



Low Carbon Ukraine

Policy advice on low-carbon policies for Ukraine



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Federal Ministry
for the Environment, Nature Conservation,
Nuclear Safety and Consumer Protection

Based on a decision of the German Bundestag



Effects of the Russian invasion of Ukraine on climate and energy policies in the European Union's Eastern Partnership and Central Asian countries

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Berlin, June 2022

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1. Introduction

- **Before invasion**, energy and climate policy was affected by long-term emission targets (e.g. NDCs) and impacts of Covid-19 pandemic
- **Russian invasion of Ukraine** resulted in massive geopolitical and economic consequences beyond Ukraine:
 - Separation of markets
 - Interrupted trade relations
 - Disruption of traditional energy supply channels
- **Historical and geographical proximity** of the region of the European Union's Eastern Partnership and Central Asia influences climate and energy policy

2. Impact channels for climate policy

The impact of the war in Ukraine on:



- Energy prices
- Prices for metals
- Macroeconomic situation
- International policy developments

Key criteria

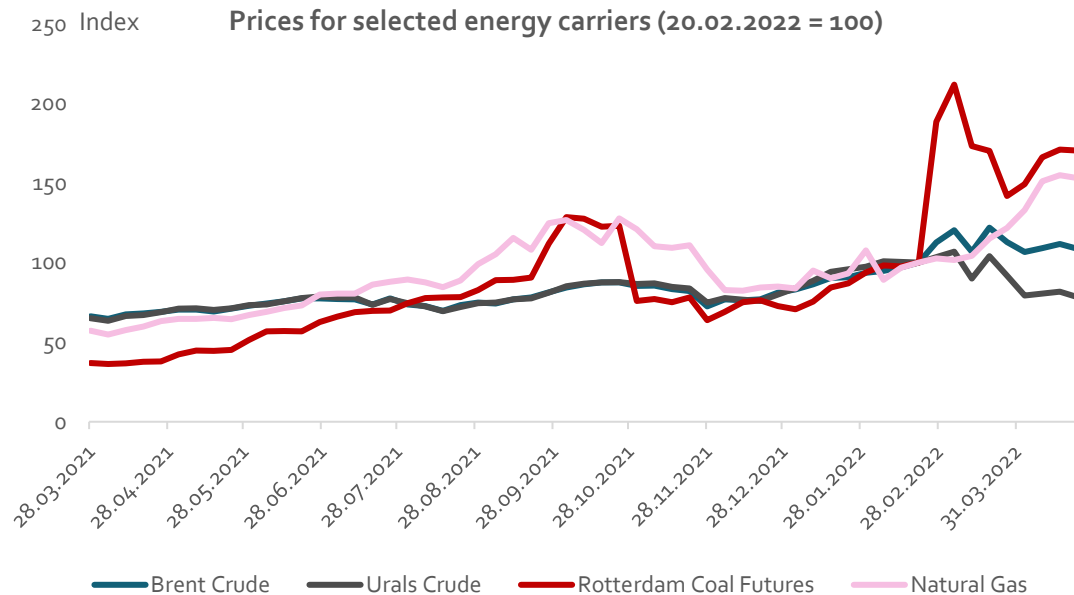
Energy mix profile (total primary energy supply)

Existing climate policy (e.g. NDC)

Trade profile

Political decisions and macroeconomic impact

2.1 Energy prices



Source: Investing.com

Decoupling from Russia affected energy prices:

- Brent crude oil increased while Urals slightly decreased (**price discount** of 34 USD/bbl)
- **High increase and volatility** of natural gas prices
- Coal prices show **highest spike**

