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Independent Thinking

Evolving European energy outlook

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- The euro area economy has adapted surprisingly well to a rapid decline in natural gas imports from Russia
- European natural gas consumption has decreased, partly through substitution, partly through demand destruction
- With prices now down 80% from their peak last summer, euro area economies have potentially saved hundreds of billions of euros this year
- However, European countries are not in the clear yet: an anticipated increase in consumption alongside rising imports by China could result in another natural gas squeeze later in the year
- The bigger picture is that both the euro area and Russian economies have adapted well to the sudden decline in trade flows; however, the economic pain has been three times as large for Russia
- Despite the costs for both sides, methods of economic coercion appear once again to have had little impact on changing behaviour, matching a generalised finding from the sanctions literature

Europe has adjusted to reduced imports of natural gas from Russia and higher prices by reducing consumption

The European Union has managed to cope surprisingly well with the aftershocks of reduced natural gas imports from Russia. A mixture of reduced supply and a desire to reduce demand from Russia meant that some countries in the EU were facing the prospect of energy rationing this winter. The EU Commission put together a plan that called for a 15% drop in natural gas consumption across the bloc, which seemed ambitious at the time, but seems likely to be met. Indeed, natural gas consumption was down 26.8% year-on-year in November last year, the last month for which we have comparable data.

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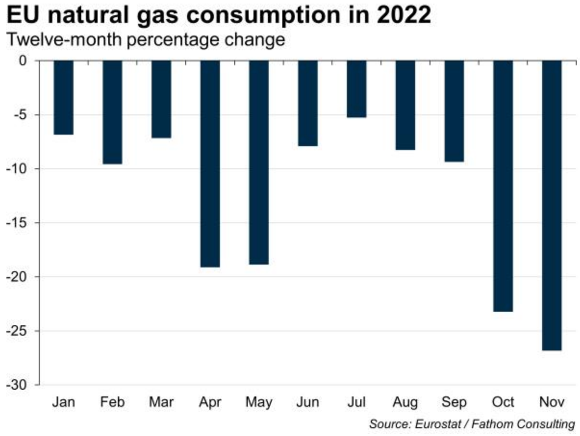
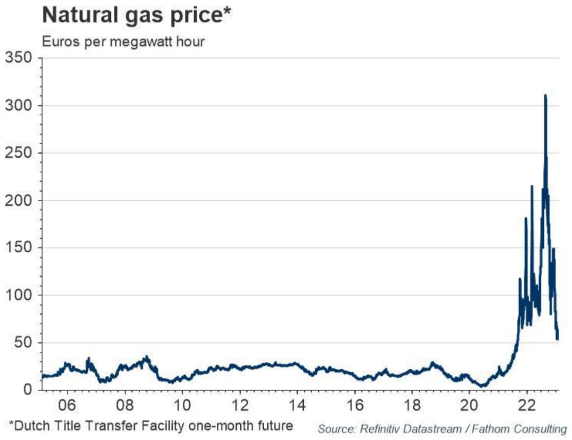


Natural gas imports were down 26.8% year-on-year in November

This drop in consumption has helped to reduce prices, after they rose dramatically last summer when countries were scrambling to fill up their storage. Dutch TTF one-month futures, which tended to trade at around EUR 20 MWh pre-COVID, soared to over EUR 300 MWh by last August. They have since fallen almost as sharply, settling at around EUR 60 MWh – a level that is still a lot higher than pre-COVID, but marks a sharp drop from the peaks of 2022. Indeed, if prices stay where they are the EU will spend around EUR 250 billion (1.5% of GDP) less in 2023 than 2022. Moreover, the bloc could save more than EUR 750 billion (4.5% of GDP) versus a counterfactual where prices stayed at their 2022 highs.



The drop in consumption has led to a sharp fall in prices that could save the EU economy hundreds of billions of euros

Some 2022 tailwinds to become headwinds

Some of the factors that helped the EU adjust to higher energy prices last year will not be replicated in 2023, however. An obvious one is the import of Russian natural gas. Russian natural gas imports declined steadily through the year, but still amounted to at least 60 billion cubic metres (bcm), out of overall EU consumption of 360 bcm in 2022. The EU is unlikely to import much Russian natural gas this year (for both demand and supply reasons). Indeed, data suggest only minimal flows so far this year.

