Economic repercussions of Russia’s war on Ukraine – Weekly Digest

This paper provides a summary of recent economic, financial and budgetary decisions and developments following President Vladimir Putin’s decision of 24 February to start a military attack against Ukraine. It includes recent information relating to the EU sanctions regime, recent economic estimates, policies supporting economic and financial resilience, including the coordination of national economic and fiscal measures. It also highlights policy recommendations made in the public domain to mitigate any adverse economic, financial and social effects and to support economic recovery in the EU and the Euro Area.

EU economic sanctions: latest developments

Following the fifth package of sanctions adopted on 8 April, the Commission is considering further initiatives to impose additional costs on Russia on account of its invasion of Ukraine, notably on oil imports. In her press statement dated 5 April, President Van den Leyen said: “We are working on additional sanctions, including on oil imports, and we are reflecting on some of the ideas presented by the Member States, such as taxes or specific payment channels such as an escrow account.”. This sixth round of sanctions is, according to the media, likely to involve more banks as well, including Sberbank (see further on this in the last section).

In the meantime, the Commission’s “Freeze and Seize Task Force” has frozen around EUR 30 billion of Russian and Belarussian oligarchs and entities assets. Freezing assets is the first step towards dispossession – which requires a crime having been committed (see, for further details, box 1 in an EGOV specific briefing on sanctions). There is limited public information available on amounts frozen and seized so far.

At the 20 April meeting of the EP AFET Committee (video recording available here) Peter Csonka, Head of Unit at Commission DG JUST, provided some information on the Task Force proceedings. He mentioned that the Task Force had met 5 times and that it had established 3 working groups: freezing – investigations and seizing of frozen property – analysing the possibility and design of a common fund fed with the proceeds of confiscated assets. Such fund might contribute to reconstruction costs in Ukraine.

He further explained that the Commission is working to ensure proper coordination on implementing the sanctions, including with the private sector (the so called “enablers”: banks, lawyers and notaries).

A second leg of DG JUST involvement relates to war crimes in Ukraine, under the lead of Commissioner Reynders. The Commission asked Member States to allow experts to go to Ukraine to collect and secure evidence of crimes, and to effectively coordinate their investigative efforts. To that end, on 25 April the Commission proposed an amendment to the Eurojust Regulation to reinforce its mandate by giving the Agency the legal power to collect, preserve and share evidence on war crimes. In the same vein, on 13 April, the Council had adopted a decision amending the mandate of the EU Advisory Mission for Civilian Security
Sector Reform in Ukraine (EUAM Ukraine), allowing the Mission to provide support to Ukrainian authorities to facilitate the investigation and prosecution of international crimes committed in the context of Russia’s invasion of Ukraine.

At the AFET meeting referred to above, the representative of Commission DG MARE (Ms Magda Kopczynska, Director) signalled that the Commission and relevant EU agencies are able to track vessels transporting Russian goods (notably oil). She was particularly confident that the existing systems allow a proper tracking of vessels under Russian flag, contributing to the efficiency of maritime control sanctions.

As reported in a previous briefing, President Putin signed a decree on 31 March that requires buyers from ‘unfriendly’ countries to pay in roubles for gas deliveries. The decree stipulates that buyers need to open two accounts with Gazprombank; payments to one of them can be made in foreign currency. Gazprombank shall subsequently sell the foreign currency received at the Moscow exchange and transfer the rouble proceeds to the second, rouble-denominated account. To settle the payment, Gazprombank shall transfer the rouble funds to Gazprom’s account. That two-tiered payment mechanism, however, would apparently violate EU sanctions that prohibit transactions with the Central Bank of Russia related to the management of reserves or assetsly (Council Regulation (EU) 2022/334 of 28 February 2022). On 27 April, Russia’s Gazprom cut Poland and Bulgaria off from its gas provision for refusing to pay in roubles, a move that President von der Leyen called an attempt to blackmail countries.

As reported by the Financial Times and other news agencies on 28 April, however, EU officials warned about violating sanctions against Russia, citing an official saying: “If companies pay in euros, they are not in breach of the sanctions [...] What we cannot accept is that companies are obliged to open a second account in roubles and that the payment is complete only when payment is converted into roubles.”

To coordinate on this issue, a Council meeting of the EU’s energy ministers is scheduled for Monday, 2 May.

