

Europe's difficult balancing act: managing the energy transition amid a geopolitical crisis

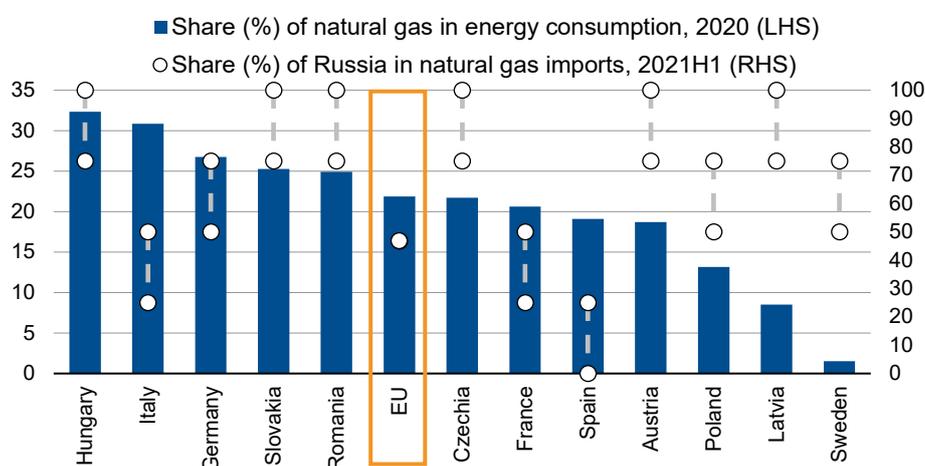


Rising geopolitical tensions have added a new dimension to Europe's transition to a low-carbon economy, pushing energy security and sustainability further up the policy-making agenda. The EU faces a difficult choice when it comes to possible sanctions on Russian gas should tensions between Russia and Ukraine escalate, potentially curtailing flows to the EU for an indefinite period and rapidly depleting current reserves.

Russia's Gazprom supplied an estimated 146 billion cubic meters (bcm) of gas to the EU in 2021, making up about 35% of natural gas that the EU consumes annually. The dependence on Russian gas is expected to increase further if and when the Nord Stream 2 pipeline becomes operational. At the same time, the planned inclusion of natural gas in the EU Taxonomy reflects its role as a crucial transition fuel in the EU's shift to a low-carbon economy. The EU's reliance on imported gas is therefore likely to further increase over the medium-term, as the use of coal and nuclear energy, in some countries, are gradually phased out, and domestic gas production continues to fall as extraction from the Netherland's Groningen gas field is expected to end.

Current geopolitical dynamics underline the need for a closely coordinated EU-wide energy strategy to improve longer-term energy security and sustainability. Prioritising and accelerating such efforts would also signal to Russia that an escalation of the Russian-Ukrainian conflict would ultimately damage rather than enhance European demand for Russia's energy exports. These remain the cornerstone of the Russian economy with exports of oil and gas products to the European market generating over EUR 90bn over the last year.

Figure 1: Reliance on gas, Russia energy exports differs widely across the EU



Source: Eurostat, Scope Ratings GmbH. Interval information is provided by Eurostat to avoid revealing confidential figures. The redistribution of imports among the Member States after import into the EU is not considered.

In the near term, the EU would likely be able to endure a large-scale disruption to Russian gas supplies until the summer¹, through a combination of higher liquefied natural gas (LNG) imports, such as from the US and Qatar, usage of cushion gas in storages and demand cuts. However, even in this scenario, price increases could be very adverse for the European recovery. Moreover, a prolonged halt of Russian gas supplies, depending on weather conditions, could rapidly deplete current gas reserves in some countries. Under such a scenario, the impact would vary across the EU, depending on the level of exposure to Russian gas and the energy mix (**Figure 1**).

¹ Bruegel, *Can Europe survive painlessly without Russian gas?*, January 2022

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Germany, Hungary, Slovakia rely more on Russian gas

Countries such as Germany, Hungary, and Slovakia have a high proportion of natural gas in the mix of energy they consume and are heavily reliant on gas imports from Russia. In contrast, France and Spain, two of the largest LNG importers in the EU, are much less reliant on natural gas supplies from Russia.

Such vulnerabilities are compounded by currently low gas storage levels in the EU. Total European gas storage fell to 37.7% of capacity on January 31, 2022, compared with 51.7% at the same time last year (**Figure 2**). Judging by this, Germany, Austria, Hungary and Slovakia appear more vulnerable to such a severe scenario. The impact, however, could be mitigated to some degree depending on how well the interconnected EU energy market is able to redistribute supplies across countries.

