

# Russia's war against Ukraine: When decarbonisation meets geopolitics

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# Pre-war perspectives and assumptions

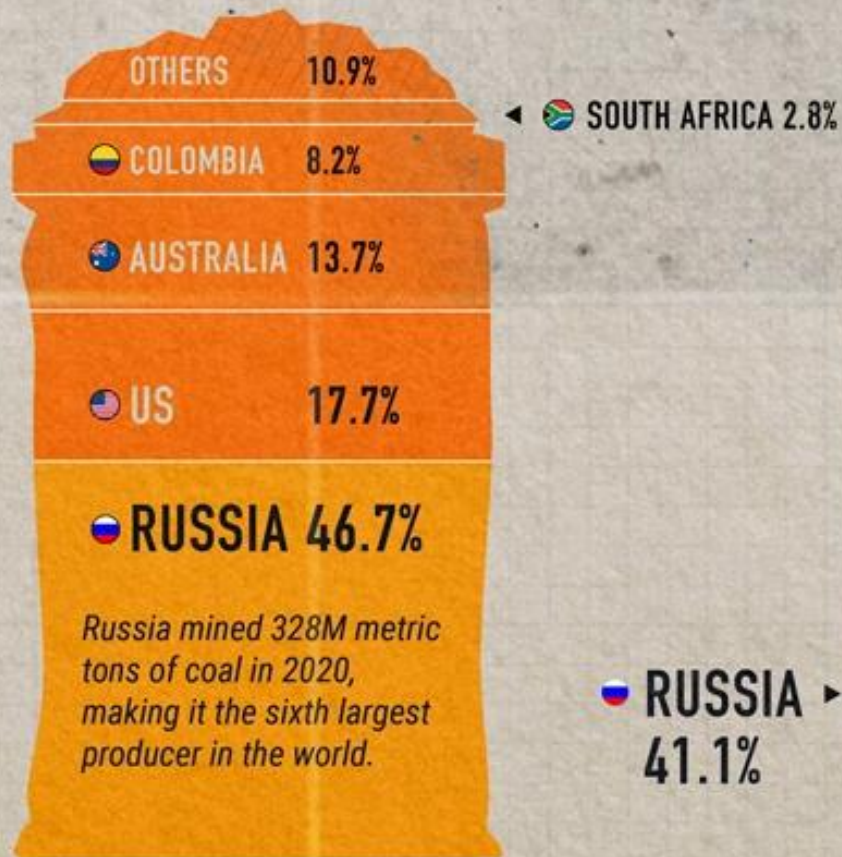
- Assumption of economic interdependence as a stabilizing factor.
- View of Russia as a manageable partner.
- Confidence in existing mechanisms to address a limited crisis.
- Belief that "In the 21st century, major wars no longer occur."
- Expectation of a swift outcome.
- Perception of EU's critical energy dependence.
- "It worked before; it will work again".
- Reliance on the special Russia-Germany relationship.
- Underestimating EU resilience.
- Overconfidence in military capabilities/underestimating Ukraine's resilience.