However, some of the factors that helped Europe adjust last year will not be there in 2023

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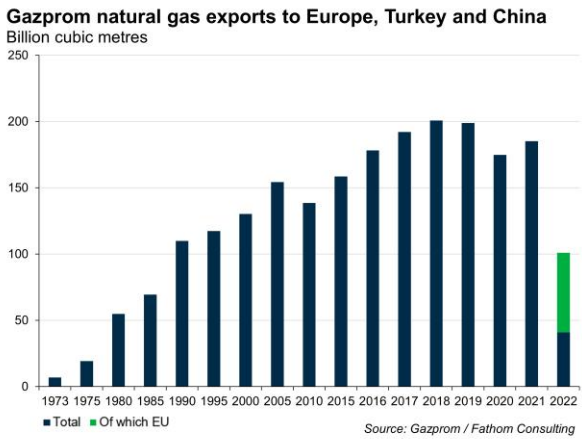

This decline is important as imports from Russia helped many European countries to fill up their natural gas storage last year. Indeed, we calculate that of around 70 bcm of net injections into EU storage during weeks 12 to 40 of 2022, imports of Russian natural gas amounted to 26 bcm. In other words, over a third of net gas injections were covered by natural gas imports from Russia.

A separate factor that will also prove challenging is increased extra-European demand for liquified natural gas (LNG), which proved critical in supporting supplies last year. EU imports of LNG rose by 52 bcm last year, with the US accounting for a significant amount. That increase helped to cover a large portion of the reduced supply from Russia. China's reopening may lead to an increase in LNG demand which could make things tricky. The country's zero-COVID policy and an increase in pipeline imports from Russia helped to explain a substantial portion of the decline in China's LNG imports last year. If that drop were to fully reverse itself, it would add 20 bcm in additional demand to what is expected to be a strained market.

The EU has targeted zero imports of Russian natural gas, while China's reopening should push up demand for LNG

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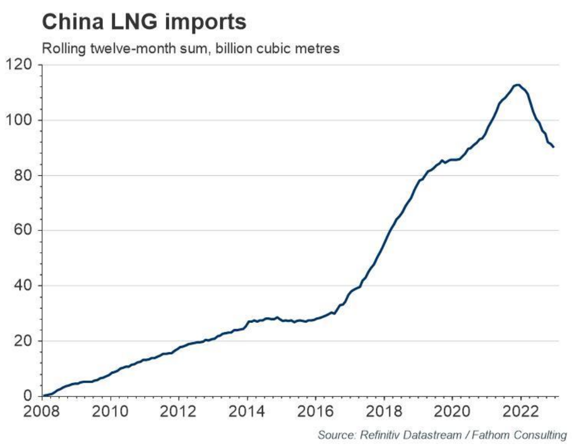

According to the International Energy Agency (IEA), the EU will need 35 bcm more in natural gas than last year, taking into account a return to more normal temperatures as well as an assumption about increased needs in Ukraine and Moldova. The IEA calculates a shortfall of 57 bcm, assuming zero natural gas imports from Russia and a return by Chinese LNG imports to 2021 levels. Already implemented policy changes should resolve half of that, leaving 27 bcm potentially at risk — around 6% of the EU's total expected 2023 consumption. ECB simulations suggest a 10% drop in gas supply would reduce GVA by 0.7%, suggesting that the risks to economic activity this year are not severe.[1]

An estimated 27bcm shortfall would be 6% of anticipated 2023 consumption, posing a modest negative downside risk to GDP growth

Economic pain in Russia three times greater than in euro area

Both the euro area and Russian economies have proved relatively resilient to a large and sudden shift in the economic landscape. The first chart below shows that initial estimates for euro area GDP growth in 2022, published in April after Russia's February invasion, have turned out to be pretty accurate. Indeed, the level of GDP by the end of this year may end up being only a couple of percentage points lower than was forecast in October 2021. Given the scale of the energy price shock and its consequent impact on inflation and the European Central Bank, that seems like a decent outcome — particularly given the non-energy global headwinds that have materialised over the past year.

