

2 Government support for fossil-fuel production and consumption in the Eastern Partner countries

This chapter summarises the main findings of the analysis of fossil-fuel subsidy schemes in the European Union's six Eastern Partner (EaP) countries (Armenia, Azerbaijan, Belarus, Georgia, Republic of Moldova and Ukraine). It introduces the methodology used to identify and estimate government support for fossil-fuel production and consumption. It also discusses some of the major fossil-fuel subsidy reforms that have been implemented in the EaP region since the first assessment of energy subsidies by the OECD. The chapter ends with the short-term responses of the EaP governments to the COVID-19 crisis in the energy sector and their possible impact on the evolution of fossil-fuel subsidies.

Subsidy identification and estimation methodology

Subsidy definition and classification

Each of the European Union's six Eastern Partner (EaP) countries (Armenia, Azerbaijan, Belarus, Georgia, Republic of Moldova and Ukraine) has its own legal and conceptual framework for energy pricing and taxation. These national contexts determine how the term "subsidy" is formally defined and understood in each country. OECD (2018^[1]) discusses this issue in detail. Most EaP countries consider direct budget transfers to producers and consumers as a subsidy. The same is true for tax revenue foregone in terms of uncollected or under-collected levies on energy production and consumption. However, more often subsidies are called "state aid" or "state support".

The analysis in this report makes use of the OECD methodology for quantifying government support to fossil-fuel production and consumption (OECD, 2015^[2]). This methodology has been developed through OECD's extensive work on analysing government support measures in both member countries and key emerging G20 economies (Brazil, the People's Republic of China, India, Indonesia, the Russian Federation and South Africa).

The OECD makes use of the most widely recognised definition, formulated in the Agreement on Subsidies and Countervailing Measures (ASCM) (WTO, 1996^[3]) of the World Trade Organization (WTO).¹ It is also the only definition that is legally binding for all WTO member countries.

Under Article 1 and Article 2 of the ASCM, a subsidy is deemed to exist when the government renders support to a particular industry or company. More specifically, a subsidy exists when the government: i) provides direct transfer of funds or potential direct transfer of funds or liabilities; ii) forgoes or does not collect revenue that is otherwise due; iii) provides goods or services or purchases goods on terms that confer a benefit compared to market terms; and iv) provides income or price support.

Building on this definition, the OECD (2013^[4]) classification groups subsidies into the following four categories:

- **direct transfers** of funds from the budget to energy producers and consumers (e.g. grants, support of energy purchases by low-income households)
- **tax expenditure and other government revenue foregone** (e.g. reduction or exemptions of certain taxes, such as value-added taxes [VAT] or excise taxes on fuel consumption)
- **induced transfers** (import tariffs, below-market electricity/heat prices, cross-subsidies in the electricity sector)
- **transfer of risk** to government (e.g. low-interest loans, loan guarantees).

The analysis follows the *OECD Inventory of Support Measures for Fossil Fuels*. This Inventory covers all OECD member countries, as well as a number of emerging economies. In contrast, the 2018 OECD *Inventory of Energy Subsidies in the EU's Eastern Partnership Countries* covered all four categories listed above and provided estimates for 2010-15. The current study covers the first two categories of subsidies only (i.e. direct transfers of funds and tax expenditure) and provides estimates for 2016-19. This means that estimates of total subsidies in the EaP countries in the two reviewed periods are not directly comparable.

These two categories of government support (i.e. direct transfers of funds and tax expenditure) are the backbone of the *OECD Inventory of Support Measures for Fossil Fuels* and the related OECD-International Energy Agency (IEA) fossil-fuel support database. "Induced transfers" are also included in the database as part of the IEA contribution to this work. In order to have the EaP countries included in the OECD-IEA database, emphasis is placed on analysing only direct transfers and tax expenditure.

Where appropriate, IEA data complement the analysis. The IEA produces annual estimates of fossil-fuel subsidies directed at consumers of coal, oil (petroleum products), natural gas and electricity in developing and emerging economies. These subsidy estimates reflect the difference between domestic and international prices of energy carriers. The IEA focuses on subsidies that directly affect end-user prices paid by consumers.

Direct budgetary transfers are the easiest and most straightforward to identify and measure as they are usually reported in government budgets, which are publicly available. Tax expenditure and other government revenues foregone (the monetary value of tax breaks) and induced transfers require significant data collection and additional estimation. This makes them more difficult to measure. The lack of established accounting and reporting practices of tax expenditure can limit their quantification. Difficulties with obtaining data that accurately represent the situation in countries with complex pricing systems for fuels and electricity is a major challenge when estimating induced transfers. Transfer of risk to government is a more complex issue. For this reason, volumes of this subsidy are quantified more rarely (OECD, 2013^[4]).

Direct transfers and induced transfers are closely linked. Subsidies provided through regulated prices are not usually reported in government documents. This is why they are also referred to as “hidden” or “indirect” subsidies. All direct transfers of government funds to producers could reduce production costs, and therefore prices, in the medium- or long-term. When electricity or heat are provided to residential consumers at below-market tariffs, for example, someone else still pays the full price. Most often, the state covers the bill. In this case, the hidden subsidies can show as direct transfers to producers or consumers. However, this needs careful checking to make the correct links and avoid double-counting. Alternatively, cross-subsidies from industry to the population can be used.

The choice of the benchmark tax system is important to tax expenditure. Tax expenditure is the difference in revenue due to deviations from the tax norm (Kojima and Koplw, 2015^[5]). Governments use several approaches to determine a benchmark tax regime. Many countries base their tax expenditure estimates on a conceptual view of “normal” taxation of income and consumption. Even in a relatively straightforward case such as the VAT, different approaches can lead to different results. Thus, some countries might see any tax rate lower than the standard VAT as generating tax “expenditure”. Others might regard lower VAT rates as an inherent part of the tax system, which does not generate tax expenditure (OECD, 2013^[4]). Tax expenditure estimates could increase either because of greater concessions relative to the benchmark tax treatment or because of a raise in the benchmark itself. This lack of a common benchmark does not allow straightforward comparisons across countries. International comparisons could be misleading due to country-specific benchmarks tax systems.

Data sources and data availability in the EaP countries

Data availability and fiscal transparency vary considerably across the six countries (Box 2.1) The analysis draws on a diverse body of publicly available sources of information. These include reports on budget execution and laws, reports of fiscal authorities and energy sector regulators, and any credible media sources. In most cases, subsidy values were collected at face value from government sources. When estimates of tax expenditure were not available, authors calculated revenue foregone using standard tax rates (e.g. VAT, excise taxes) as compared to preferential rates and amount of energy produced or consumed. Detailed, country-level fossil-fuel subsidy data collected and estimated are provided in Annexes B to G.

Box 2.1. Data availability and fiscal transparency in EaP countries

Government data sources

Different data availability across the EaP countries hinders consistent and comparable estimates of the magnitude of fossil-fuel subsidies and analysis of their reforms. The highest data transparency is observed in Ukraine where detailed information on budget expenditure and revenue foregone is available from publicly accessible sources. State Treasury Service of Ukraine (2020^[6]) regularly publishes monthly, quarterly and annual reports on budget execution. These reports have sufficient data granularity for comprehensive analysis of fossil-fuel subsidies and consistent time series for the last ten years. The Ministry of Finance estimates revenue foregone due to major tax benefits. This is often published in a package of budget planning documents attached to draft budget laws (see for example (Ministry of Finance of Ukraine, 2020^[7])).

Comprehensive data are less readily available in Armenia, Georgia and Moldova. However, they are still sufficient to build a credible picture when supplemented by direct contact with government agencies and authors' own estimates. The most difficult situation with data availability is in Azerbaijan and Belarus. In these two countries, data gaps, inconsistency and unavailability mean findings can only indicate trends in fossil-fuel subsidies. They should be interpreted with this limitation in mind.