# EU IMPORTS

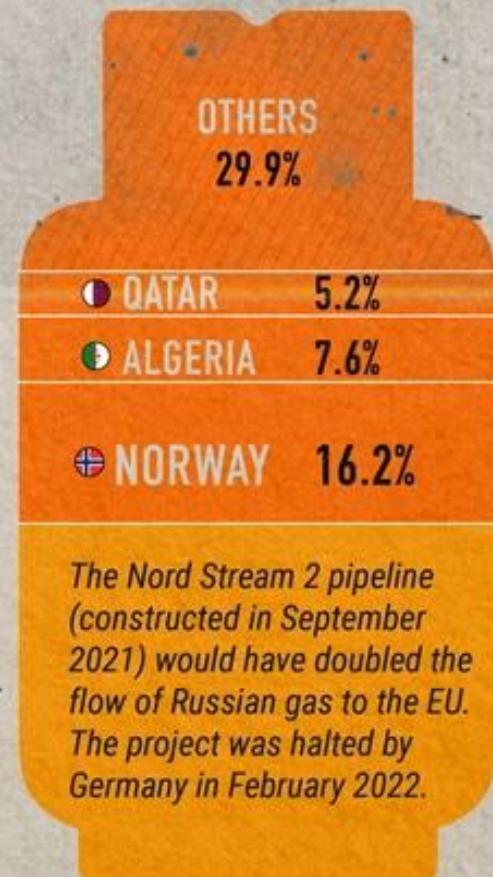
## CRUDE OIL



## SOLID FUEL (COAL)



## NATURAL GAS



# Russia's underestimation of the West

- In 2008, the invasion of Georgia faced only verbal condemnation.
- The annexation of Crimea in 2014 triggered only limited sanctions.
- The Minsk Agreements lacked enforcement, while energy projects like Nord Stream 2 highlighted Europe's dependence and divisions.
- Cyberattacks, election interferences - Russia accused of interfering in the 2016 US election and supporting anti-EU movements in Europe through cyberattacks and disinfo campaigns.
- Poisoning of dissidents - A. Litvinenko in 2006, Skripals in 2018, A. Navalny in 2020.
- Explosions at Czech (2014) and Bulgarian (2011–2020) ammunition depots, linked to Russian agents

# Russia-Germany special relationship

- From the Soviet Union's collapse until 2014, Germany and Russia maintained a "Sonderbeziehungen" (special relationship); belief that "European security is impossible without Russia" and crises should be resolved politically, not militarily.
- This relationship eroded due to Russia's actions in Georgia (South Ossetia, Abkhazia) and growing revisionism, reflected in German public opinion.
- In 2012, the German parliament stated: "Since ... Putin has reassumed office, ... measures are taken aimed at widening control over active citizens, criminalizing critical engagement..." (in response to protests against the 2011 Duma election).
- Following Crimea's annexation, Germany backed sanctions against Russia.

# Russia-Germany special relationship

Olaf Scholz, 2/27/2022: Germany's Shift in Strategy

- "We must support Ukraine. We must divert Putin from the path of war" (sanctions targeting Swift, reserve currencies, oligarchs, export of technology, and "nothing is off the table").
- Unwavering commitment to NATO obligations: troops sent to Lithuania, Romania, Slovakia, and navy deployed to the North and Baltic Seas.
- Massive military spending announced: EUR 100 billion in short-term investments and a long-term goal of 2% of GDP by 2024.
- Energy security priorities: accelerated deployment of renewable energy, reserves of coal and gas, FSRU LNG terminals, and potential re-evaluation of nuclear plant decommissioning.
- "As much diplomacy as possible, without being naive."

# As time went on...(Financial Times)

2/2022: „Can Europe survive without Russian gas?“

3/2022: „British drivers advised to limit speed to 55mph to battle against Putin“