Box 1: A tool to verify products and companies making business in Russia

See here for an on-line tool provided by ActAware aiming to support consumers to determine which companies are still in business with Russia by quickly searching a brand or scanning a product barcode. ActAware is a private company.
Box 2: Some key findings by the Centre for Research on Energy and Clean Air (CREA)

To shed light on who purchases Russia’s oil, gas and coal, and how the volume and value of imports have changed since the start of the invasion, CREA has compiled a detailed dataset of pipeline and seaborne trade in Russian fossil fuels. These are some of their key findings:

- 63 billion EUR worth of fossil fuels were exported via shipments and pipelines from Russia since the beginning of the invasion. The EU imported 71% of this, worth approximately 44 billion EUR.
- The largest importers by ranking were Germany (EUR 9.1 billion), Italy (EUR 6.9 billion), China (EUR 6.7 billion), Netherlands (EUR 5.6 billion), Turkey (EUR 4.1 billion) and France (EUR 3.8 billion).
- A quarter of Russia’s fossil fuel shipments arrived in just six EU ports: Rotterdam (the Netherlands), Maasvlakte (the Netherlands), Trieste (Italy), Gdansk (Poland) and Zeebrugge (Belgium).
- Deliveries of oil to the EU fell by 20% and coal by 40%, while deliveries of LNG increased by 20%. EU gas purchases through pipelines increased by 10%. Oil deliveries to non-EU destinations increased by 20%, and with major changes in destinations. Deliveries of coal and LNG outside the EU increased by 30% and 80%, respectively.

Chart: Largest importers of fossil fuel from Russia during the two first months of the invasion

Special focus: Military assistance, military spending, and EU arms exports

Military assistance has become part of the support measures to support the Ukraine against the invasion by Russia and recently accounted for approximately 30% of the total commitments at aggregated EU level (see graph 1).

In the wider context, the Stockholm International Peace Research Institute (SIPRI) recently reported that in 2021, military expenditure worldwide for first time passed USD 2 trillion (equivalent to 1.968 billion euros). Worldwide defence spending rose by 6.1 percent, increasing for the seventh year in a row to an all-
time high. With spending of 746 billion euros, the USA has by far the highest share (almost 38 percent of the global total). The United States thus spent about as much money on armaments as the next ten countries combined, including China, India, the UK and Russia. In 2021, Russian military spending rose by 2.9 percent to almost 61.5 billion euros. **Defence spending accounted for 4.1 percent of Russia's GDP, which is well above the worldwide average.**

One may also note that according to research by journalists of Investigate Europe, at least **10 EU member states have exported a total of €346 million worth of arms to Russia between 2015 and 2020** (see Figure 1), despite an embargo (Council Decision 2014/512/CFSP of 31 July 2014) that – following the annexation of Crimea in 2014 – prohibits direct and indirect arms sales to Russia. The continued trade is said to use legal loopholes, so one may question whether the spirit of the embargo has always been fully respected. In purely monetary terms, the relative value of those arms exports - compared to the total military expenditure of Russia in the same period - is very small (approximately 0.1%), while its “military value” may of course be very different.

**Figure 1:** Arms export to Russia by EU Member States 2015 - 2020

Source: COARM database for countries excluding Germany (as Germany does not report export values to COARM); data for Germany from national reports.
Graph 1: Government support to Ukraine, by type of assistance; € billion (new commitments 24 February until 27 March 2022)

EGOV, based on the "Ukraine Support Tracker" of the Kiel Institute for the World Economy (1st Beta Version of 14 April 2022), showing total bilateral aid commitments to Ukraine on individual country level as well as bilateral and non-bilateral aid at aggregated level (including all EU Member States as well as the European Institutions and EIB), in billion Euros, considering the first month of the Russia-Ukraine war (February 24 to March 27, 2022).

Each bar besides illustrates the type of assistance, meaning financial assistance (loans, grants, and swap lines), humanitarian aid (assistance directed to the civilian population including food and medical items), and military assistance (arms, equipment, and utilities provided to the Ukrainian military). Military aid includes direct financial assistance that is tied to military purposes.
Latest IMF economic outlook for EU

Latest economic estimates

The latest IMF’s Regional Economic Outlook for Europe (April 2022) assumes for its baseline economic forecast for Europe that:

1. “far-reaching sanctions on Russia remain in place, and energy and other commodity prices will remain elevated, while acts of war do not escalate outside of Ukraine;
2. disruptions to the supply of critical goods will continue to weigh on economic activity; and
3. the pandemic’s health and economic impact fades, bringing hospitalization and death rates to low levels in most EU countries by the end of 2022”.

