The background of the slide features three oil pumpjacks in silhouette against a vibrant sunset sky. The sun is a bright, glowing orb in the center, casting a warm orange and yellow light across the clouds. The pumpjacks are dark, with their characteristic walking beams and counterweights. The counterweights are painted red, providing a sharp contrast against the dark machinery and the bright sky. The overall scene is industrial yet serene, capturing the end of a day in an oil field.

OECD Inventory of Fossil Fuel Support Database

Overview of OECD's Inventory's data production system

16 November 2021

Mark Mateo
Statistician



The OECD Fossil Fuel Support Inventory Database

The **website** is located at:

<http://www.oecd.org/fossil-fuels/data/>

with links to the country **FFS data** in the OECD.stat portal:

<http://dotstat.oecd.org/>

The dotstat portal displays **individual country FFS data measure-by-measure.**

Country notes describes country's energy market and fossil fuel support policy environment

Interactive data visualisation for export of graphics and data export available in the homepage (aggregate data) and individual country notes



[Home](#)

[Publication](#)

[Data](#)

[Methodology](#)

[Further Reading](#)

OECD analysis of budgetary support and tax expenditures

2020 country notes

Consult fossil fuel support data sorted by

*Asterisk indicates data and country notes for Data for the EU Eastern Partnership (EaP) countries

Data and country notes for the EU Eastern Partnership supported by Germany.

- › [Armenia Data | Country note](#)
- › [Argentina Data | Country note](#)
- › [Australia Data | Country note](#)
- › [Austria Data | Country note](#)
- › [Azerbaijan Data | Country note](#)
- › [Belarus Data | Country note](#)
- › [Belgium Data | Country note](#)
- › [Brazil Data | Country note](#)
- › [Canada* Data | Country note](#)
- › [China Data | Country note](#)
- › [Chile Data | Country note](#)
- › [Colombia Data | Country note](#)

Rising fossil fuel support poses a threat to building a healthier and climate-safe future

OECD analysis of budgetary transfers, tax breaks and spending programmes linked to the production and use of coal, oil, gas and other petroleum products in 44 OECD and G20 economies showed that total fossil fuel support rose by 10% to USD 178 billion in 2019, ending a five-year downward trend. The analysis builds on the OECD Inventory of support measures for fossil fuels.

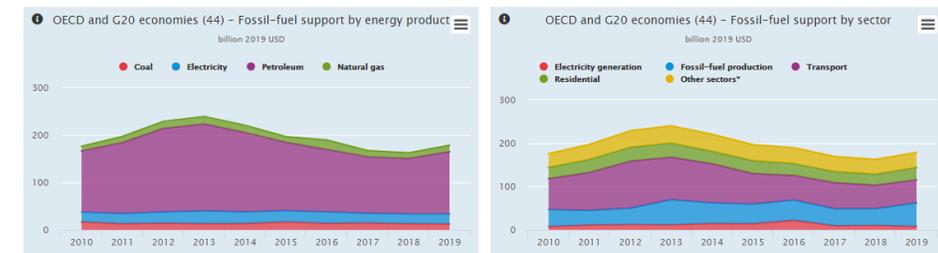
In 2019, oil and gas industries in several countries received additional benefit, mostly through direct budgetary support to alleviate corporate debt, fossil-fuel infrastructure investments and tax provisions that provide preferential treatment on capital expenditures for fossil-fuel production. This represents a rise in overall support for the production of fossil fuels of 38%. This trend seems set to continue in 2020 with some countries targeting state aid to fossil fuels and related industries in the wake of the disruptions caused by Covid-19 bringing fuel price levels to record lows. In most countries, support for fossil-fuel consumption remains widespread. Among energy products, support to petroleum remained the largest component with 74% of the total support estimate. Natural gas receives the next largest portion of the total support estimate with 12%, followed by electricity at 8% and coal at 7%.

By inducing increased greenhouse gas and air pollutant emissions, such policies go against domestic efforts to curb climate change and improve air quality. They maintain economies locked up in energy- and pollution-intensive technologies; they jeopardise efforts to modernise economies and strengthen the competitiveness of clean, low-carbon sectors, and they may be socially inequitable. By encouraging combustion of fossil fuels, such government support contributes to exposing people to air pollution, which can exacerbate vulnerability to pandemics like the Covid-19.

Nonetheless, some progress has been made. Western Europe has completed its phasing out of hard-coal subsidies and efforts continue to end state aid to coal-fired power generation in the European Union.