4/2022: „Energy chiefs warn of ‘truly horrific’ autumn for British households“

5/2022: „EU accepts it will burn more coal in move away from Russian gas“

6/2022: „Europe at risk of winter energy rationing...“

7/2022: „Energy crisis intensifies as gas prices surge“

8/2022: „German recession fears deepen as economy is hit by ‘perfect storm’“

9/2022: „European metals industry warns of ‘existential threat’“

10/2022: „Europe at risk of ‘much worse’ energy crisis next year, warns Qatar“

11/2022: „US and EU argue over claims of gas crisis profiteering“

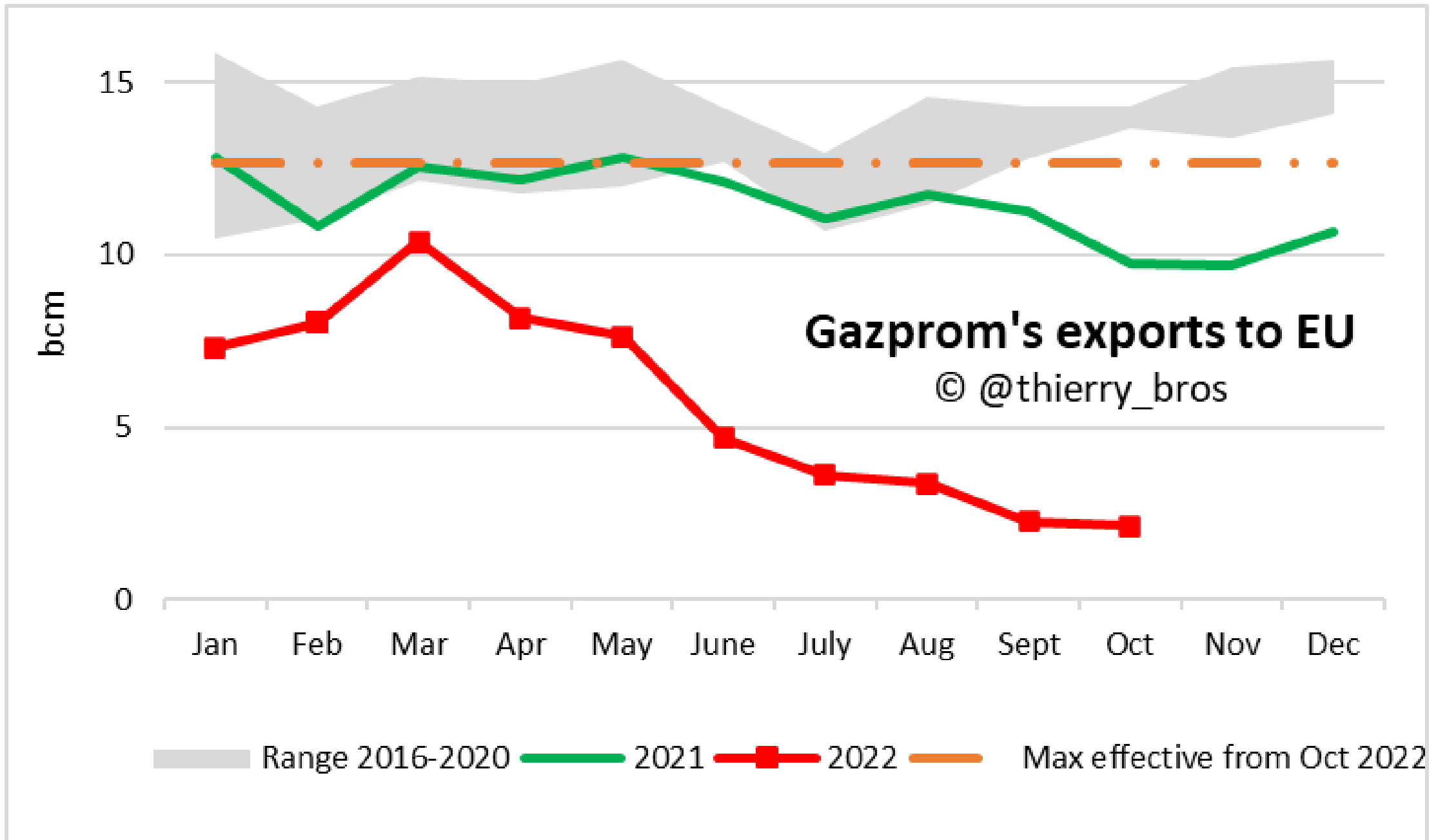


# Natural Gas Futures, ICE Dutch TTF

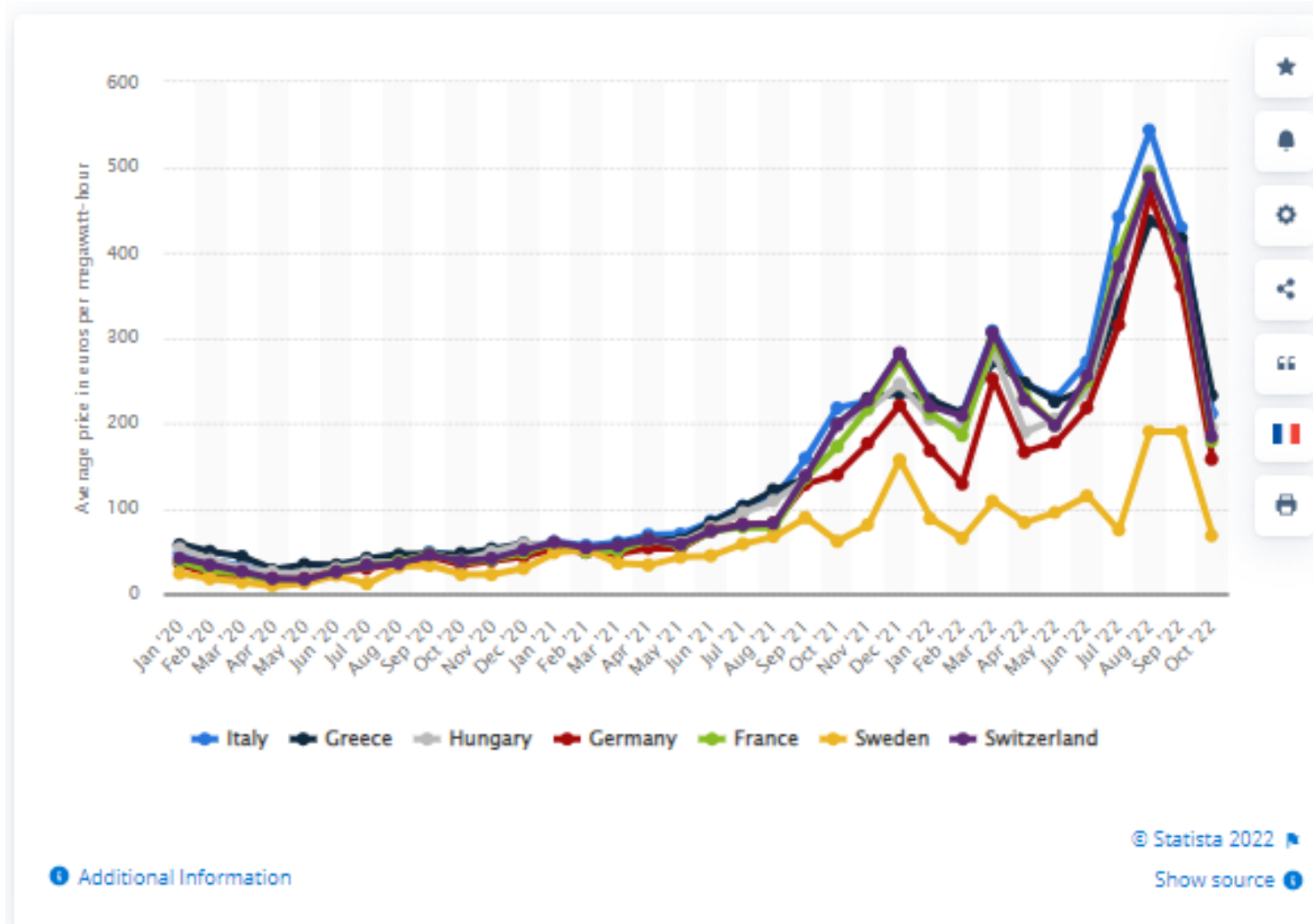
€ per megawatt-hour





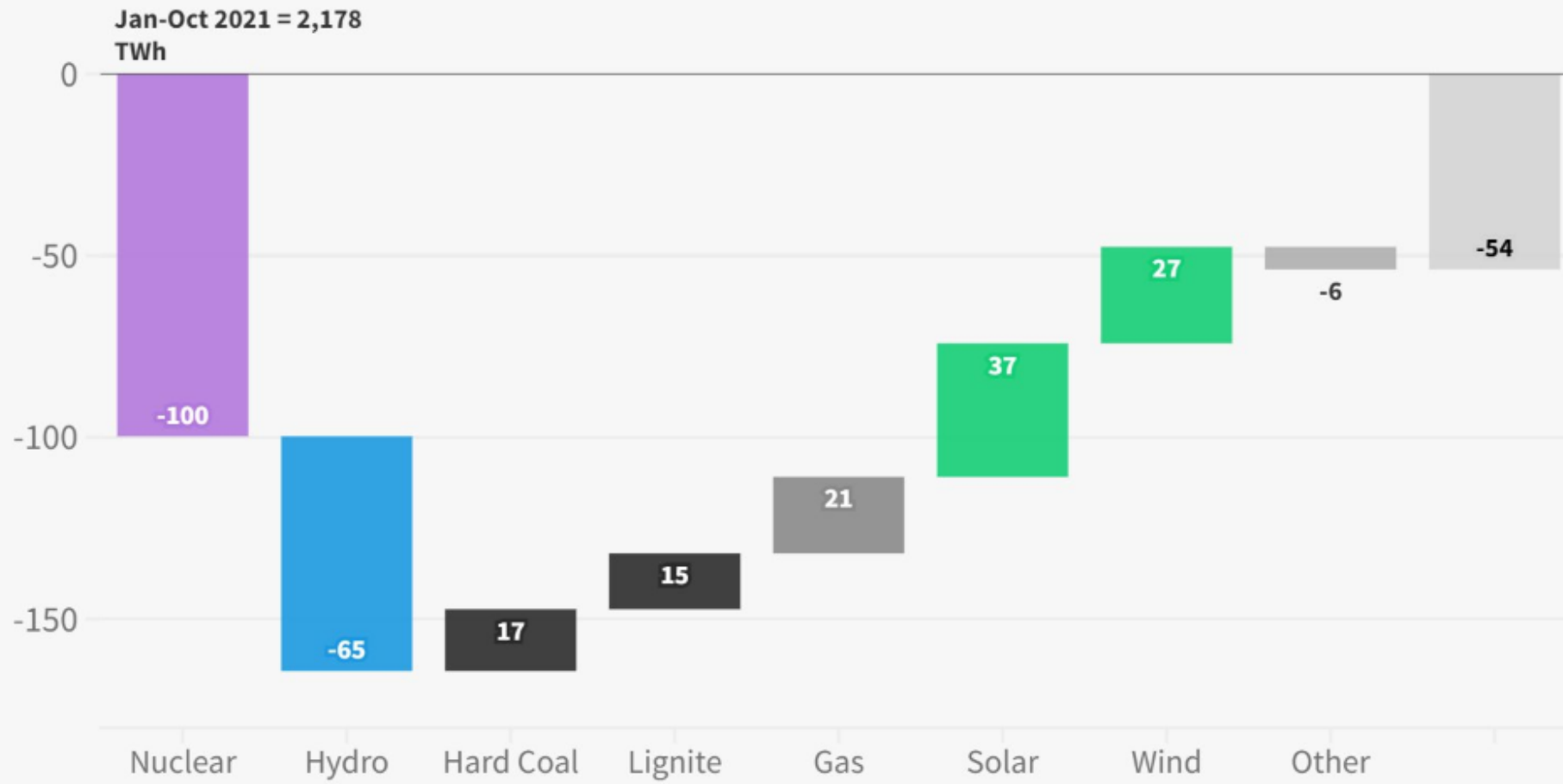


# Average monthly electricity wholesale prices, €/MWh



# Europe saw a large deficit of nuclear and hydro power in 2022; it was replaced with coal, gas, solar and wind.

Change in EU-27 electricity generation for Jan-Oct, 2022 vs 2021 (terawatt hours)



Source: Ember monthly electricity data  
Other includes bioenergy, other renewables and other fossil fuels

# Crisis management

- Ban on coal imports, effective August 2022. Embargo on seaborne oil imports, December 2022.