The IMF projects that higher energy and food prices will dampen demand, while at the same time fuel inflation growth. Current trade disruptions are likely to further exacerbate supply bottlenecks, which in turn will erode real income and profits, and, given the high level of uncertainty, will weaken private consumption and investment.

In a broader sense, the IMF highlights that Europe will be affected by the war through the following channels:

- higher gas prices (especially countries with higher dependence of Russian imports, such as Czechia, Germany, Hungary, Italy and Slovakia),
- higher metal prices (especially countries with large automobile industries, like Czechia and Slovakia),
- declining non-energy trade (especially countries with stronger trade links, like Baltic states).

Based on the above mentioned assumptions and identified transition channels, the IMF projects GDP growth by 3.0% in advanced European economies in 2022. “Some of the largest European economies, like France, Germany, and Italy, are projecting very weak or negative quarterly growth in mid-2022... this setback to the recovery is hidden in the annual growth projections for these economies because of large carryover from 2021”. Also, as it was mentioned earlier, higher commodity prices and supply disruptions is creating inflation pressures, which should lead to average inflation reaching 5.5% in 2022 (which is 2.2 percentage points higher compared to January 2022 World Economic Outlook projections). “Inflation is forecast to increase more in countries where food and energy represent a larger share in consumption baskets (Romania, the Slovak Republic, and Spain), and in countries where exchange rates have weakened (Hungary, Poland, and Turkey)”.

Given the highly uncertain environment, the IMF highlights several risks stemming from the war and lingering pandemic that could undermine growth. “The most concerning risk is a sudden stop of energy flows”, nonetheless, the IMF identifies other negative risks, such as, increasing risk of social unrest (due to higher food and energy prices, the risk is more prevalent in countries hosting a large number of refugees) and the still existing risk of another wave of highly infectious COVID-19 strain.

Please see Annex 1 for EU Member States’ inflation based on a consumption basket.

In the case of Russian Natural Gas Supply Shut-Off

According to IMF’s Regional Economic Outlook for Europe, an interruption of natural gas imports from Russia could severely impact activity in the second half of 2022 and the first half of 2023, as Europe would only be able to secure alternative gas supplies to offset about 60–70 percent of Russian imports through alternative supply sources and some demand compression in response to high prices.

While the baseline scenario in the IMF’s Europe’s regional economic outlook does not foresee any disruption in the supply of natural gas, the IMF estimates that a complete interruption of Russian gas over the next
6 months could be managed, although the reduction of stocks to critical levels would result in strong upward pressure on prices.

In the event of a longer Russian supply disruption of 12 months, which will last throughout the summer and next winter, there would be a gas shortage during the winter months. In these circumstances, a further strong demand squeeze would be necessary and could respond not only to extremely high prices, but also possibly to rationed choices by policymakers to protect vulnerable households and strategic industries. For the EU as a whole, the GDP loss in 2023 of such a scenario would be around 3%.

A Russian gas shutdown would particularly affect countries that use gas more intensively and are more dependent on Russian natural gas imports (Germany, Italy, Czech Republic, Hungary, Latvia and Slovak Republic). Countries that consume less gas, are producers of primary natural gas or have weaker links with Russia would be less affected (France, Spain, the Netherlands).

See also Annex 2 for an overview of latest estimates of an enhanced EU embargo on fossil fuels from Russia.

Some policy recommendations by IMF

According to IMF’s Regional Economic Outlook for Europe, the war in Ukraine has compounded the policy challenges created by the pandemic. The latest shocks are, to a considerable extent, permanent in nature and are hitting the supply side. Such shocks tend to exact an adjustment in living standards for commodity importers. The task of policymakers is to facilitate a gradual adjustment to these shocks, including higher commodity prices and new sources of energy.

Allaying the impact of high food and energy prices on vulnerable households and firms will require temporary and well-targeted measures. Where possible, prices should be allowed to reflect supply costs and emphasis should be put on using transfers to low-income households and viable but weakened firms with limited savings buffers.