The Budget and Tax Codes of Azerbaijan and Belarus establish the legal basis for state support in the form of budget transfers and tax benefits. However, limited information on the magnitude of such measures is publicly available. The government of Azerbaijan does not publish data on budget spending or revenue foregone in the energy sector (OECD, 2018^[11]). Though Belarus publishes reports on budget execution, data are available at a high level (e.g. category "fuel and energy") without details about spending on particular government programmes. Budget laws and passports of state programmes in the energy sector provide more information, but it is often unclear how much of the planned budgets have been spent.

International data sources

Participation in the Extractive Industries Transparency Initiative (EITI) helps increase transparency and strengthen governance of extractive industries, including the energy sector. Among the six EaP countries, only Ukraine and Armenia are EITI members. Since joining EITI in 2013, Ukraine has published three national reports demonstrating meaningful progress in adhering to the EITI standard (EITI, 2020^[8]). The EITI National Report of Ukraine provides, among others, information on budget programmes in the coal, and oil and natural gas sectors, state guarantee obligations and quasi-fiscal operations in the energy sector (EY, 2018^[9]). The first report of Armenia, which joined EITI in 2017, focused on the metal and mineral mining sector as there is virtually no domestic energy production (EITI, 2020^[10]). Azerbaijan joined EITI in 2007 and withdrew in March 2017 following suspension from the EITI Board due to limited progress in meeting the corrective actions related to civil society (EITI, 2018^[11]).

Approaches to subsidy measurement

There are two main approaches to quantifying subsidies. A top-down approach prepares estimates based on price-gap assumptions, while a bottom-up approach constructs inventories that consider each government support measure individually. Each approach has its strengths and limitations, and the two can complement each other. This complementarity is especially useful when access to data and subsidy reporting is restricted (OECD, 2018^[11]).

The **price-gap method** compares end-use prices paid by consumers with reference prices that correspond to the full cost of energy supply: a subsidy is present if the end-use price falls short of the reference price. The general stylised application of this approach consists of two main steps: i) calculating the price gap (Price gap = Reference price – End-user price); and ii) calculating the subsidy value (Subsidy = Price gap × Units of consumed energy).

For net energy importers of fossil fuels, reference prices (or international benchmark market prices) of fossil fuels are based on the import parity price.² For net exporters of fossil fuels, reference prices are based on the export parity price.³ For energy exporters, the quantified subsidy represents the opportunity cost of selling fuels at below-market prices domestically rather than a measure of direct expenditure (OECD, 2018_[1]).

The IEA uses the price-gap approach to produce its consumer subsidy estimates. This approach is useful to make comparisons possible across countries where the main form of support is provided through administrative pricing or export restrictions. However, this method fails to capture subsidies that are not revealed through the examination of price differentials.

The **inventory approach** used by the OECD can capture the subsidies that are not revealed by the top-down price-gap method. Through its bottom-up approach to quantifying subsidies, the OECD method constructs an inventory of policies that support the production and consumption of energy, quantify the value of support under each of them and then aggregate the numbers.

These two approaches are not mutually exclusive. Rather, they complement each other by looking at the same phenomenon from two different angles. OECD (2018_[1]) discusses these approaches in detail.

Quantified fossil-fuel subsidies and pace of fossil-fuel subsidy reforms in the EaP countries

Analysis of the key results of fossil-fuel subsidy estimates in the EaP countries

Table 2.1 summarises estimates of recent fossil-fuel subsidies in the form of budget transfers and tax expenditure in the EaP countries during the period 2010-19 in line with the scope of the *Inventory* (see Annexes B-G for more details). Some of the totals for 2010-15 reported in OECD (2018_[1]) may be different from the numbers in Table 2.1. This is primarily explained by differences in the scope of the Inventory over the two reviewed periods. In addition, this current study has identified new measures for the previous period and updated some of the previously-identified estimates as well.

This difference between 2010-15 data and numbers in Table 2.1 is particularly true for Azerbaijan. Recent data collected for this study and availability of additional data helped to cover several gaps on subsidy values in Azerbaijan. However, Azerbaijan's subsidies for both natural gas and electricity consumption for 2010-15 were estimated indirectly through the price-gap approach. Consequently, the previous and current assessments are not comparable.

In addition, most EaP countries have experienced significant currency depreciation in recent years (see Annex A for exchange rates). Thus, care should be taken when using USD estimates to assess changes in magnitude. Finally, the values of the quantified fossil-fuel subsidies are not directly comparable across countries as each country has its own tax benchmarks.

There may also be some differences in the subsidy values reported in this report and the values included in the OECD online database. This mostly concerns subsidy schemes which (i) benefit more than one economic sector/fuel (e.g. one single subsidy provided to consumers of coal, natural gas and oil products) or (ii) end-use electricity where it is generated not only from fossil-fuel sources (e.g. renewables and nuclear) or is imported.

In the database, the disaggregation by type of fuel is undertaken in case i while the subtraction of the non-fossil-fuel component and/or imported electricity from the electricity subsidy value is performed in case ii. This disaggregation is done using the IEA Energy Balance flows (IEA, 2020_[12]) (Annex I). The disaggregation ensures consistency with the reporting of subsidy values in the database for the OECD countries.

This study reports non-disaggregated subsidy values for two main reasons. First, analysis shows that disaggregation by different types of fuel based on the IEA balances may lead to underestimation of the fossil-fuel component in subsidy values. Second, raw data in official government documents make it easier for countries to understand and trace these subsidies back to the original sources of information.

Table 2.1. Quantified fossil-fuel subsidies in EaP countries, budget transfers and tax expenditure, 2010-19, USD million

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Armenia	28	37	41	42	42	32	23	23	5	5
Azerbaijan	90	501	180	390	48	474	1 214	0.1	909	798
Belarus	594	160	197	303	318	18	71	110	85	81
Georgia	7	7	11	33	31	27	18	14	15	15
Moldova	72	89	100	93	83	66	60	65	72	n.c.
Ukraine	2 109	2 623	5 196	3 157	2 503	1 182	1 989	2 999	2 976	2 230
Total	2 900	3 417	5 725	4 017	3 026	1 799	3 374	3 210	4 061	3 128

Notes:

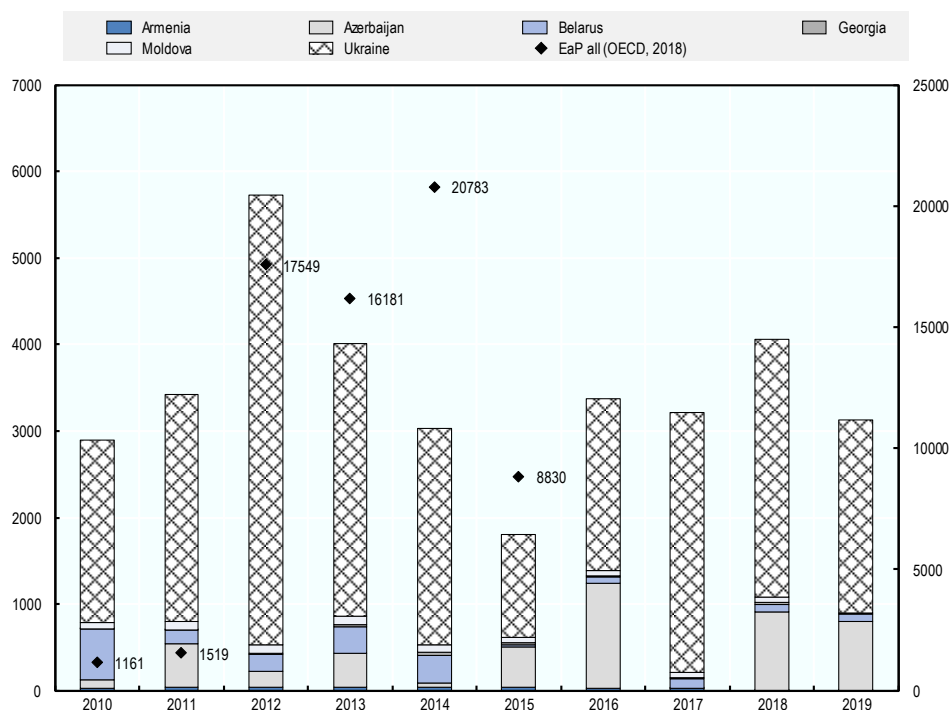
a. n.c.: Not calculated.

b. These estimates are affected by data availability for different years and by currency exchange rates.

