

2021/SOM3/CTI/WKSP3/003

What Fossil Fuel Subsidies Standstill Commitments Could Mean for APEC Economies

Submitted by: International Institute for Sustainable Development



Workshop on Potential Options for a Voluntary Standstill on Inefficient Fossil Fuel Subsidies 19 August 2021







Data sources for FFS

- www.fossilfuelsubsidytracker.org (OECD & IISD)
 - OECD (Inventory approach, 50 Economies)
 - IEA and IMF estimates of Consumer Subsidies (using price-gap methodology)
- OECD Inventory of Support Measures for Fossil Fuels
 - Quantified vs. Unquantified
- Government Publications

Disclaimer: APEC Economies being assessed are currently only those that are listed in OECD inventory of support measures for fossil fuels & www.fossilfuelsubsidytracker.org

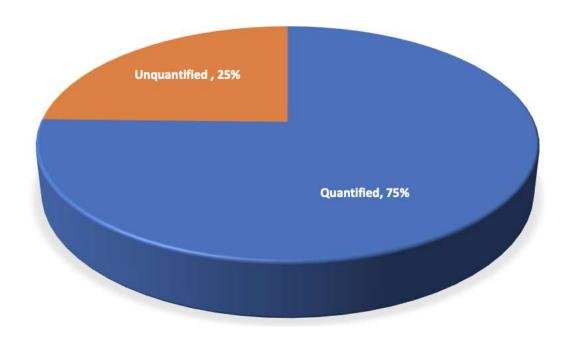
<u>www.fossilfuelsubsidytracker.org</u> incorporates estimates of fossil-fuel subsidies and other support measures from three international databases: <u>OECD Inventory of Support Measures for Fossil Fuels</u>, <u>IEA Energy subsidies</u>, <u>IMF Fossil Fuel Subsidies</u>





How many of them can be quantified?

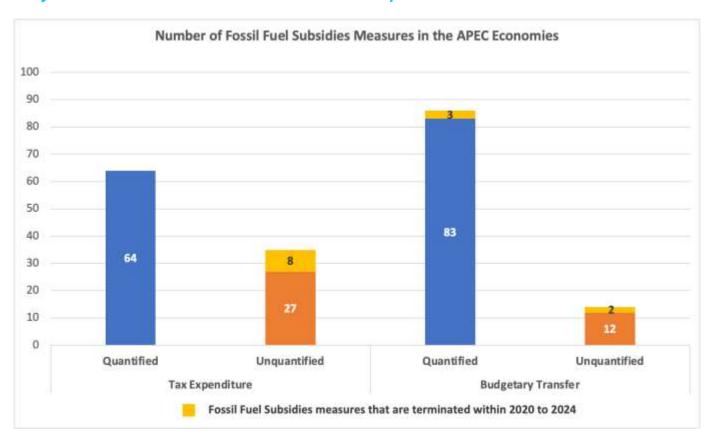




The APEC Economies assessed in this graph are those that are covered by the OECD inventory.