- Price cap on Russian crude oil exports (USD 60/barrel), February 5, 2023.
- The Versailles Declaration (March 11, 2022), calling for a phase-out of Russian energy and an acceleration of renewable energy projects and interconnections.
- REPowerEU Plan (May 18, 2022), focusing on diversification, energy savings, and renewable deployment.

# Crisis management – natural gas

- Russian pipeline gas imports decreased;. LNG imports increased.
- Council Regulation (EU) 2022/2576 (December 19, 2022) - Established joint gas purchasing mechanisms (AggregateEU) and improved cross-border LNG supplies.
- Council Regulation (EU) 2022/2578 (December 22, 2022) - Created a temporary market correction mechanism to cap excessively high gas prices (price cap for natural gas when prices are exceptionally and unreasonably high).
- Gas Storage Regulation (EU) 2022/1032 (June 2022):
  - Binding target: 80% of storage capacity by November 1, 2022, rising to 90% in subsequent years.
  - Ensured EU-wide storage exceeded 90% by December 2022.

# Crisis management – energy demand reduction

- Council Regulation (EU) 2022/1369 (August 5, 2022)
  - Voluntary 15% reduction in gas consumption from August 2022 to March 2023.
  - Gas consumption decreased by over 20% during this period.
- Electricity Consumption Reduction:
  - Binding 5% reduction during peak hours; voluntary 10% overall reduction (Council Regulation (EU) 2022/1854, October 6, 2022).

# Crisis management – RES deployment

- Renewables accounted for 39% of EU electricity in Q3 2022.
- Renewable Energy Directive (RED) Revision
  - Target increase to 45% renewable share by 2030 under negotiation (agreed 3/2023).
- Council Regulation (EU) 2022/2577 (December 22, 2022)
  - Streamlined permitting for solar installations, renewable plant repowering, and heat pump deployment.



# Crisis management – management of energy prices

- Gas prices peaked at €339.20/MWh in August 2022.
- Council Regulation (EU) 2022/2578
  - Temporary mechanism to cap excessive gas prices.
- Electricity market reforms to decouple gas and electricity prices.
- Council Regulation (EU) 2022/1854
  - Revenue caps on inframarginal generators (€180/MWh).
  - Solidarity contributions from fossil fuel companies benefiting from high prices (Windfall profit).

# Crisis management – social equity

- Member States introduced consumer support measures under the Temporary Crisis Framework for State Aid (March 23, 2022, updated October 28, 2022).
  - Liquidity support for energy utilities.
  - Subsidies for vulnerable consumers.