Source: Based on country estimates presented in Annexes A-G.

Figure 2.1 illustrates how the cumulative value of fossil-fuel subsidies in the EaP region evolved over the period 2010-19. The overall dollar value of fossil-fuel subsidies in Ukraine is larger than in the five other EaP countries combined. In addition to having the largest economy, Ukraine has a strong legacy of subsidising its energy sector and population. It traditionally comes out on top in terms of fossil-fuel subsidies relative to gross domestic product (GDP). However, it also performs best on data transparency, which allowed identification and collection of data on all major subsidy schemes at the national level. The chance of under-reporting, then, is significantly lower for Ukraine than for the other countries.

Figure 2.1. Quantified fossil-fuel subsidies in EaP countries compared to the previous estimate, USD million



Note: Based on estimates presented in Annexes A-G and (OECD, 2018_[1]). Data on the EaP all (OECD, 2018_[1]) are indicated on the right axis.

Fossil-fuel subsidies in the form of budget transfers and revenue foregone have been decreasing in Armenia, Georgia and Ukraine starting in 2012-13 (Table 2.1). Fossil-fuel subsidies in Armenia peaked in 2013 and 2014, reaching USD 42 million. They declined to USD 5 million in 2019 as most subsidy schemes were phased out. In Georgia, subsidies grew from 2010, reaching USD 33 million in 2013. They have since declined to USD 15 million in 2019, although new social schemes were introduced.

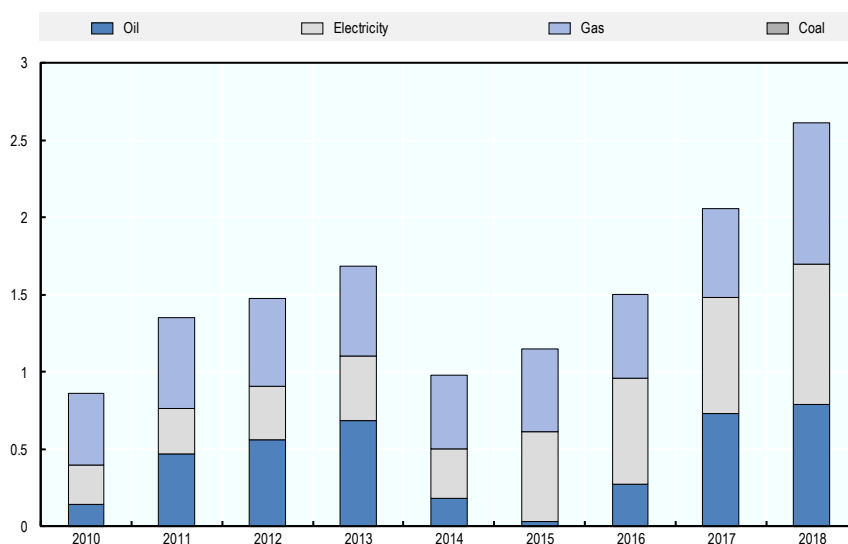
In Ukraine, the cumulative value of budget transfers and tax expenditure amounted to more than USD 5 billion in 2012. This declined by more than half by 2019. However, it still exceeds USD 2 billion and is 2.4 times the total of the remaining countries. Subsidy values in Moldova fluctuated over the reviewed period. Data gaps in the bottom-up assessment of fossil-fuel subsidies in Azerbaijan and Belarus make it difficult to observe a clear general trend.

To complement the bottom-up analysis applied by the earlier OECD study (2018_[1]), the current study also used the price-gap approach employed by the IEA. Unfortunately, an independent price-gap analysis falls beyond the scope of this report. IEA estimates are available only for Azerbaijan (Figure 2.3) and Ukraine (Figure 2.3).

The price-gap approach estimates subsidies to end-consumers of fossil fuels and electricity. To that end, it compares average end-user prices with international reference or market prices. The approach typically demonstrates how policy interventions lower the price for end-users below market levels.

For Azerbaijan, IEA subsidy estimates dropped in 2014-16. This reflected a sharp increase of domestic prices for petroleum products and natural gas coupled with the deterioration of the oil and gas world market prices. The value of fossil-fuel subsidies then bounced back. They exceeded even previous levels as petrol prices in USD remained unchanged from the end of 2017 until now (Trade Economics, 2020_[13]) while world prices recovered. Consumer subsidies in Azerbaijan reached USD 2.6 billion in 2018, which is equivalent to 5.8% of GDP (IEA, 2019_[14]).

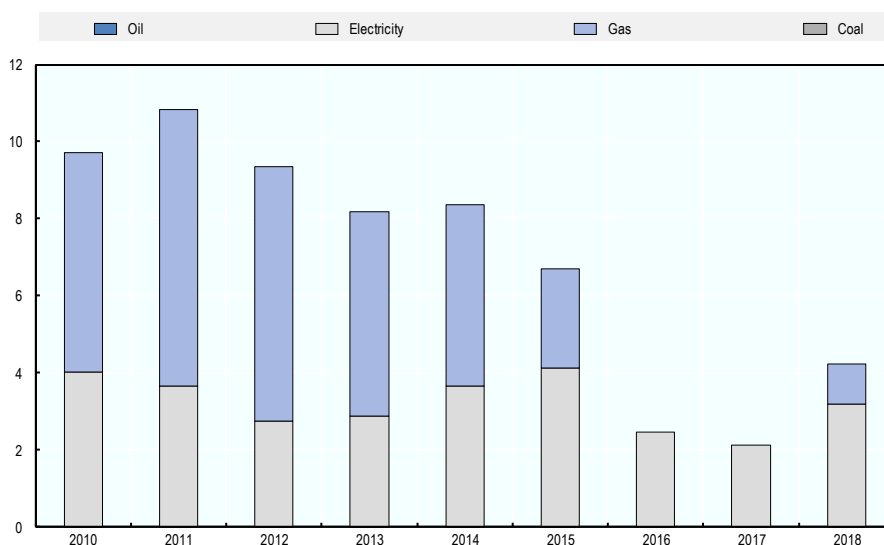
Figure 2.2. IEA estimates of fossil-fuel subsidies in Azerbaijan, real 2018 USD billion



Source: Based on (IEA, 2019_[14]) data.

IEA price-gap estimates for Ukraine (Figure 2.3) also reflect a combination of domestic and external factors. The introduction of import price parity (international market price) in domestic gas pricing formulae in 2016 led to increased tariffs. Consequently, “blanket” consumer subsidies in the gas sector were effectively removed for two years. The lowest level of consumer subsidies was observed in 2017 (USD 2.1 billion), and only in electricity production. In 2018, consumer subsidies re-emerged in the gas sector because the government was reluctant to increase domestic prices to reflect changes in international market prices (Ekonomichna Pravda, 2018_[15]).

Figure 2.3. IEA estimates of fossil-fuel subsidies in Ukraine, real 2018 USD billion



Source: Based on (IEA, 2019_[14]) data.

Step-wise increases of electricity tariffs for households in Ukraine helped narrow the gap with the market price (IEA, 2019_[14]) from 2015 to 2017 (NEURC, 2016_[16]). However, electricity tariffs were not revised until 2021⁴, resulting in a subsidy increase in 2018. In 2018, the total value of consumer subsidies in the gas and electricity sectors reached USD 4.2 billion, corresponding to 3.4% of GDP.