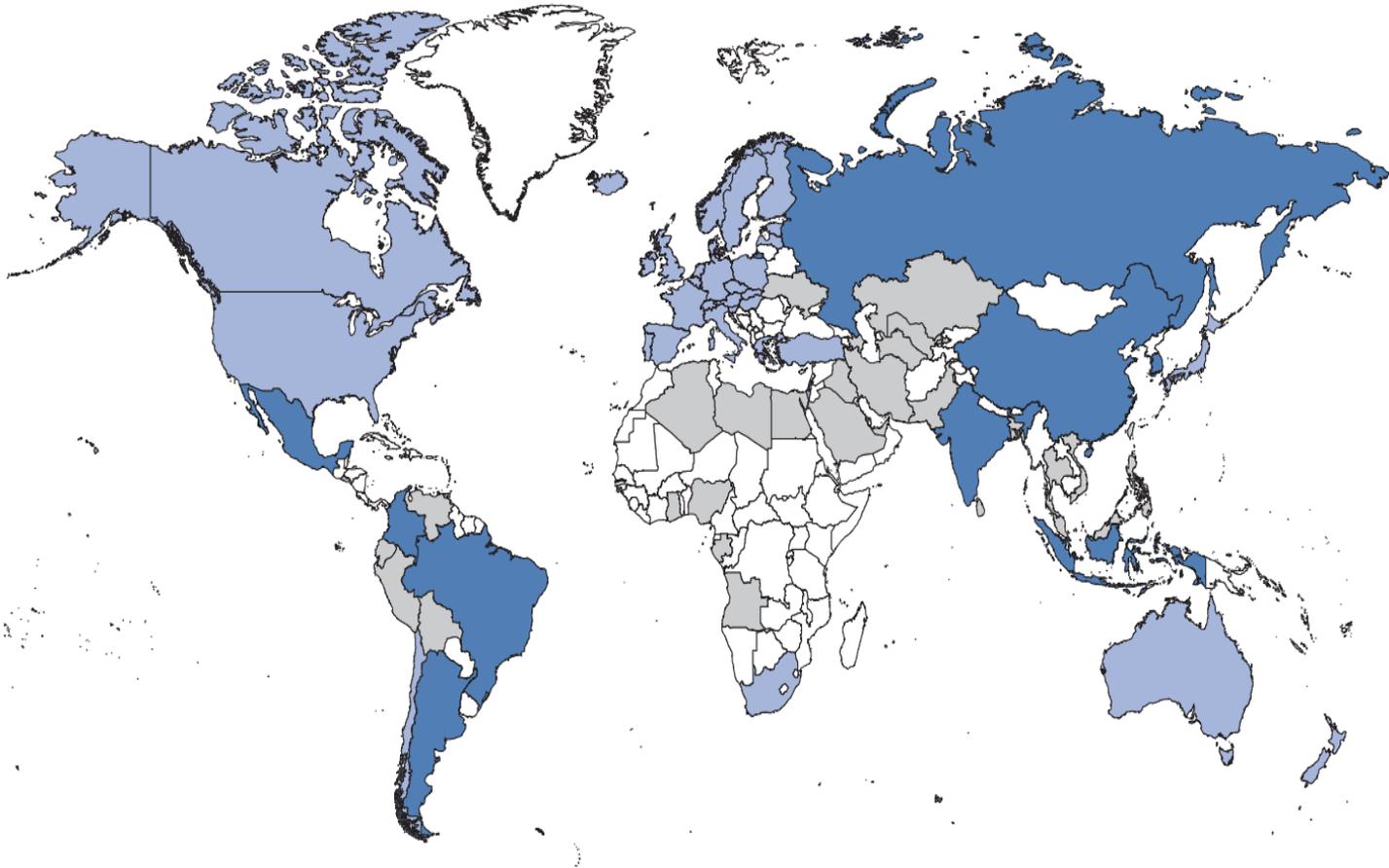
Support for fossil fuels in the OECD and selected partner economies is on the rise again after five years of steady declines

(Click on the series legend to remove or add categories and play with the visualisation)





The Inventory over the years



IEA price gap database

OECD FFS database

OECD-IEA overlap

Pre-2015:

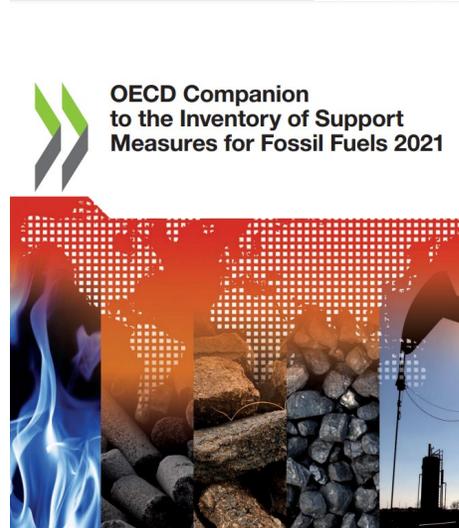
In 2020:

- OECD countries
- All data in book form
- Expansion to Eastern Partnership (EaP) countries

ARM, AZE, BLR, GEO, MDA, UKR

Inventory of Estimated Budgetary Support and Tax Expenditures for Fossil Fuels 2013

of data





Timeline for the Inventory Data Update

	M	M+1	M+2	M+3	M+4	M+5	M+6	M+7	M+8
Data procurement <ul style="list-style-type: none"> Official budgetary publications Programme announcements Direct ministry contacts 									
Data processing <ul style="list-style-type: none"> Quality checks Fuel & sector allocation 									
Country validation <ul style="list-style-type: none"> Country internal co-ordination Delegate submission of comments and revisions 									
Press Release publication & Upload on OECD.stat									
Publication of country notes									

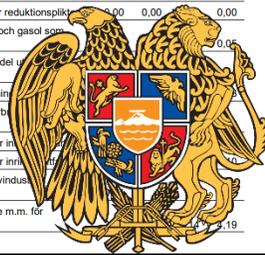


FFS Inventory data update example: Armenia

Skc 2019/20/98

Tabell 3.7 F. Punktskatter¹
Skatteutgift (mdkr)