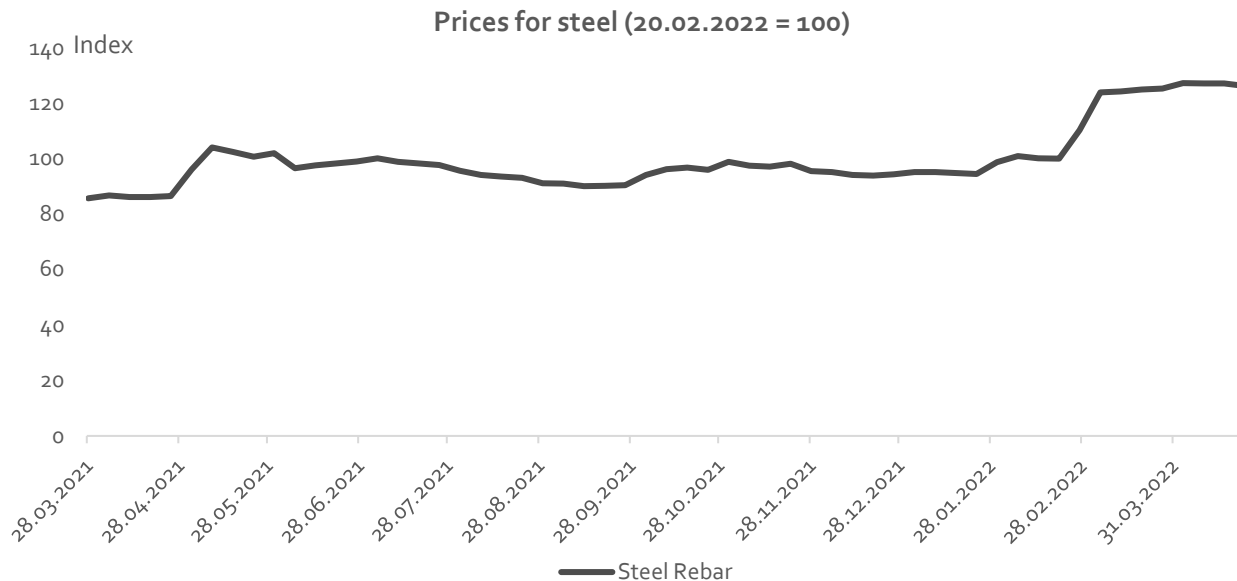


1. Generally, importers and exporters of fossil fuels are **disincentivised to use fossil fuels**



2. Importers of cheap Russian fossil fuel supply turn away from Russia due to political & energy security considerations
New energy security paradigm

2.2 Metal prices



Source: Investing.com

- Ukraine and Russia are major producers of **metals**
 - Russian steel: partially sanctioned by the EU
 - Ukrainian steel: partially destroyed steel mills
- Steel-producing countries might **increase steel production**
 - Conventional steel production is a major emitter of CO₂

2.3 Macroeconomic situation



Source: IMF World Economic Outlook November 2021 (old forecast) and April 2022 (new forecast)

- **Growth forecast** for emerging and developing countries significantly affected
 - Only AZE has positive improved growth projections due to domestic fossil fuel production
- Reduced GDP growth affects climate policy:
 - **Rising public budget deficits** restrict the countries ability to spend on climate-related policies
 - **Less economic activity** reduces GHG emissions in short-run

2.4 International policy developments related to climate change

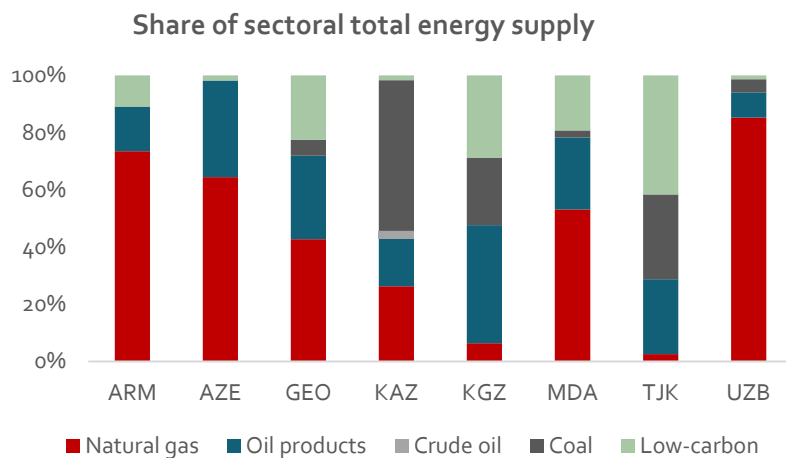
Before invasion

- Climate commitments under Paris Agreement (NDCs)
- EU Carbon Border Adjustment Mechanism (CBAM)

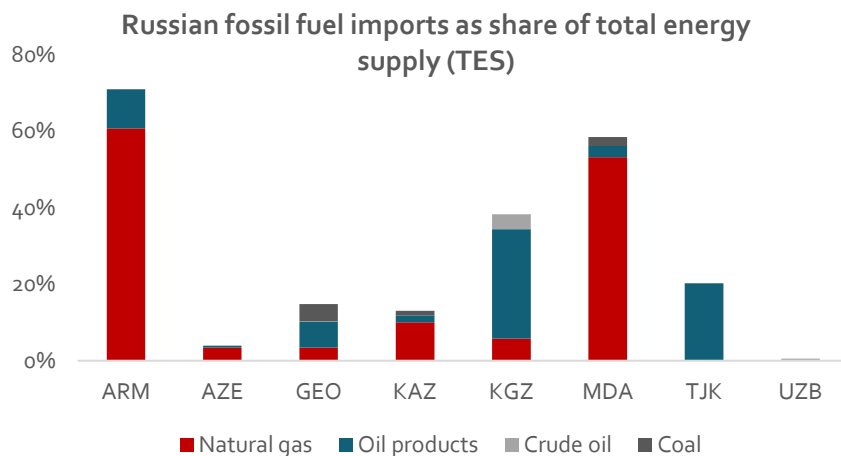
Following invasion

- Energy independence (decoupling from Russia) in OECD countries is closely connected to decarbonisation
- Especially, countries with EU perspective (Moldova, Ukraine, Georgia) might follow the path (high carbon price, strict regulation, etc.)