Box 2.2. Debt of subsidised national oil and gas companies

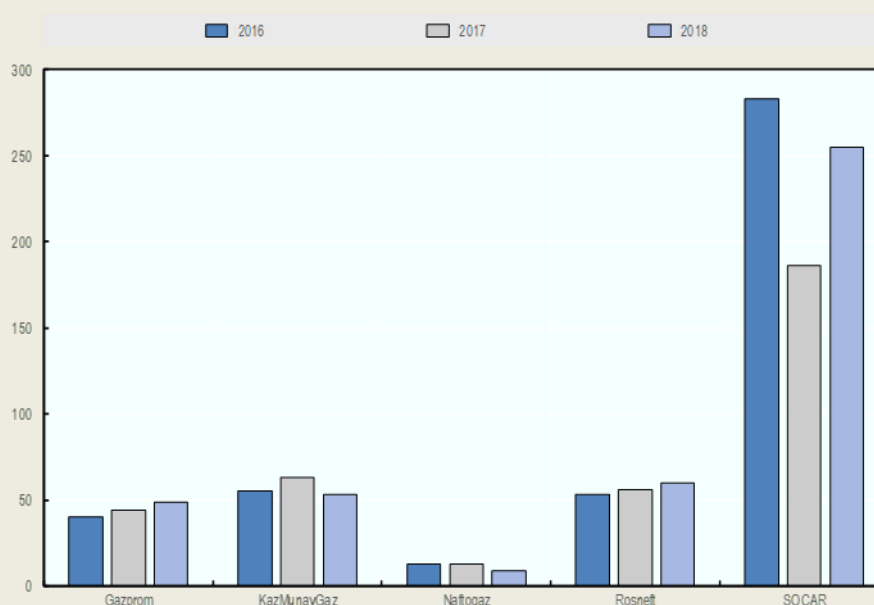
National oil and gas companies (NOGCs) exist in both Azerbaijan (SOCAR) and Ukraine (Naftogaz). These are state-owned vertically integrated companies that perform a full cycle of operations – from exploration and exploitation of oil and gas to refining and supply (OECD, 2018^[11]). In both countries, the state supports the companies through cash contributions, equity injections, loan guarantees and issuance of state bonds to cover their deficits. Direct transfers to both companies have been identified. However, loan guarantees or issuance of bonds, which generate subsidy and represent transfer of risk to government, are more difficult to identify and measure.

NOGCs are often highly indebted, creating broader fiscal risks even if the state does not formally guarantee debts. When guaranteed by the state, such debt qualifies as a fossil-fuel subsidy. Figure 2.4 shows the level of debt as a share of government gross debt of several NOGCs in the region, including in Azerbaijan and Ukraine, over 2016-18.

After the 2016 gas pricing reform, Naftogaz stopped receiving direct budgetary support to compensate for its losses. In the same year, the company took a loan from the World Bank worth USD 500 million under state guarantees to support liquidity. The loan was fully repaid in May 2019. The value of Naftogaz state-guaranteed debt peaked at UAH 28 912 million (USD 1 132 million) in 2016. It dropped to UAH 2 694 million (USD 96 million) in 2019 (Naftogaz of Ukraine, 2016^[17]), (Naftogaz Group, 2019^[18]). The share of Naftogaz state-guaranteed debt decreased to 5% at the end of 2019. This was down from 28% at the end of 2018 due to repayment of the World Bank loan in 2019 (Fitch Ratings, 2020^[19]).

The level of indebtedness of the Azerbaijani company SOCAR is particularly high. In 2018, it was more than twice the level of government gross debt. The state guarantees 9% of the company's debt and provides equity injections to cover its cash deficits (Fitch Ratings, 2020^[20]).

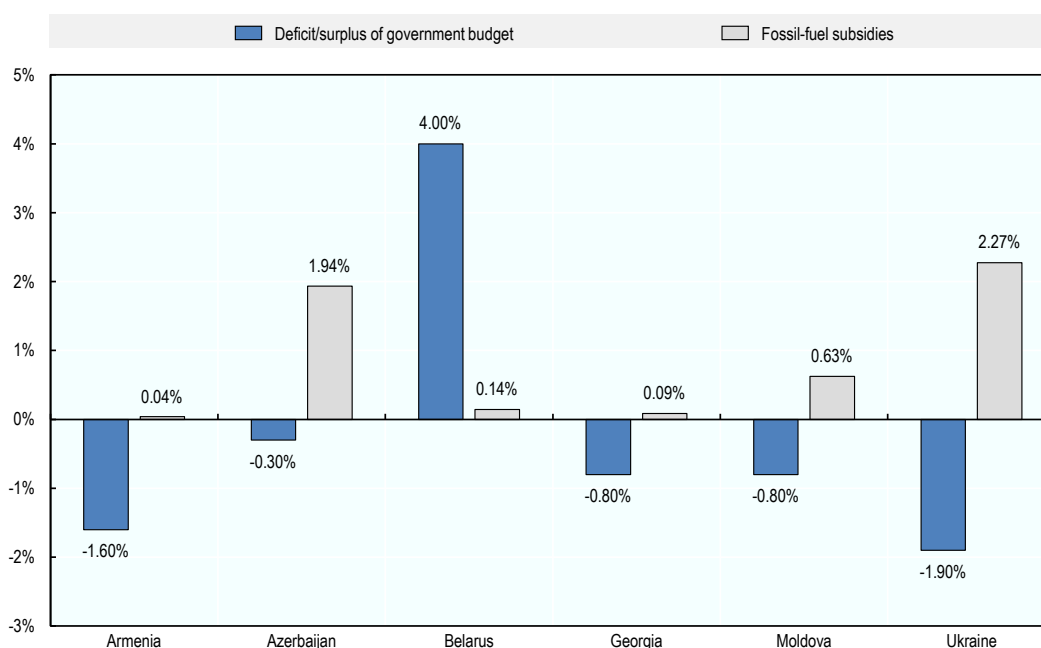
Figure 2.4. NOGC debt/government gross debt, percentage



Source: Based on National Oil Company Database, (Natural Resource Governance Institute, 2020^[21]).

Figure 2.5 presents annual fossil-fuel subsidies (budget transfers and tax expenditure) as a share of GDP, comparing them with national budget deficits in the EaP countries in 2018. In Ukraine, fossil-fuel related budget transfers and tax expenditure alone reached 2.3% of GDP, exceeding the 1.9% budget deficit. In Azerbaijan, subsidies constitute almost 2% of GDP, while the budget deficit is limited to 0.3% of GDP. In all other EaP countries, except Belarus where the budget was in surplus, budget deficits are larger; subsidies constitute less than 1% of GDP. Reducing fossil-fuel subsidies can lower the burden on the budget and reduce the budget deficit. Such savings can be re-allocated to more urgent state-supported social and environmental priorities.