		2019	2020	2021	2022
F1	UO22 Energiskatt på diesel i motordrivna fordon	11.72	12.14	12.55	12.99
F2	UO22 Energiskatt på fossil bensin utanför reduktionsplik	0.00	0.00	0.00	0.00
F3	UO22 Energiskattebefrielse för naturgas och gasol som drivmedel			70.00	
F4	UO22 Energiskattebefrielse för biodrivmedel utanför reduktionsplik				
F5	UO22 Energiskattebefrielse för elförbrukning				
F6	UO22 Energiskattebefrielse för bränslefordorbandrift				
F7	ST Energiskattebefrielse på bränsle för in				
F8	UO22 Energiskattebefrielse på bränsle för in				
F9	UO24 Nedstätt energiskatt för diesel i gruvindustriell verksamhet				
F10	UO21 Energiskattebefrielse för biobränsle m.m. för uppvärmning				19



ARM national data sources

Step 1: Data collection in official budgetary documents



Home Publication Data Methodology Further Reading

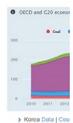
Rising fossil fuel support poses a threat to building a healthier and climate-safe future

OECD analysis of budgets

2020 country notes

Consult fossil fuel support data sorted by country

- ▶ Armenia Data | Country note
- ▶ Argentina Data | Country note
- ▶ Australia Data | Country note
- ▶ Austria Data | Country note
- ▶ Azerbaijan Data | Country note
- ▶ Belarus Data | Country note
- ▶ Belgium Data | Country note
- ▶ Brazil Data | Country note
- ▶ Canada Data | Country note
- ▶ China Data | Country note
- ▶ Colombia Data | Country note



Step 6: Upon country endorsement, data and country notes published in OECD Inventory portal

A	B	2015	2016	2017	2018	2019	2020	Comments	sources	Notes	SpecLink	GenLink	Page	ID
program	program_desc	2015	2016	2017	2018	2019	2020							
SWE_in_01	Reduced Energy Tax Rate for Diesel used in Motor Vehicles	8,080,000,000	10,970,000,000	7,870,000,000	7,820,000,000	11,720,000,000	12,140,000,000	Energiskatt	Ministry of Finance	This measure	http://www.scb.se/2019-10-10/10022	http://www.scb.se/2019-10-10/10022	11	UO22
SWE_in_02	Energy Tax Exemption for Natural Gas and LPG used as a propellant	160,000,000	160,000,000	100,000,000	60,000,000	40,000,000	40,000,000	Energiskatte	Ministry of Finance	This measure	http://www.scb.se/2019-10-10/10022	http://www.scb.se/2019-10-10/10022	11	UO22
SWE_in_03	Energy Tax Exemption for fuels used for runway operations	20,000,000	30,000,000	30,000,000	30,000,000	20,000,000	20,000,000	Energiskatte	Ministry of Finance	This measure	http://www.scb.se/2019-10-10/10022	http://www.scb.se/2019-10-10/10022	11	UO22
SWE_in_04	Energy Tax Exemption for Domestic Shipping	240,000,000	240,000,000	180,000,000	240,000,000	780,000,000	790,000,000	None	Ministry of Finance	Skatteutgift	http://www.scb.se/2019-10-10/10022	http://www.scb.se/2019-10-10/10022	11	UO22
SWE_in_05	Energy Tax Exemption for Domestic Aviation	170,000,000	620,000,000	920,000,000	180,000,000	970,000,000	960,000,000	Energiskatte	Ministry of Finance	Skatteutgift	http://www.scb.se/2019-10-10/10022	http://www.scb.se/2019-10-10/10022	11	UO22
SWE_in_06	Reduced Energy Tax Rate for Fossil Fuels Used for Heating							Energiskatte	Ministry of Finance	Skatteutgift	http://www.scb.se/2019-10-10/10022	http://www.scb.se/2019-10-10/10022	11	UO22
SWE_in_07	Reduced Energy Tax Rate for Fuels Used in CHP Plants	180,000,000	200,000,000	220,000,000	160,000,000	100,000,000	100,000,000	None	Ministry of Finance	Skatteutgift	http://www.scb.se/2019-10-10/10022	http://www.scb.se/2019-10-10/10022	11	UO22
SWE_in_08	Reduced Energy Tax Rate on Diesel for the Mining Industry	210,000,000	200,000,000	200,000,000	360,000,000	140,000,000	None	Ministry of Finance	Skatteutgift	http://www.scb.se/2019-10-10/10022	http://www.scb.se/2019-10-10/10022	11	UO22	
SWE_in_09	Reduced Energy Tax Rate on Heating Fuels for Industrial Consumers	650,000,000	630,000,000	630,000,000	670,000,000	670,000,000	670,000,000	None	Ministry of Finance	Skatteutgift	http://www.scb.se/2019-10-10/10022	http://www.scb.se/2019-10-10/10022	11	UO22
SWE_in_10	Reduced Energy Tax Rate on Heating Fuels for Agriculture, Forestry and Aquaculture	60,000,000	40,000,000	40,000,000	40,000,000	40,000,000	40,000,000	Energiskatt	Ministry of Finance	This measure	http://www.scb.se/2019-10-10/10022	http://www.scb.se/2019-10-10/10022	11	UO22
SWE_in_11	Reduced CO2 Tax Rate for Industrial Consumers outside EU ETS	640,000,000	290,000,000	290,000,000				Nedstätt kollekt	Ministry of Finance	Skatteutgift	http://www.scb.se/2019-10-10/10022	http://www.scb.se/2019-10-10/10022	11	UO22
SWE_in_12	Reduced CO2 Tax Rate for Natural Gas and LPG Used as a propellant							Nedstätt kollekt	Ministry of Finance	This measure	http://www.scb.se/2019-10-10/10022	http://www.scb.se/2019-10-10/10022	11	UO22
SWE_in_13	CO2 Tax Reduction for Energy Intensive Companies							Sarskild nedstätt	Ministry of Finance	Skatteutgift	http://www.scb.se/2019-10-10/10022	http://www.scb.se/2019-10-10/10022	11	UO22
SWE_in_14	Specific CO2 Tax Reduction for Greenhouses and Agriculture							None	Ministry of Finance	Skatteutgift	http://www.scb.se/2019-10-10/10022	http://www.scb.se/2019-10-10/10022	11	UO22
SWE_in_15	CO2 Tax Reduction for heating fuels in Agriculture, Forestry and Aquaculture	110,000,000	40,000,000	40,000,000				Nedstätt kollekt	Ministry of Finance	This measure	http://www.scb.se/2019-10-10/10022	http://www.scb.se/2019-10-10/10022	11	UO22
SWE_in_16	CO2 Tax Reduction for Diesel used in Agriculture and Forestry	420,000,000	100,000,000	130,000,000	720,000,000	810,000,000	810,000,000	Kollektivskatt	Ministry of Finance	Skatteutgift	http://www.scb.se/2019-10-10/10022	http://www.scb.se/2019-10-10/10022	11	UO22
SWE_in_17	CO2 Tax Exemption for fuels used for runway operations	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000	Kollektivskatt	Ministry of Finance	This measure	http://www.scb.se/2019-10-10/10022	http://www.scb.se/2019-10-10/10022	11	UO22
SWE_in_18	CO2 Tax Exemption for Domestic Aviation							None	Ministry of Finance	Skatteutgift	http://www.scb.se/2019-10-10/10022	http://www.scb.se/2019-10-10/10022	11	UO22
SWE_in_19	CO2 Tax Exemption for Domestic Shipping	290,000,000	230,000,000	250,000,000		180,000,000	590,000,000	Kollektivskatt	Ministry of Finance	Skatteutgift	http://www.scb.se/2019-10-10/10022	http://www.scb.se/2019-10-10/10022	11	UO22
SWE_in_20	CO2 Tax Exemption for Peat							None	Ministry of Finance	Skatteutgift	http://www.scb.se/2019-10-10/10022	http://www.scb.se/2019-10-10/10022	11	UO22
SWE_in_21	Reduced CO2 Tax Rate for Diesel Used by the Mining Industry	170,000,000	150,000,000	170,000,000	150,000,000	60,000,000		Nedstätt kollekt	Ministry of Finance	Skatteutgift	http://www.scb.se/2019-10-10/10022	http://www.scb.se/2019-10-10/10022	11	UO22
SWE_in_22	Reduced CO2 Rate for District Heating Supplied to Industry							None	Ministry of Finance	Skatteutgift	http://www.scb.se/2019-10-10/10022	http://www.scb.se/2019-10-10/10022	11	UO22

