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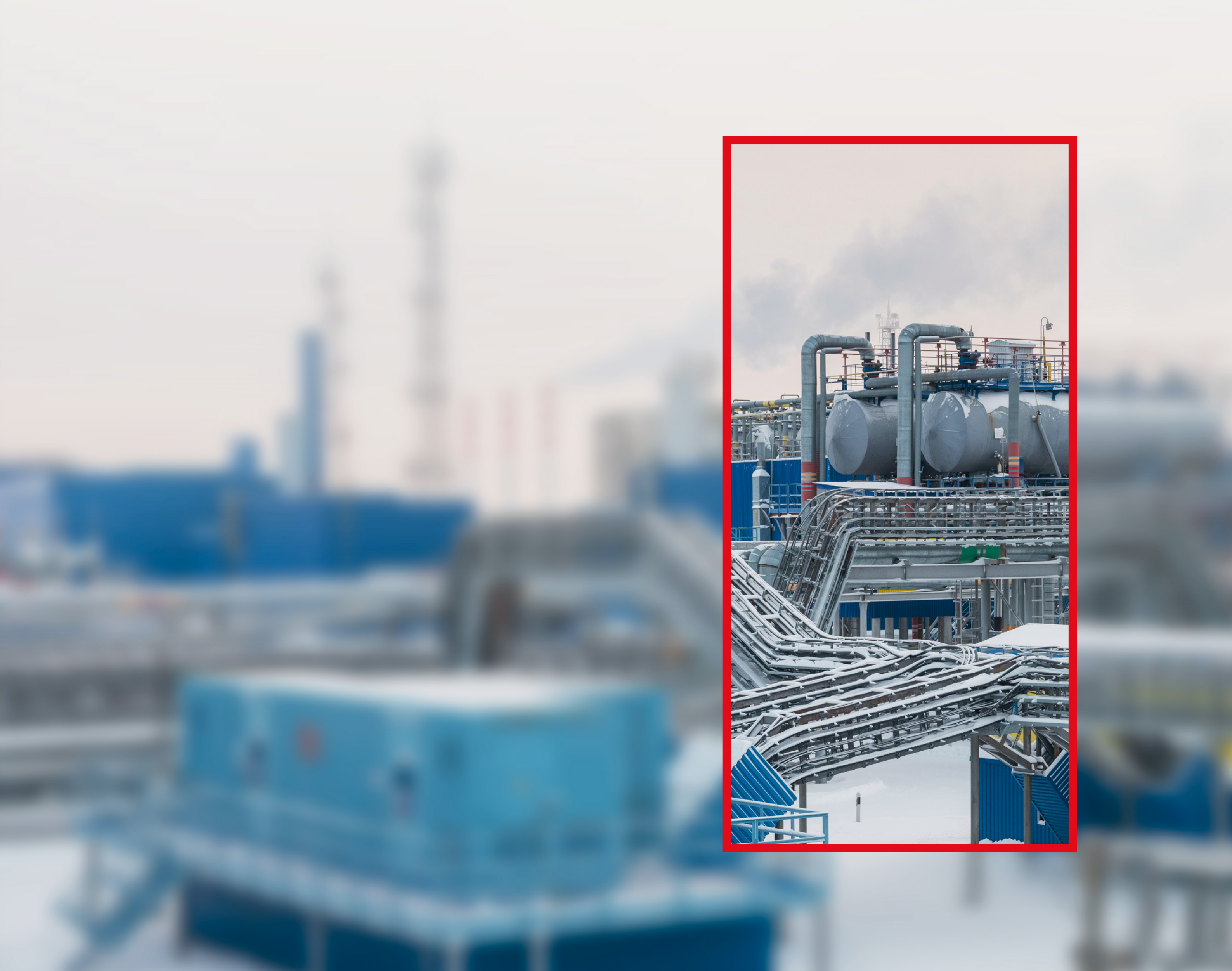
Europe’s bleak midwinter