3. Comparison of countries and regional trends



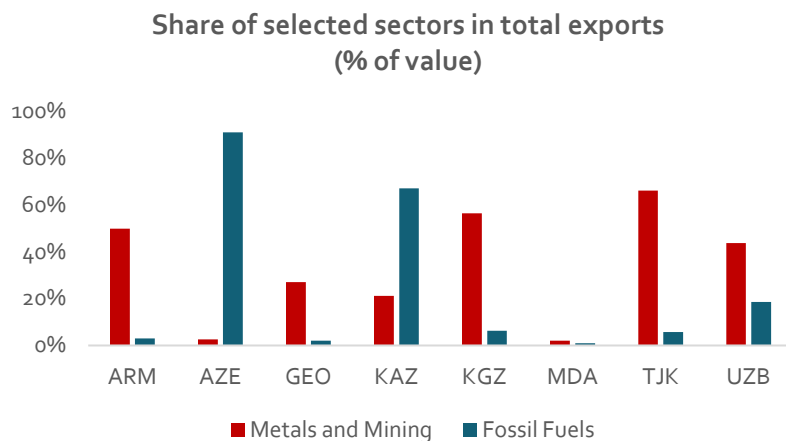
Source: IEA



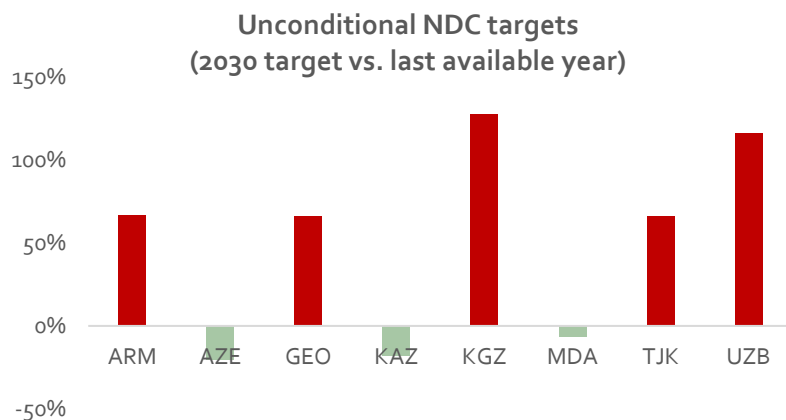
Source: IEA, UN Comtrade

- **High use of natural gas and oil products** but only AZE, KAZ and UZB are net exporters of fossil fuels
- TJK and KGZ rely on mix of **hydropower and coal**
- GEO (& ARM) also significant share of **hydropower**
- All countries are in **geographical proximity** to Russia and share common **Soviet history**
 - High dependence on fossil fuel imports from Russia (except UZB and AZE)
 - KAZ is dependent on fossil fuel routes via Russia

3. Comparison of countries and regional trends



Source: UN Comtrade



Source: UN Comtrade

- All countries rely on the **fossil fuel and/or metal/mining sectors** (besides right-bank MDA)
 - In ARM, KGZ, TJK and UZB, metals and mining accounts for 44-66% of total trade
- Some countries produce **critical minerals** which are crucial for the energy transition
 - Central Asia – uranium, antimony, copper
- Major expansions of the extractive sectors (under current conditions) could exacerbate historical ills and climate targets/policies
- **Climate targets** differ significantly between countries
 - Most countries allow themselves to increase GHG emissions until 2030

4.1 Conclusion

- Globally, countries will face **strong incentives to lower domestic consumption of fossil fuels** due to high and unpredictable prices and supply issues, such as increased demand for non-Russian fossil fuels
- Exporters of energy and/or metals will be **incentivised to increase exports** but may be constrained by capacity or logistical difficulties
- Countries with closer ties to Russia may have **access to discounted energy imports**, weakening incentives to conserve energy or invest in renewables
- However, this is counteracted by a **new energy security paradigm** emerging in the region. Domestic renewable energy sources provide an attractive alternative to increasingly price-volatile fossil fuel imports
- A **weaker global and regional macroeconomic situation** will lead to a more challenging context for ambitious domestic climate policy in the region
- Conversely, reduced growth may lead to **lower emissions in the short run**

4.2 Policy recommendations

- Continue to pursue and sharpen strategies towards **decarbonisation**
- Replace energy price subsidies or consumer tariffs regulated far below market value with more effective **social policy instruments** such as targeted social transfers or minimum income schemes
- International community should **support** these countries in their efforts to decarbonise
- International partners should support necessary reforms and decarbonisation policies **by technical assistance and capacity-building measures**



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