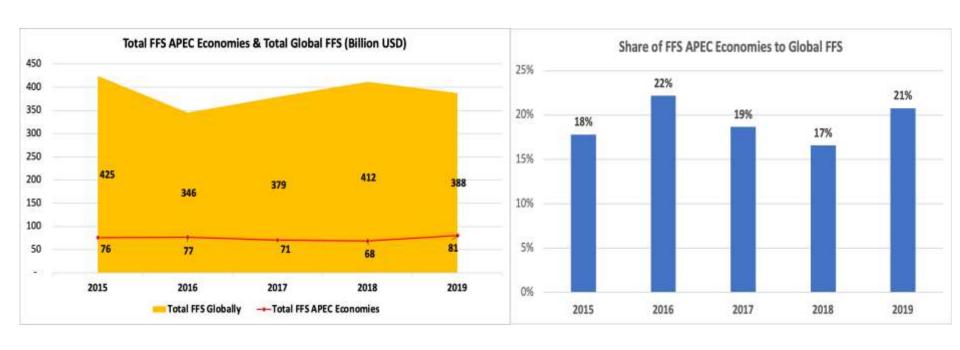


Subsidy measures which remain unquantified



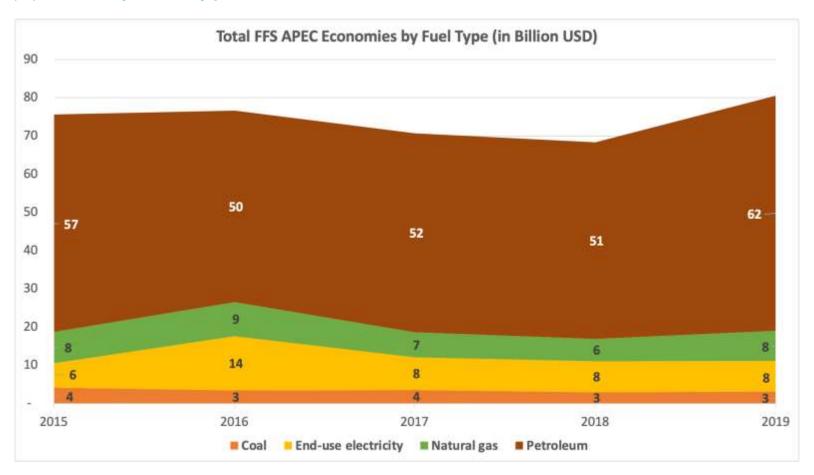


(1) Size and global share of FFS





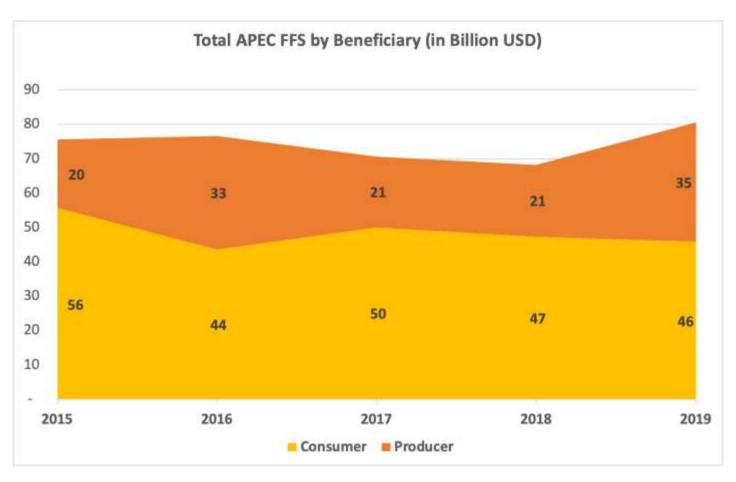
(2) FFS by fuel type



The APEC Economies assessed in this graph are those that covered by OECD, IEA and IMF estimates within www.fossilfuelsubsidytracker.org



(3) FFS by beneficiary



The APEC Economies assessed in this graph are those that covered by OECD, IEA and IMF estimates within www.fossilfuelsubsidytracker.org

Oil Price Changes and Fossil Fuel Subsidies in APEC Economies

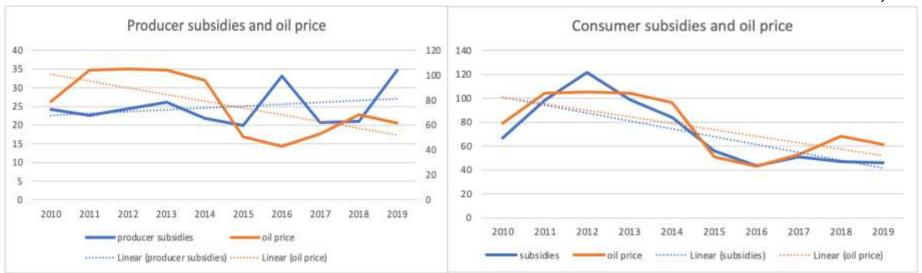


(1) Producer Subsidies & Consumer Subsidies

Beneficiary	Correlation with Oil Price	Pearson Coefficient value
Producer Subsidies	Negative correlation (weak)	-0.24
Consumer Subsidies	Positive correlation (strong)	0.92