Step 2: Compilation of quantitative and qualitative data in Excel and MS Word file. Armenia yielded 7 FFS measures.



Step 5: Country coordinator vet the data and exchange with Secretariat

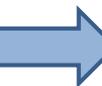
Exchanges made between Secretariat and Country coordinator for quality control

Step 4: Compiled data sent to Country coordinator

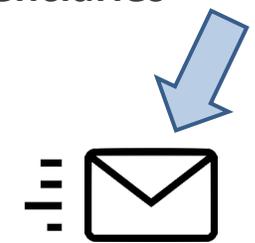
Statistics report
World Energy Balances
Overview

Oil (%), gas (%), coal (%), transport (%), production (%)

2020



Step 3: allocation into fuel and sectoral beneficiaries



Fuel and sector allocation: role of IEA data

IEA Energy Balances data

Compiled budgetary data

Assignment of beneficiary fuel*

- Petroleum
- Natgas
- Coal
- Electricity

*based on measure details

Allocated data are then ready for publishing in the OECD FFS Inventory .Stat portal

Calculation of fuel shares

- Non-fossil fuel shares are removed
- Biofuels
- Renewable electricity

% Oil, % gas, % coal
% fossil-fuel electricity
% renewable electricity

0	290,492	22,269	0
x	x	x	x
0	23,921	0	0
0	235,963	21,820	0
0	3,215	0	0
0	1	449	0
x	x	x	x
0	25,288	0	0



Shares allocation
% shares are applied to raw budgetary data

Fossil Fuel Support - AUS

Measure	Incidence	Indicator	Stage	Fuel Type										
Capital Expenditure Deduction for Mining, Quarrying and Petroleum Operations	Capital	Producer Support Estimate	Extraction or mining stage	Coal	Coking coal	1 364 357	294 424	279 230	275 501	285 115	289 684	294 880	(M)	...
					Other bituminous coal	1 320 568	313 966	329 160	332 888	323 275	318 706	313 510	(M)	...
					Sub-bituminous coal	21 573	4 783	4 657	5 007	4 919	4 896	4 896	(M)	...
					Lignite	32 951	7 571	7 698	7 348	7 435	7 458	7 458	(M)	...
					PetroleumCrude oil	444 115	94 138	92 354	74 824	70 540	64 888	54 334	(M)	...
					Natural gas liquids	45 959	9 207	9 546	8 235	8 966	7 747	6 138	(M)	...
					Natural gas	853 613	201 128	202 572	221 413	224 966	231 837	244 001	(M)	...
Reduced Excise Direct Rate on Aviation Fuel	Consumption	Consumer Support Estimate	Other end uses of fossil fuels	PetroleumAviation gasoline	24 943 472	23 533 765	21 960 752	19 414 140	20 081 617	21 387 396	19 960 854	21 497 187	(M)	...
				Kerosene	995 056 528	1 046 466 235	948 039 248	930 585 860	1 089 918 383	1 238 612 604	1 210 039 146	1 258 502 813	(M)	...