# REPowerEU (5/2022) – Short-term measures

- Common purchases of gas, LNG and hydrogen via the EU Energy Platform.
- New energy partnerships with reliable suppliers, including future cooperation on renewables and low carbon gases.
- Rapid roll out of solar and wind energy projects combined with renewable hydrogen deployment to save around 50 bcm of gas imports.
- Increased production of biomethane to save 17 bcm of gas imports.
- Approval of first EU-wide hydrogen projects by the summer.
- An EU Save Energy Communication with recommendations for how citizens and businesses can save around 13 bcm of gas imports.
- Fill gas storage to 80% of capacity by 1 November 2022.
- EU-coordination demand reduction plans in case of gas supply disruption.

# REPowerEU – Medium-term measures by 2027

- New national REPowerEU Plans under the modified Recovery and Resilience Fund – to support investment and reforms worth €300 billion.
- Boosting industrial decarbonisation with €3 billion of frontloaded projects under the Innovation Fund.
- Faster permitting of renewables.
- Investments in an integrated and adapted gas and electricity infrastructure network.
- Raising the EU-wide target on efficiency for 2030 from 9% to 13%
- Increase the European renewables target for 2030 from 40% to 45%
- New EU proposals to ensure industry has access to critical raw materials.
- To increase energy efficiency in the transport sector.
- A hydrogen accelerator to build 17.5 GW by 2025 of electrolyzers to fuel EU industry with homegrown production of 10 million tonnes renewable hydrogen
- A modern regulatory framework for hydrogen.

# High prices of energy

- Heavy reliance on energy imports exacerbates economic vulnerabilities.

## Gas and retail price gap for industry



Source: European Commission, 2024. Based on Eurostat (EU), EIA (US) and CEIC (China), 2024.

# Price volatility

- Price volatility impacts industries and households.
- Spot market problems:
  - Inflexibility and susceptibility to short-term fluctuations.
  - Amplifies energy price volatility during supply crises.
- Should Europe pivot from spot markets to long-term pricing mechanisms?

# Dependency and inflation

- The war disrupted energy markets, driving up global oil, gas, and LNG prices, with food inflation surging due to blocked Ukrainian grain exports and reduced Russian fertilizer supply.
- Supply chain disruptions increased costs for key commodities and global shipping.
- Emerging economies faced rising import costs and currency depreciation, prompting interest rate hikes despite risks to growth.
- Long-term impacts include inflation from energy transitions and fragmented trade systems, disproportionately affecting low-income and developing regions.



# Regulatory challenges and bureaucracy

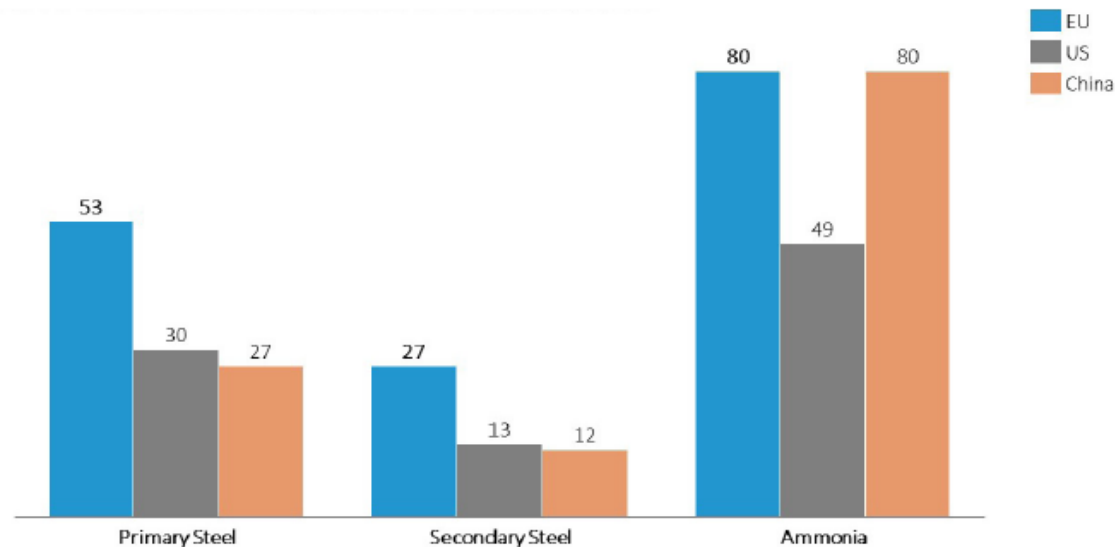
- Over-regulation slows business agility and innovation.
  - Lack of cohesive regulatory frameworks across member states.
- => Hinders the EU's ability to attract and sustain investments.