USD 25 increase in oil price/bbl, decreases producer subsidies by USD 1.25 billion (30% change in oil price, would change producer subsidies value by 3%)

USD 25 increase in oil price/bbl, increases consumer subsidies by USD 26.29 billion (30% change in oil price, would change up to around 50% of the value of consumer subsidies)



Degree of correlation (Pearson Coefficient):

Perfect: If the value is near ± 1, then it said to be a perfect correlation: as one variable increases, the other variable tends to also increase (if positive) or decrease (if negative).

High degree: If the coefficient value lies between ± 0.50 and ± 1 , then it is said to be a strong correlation.

Low degree: If the coefficient value lies between \pm 0 and \pm 0.50, then it is said to be a weak correlation/ no correlation.



Oil Price Changes and Fossil Fuel Subsidies in APEC Economies

(2) Consumer Subsidies by fuel type

For a USD 25 increase in oil price/bbl, how much do consumer subsidies change by fuel type?

Type of Subsidies	Pearson Coefficient	Correlation with Oil Price	Change in subsidies (\$ billion)
Coal Consumer Subsidies	0.47	Positive correlation (weak)	0.21 (13%)
Natural Gas Consumer Subsidies	0.85	Positive correlation (strong)	1.01 (20%)
Electricity Consumer Subsidies	0.83	Positive correlation (strong)	4.15 (26%)
Petroleum Consumer Subsidies	0.90	Positive correlation (strong)	20.92 (27%)

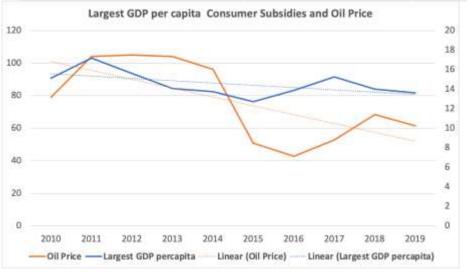
Oil Price Changes and Fossil Fuel Subsidies in APEC Economies

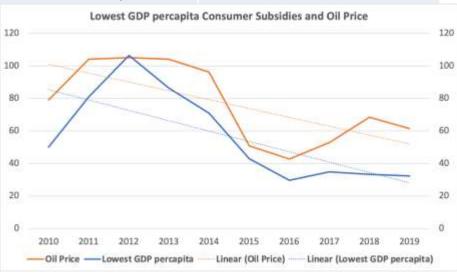


(3) Consumer Subsidies and GDP per capita (Higher and Lower GDP/capita groups of Economies)

For a USD 25 increase in oil price/bbl, how much could consumer subsidies potentially change in both groups?

Type of Subsidies	Pearson Coefficient	Correlation with Oil Price	Change in subsidies (\$ billion)
Higher GDP Per capita	0.52	Positive correlation (strong)	0.68 (25%)
Lower GDP Per capita	0.91	Positive correlation (strong)	25.61 (30%)







What impact could FFS Standstill commitments have?

FFS Standstill commitments could preclude Economies from increasing consumer subsidies when the oil price goes up or increasing producer subsidies when the oil price goes down.

Changes in the oil price would potentially affect consumer subsidies significantly.

For a USD 25 increase in oil price/bbl, APEC Economies could see an increase in consumer subsidies of USD 26.29 billion without Standstill commitments

For a USD 25 decrease in oil price/bbl, APEC Economies could see an increase in producer subsidies of USD 1.25 billion without Standstill commitments

Standstill commitments could also have an impact through non-extension of measures with an end date. We identify 13 such measures with end dates between 2020-24 (6.5% out of a total of 199 measures). Only 3 of these 13 measures are quantified