OECD.Stat database

Fossil Fuel Support - ARM

Customise Export My Queries

Mechanism					Tax expenditure														
Level					Central														
Unit					Armenian Dram														
Year					2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020				
Measure	Incidence	Indicator	Stage	Fuel Type															
VAT exemption of imported diesel	Direct Consumption	Consumer Support Estimate	Other end uses of fossil fuels	Petroleum/Gas/diesel oil excl. biofuels	6 755 374 592	8 932 400 128	10 918 800 384	10 585 100 288	10 931 699 712	7 612 600 320	6 494 187 520	8 519 223 296	(M)	..	(M)	..	(M)	..	
Excise tax exemption of imported natural gas				Natural gas	1 126 117 760	1 448 000 000	1 719 000 064	1 652 999 936	1 716 000 000	1 660 000 000	1 624 622 080	1 787 069 184	1 778 999 040	1 838 217 216	1 874 325 760				
Excise tax exemption of compressed natural gas					2 651 439 104	3 018 459 904	3 481 939 712	3 789 949 808	4 012 339 616	4 036 720 128	1 297 536 384	(M)	..	(M)	..	(M)	..	(M)	..

Legend:
M Missing value; data cannot exist
Data extracted on 10 Nov 2021 13:05 UTC (GMT) from OECD.Stat

Information
ARM_dt_01.....

Source
Name of collection/source
Compensation to Electric Networks of Armenia for supplying electricity to households and small business at regulated tariff

Direct source
GoA (2015a) Electric Networks of Armenia (n.d.)

Source metadata
The single electricity distribution company in Armenia, Electric Networks of Armenia (ENA), formally requested the Public Services Regulatory Commission (PSRC) to increase the price of electricity by 40% (AMD 17.08 including value-added tax (VAT) for households). This price increase triggered large-scale protests. Protesters were blocking the main avenue in the capital Yerevan. However, the PSRC decided to raise the electricity tariff for households by AMD 6.93 per kilowatt-hour (kWh) (16.5%). The decision came into force on 1 August 2015.

To compensate the losses incurred by ENA for selling electricity to low-income households (that consume less than 250 kWh of electricity per month) and small businesses consuming up to 500 kWh per month at this regulated tariff, the government provided budgetary transfers to the company on a monthly basis.

The allocation was provided from the state budget under the approval of the Ministry of Energy and Natural Resources, which calculated the monthly compensation amounts based on cost estimates from ENA. This measure was effective for two years – 2015 and 2016.

Data Characteristics
Other data characteristics
This measure was valid for the period from August 1, 2015 until August 01, 2016

Periodicity
start date: not available

Unit of measure used
Armenian Dram

Other Aspects
Other comments
The measure is terminated

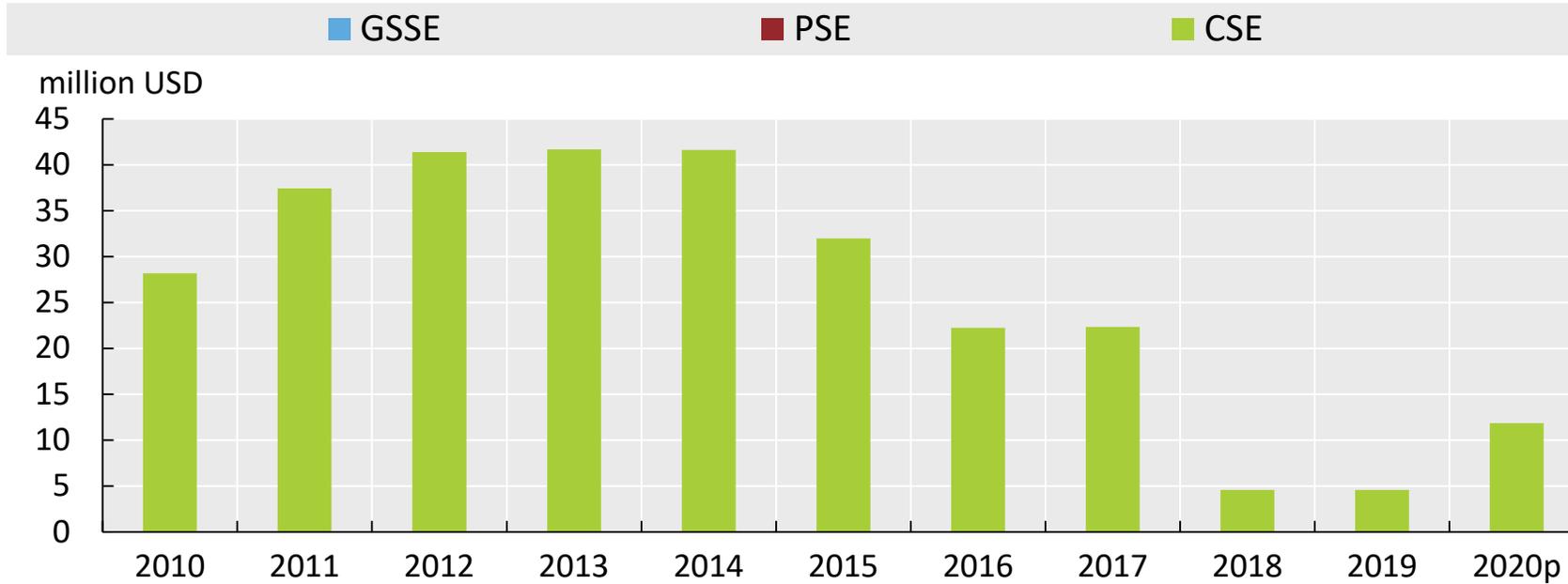
- Two main types of data are provided: (i) **fiscal time series per measure and decomposed by fuel**; (ii) **description of measures**



