

Case Study: Carbon Tax in Argentina

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Argentina is one of the several Latin American countries to introduce carbon tax as part of a larger series of tax reforms to boost political acceptability. The carbon tax, implemented in 2018, is an example of one of many in South and Central America where natural gas is exempted and other fossil fuels such as petroleum and coal are taxed on their CO₂ emissions compared to natural gas based on caloric content. The carbon tax partially replaced four existing taxes on gasoline, diesel, natural gas, and liquefied petroleum gas (LPG) for automobile usage¹ (including ad-valorem taxes and a customs excise tax on imported fuels), which each had different tax bases and reporting requirements. These existing taxes were adjusted upon the introduction of the carbon tax to offset the resultant fuel price increase, meaning that the net tax burden was unaltered.²

Initially, the carbon tax was proposed at a rate of USD \$25/ton CO₂e for all fossil fuels, including natural gas. However, the rate approved by congress on liquid fuels in 2018 was USD \$10 and would be varied quarterly with the consumer price index. The rate fell further due to significant currency devaluation and is now approximately USD \$6. Fuels that had been untaxed before the 2018 tax reform - fuel oil, petroleum coke, and mineral coal - were taxed at an initial rate of USD \$1 (10 percent of the rate of other fuels) with a proposed annual increase of USD \$1 per year until it was level with the other fuel rates.

As implemented, the tax covers 20 percent of national GHG emissions. It makes up a relatively small portion of the tax burden on fuels across all affected sectors, with excise taxes remaining the largest share.⁴ Additionally, Argentina considers natural gas to be a transitional fossil fuel and aims to position it as a substitute for more carbon-intensive fossil fuels such as coal and petroleum.⁵ As such, natural gas is exempted from the tax, as is fuel consumption in international aviation and shipping, as well as the export of these fuels.⁶ LPG used for heating purposes is also not taxed.

Energy and Emissions Baseline: In 2017, fossil fuels made up approximately 86 percent of Argentina's primary energy mix, with natural gas accounting for 53 percent, while zero-carbon sources (including renewables, hydropower, and nuclear) made up 13 percent.⁷ According to the Secretaria de Energia, in 2017 the major contributors of CO₂ emissions were transport, power and heat generation, and industries and buildings.

Revenue Handling: It was initially proposed to earmark 25 percent of the revenue generated for investments in energy transition projects. However, it was eventually decided to divert 100 percent of the revenue to the

Jurisdictional Context/Background

- Per-capita GDP (USD): \$9,912 (2019)
- Population: 45 million (2019)
- Major GHG emission sources: energy (47 percent), agriculture (33 percent)
- Human development index: 0.825 out of 1.0 (2017)
- Government capacity³ (out of 100; 2014):
 - Voice & accountability: 59.1
 - Political stability and absence of violence/ terrorism: 45.7
 - Government effectiveness: 46.6
 - Regulatory quality: 12.5
 - Rule of law: 18.9
 - Control of corruption: 35.1

¹ Argentina Ministry of Finance (2018a)

² Gutman (2019)

³ World Bank (2021a)

⁴ OECD (2019)

⁵ As noted at the twentieth session of the Committee of Experts on International Cooperation in Tax Matters in February 2020

⁶ Natural gas is still subject to the surcharge at the point of entry into the distribution system, and is taxed when used in pipeline transport (UN, 2020).

⁷ Climate Transparency (2019)

national and sub-national governments, which resolves the vertical fiscal imbalances generated by the gaps between expenditure and revenue-generation through inter-governmental transfers.

Measures to Prevent Leakage: The tax is functionally revenue neutral since fuel prices were adjusted on liquid fuels to ensure that the tax burden remained the same. By keeping the carbon tax revenue neutral, the government has substantially eliminated the market forces that would put its producers at a competitive disadvantage in domestic and foreign markets and potentially lead to migration of production facilities to other countries. Additionally, although the initial tax proposed had a carbon rate of USD \$25 per ton CO₂e for all fossil fuels based on emission factors, congress ultimately approved a lower rate of USD \$10 per ton and made an exemption for natural gas.

Challenges: The exemption for natural gas has been criticized as inconsistent with legitimate efforts to use natural gas as a transitional fuel in decarbonization efforts.⁸ Typically, in places where natural gas is viewed as transitional, it's due to an existing reliance on more carbon-intensive coal and liquid fuels. However, Argentina was already heavily reliant on natural gas (see Sankey diagram in appendix), meaning that it can't effectively serve as a path to decarbonization. Rather, the exemption may serve to lock in natural gas infrastructure, constraining future transitions to renewable energy or other low-emissions energy sources.

