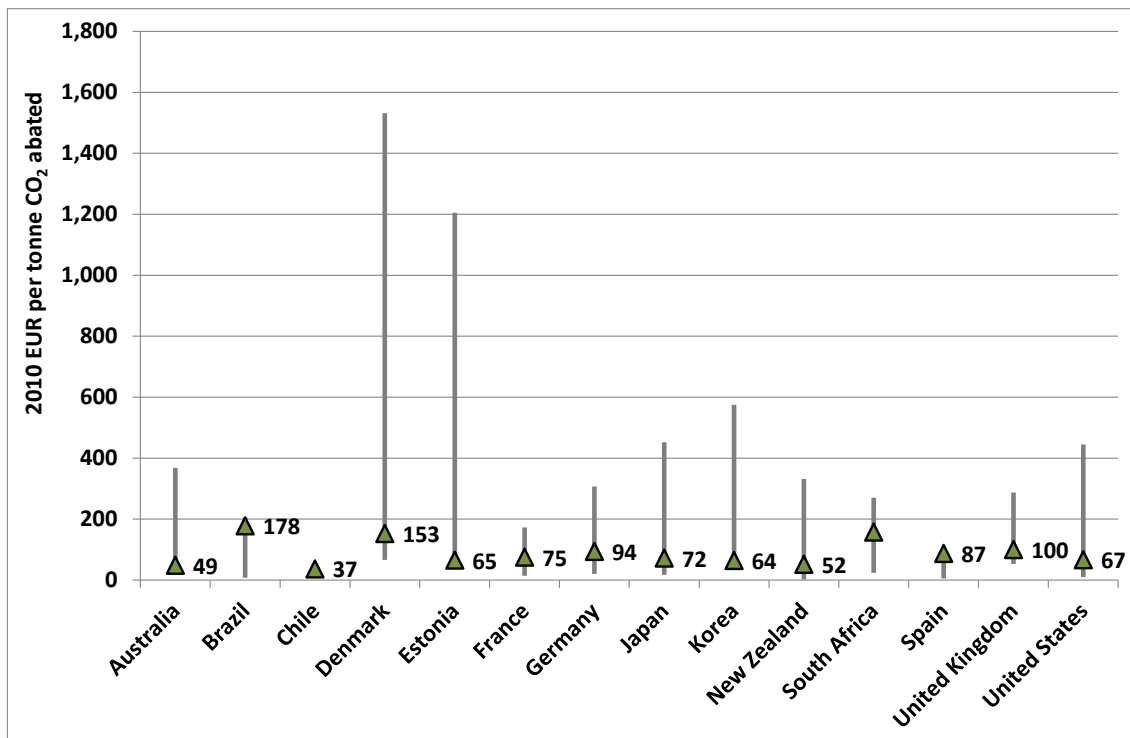
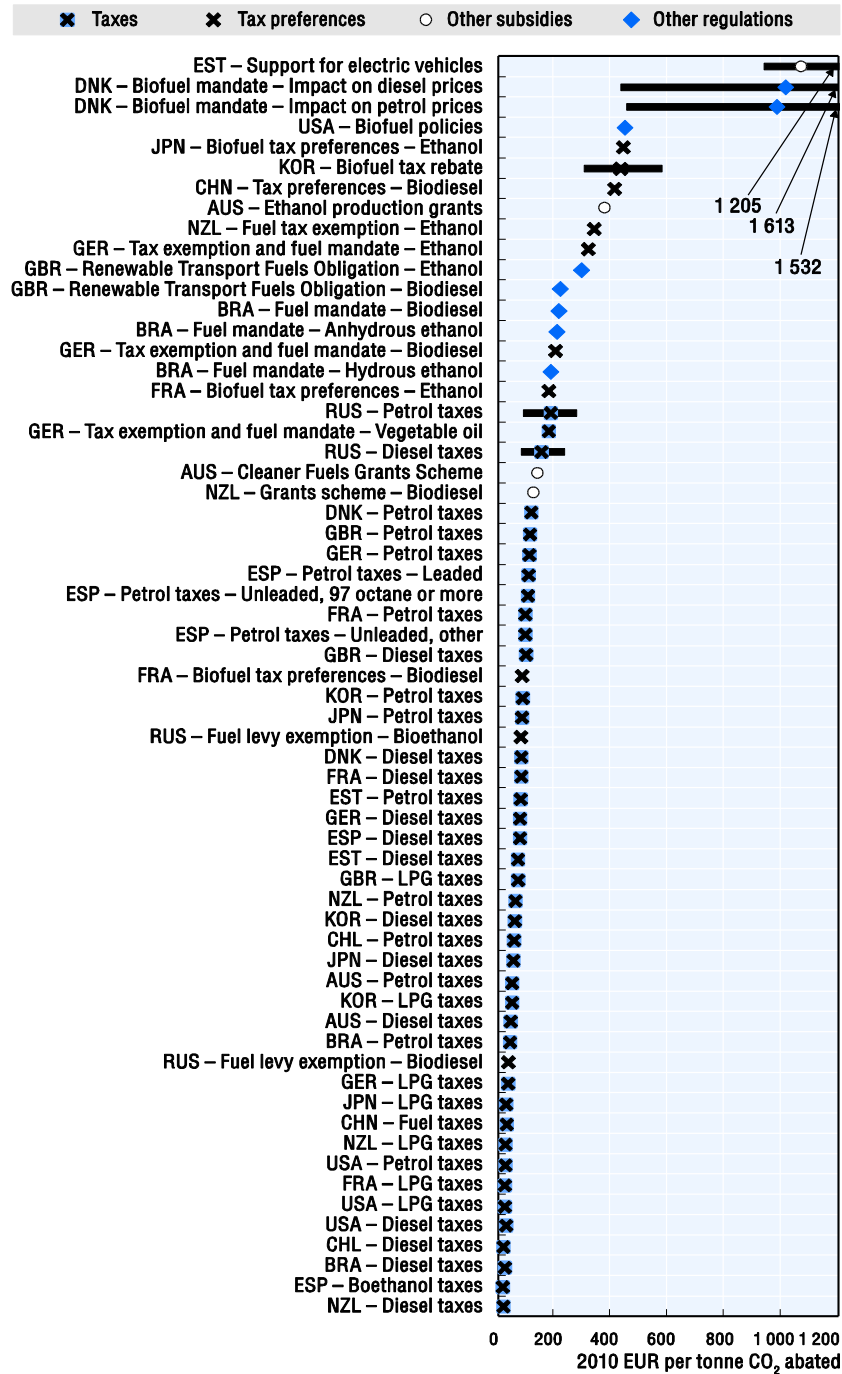


Figure 4. Estimated effective carbon prices in the road transport sector, by instrument



In the two industrial sectors, pulp & paper and cement, the effective carbon prices found in Brazil are much lower than in the other parts of the economy. This is similar to the situation in the other countries studied and is probably linked to concerns about adverse impacts on competitiveness resulting from the instruments used (Figure 5). Due to such concerns, many countries refrain from implementing ambitious and/or costly policies in relation these sectors.

Figure 5. Estimated effective carbon prices in the different sectors, by country