Figure 2.5. General government deficit/surplus and quantified fossil-fuel subsidies as a share of GDP in 2018

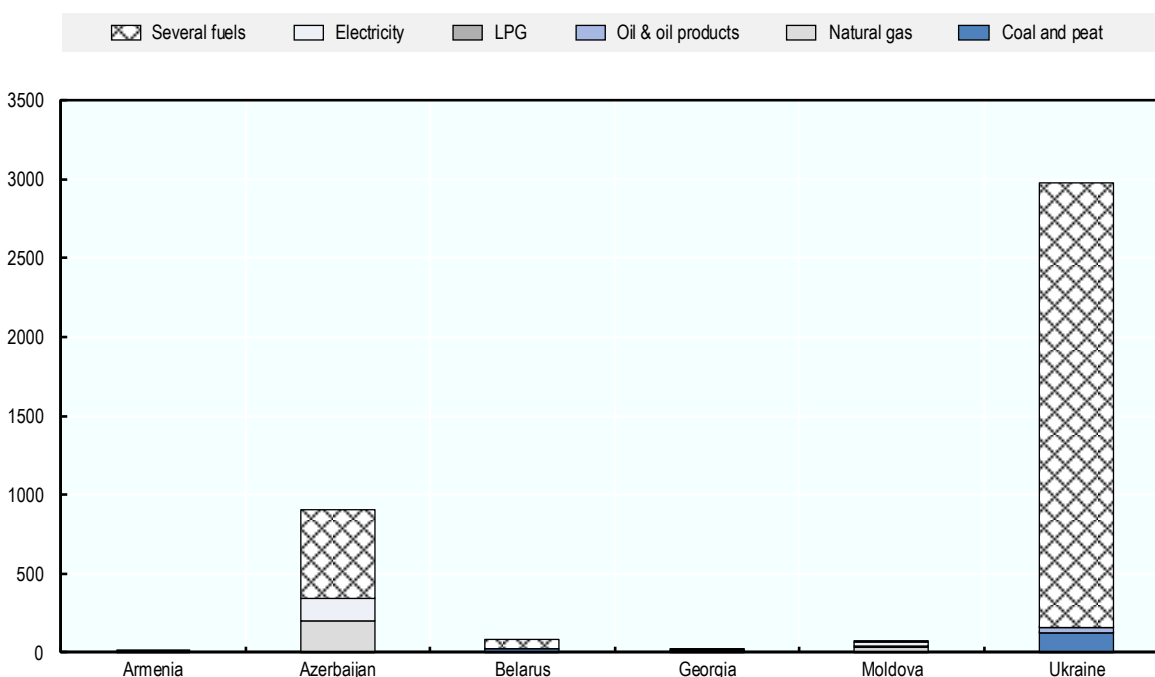


Source: Based on Eurostat (2019^[22]) and World Bank (2020^[23]) data and subsidy estimates presented in Table 2.1.

Figure 2.6 further breaks down the 2018 values of the quantified fossil-fuel subsidies by fuel in the EaP countries. In most cases, it is not possible to accurately disaggregate subsidy values by type of fuel. This is due both to data limitations and the possibility of a subsidy scheme to benefit several fuels (Annexes B-G).⁵ A considerable share of support is allocated to natural gas and electricity. During the reviewed period, coal subsidies were significant only in Ukraine.

A study by the Energy Community (Miljević, 2020^[24]) analysed direct subsidies to coal and lignite electricity production in the Energy Community Contracting Parties over the period 2018-19. The study confirmed that of all EaP members of the Energy Community (Georgia, Moldova and Ukraine) only Ukraine provides subsidies to electricity generated from coal. While data on direct budgetary support that come from the budget execution reports of the Treasury of Ukraine are consistent in both reports, the Energy Community analysis is broader and includes estimates on, among others, low-interest loans and loans guarantees extended to electricity producers by the state. Subsidies provided in this way constitute transfer of risk to government and a longer term liability to the state and are not covered by the OECD study. The Energy Community analysis shows a significant increase in subsidies for coal-fired electricity in Ukraine in 2019 (about 60%) compared to 2018.

Figure 2.6. Quantified fossil-fuel subsidies in EaP countries by fuel in 2018, USD million



Source: Based on estimates presented in Annexes B-G.

Budget transfers and revenue foregone

The period 2015-19 has seen considerable changes to fossil-fuel subsidies in the EaP countries. Many measures have been eliminated as new ones have been introduced. Figure 2.7 illustrates that budget transfers prevail in most EaP countries; tax expenditure is the main mechanism of support only in Moldova.

Tax expenditure in Moldova was channelled to households and public institutions through reduced VAT rates for consumption of natural gas, electricity and heating, and liquefied petroleum gas (LPG). In 2018, the total value of these tax benefits in Moldova was estimated at USD 65.6 million. Meanwhile, budget spending on partial compensation of energy resources costs to households in Chisinau and on the Transnistria border reached roughly USD 6 million. Detailed information on budget transfers and revenue foregone in the EaP countries is provided in Annexes B-G.

The analysis revealed limited subsidies in Armenia, which do not appear to create significant distortions in energy consumer choices. Most subsidies were eliminated. At the end of 2019, only two subsidy schemes remained. These were budget transfers on partial compensation of costs for electricity and gas consumption for border communities; and excise tax exemption on natural gas imports.⁶ Armenia phased out excise exemption for compressed natural gas worth around USD 9 million per year in 2016. A year later, it cancelled VAT exemption for diesel imports worth USD 17.6 billion.

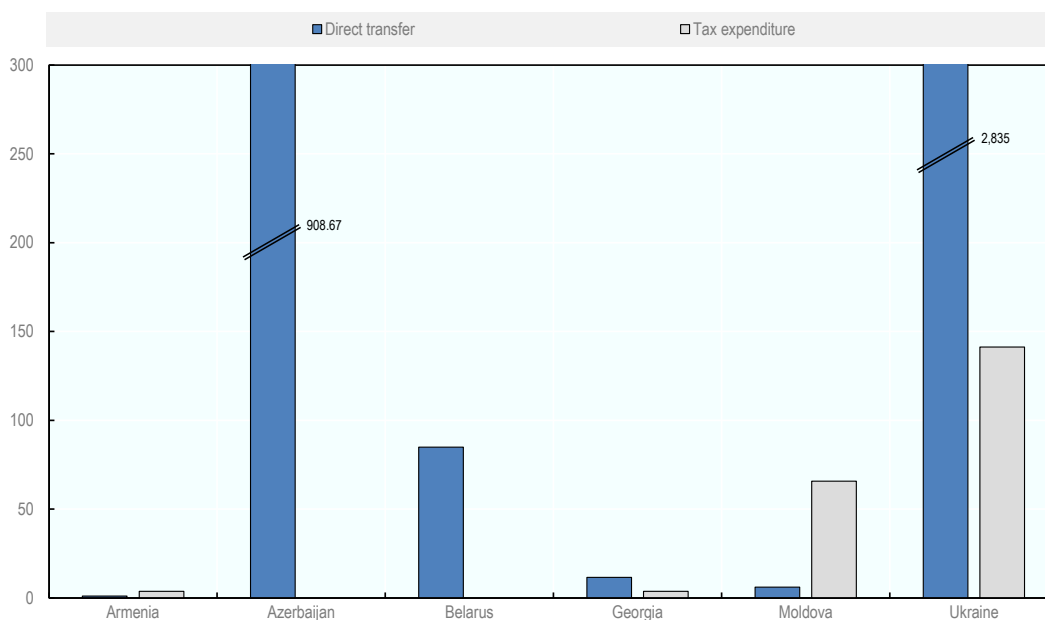
Belarus terminated a VAT exemption for electricity and natural gas for households in January 2016, ending a subsidy worth USD 200 million per year. Azerbaijan has VAT and custom duties exemptions under so-called Production Sharing Agreements and Host Government Agreements. However, information on conditions of such exemptions and the magnitude of support is not publicly available.

Between 2014 and 2019, Georgia introduced new budget transfers to subsidise gas and electricity consumption. The gas subsidies targeted households on the border of Abkhazia and South Ossetia. Meanwhile, it provided electricity subsidies for families with four and more children, other socially

vulnerable consumers and households living in high mountainous areas. Still, subsidies are declining; the total value of subsidies in GEL peaked in 2015 and in USD value in 2013.

Ukraine has recently eliminated several budget transfers, while introducing *ad hoc* measures to deal with emergencies and arrears. It introduced a transfer to Smilakomunteploenergo (Town of Smila Communal Heat Energy Utility) to prevent an emergency due to the utility's inability to pay for natural gas. Ukraine had three tax expenditure measures in effect as of 2019. In 2011, it introduced excise tax relief for operations on the sale of LPG at specialised auctions for the needs of households. In 2016, VAT relief for supply of coal and/or products of its enrichment on the customs territory of Ukraine was introduced. Finally, in 2018 and 2019, Ukraine provided a corporate income tax credit for the amount of excise tax levied on heavy distillates (gasoil) used in transport vehicles. The Ministry of Finance estimated that these measures led to foregone revenue of USD 141 million in 2019.