Additionally, the carbon tax was not complemented by removal of fossil fuel subsidies and other direct, substantial industry support. Argentina continues to push for further fossil fuel development and use through price minimums,⁹ caps on or freezing of oil and gas tariffs, and a focus on exploiting domestic fossil fuel resources, including providing subsidies for oil and gas development in the Vaca Muerta, one of the world's largest shale plays.¹⁰

Finally, the carbon tax rate is too low currently to drive significant technological or behavioral change that would reduce emissions,¹¹ particularly given that the tax burden is offset by reductions in other fuel taxes. Effectively, the change in the tax burden was not felt by consumers or producers but just shifted from being value-based to being partially carbon-based.

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⁸ Gutman (2019)

⁹ Including a price floor of USD \$45 per barrel for domestic oil to protect the industry from the economic downturn during the COVID-19 pandemic, as well as caps on electricity and gas tariffs (Climate Action Tracker, 2021)

¹⁰ S&P Global (2020)

¹¹ Stavins (2019)

- S&P Global. (2020). Commodities 2021: Argentina's Vaca Muerta has huge potential, but will companies take on the risk? Available at: <https://www.spglobal.com/platts/en/market-insights/latest-news/natural-gas/123120-commodities-2021-argentin-as-vaca-muerta-has-huge-potential-but-will-companies-take-on-the-risk>
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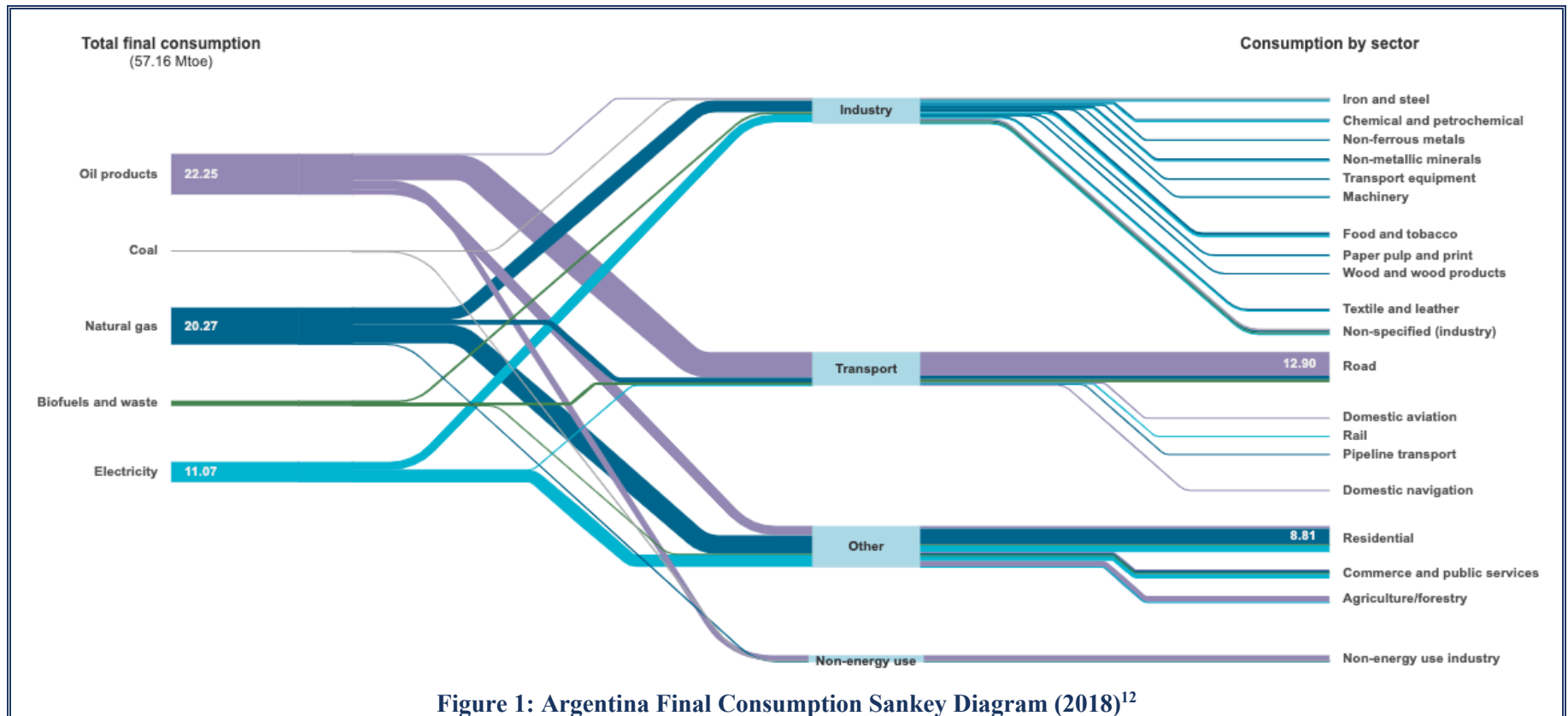


Figure 1: Argentina Final Consumption Sankey Diagram (2018)¹²

¹² IEA (2021)