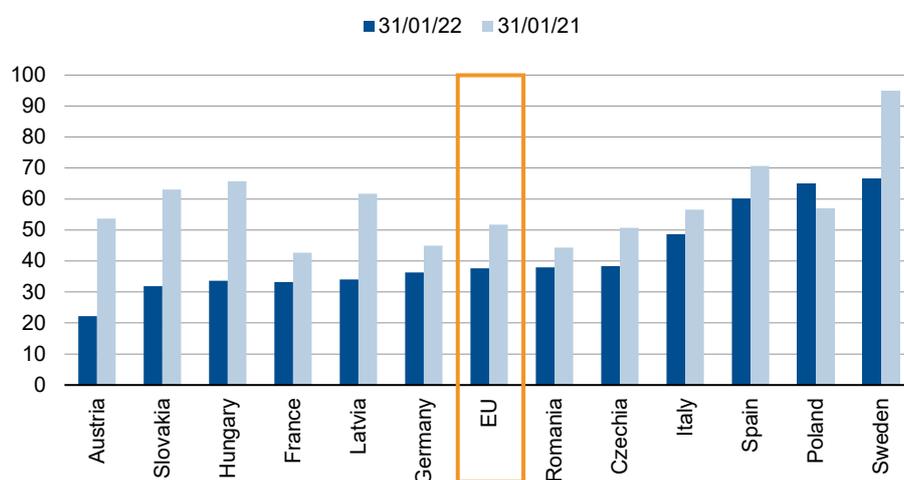
EU's internal energy market evolves; still work in progress

EU focuses more on energy transition and security

The EU has enhanced its energy policies over the past decade and reinforced energy security. Examples include financing the Baltic states' connection to continental Europe's gas and electricity networks planned by 2022 for gas and by 2025 for electricity.

As member states transition towards carbon neutral economies over the coming decades, the importance of the EU's role to coordinate these strategies is growing. A more closely integrated cross-border energy grid, sufficient energy reserves and the appropriate mix of energy sources across the EU (not just individual countries) will be important to ensure energy security. This will ultimately increase resilience and support the EU's transition towards carbon neutrality amid not only geopolitical risks, but also the potential for increased frequency of extreme weather in future.

Figure 2: Energy in reserve: EU's natural gas in storage, % of capacity



Source: AGSI+, Scope Ratings GmbH

Several significant steps to strengthen the EU's internal energy market have already been taken. Besides increasing competition and price transparency, this includes the Trans-European Networks for Energy (TEN-E) which focusses on linking the energy infrastructure of Member States and increasing storage capacities to improve the security of the supply of electricity, natural gas and oil². The integrated energy market allows power generation in the EU to adapt rapidly to changing market conditions. In response to the recent increase

² European Parliament, [Internal energy market](#), October 2021

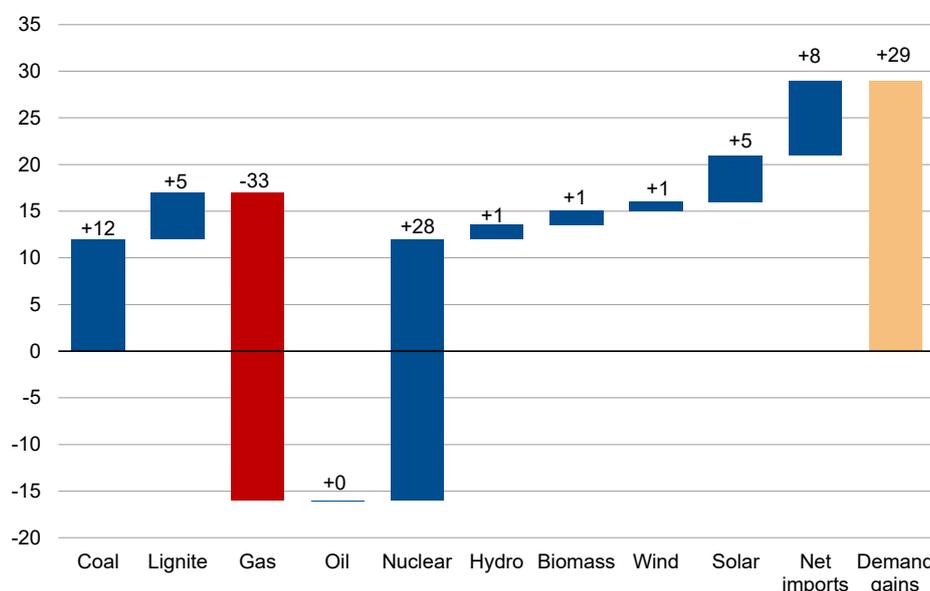
Aligning differing energy policies remains politically challenging

in gas prices, power generation shifted from natural gas towards nuclear power and hard coal (**Figure 3**).

Such shifts in energy allocation may become more challenging in future as the EU becomes increasingly dependent on gas as a transition fuel while renewable energy sources are still being integrated and electrical grids need to be upgraded.

Different starting points in terms of energy mix result in often differing policies toward nuclear power, gas, or electricity production across EU member states which could be politically challenging to align. Germany still relies on fossil fuels for around three-quarters of its energy needs and is phasing out nuclear, while France's large fleet of nuclear power stations results in a much lower reliance on fossil fuels at around half of the country's energy needs.