# Competitiveness of industry

- Industrial sectors face pressures from high energy costs and strict climate goals.
- It leads to loss of critical industries to global competitors like China.
- Socioeconomic risks from job losses and regional inequalities.
- Shift towards protectionism to safeguard key industries?

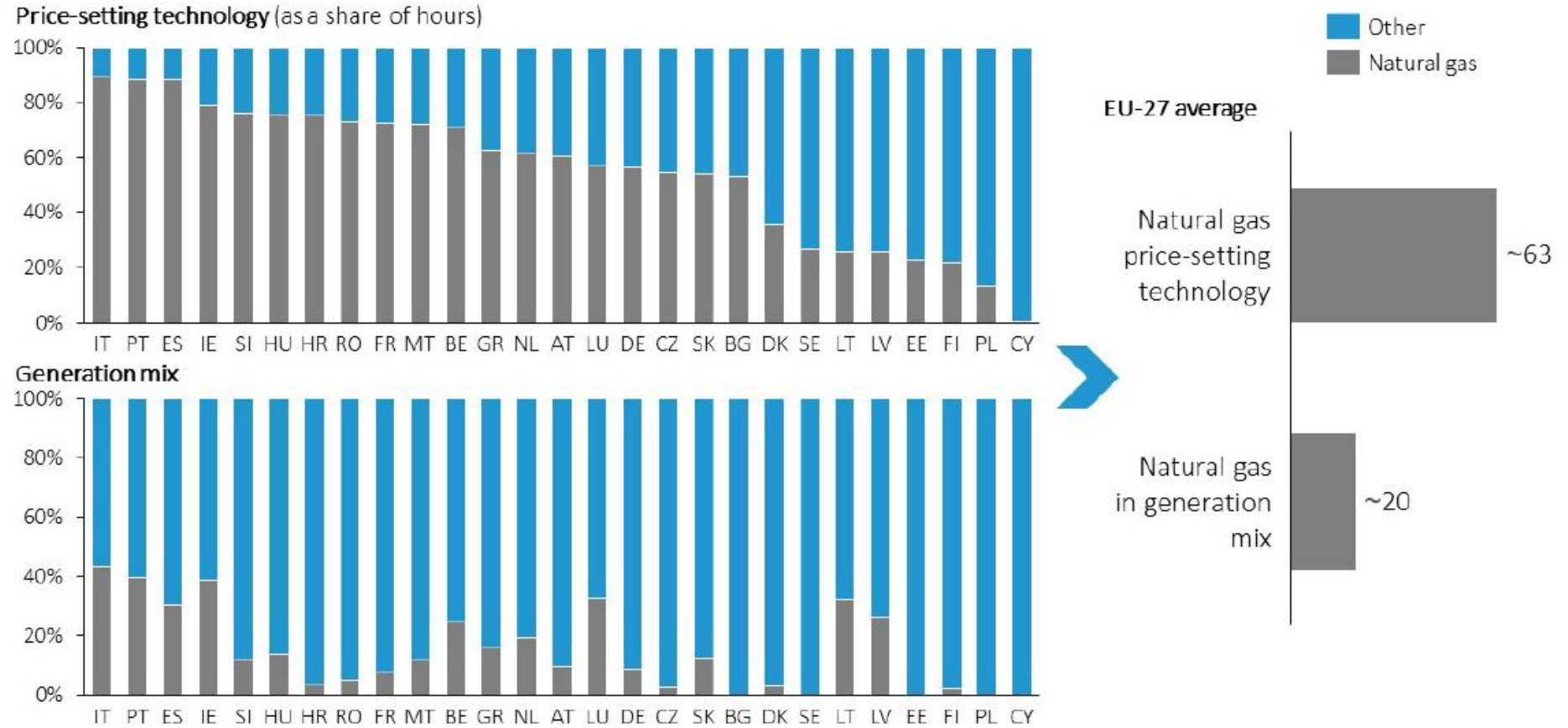
## Impact of energy prices in key industrial sub-sectors