Inventory data: available decompositions

ARM – Fossil-fuel support by beneficiary

ARM- Fossil-fuel support by beneficiary

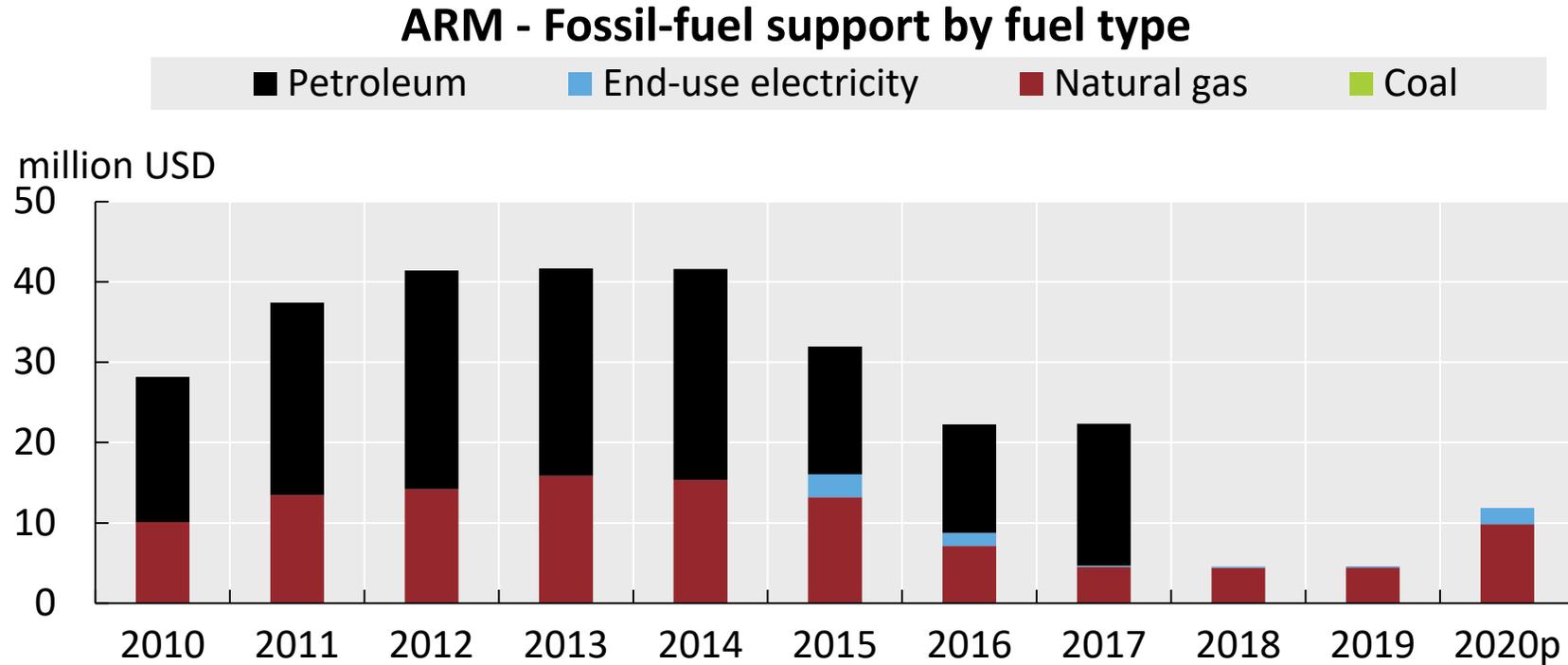


Note: PSE – Producer Support Estimate; CSE – Consumer Support Estimate; GSSE – General Services Support Estimate, represents policy measures creating enabling conditions for the fossil-fuel sector where fossil fuels are main beneficiaries, including payments to fund remediation activities to address the legacy of past fossil-fuel extraction.