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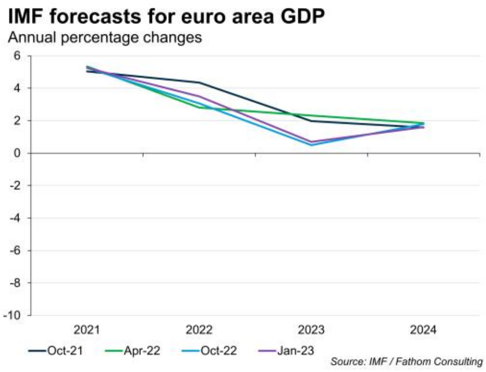

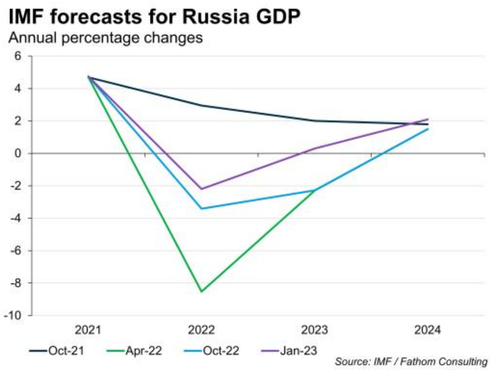

The euro area economy has weathered the sudden change in trading terms with Russia fairly well

The IMF forecasts for Russia's GDP growth suggest that immediate assessments about the negative economic consequences from the war and sanctions were too extreme. In April last year, 2022 GDP growth was expected to be -8.5%; by contrast, the latest estimate suggests that it will be -2.2%. However, that is a big downgrade from the 2.9% expansion that was pencilled in with the October 2021 forecasts.

Russia, meanwhile, has done better than some initial forecasts suggested it would – nonetheless, its economy is already in recession

So the relative economic fallout from the energy crisis has been much worse for Russia than for the euro area. The damage to Russia's economy is implied by the IMF's January 2023 forecasts relative to those produced in October 2021; they suggest that the economic pain on Russia (-6.9% cumulative downgrade in the level of 2023 GDP) has been 3x worse than that imposed on the euro area (-2.2% cumulative downgrade in the level of 2023 GDP), giving a rough estimate of the immediate cost of the war for both economies. The delta between the two is less severe than the IMF's forecasts from April 2022 implied, with the relative pain by 2023 expected to be 13x greater for Russia at the time (-15.5% cumulative hit to GDP versus October 2021 forecasts in Russia, compared to a -1.1% hit to the euro area equivalent figure).

The implied economic pain from the energy shock has been 3x worse for Russia than for the euro area

[1] https://www.ecb.europa.eu/pub/economic-bulletin/focus/2022/html/ecb.ebbox202201_04~63d8786255.en.html

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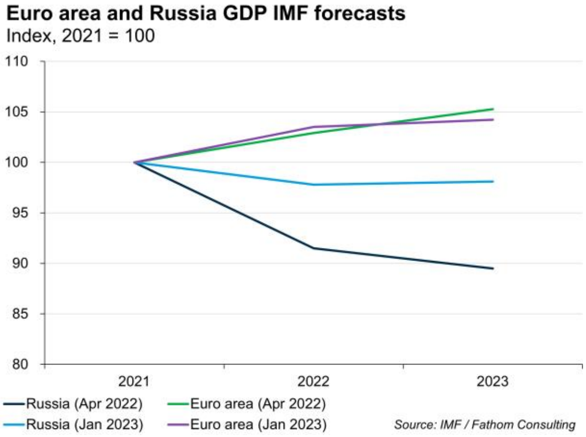

Conclusion

The European energy shock has turned out to less severe for euro area GDP than worst case estimates, with something similar true for the expected damage to Russia's economy. But there could still be more damage to come. Increased global demand for natural gas could push prices back up again later in 2023, dampening euro area growth as a result. It should be noted however that were the euro area to have a deeper recession than anticipated, this would at least reduce demand for natural gas, hinting at some self-correction. Meanwhile, Russia's economy may continue to deteriorate in the face of economic restrictions that build slowly over time. So far, Russia's economy has not collapsed in the way intial estimates suggested it could, but it nonetheless looks to have suffered around three times more damage than the euro area's.

The economic pain for both sides has made no noticeable difference to strategic decision-making

The literature on methods of economic coercion can be summarised broadly as: sanctions work (they cause economic damage) but they do not work (to change target's behaviour). The European energy crisis aligns with that. Despite economic pain, euro area economies have actually increased their support for Ukraine, sending tanks in recent days. Meanwhile, despite economic damage, Russia shows little sign of withdrawing its troops. We will continue to assess the economic fallout from Russia-Ukraine as incoming data arrive.

Further reading:

Energy crisis fuels EU sovereign risks

Lessons for China-Taiwan from Russia-Ukraine

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