Figure 2.7. Quantified fossil-fuel subsidies in EaP countries by type of support measure in 2018, USD million



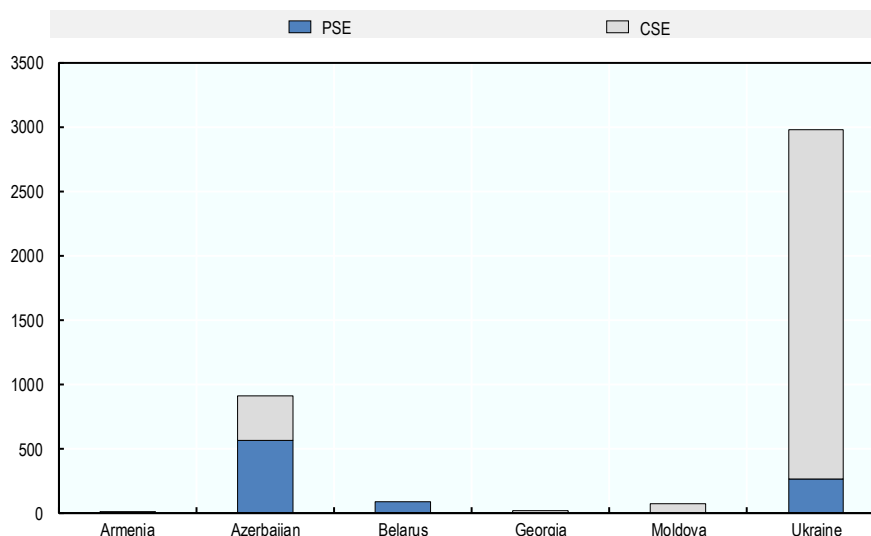
Source: Based on estimates presented in Annexes A-G.

Producer and consumer support estimates

Depending on the end-beneficiary, the OECD classifies measures as Consumer Support Estimate (CSE), Producer Support Estimate (PSE) and General Services Support Estimate (GSSE). The first category refers to measures, which benefit individual consumers. The second category refers to individual producers. The third one refers to measures that benefit both consumers and producers collectively as “measures that do not increase current production or consumption of fossil fuels but may do so in the future” (OECD, 2015^[2]).

Figure 2.8 illustrates the breakdown of quantified fossil-fuel subsidies in the EaP countries under the OECD's PSE-CSE accounting framework. The GSSE measure was observed only in Moldova in the form of public investment in natural gas pipelines and electricity grids, which peaked at USD 7.3 million in 2014. It is not shown on Figure 2.8 as data for 2018 are not available.

Figure 2.8. Quantified fossil-fuel subsidies in EaP countries by PSE/CSE indicator, 2018, USD million



Source: Based on estimates presented in Annexes A-G.

All identified and quantified subsidies in Armenia and Moldova belong to the CSE category. In Belarus, the situation is reversed – all estimated fossil-fuel subsidies in 2018 benefit individual producers. CSE measures in Belarus include housing subsidies for low-income households and partial compensation of costs of utility providers. However, data on the magnitude of such support schemes have not been publicly reported. Therefore, these measures are excluded from the quantified analysis.

The PSE and CSE subsidy estimates for Azerbaijan show stable transfers to the country's energy utility companies and commensurate amounts of support to refugees and internally displaced persons.

Government support for fossil fuels in Georgia targets consumers through social subsidies and benefits, allocated directly to households. The government of Georgia supports keeping tariffs low for all households for social and political reasons. However, it has gradually reformed its social support programmes to target eligible low-income households. The PSE subsidy is concentrated in the oil and gas sector to facilitate production of local energy resources. Oil and gas producers are exempt from profit tax, property tax and fees for the use of natural resources.

The bulk of government support for fossil fuels in Ukraine targets consumers. This takes the form of budgetary transfers to cover losses of utility providers due to regulated below-market tariffs; or social subsidies and benefits allocated directly to households.

Producer support in Ukraine is concentrated in the coal sector. Various budget transfers have supported inefficient and unprofitable state-owned coal mines. Total PSE dropped after 2013 (see Annex G) for two reasons. First, the government lost temporary control of territories in the Donbass region where most state-owned coal mines in Ukraine are located. Second, on a smaller scale, reforms in the coal sector also led to a drop in PSE.

In 2018, the government discontinued allocation of budget funds to the “State Programme on Prevention and Elimination of Emergencies at Coal Mines” and for partial compensation of production costs of finished marketable coal. The latter measure had been provided to unprofitable coal mines for 15 years. A year earlier, in 2017, the government ended the “State Programme on the Improvement of Safety Measures at Coal Mining Enterprises”, which was in place since 2005. At the same time, it introduced new budget

programmes to finance the decommissioning of unprofitable coal and peat mining enterprises and the repayment of electricity arrears on behalf of state-owned coal-mining enterprises.

All EaP countries have various social support measures to support vulnerable households. Most of these were introduced in the 1990s (OECD, 2018^[11]). Box 2.3 describes the reform of utility subsidies for vulnerable households in Ukraine.

Box 2.3. Reform of utility subsidies for low-income households in Ukraine

Given that utility tariffs were traditionally kept relatively low (well below cost-recovery levels) and the application procedure for targeted support was complicated, the number of subsidy beneficiaries was not large. In 2014, 1.2 million households received utility subsidies (Voitko, 2015^[25]). The overall cost of these targeted subsidies on the national budget was lower, for example, than that of transfers of funds to the coal sector. Over 2012-14, Ukraine's government allocated USD 519-841 million for partial compensation of low-income households for utility payments and a further USD 60-92 million for the purchase of LPG, solid and liquid furnace fuel (State Treasury Service of Ukraine, 2020^[6]).

As utility tariffs increased during 2015-17 so did the funds allocated for targeted subsidies to low-income households. To ease the administration of subsidy programmes, the government took several measures. It simplified procedures for allocating subsidies, reduced the number of documents required for submission in 2016 and cancelled several eligibility requirements. This led to a dramatic increase in applications for subsidies. The total value of utility subsidies to households peaked at USD 2.7 billion in 2017 (UAH 72 billion, see Annex G.). Furthermore, in this same year, 9.6 million households received utility subsidies, which is 64% of all households in Ukraine (State Statistics Service of Ukraine, 2018^[26]), (State Statistics Service of Ukraine, 2019^[27]).

In subsequent years, Ukraine amended subsidies to improve means-testing and ensure that subsidies are provided only to truly socially vulnerable households. By 2019, together with a general improvement in the economic situation in Ukraine, these measures led to a significant decrease in the number of households receiving benefits. Their number dropped to 5.9 million or about 40% of all households in the country (State Statistics Service of Ukraine, 2019^[28]), (State Statistics Service of Ukraine, 2020^[29]). Budget spending on housing subsidies dropped to USD 1.9 billion in total, which is comparable to the 2016 level when utility tariffs had just been sharply increased.

In March 2019, Ukraine's government further reformed utility subsidies, implementing the so-called monetisation of subsidies. This reform allowed recipients to receive support for utility payments in cash or at specially opened bank accounts (Ministry of Social Policy of Ukraine, 2019^[30]). In previous arrangements, the consumer's utility bill indicated the amount of subsidy, but compensation from the budget was transferred to utility providers. The new mechanism provided incentives for households to implement energy-saving measures as they are allowed to spend saved subsidies as they wish. Despite concerns about non-payment, subsidy beneficiaries demonstrated good payment discipline (Center of Public Monitoring and Control of Ukraine, 2019^[31]).

Source: Authors' compilation.