Inventory data: available decompositions (2)

ARM – Fossil-fuel support by fuel type

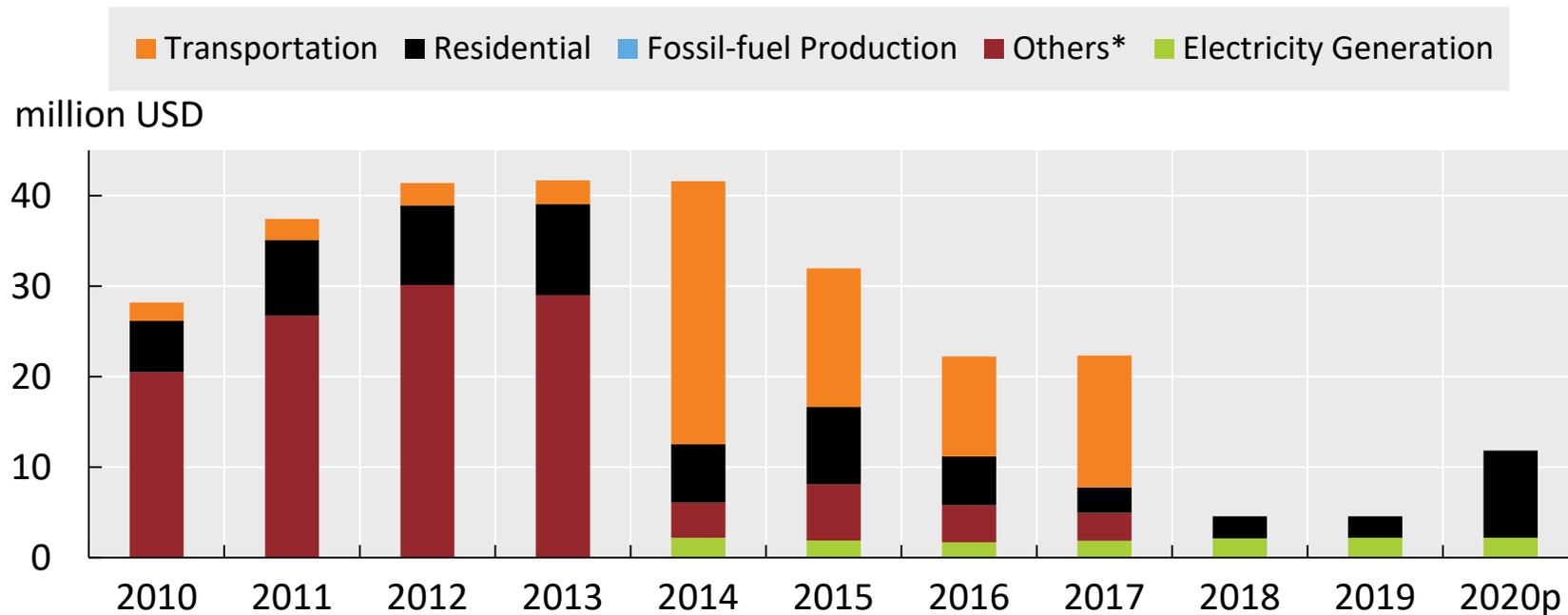




Inventory data: available decompositions (3)

ARM – Fossil-fuel support by sector

ARM - Fossil-fuel support by sector



Note: Other sectors – includes measures that support the use of fossil-fuels in the energy transformation sector other than electricity and heat generation; industrial and manufacturing sector; commercial and public services; agriculture, forestry and fisheries sector; non-energy use.



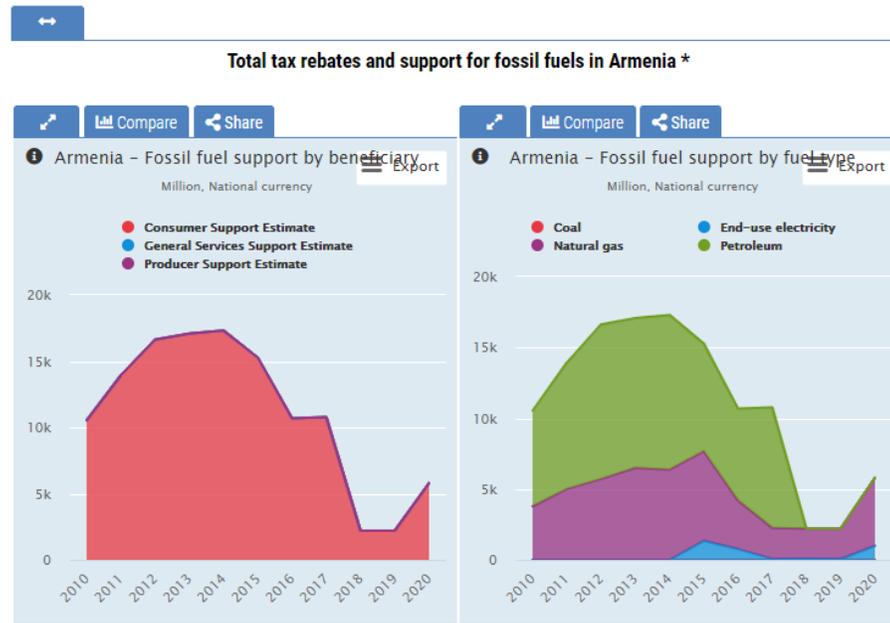
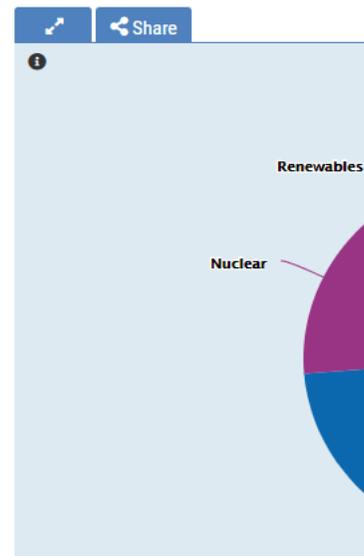
Country notes

Armenia

Energy resources and market

Armenia has no indigenous fossil-fuel resources and imports natural gas to meet the majority of its energy needs.