Tax policy would be a second-best response in countries that do not have the means to provide direct support. If governments temporarily smooth the pass-through of commodity price increases into energy tariffs, the smoothing mechanism should also operate symmetrically in the face of commodity price decreases. With respect to investment, countries should devise plans to strengthen energy security that also facilitate the transition to greener energy. This may require recalibrating investment plans, including within the Next Generation EU Program, and strengthening the incentives to attract private investment into energy infrastructure. Countries hosting large numbers of refugees may also need to ramp up social infrastructure spending for education, housing, and health, which can come under pressure if refugees stay longer.

IMF recommends in particular the pooling of gas purchases at EU level in order to avoid competition between EU countries and the implementation of solidarity agreements to share gas in case of shortages. All Member States should prepare or update their national emergency plans and explain how gas would be rationed to companies and vulnerable households so as to minimise economic disruption. Furthermore, in order to minimise electricity supply disruptions, governments could consider limited emergency extensions in the operation of nuclear and coal power plants, without compromising long-term environmental objectives.

War-induced uncertainty, high inflation, and the prospect of interest rate increases will also create financing challenges. Although high inflation will temporarily decrease debt-to-GDP ratios and may lead to lower fiscal deficits on the back of higher nominal tax revenues, it will soon translate into higher interest rate bills, demands for wage and social transfer catchup (with inflation), and higher costs of goods, services, and public investment. In many countries, higher defense spending will add to fiscal spending pressures. As global financial conditions tighten (including through the planned gradual reduction of the ECB’s asset...
purchases and risk appetite decreases, countries would be well advised to anchor fiscal sustainability in credible medium-term fiscal consolidation plans.

**Policy mistakes or lack of policy coordination** could harm policymakers’ credibility, which will hamper the ability to keep inflation expectations anchored.

According to IMF, the managing the refugee crisis, whose ramifications are still uncertain, is a key challenge of this war. For example, Poland, which has received the largest inflow so far, is providing cash transfers to households hosting refugees as well as direct payments to refugees that could have a fiscal cost of 0.5 –1 percent of GDP depending on the scale and duration of refugee inflows. Hungary and the Slovak Republic have also announced measures to provide support to refugees. This underlines the need to create a burden-sharing mechanism to fairly spread the cost of humanitarian relief among EU members. For non-EU countries hosting refugees, assistance by multilateral and regional donors should help manage the cost, particularly if their public finances are already tight (like in Moldova).

**Special focus on the impact on Ukraine’s Agriculture Sector**

According to the IMF’s Regional Economic Outlook for Europe, the Russian invasion has a negative impact on Ukraine’s agricultural exports through several channels. Firstly, the most productive agricultural land is largely located in the east, where most of the fighting takes place. Moreover, the supply of diesel required for agricultural machinery is insufficient due to its orientation for purely military use. In addition, Ukrainian farmers, favouring national food security, may opt for a crop mix for the domestic market rather than specialised production of a few products for export. Finally, physical damage to transport infrastructure disrupts the transport of agricultural commodities for export.

According to the IMF, Ukraine was in 2021 the 6th largest wheat producer, the 4th largest corn producer, the 6th largest producer of barley, and the world’s largest exporter of sunflower oil. The agriculture sector accounted for 12 percent of its 2021 GDP, 15 percent of all jobs, and 50 percent of exports (about $30 billion). Overall, the impact on Ukraine’s external position is likely to be severe as agricultural exports can drop about 50 percent relative to the pre-war level and this would reduce overall exports by half to about $15 billion in 2022. Domestic food security, however, is unlikely to be a major concern thanks to a bumper harvest in 2021 that has boosted food stocks to a level sufficient for 3–5 years.

On 13 April, the Heads of the World Bank Group, IMF, WFP and WTO Call for Urgent Coordinated Action on Food Security in a Joint Statement, calling inter alia:

“(...) on the international community to urgently support vulnerable countries through coordinated actions ranging from provision of emergency food supplies, financial support, increased agricultural production, and open trade. We are committed to combining our expertise and financing to quickly step up our policy and financial support to help vulnerable countries and households as well as to increase domestic agricultural production in, and supply to, impacted countries. We can mitigate balance of payments pressures and work with all countries to keep trade flows open. In addition, we will further reinforce our monitoring of food vulnerabilities and are quickly expanding our multi-faceted policy advice to affected countries guided by the comparative advantages of our respective institutions.”