Over the period 2015-19, the landscape of fossil-fuel subsidies in the EaP countries has changed considerably. Many measures were eliminated, while new ones were introduced. The analysis shows that fossil-fuel subsidies in the form of budget transfers and revenue foregone in Armenia, Georgia and Ukraine have generally declined over the reviewed period. Meanwhile, subsidy values in Moldova have fluctuated. Given data gaps in the bottom-up assessment of fossil-fuel subsidies in Azerbaijan and Belarus, the study could not identify general trends in these countries.

Measures related to COVID-19 in the energy sector of the EaP countries

The COVID-19 pandemic has taken a heavy toll on the global economy, including the EaP region. COVID-19 has adversely affected the EaP countries through the collapse in global commodity prices, disruptions to global and regional supply chains, and increased risk aversion in financial markets. The spread of the virus and the subsequent lockdown has led to a steep decline in domestic demand and halted much activity.

The pandemic reached the EaP region in late February 2020. By the end of July 2020, infection rates had significantly increased. At the end of April 2021, the numbers of confirmed cases were further increasing. In terms of numbers of confirmed cases, Ukraine appears to be the most affected country in the region. However, Armenia, Georgia and Moldova display high rates in terms of per capita deaths as well. All EaP countries have been struggling to contain the health crisis over the past year.

Table 2.2. Infections and deaths per capita, as of 26 July 2020 and 30 April 2021

	Confirmed cases, 26 July 2020	Confirmed cases, 30 April 2021	Deaths 26 July 2020	Deaths 30 April 2021	Deaths per 100 000, 26 July 2020	Deaths per 100 000, 30 April 2021
Moldova	23 034	251 160	735	5 826	18	219.22
Armenia	37 317	216 596	705	4 128	23	139.57
Georgia	1 131	311 457	16	4 130	1	111.01
Ukraine	66 261	2 132 742	1 625	46 281	44	104.27
Azerbaijan	30 050	320 322	417	4 538	4	45.27
Belarus	67 131	359 982	534	2 552	6	26.96

Source: John Hopkins University & Medicine (2021^[32]).

Economic activity in the region significantly contracted during the first months of the crisis in 2020. Key economic sectors (extractive, services, tourism, transport) were particularly affected. The collapse in oil prices hit Azerbaijan and Belarus directly but also affected other EaP countries through its impact on trade. Meanwhile, the travel ban led to reduced remittances. All this further exacerbated the socio-economic consequences of the crisis. According to World Bank (2020^[33]), the regional economy is forecast to contract by 4.7% in 2021, with recessions in nearly all countries.

Most EaP governments swiftly implemented measures to mitigate the economic impact of COVID-19 on households and businesses. These immediate rescue as well as medium-term recovery packages are significant, totalling about USD 2 billion in Belarus and Ukraine. They also testify to the capacity of the governments to mobilise resources and put in place policies when a crisis hits.

Annex H provides an overview of the main measures the EaP governments put in place to help reduce impacts of the crisis in the energy sector. Highlights of the EaP countries' measures are provided below.

In April 2020, the **Armenian government** prepared 22 recovery packages to address the social and economic consequences of the crisis at the announced amount of AMD 150 billion (USD 305 million). The main support measure in the energy sector targeted consumers of natural gas and electricity who had difficulties paying their utility bills (electricity and gas but also water). The government provided direct

budget support to utilities selling natural gas and electricity on behalf of eligible consumers based on conditions specified for the measure.

The **Azerbaijani** government put a total of AZN 2.6 billion (USD 1.5 billion) into its support package. In general, the energy sector is not included in the category of areas affected by the pandemic and needing aid. However, the Government Support Programme “100 kWh of Preferential Light Limit for the Population” provided support to residential users of electricity for April-May 2020.

Belarus has announced a support package of BYN 5 to 6 billion (USD 2 to 2.5 billion). In April 2020, the President of Belarus signed a decree on the reimbursement of part of the costs of works performed in residential buildings and related to improving the efficiency of electric heating and hot water supply. This reimbursement represents 20% of the cost but should not be more than 40 basic units (1 BB – BYR 27) (about USD 495). The subsidy, provided by local budgets, is estimated to benefit about 15 000 consumers annually (USD 6.6 million). The Belarusian government has not yet determined the timeframe for transition to full cost recovery by the population for heat and gas supply services.

In April 2020, the government of **Georgia** announced a recovery package of GEL 3.5 billion (about USD 1.1 billion). To alleviate the impacts of the COVID-19 pandemic, the state budget financed three-month utility bills for households (March, April, May 2020). According to the Georgian National Energy and Water Supply Regulatory Commission, about GEL 150 million (USD 43.5 million) was allocated for this measure. More than 1.2 million electricity customers and more than 670 000 natural gas customers were participating in the subsidy scheme. All consumers eligible for this support could refuse the payments from the state budget. In these three months, more than 9 600 consumers declined to participate in the subsidy scheme as a sign of solidarity. In March 2020, 3 534 consumers declined to join the scheme; in April, another 4 600 consumers also declined.

To support businesses and the economy, the government of **Moldova** put together a support package of LEU 2.5 billion (USD 150 million). It does not envisage specific direct support measures in the energy sector. However, it introduced a regulation banning the disconnection of customers in case of late payment for communal services, including for electricity and heat.

In **Ukraine**, the government committed UAH 65 billion (USD 2.4 billion) in support. In early 2020, it established a special Stabilisation Fund within the general fund of the state budget for the quarantine period (lasting 30 days after the end of the quarantine). It did not identify specific measures for the energy sector as part of the Stabilisation Fund. However, analysis of planned spending before the crisis (January 2020) and after budget amendments (April 2020) shows the government revised budget spending in the energy sector as well. For example, it cut spending on several state support programmes in the coal sector. However, it nearly doubled expenditure on the restructuring of the coal sector. This increased total subsidies to the coal sector by UAH 837 million (USD 30 million).

Most recovery measures in the energy sector are largely concentrated in the electricity sector, where governments and utilities have made commitments to avoid difficulties during the crisis. These include additional assistance with bills or bans on disconnecting customers in arrears. The short-term justification for action is clear. However, for the vitality of these power sectors, temporary measures introduced during the crisis should not grow into longer-lasting subsidy programmes. Recovery support could be more effective when it is aligned with long-term price signals.

References

- Center of Public Monitoring and Control of Ukraine (2019), “Monetisation of subsidies: Did the experiment succeed?”, 2 September, Center of Public Monitoring and Control, <https://naglyad.org/uk/2019/09/02/monetizatsiya-subsidij-eksperiment-vdavsyia/>. [31]
- EITI (2020), “EITI Status of Armenia”, webpage, <https://eiti.org/armenia> (accessed on 5 February 2021). [10]
- EITI (2020), “EITI Status of Ukraine”, webpage, <https://eiti.org/ukraine#eiti-reports-and-other-key-documents> (accessed on 5 February 2021). [8]
- EITI (2018), “EITI Status of Azerbaijan”, webpage, <https://eiti.org/azerbaijan> (accessed on 4 February 2021). [11]
- Ekonomichna Pravda (2018), “The price of imported gas for Ukraine exceeded USD 300”, 20 September, Ekonomichna Pravda, <https://www.epravda.com.ua/news/2018/09/20/640759/>. [15]
- Eurostat (2019), “European Neighbourhood Policy: East – Economic Statistics”, webpage, https://ec.europa.eu/eurostat/statistics-explained/index.php/European_Neighbourhood_Policy_-_East_-_economic_statistics#General_government_deficit_and_debt (accessed on 30 November 2020). [22]
- EY (2018), *EITI National Report of Ukraine 2016*, EY, City, https://eiti.org/files/documents/english_2016_ua_eiti_report.pdf. [9]
- Fitch Ratings (2020), “Fitch affirms Azerbaijan’s SOCAR at ‘BB+’; Outlook stable”, 28 January, Rating Action Commentary, Fitch Ratings, <https://www.fitchratings.com/research/corporate-finance/fitch-affirms-azerbaijan-socar-at-bb-outlook-stable-28-01-2020>. [20]
- Fitch Ratings (2020), “Fitch affirms Naftogaz at ‘B’; Outlook positive”, 2 April, Rating Action Commentary, Fitch Ratings, <https://www.fitchratings.com/research/corporate-finance/fitch-affirms-naftogaz-at-b-outlook-positive-02-04-2020>. [19]
- IEA (2020), *Data and statistics*, database, <https://www.iea.org/data-and-statistics/data-tables?country=WORLD> (accessed on 14 January 2021). [12]
- IEA (2019), *Energy Subsidies - Tracking the impact of Fossil-Fuel Subsidies*, webpage, <https://www.iea.org/topics/energy-subsidies> (accessed on 12 June 2020). [14]
- John Hopkins University & Medicine (2021), “Armenia”, *Coronavirus Resource Center*, (database), <https://coronavirus.jhu.edu/region/armenia> (accessed on 30 April 2021). [32]
- Kojima, M. and D. Koplow (2015), “Fossil fuel subsidies: Approaches and valuation”, *Policy Research Working Papers*, No. 7220, World Bank Group, Washington, DC, <https://openknowledge.worldbank.org/handle/10986/21659>. [5]
- Miljević, D. (2020), *Investments into the Past. An Analysis of Direct Subsidies to Coal and Lignite Electricity Production in the Energy Community Contracting Parties 2018-2019*, Energy Community, <https://energy-community.org/news/Energy-Community-News/2020/12/02.html>. [24]