Imported natural gas predominates the energy mix in Armenia's TES and 85% of the fossil fuel support is mostly from Russia - nearly 84% in 2019.



* The above charts are based on an arithmetic sum of the individual support measures identified in the Inventory. Because they focus on budgetary costs and revenue foregone, the estimates for partner economies do not reflect the totality of support provided by means of artificially lower domestic prices. Particular caution should therefore be exercised when comparing these estimates to those reported by the IEA for these countries. The data for 2019 are preliminary.

Recent developments and trends in support

The Country Notes provide:

- Snapshot of the **energy market structure**
- Current state of **energy prices and taxes**
- Recent developments and trends in **fossil fuel support environment**
- **Country-specific data visualisation** by beneficiary and by energy product



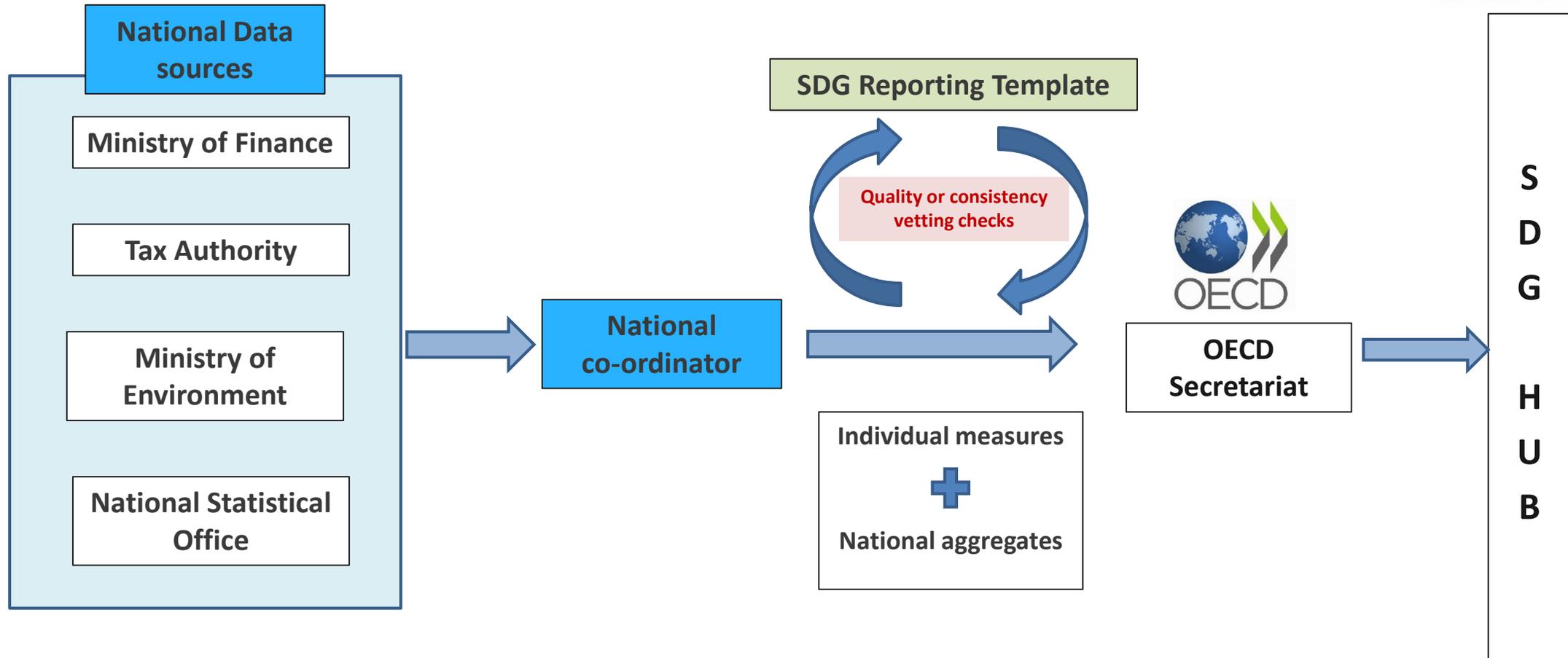
Challenges of Tax Expenditure Reporting in Developing and Emerging Economies

- **Availability**
 - tax data are not available in structured electronic format.
 - availability of supporting data for fuel and sectoral allocation of support
- **Capacity challenges**
 - collection of data deemed to be difficult due to financial and technical constraints in developing countries
 - Wide variation in the rate of budgetary data availability among countries
- **Absence of institutional setting and legal framework**
 - legal framework among responsible ministries (Ministry of Finance, Internal Revenue or Tax Authority, Customs, Ministry of Energy etc.) does not exist for confidential data sharing.
 - Ministry staff turnover



Moving forward: SDG 12.c.1 reporting

- SDG 12.c.1 has adopted the **OECD Inventory approach as the reference methodology** for the compilation of the indicator





Thank you for your attention

OECD Fossil Fuels Support Unit
<http://www.oecd.org/fossil-fuels/>
FFS.contact@oecd.org