Figure 3: Changes in power generation in the EU, Q3 2020 to Q3 2021, TwHs



Source: ENTSO-E, Eurostat, DG ENER. Data represent net generation.

The different approaches affect the electricity prices faced by end-users. These are not only driven by differences in each country's energy mix, but also large differences in tax regimes (**Figure 4**). Due to high taxation, Germany has the highest electricity prices in the EU for both households (EUR 0.32 per kWh) and non-household consumers (EUR 0.18 per kWh), closely followed by Denmark³. German households face electricity prices of more than 45% above the EU average price of EUR 0.22 per kWh. In contrast, the Netherlands provides a tax refund to households resulting in electricity prices for households of only EUR 0.13/kWh.

Fiscal response options to rising energy costs vary across the EU

The wide range of approaches to taxation illustrate countries' options of how to respond to the sharply rising electricity costs. Considering its high tax regime, and in addition to some targeted measures for vulnerable households, Germany announced a reduction of the renewable energy surcharge (Erneuerbare-Energien-Gesetz - EEG) from January 2022 onwards. This provides broad-based support to households and firms and can help ease rising price pressures. France, with its comparatively moderate taxation regime on electricity prices, had to resort to a wider policy mix including one-off payments, price caps and fuel-vouchers. While broad-based tax reductions are less likely to distort competition

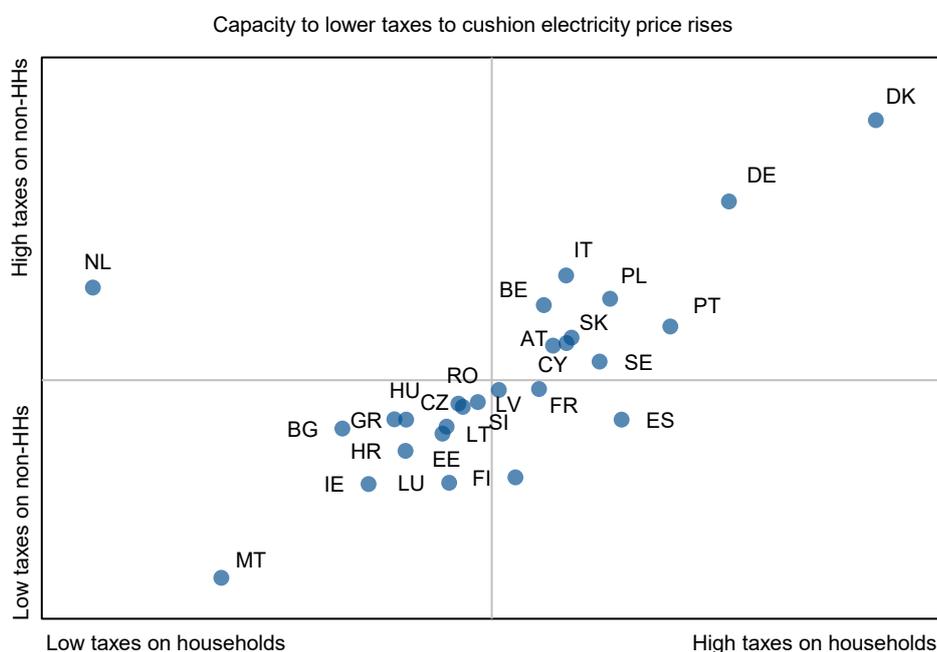
³ Eurostat, [Electricity prices statistics H1 2021](#)

within markets, both tax reduction and targeted subsidies are likely to burden government finances.

Transition risks: reassessing nuclear energy and natural gas

Leaving current geopolitical tensions aside, if and once the Nord Stream 2 gas pipeline becomes operational, Europe would be able to import an additional 55 bcm of gas each year, or about 13% of its gas consumption over the last year. This could ease supply constraints and provide short-term relief for the gas markets in Europe, particularly considering a possible halt or reduction of Russian gas flows to Europe through the Ukraine (around 40 bcm/year), for which the existing contract ends in 2024.

Figure 4: Taxes on electricity for households and non-household consumers, % of electricity price related to taxes



Source: Eurostat, Scope Ratings GmbH. The intersection lines show the simple average percentage of the electricity price that relates to taxes faced by households (30%) and non-households (34%) across EU 27.

The continued and growing dependence on Russia for energy imports is focusing minds in the EU on how the security of energy supplies are inextricably linked with the green transition. The EU Platform for Sustainable Finance advised against the European Commission's plans to include nuclear power and natural gas within the EU taxonomy.

Labelling nuclear as 'green' energy could support EU's energy independence

However, there are strong arguments for labelling nuclear power as a 'green' energy source to support the EU's energy security and independence, notably in light of the current geopolitical crisis, and to support its transition towards a less carbon-dependent economy. This would have positive implications especially for France (AA/Stable) and Central and Eastern European sovereigns, such as Slovakia (A+/Stable), Hungary (BBB+/Stable) and the Czech Republic (AA/Stable), where nuclear power accounts for over half of electricity generation on average.



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