- Ministry of Finance of Ukraine (2020), *List of Tax Benefits and Charges (Mandatory Payments) with Estimates of the Revenue Forgone for the Consolidated Budget of Ukraine in 2019 and Forecast for 2020 (Prepared within Budget Supporting Documentation)*, Ministry of Finance of Ukraine, Kyiv, http://w1.c1.rada.gov.ua/pls/zweb2/webproc4_1?pf3511=66853. [7]
- Ministry of Social Policy of Ukraine (2019), "Large-scale monetisation of subsidies has started in Ukraine", 1 March, News, Ministry of Social Policy of Ukraine, Kyiv, <https://www.msp.gov.ua/news/16768.html>. [30]
- Naftogaz Group (2019), *Annual Report 2019 – On to New Heights*, Naftogaz Group, Kyiv, https://www.naftogaz.com/files/Zvity/Naftogaz_2019_EN.pdf. [18]
- Naftogaz of Ukraine (2016), *Annual Report 2016 – In the Black*, Naftogaz of Ukraine, Kyiv, https://www.naftogaz.com/files/Zvity/Annual_report_eng_170608.pdf. [17]
- Natural Resource Governance Institute (2020), *National Oil Company Database*, (database), <https://www.nationaloilcompanydata.org/> (accessed on 30 October 2020). [21]
- NEURC (2016), "Stages of Tariff Changes for Electricity for Household Consumers", webpage, <https://www.nerc.gov.ua/?id=19527> (accessed on 1 June 2020). [16]
- OECD (2018), *Inventory of Energy Subsidies in the EU's Eastern Partnership Countries*, Green Finance and Investment, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264284319-en>. [1]
- OECD (2015), *OECD Companion to the Inventory of Support Measures for Fossil Fuels 2015*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264239616-en>. [2]
- OECD (2013), *Analysing Energy Subsidies in the Countries of Eastern Europe, Caucasus and Central Asia*, OECD Publishing, Paris, https://www.oecd.org/env/outreach/EHS%20report_20%20August%202013_ENG.pdf. [4]
- State Statistics Service of Ukraine (2020), *Data on the Provision of Subsidies to Households in 2019*, State Statistics Service of Ukraine, Kyiv, <http://www.ukrstat.gov.ua/express/expr2020/01/05.pdf>. [29]
- State Statistics Service of Ukraine (2019), *Data on the Provision of Subsidies to Households in 2018*, State Statistics Service of Ukraine, Kyiv, <http://www.ukrstat.gov.ua/>. [28]
- State Statistics Service of Ukraine (2019), *Social and Demographic Characteristics of Households of Ukraine in 2019*, State Statistics Service of Ukraine, Kyiv, http://www.ukrstat.gov.ua/druk/publicat/kat_u/2019/zb/07/zb_sdhdu2019.pdf. [27]
- State Statistics Service of Ukraine (2018), *Social and Demographic Characteristics of Households of Ukraine in 2018*, State Statistics Service of Ukraine, Kyiv, http://www.ukrstat.gov.ua/druk/publicat/kat_u/2018/zb/07/zb_sdhdu2018pdf.pdf. [26]
- State Treasury Service of Ukraine (2020), *Reports on the Execution of the State Budget for the Period 2010-2019*, State Treasury Service of Ukraine, Kyiv, <https://www.treasury.gov.ua/ua/file-storage/vikonannya-derzhavnogo-byudzhetu>. [6]
- Trade Economics (2020), "Azerbaijan Gasoline Prices", *Trading Economics*, (database), <https://tradingeconomics.com/azerbaijan/gasoline-prices> (accessed on 12 June 2020). [13]

- Voitko, A. (2015), "This year's spending on subsidies 'bypassed' last year's billions", 21 December, Housing News, Chief Expert of Housing and Communal Services of Ukraine, Kyiv, <http://statistic.jkg-portal.com.ua/ua/publication/one/vitrati-u-comu-roc-na-subsidji-obshli-minulorchn-na-mljardi-45933>. [25]
- World Bank (2020), "Economy", *World Bank Open Data*, (database), <https://data.worldbank.org/> (accessed on 19 June 2020). [23]
- World Bank (2020), *Global Economic Prospects, June 2020*, World Bank, Washington DC, <https://www.worldbank.org/en/publication/global-economic-prospects>. [33]
- WTO (1996), *Agreement on Subsidies and Countervailing Measures*, World Trade Organization, Geneva, https://www.wto.org/english/docs_e/legal_e/24-scm_01_e.htm. [3]

Notes

¹ Armenia, Georgia, Moldova and Ukraine signed the ASCM, while Azerbaijan and Belarus were at different stages of the WTO accession at the time of writing this report.

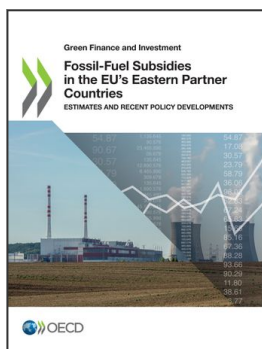
² The price at the border of a good that is imported, which includes international transport costs and tariffs.

³ The price of a product at the nearest international hub, adjusted for a number of variables such as, among others, the cost of transport, insurance, cost of internal distribution and marketing.

⁴ As of 1 January 2021, the Council of Ministers of Ukraine abolished the reduced tariff for electricity for households of UAH 0.9 per kWh for the first 100 kWh consumed and set a fixed price for households at the level of UAH 1.68 per kWh.

⁵ In certain cases, it has been difficult to estimate the value of the subsidy for specific fuels because government data are aggregated across several fuels. For example, data on subsidies to crude oil and natural gas in Azerbaijan are bundled together. Similarly, other countries report subsidies to natural gas and electricity as one. Ukraine reports some subsidies as a single number but the support goes to several fuels such as coal, fuel oil and natural gas.

⁶ The Ministry of Finance of Armenia does not consider the excise tax exemption on natural gas imports as a subsidy. According to the country's tax legislation, imported natural gas is not subject to an excise tax. For this reason, it is not included in the list of products exempt from excise tax. However, other major fossil fuels in Armenia are all subject to an excise tax. These include lubricating oil, raw oil and oil materials, compressed natural gas, gases produced from oil and other hydro-carbons, petrol and diesel. Unlike other fossil fuels, imported natural gas is exempt from an excise tax. This gives rise to a tax expenditure, which is why the study includes this exemption as a subsidy.



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