Heading for an energy and growth crunch



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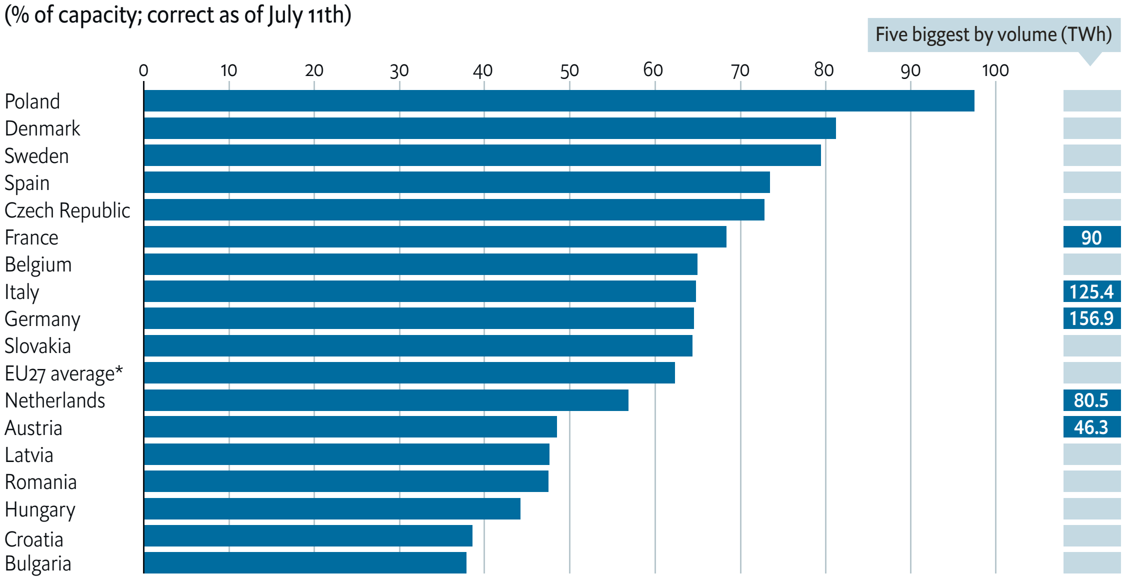
Europe's bleak midwinter: heading for an energy and growth crunch

Europe is heading for an energy supply crunch this winter. Russia's weaponisation of gas deliveries will result in energy shortages, high prices and an economic downturn.

Since its invasion of Ukraine in February 2022, Russia's aim has been to make gas supply to Europe as unpredictable as possible and thus undermine economic confidence and EU resolve on sanctions. We assume that Russia will not increase gas flows to Europe above the current 20% and that cuts to supply may become more severe in the coming months. Efforts to replace Russian gas with other pipelines and liquefied natural gas (LNG) have yielded some results, but cannot go much further in the short term given the limited availability of global LNG supplies and regional regasification terminals. On the demand side, Europe's gas needs will be suppressed both by the EU's plan to cut demand by 15% and by the impact on consumers of much higher prices. Nevertheless, we expect some countries to be unable to meet their gas needs this winter, with Germany in particular forced to implement industrial rationing.

Gas storage tanks are 62% full on average in the EU
(% of capacity; correct as of July 11th)



*Estimate. No data for Cyprus, Estonia, Finland, Greece, Ireland, Lithuania, Luxembourg, Malta or Slovenia.
Sources: Aggregated Gas Storage Inventory; EIU.

A cold winter and fraying EU solidarity could make things worse

The economic damage caused by this energy crisis will vary by country. It will also depend on a number of factors that remain uncertain:

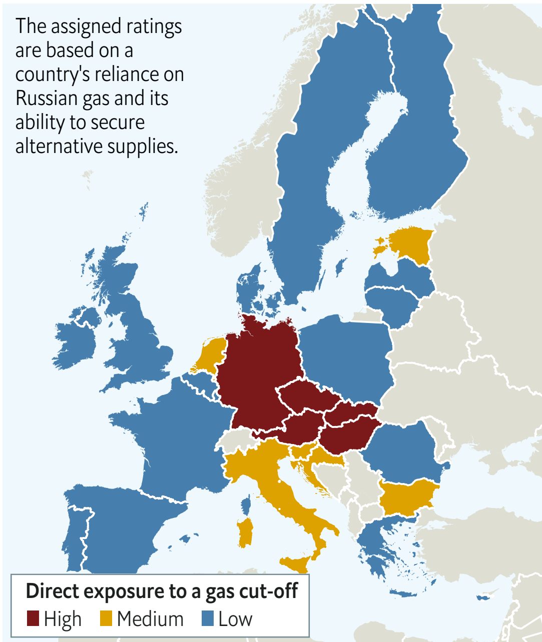
- **How cold will the winter be?** EU winter gas consumption since 2014 has varied between 130bn cu metres and 148bn cu metres. Currently the EU has 79bn cu metres in storage, just over two-thirds of its total capacity. More countries would face gas shortages in the event of a severe winter.
- **Will EU solidarity prevail?** Solidarity could break down, not only over demand reduction—a 15% voluntary reduction has been agreed, to become mandatory under certain circumstances, albeit with a long list of opt-outs and incentives—but also over gas sharing between EU member states. Gas sharing would limit the economic pain for the most exposed countries, but agreeing to domestic shortages to help a neighbouring country would be unpopular.
- **How extensive will substitution be?** Reports are emerging of German industrial firms substituting oil or electricity for gas in their processes, or importing energy-intensive inputs from elsewhere. The extent and effectiveness of these efforts will have a significant impact on total EU gas demand this winter.
- **Which sectors will be hit?** EU and firm-level efforts to reduce demand will limit the amount of gas needed this winter, but the most exposed countries will still need to make difficult policy decisions to cut demand further. These could include idling industrial production and imposing price rises and even outright restrictions on household heating use.

The most at-risk economies: Hungary, the Czech Republic and Slovakia

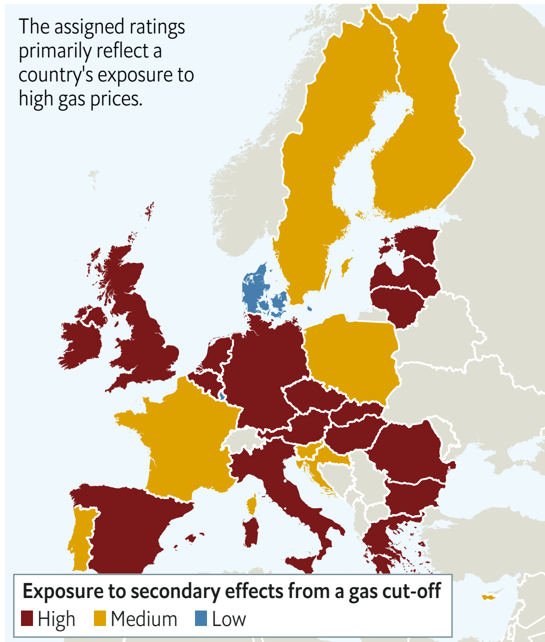
Central European countries will be the worst hit as they will not only face gas shortages this winter, but also suffer from the effects of gas rationing in the German industrial sector, given their integration into German supply chains. Hungary, the Czech Republic and Slovakia have historically relied on Russia for almost all of their gas supply needs, and do not have access to LNG terminals given their landlocked position. Alternative supplies would have to come via countries that are also set to run short of gas (Germany, Italy and Austria), so supply diversification will be limited, especially if EU solidarity frays. Storage rates are comparatively high in the Czech Republic (79%) and Slovakia (70%), although less so in Hungary (51%), but they are insufficient to cover all gas needs. Hungary is hoping to leverage its warm relations with Russia to negotiate new supplies via Balkan Stream, carrying gas from Russia via Turkey, Bulgaria and Serbia. Meanwhile, buying gas on the spot market is very expensive (prices have tripled year on year, and are quadruple those in the US).

The negative economic impact will be felt most in the industrial sector owing to much lower energy efficiency in these countries than the EU average, meaning that firms' profits will be hit disproportionately by high energy prices. The sectors that will suffer most from gas shortages will be base metals (the largest industrial energy consumer, given gas-fuelled furnaces) and chemicals. In addition, suppliers for German industrial firms will face a steep fall in external demand as high prices, falling confidence and gas rationing choke off German production. In the household sector, policies to shield consumers from rising gas prices are being revised: in Hungary energy usage above the household average is now being charged at near-market rates, while the Czech Republic will raise end-

About a third of European countries are likely to face shortages as a result of record-low gas inflows from Russia



The majority of Europe will suffer from medium or high exposure to the secondary effects of gas shortages



Note. EIU's Europe analysts have produced this infographic after conducting a qualitative assessment of recent trends and data.