Share of fuel expenditures in average levelized cost of production, %, 2022



# Price-setting technology per Member State and their generation mix

%, 2022

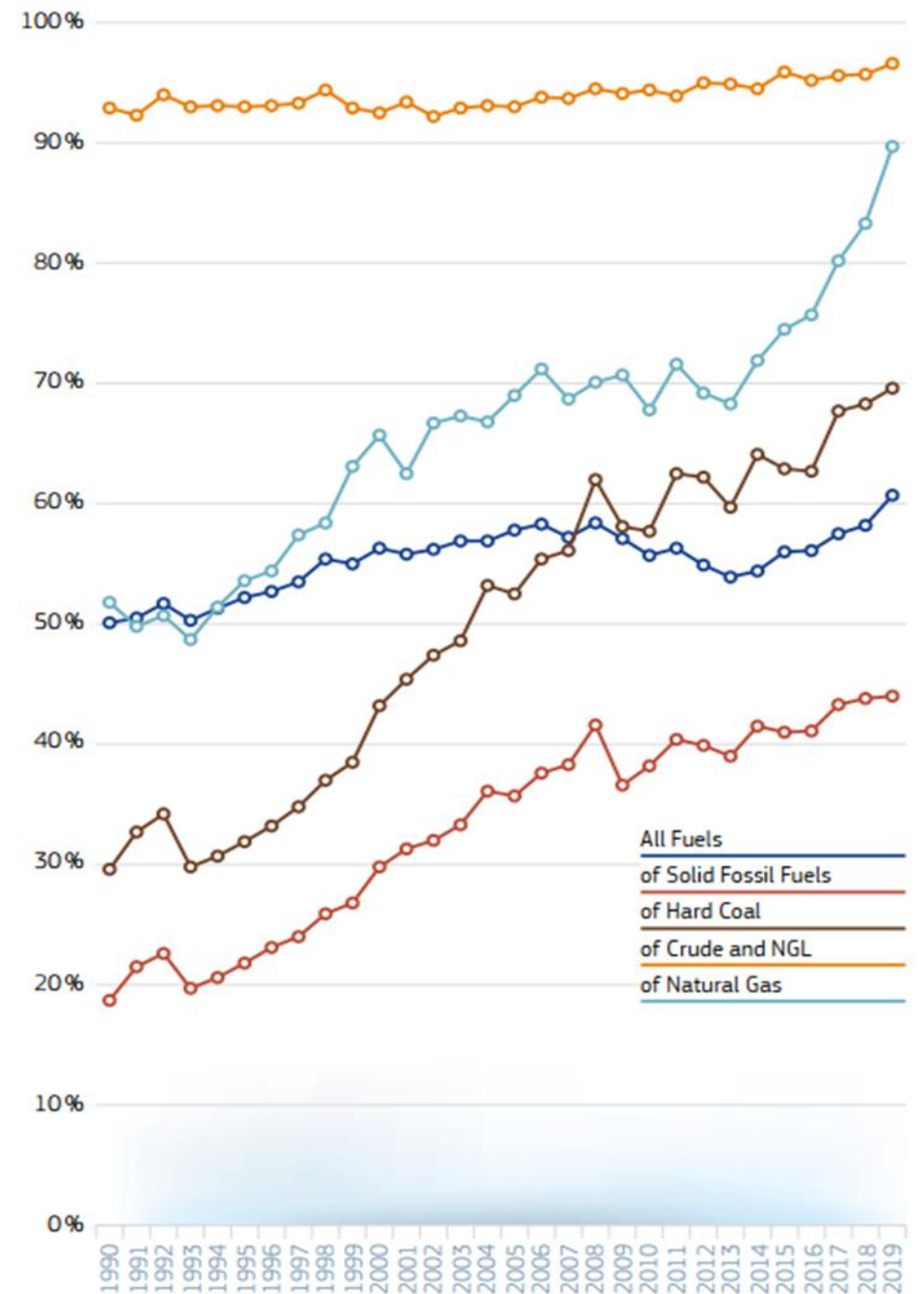


Source: European Commission, JRC, 2023.

- Defend the exit/destruction of industries?
- Maintain a fully liberalised market or move towards a more organised market?
- How to limit the influence of gas on the price of electricity, how to transfer the benefits of RES and nuclear into the price.

# „Windmills of Freedom“ vs. return to „traditional energy“

- Decarbonization rebranded as a source of security.



# Sources

- EC (2022): REPowerEU: affordable, secure and sustainable energy for Europe.