Dependency on Russian natural gas	Countries in central Europe remain the most vulnerable to a Russian gas cut-off. Germany, which boasts the largest economy and industrial sector in the EU, will have to ration energy, which will be critical for countries such as the Czech Republic, Slovakia, Hungary and Austria, whose economies are both highly reliant on Russian gas and most closely integrated with the German economy.
Exposure to high inflation	Although some countries are less directly exposed to a cut-off of Russian gas, the region-wide energy shortages will drive up energy prices to record highs. Countries in eastern Europe, such as Bulgaria and the Baltic states, for which energy makes up a larger share of the consumer basket, will be particularly vulnerable to higher inflation.
Securing alternative supplies	The EU has partially diversified its gas imports since the start of the war in Ukraine through increased supply of LNG and Norwegian pipeline gas. Smaller-scale suppliers such as Algeria and Azerbaijan provide some relief. However, some EU countries continue to lack the LNG or pipeline infrastructure to diversify their gas flows. Substitution of Russian gas will therefore be uneven.

Source: EIU.

user prices from September. Slovakia plans to maintain its protections, but with energy accounting for a higher than average share of household budgets, consumer spending will also be constrained. We are revising down our growth forecasts for these economies by around 4 percentage points, with the hit being predominantly in 2023.

Many European countries will face a double threat from German gas cut-off
(trade exposure to Germany and direct vulnerability to a gas cut-off)

Note. Gas vulnerability index includes gas imports as % of total imports, gas supply as % of total energy supply and % of gas imports from Russia; data from 2020.
Sources: Eurostat; Observatory of Economic Complexity; EIU.

Gas shortages and collateral damage: Germany, Italy and Austria

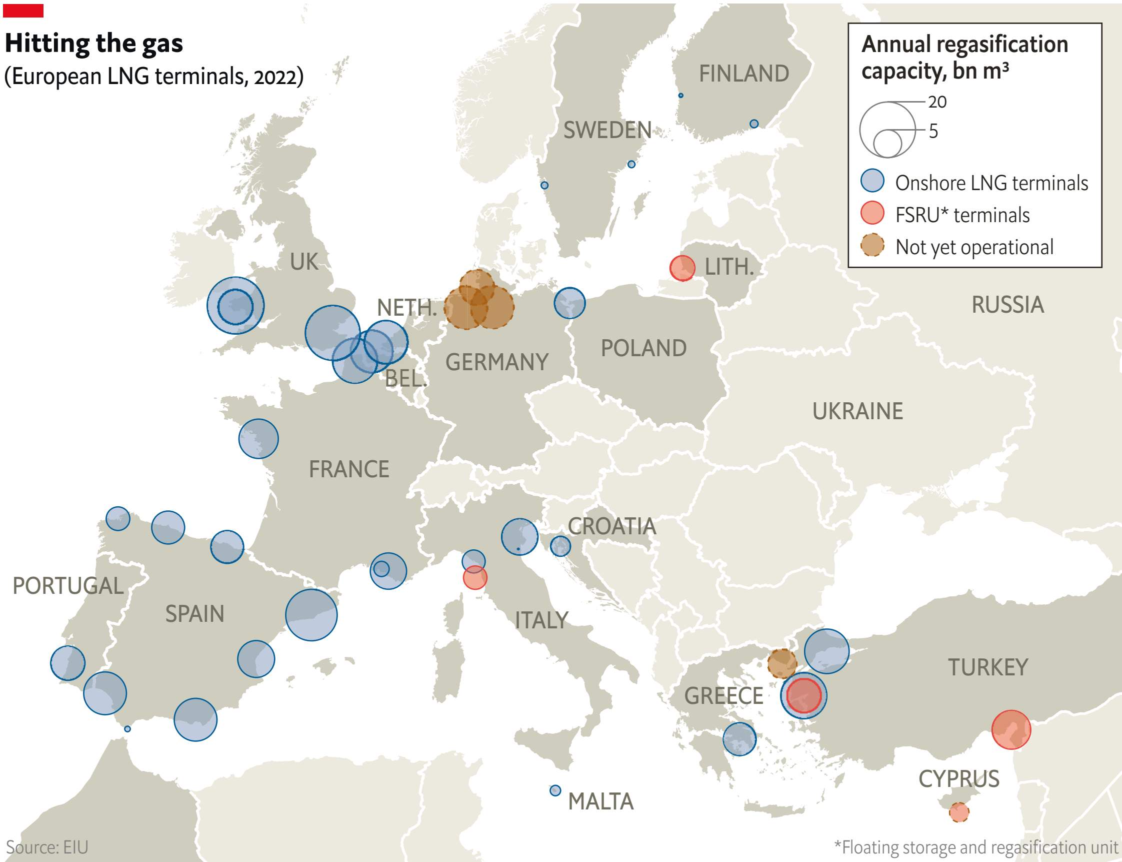
Germany is a systemically important economy in the EU—it accounts for a quarter of the bloc's GDP—so a downturn prompted by gas shortages will have serious spillover effects. The industrial sector accounts for almost 30% of Germany's GDP, and reliance on Russian gas is high, at 35% (albeit down from a pre-war 55% owing to higher imports from Norway, greater LNG supplies and the restarting of coal-fired power plants). We expect the main damage to the economy to come from energy-intensive industries such as chemicals, steel, glass and fertilisers, which will be the first to face gas rationing. However, higher prices and collapsing confidence are already affecting other sectors such as machinery and automotive manufacturing, with spillover effects being felt in Italy, Austria and central Europe.

Italy also has a large industrial sector (24% of GDP) and high reliance on Russian gas (40%, albeit reduced to 25% owing to higher imports from Algeria, Azerbaijan and elsewhere). However, Italy's geographical location, with access to other pipelines and LNG infrastructure, means that it is less vulnerable to gas shortages than Germany. Rationing is therefore likely to be limited in Italy, but extensive in Germany and (for similar reasons) Austria. In Italy the productive but energy-intensive mechanical and metallurgy sectors in the north of the country are most exposed to gas shortages; in Austria the paper industry and steelmakers are the heaviest gas users. We are revising down our growth forecasts for these economies by 2-3 percentage points, mainly in 2023.

High prices and secondary effects: Bulgaria, the Baltic states and others

Sky-high energy prices will constrain economic activity across the EU this winter, even in countries that avoid gas shortages. Bulgaria stands out as having particularly high energy intensity—two and a half times the EU average–given very inefficient industrial processes, which will make this costly. The Baltic states also score poorly on this metric, and in all of these countries energy has a heavy weighting in the consumer price basket, so consumption will be disproportionately affected. Some west European economies that are not exposed to Russian gas but do use gas extensively, and are large enough to

Hitting the gas
(European LNG terminals, 2022)



Source: EIU

*Floating storage and regasification unit

affect regional growth rates—such as Spain and the UK—are already experiencing very high prices. We are revising down growth in these countries by 0.5-1.5 percentage points.

France is a wildcard: problems with corrosion as well as scheduled maintenance have taken half of the country's 56 nuclear reactors offline. The newly nationalised energy company, EDF, plans to reopen enough capacity to have sufficient energy for the winter, but uncertainty is high, and for now France is having to import more energy than usual, including from the UK. Should this continue, this could divert further gas supplies from their usual markets, and cause shortages even in countries that appear well supplied.

Reducing vulnerabilities in Europe's energy supply will take time

- **Short term:** we expect a recession in Europe this winter, with the brunt of the economic impact coming in the fourth quarter of 2022 and first quarter of 2023. An unsupportive global context—given US monetary tightening, China's growth slowdown and growing investor nervousness—will exacerbate the European downturn.
- **Medium term:** Replenishing gas storage in 2023 will be difficult given that stocks are likely to be fully depleted this winter. Transitioning away from Russia as an energy source and towards LNG

and renewables will take time, while a revival of coal-fired power in some countries will mean a temporary setback to emissions reduction. The winter of 2023/24 is likely to be challenging.

- **Long term:** the EU's energy supply will be greener and more resilient (albeit still dependent on imported inputs for renewable technologies). High energy prices will incentivise households and firms to invest in greater energy efficiency. Russia's geopolitical leverage over the bloc will have been weakened. However, this transition will take several years and will entail considerable economic pain and political turbulence.

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