---

1 For more detailed information on the worldwide production of staple foods, also see the statistical information provided by the Food and Agricultural Organization of the United Nations, [link](#).
Some recent banking and financial stability related developments

On 21 April, the credit rating agency S&P updated its European banking sector analysis, still assuming that the risks are manageable if the war does not escalate to other countries and Russian oil and gas exports to the EU are not cut off. However, the downside risks for European banks have been considerably revised: a Russian stop of energy supplies, persistently high inflation, and wholesale market repricing are now seen as much more likely, and those risks would hit European banks in a non-equal manner. Should those risks materialise, S&P would notably expect European governments and central banks to intervene in order to dampen the direct effect on the real economy and indirectly on banks.

On 22 April, the Amsterdam District Court declared the bankruptcy of Amsterdam Trade Bank N.V. (ATB) that is registered in The Netherlands.

De Nederlandsche Bank (DNB), which supervised ATB, has subsequently activated the deposit guarantee scheme for its account holders (23,000 private account holders, most of whom live in the Netherlands; DNB further specified that the amount guaranteed by the deposit guarantee scheme totals around EUR 700 million, and that the compensation can be fully financed from the Dutch Deposit Guarantee Fund, which currently exceeds EUR 3 billion).

ATB, owned by Alfa Group – one of Russia’s largest privately owned investment groups – and a subsidiary of Alfa bank in Russia, focused on providing trade financing for companies doing business in former Soviet states. In terms of size, ATB was a comparatively small bank: according to its most recent publicly available Consolidated Financial Statements for the financial year 2020, ATB had a balance sheet size of approximately EUR 1.2 billion (in comparison: the threshold for banks that fall under direct supervision by the ECB is a balance sheet size of EUR 30 billion). In terms of the funding structure, retail accounts / saving deposits accounted for approximately 80% of the bank’s funding (EUR 836 million), while corporate accounts were considerably smaller in comparison, contributing a further EUR 74 million.

ATB writes on its website that “UK and US sanctions have caused operational difficulties, as the majority of ATB’s counterparties, including corresponding banks and infrastructure providers, find it difficult to continue supporting ATB.”
Policy recommendations in the public domain: Some recent picks

J. Kirschenbaum & N. Véron: The EU should sanction Sberbank and other Russian banks as it ponders banning Russian oil and gas (15 April 2022)

Even though the European Union had an early response to Putin’s aggression in Ukraine with the aim of dismantling Russia’s economy and financial system, further action could still be taken. While a Russian oil and gas ban would be a powerful next step, other steps like extending harsh sanctions to most or all of the largest banks, including the largest and most important Russian bank, Sberbank, would be necessary and could also be done immediately. The initial round of sanctions was without precedent and it was appropriate from the EU not to add further financial stress out of financial stability concerns. However, the ECB has suggested that there is currently no reason for alarm from euro area banks’ exposures to Russia. The EU banks with large Russian operations have already signaled their exit from the country or have announced it (Société Générale). The present stance on continuing the purchase of Russian oil and gas does not stand in the way of extending sanctions to Sberbank and large Russian banks either as purchases could be done through a narrower banking channel. Although sanctioning Sberbank and other large Russian banks left untouched (Alfa-Bank, Russian Agricultural Bank, Credit Bank of Moscow, Bank Saint Petersburg, Tinkoff Bank etc.) would not dramatically affect Russia’s economy, yet it would still create pervasive impediments to hitherto unsanctioned international business for a wide range of economic sectors in Russia and would also make it more difficult for Russian entities to circumvent sanctions in place.

E. Rubio: What the EU budget can and cannot do in response to the war in Ukraine (21 April 2022)

The Russian invasion of Ukraine has sparked a debate on whether the EU should issue new common debt to deal with the social and economic consequences of the war. Those in favor contend that the expected budgetary costs of the war for the EU will be too high to be covered by the existing EU instruments, while others call for re-channeling the available EU funds to respond to the current crisis. Yet, setting up new EU instruments takes time. In the meantime, it is essential to look in detail at what can be done with available funds. For example, EU funds have been mobilized to help refugees and provide humanitarian aid to Ukraine and Moldova. Both responses are commensurate, even if they may need to be scaled up in the coming months. In contrast, little attention has been paid to another short-term need: avoid a food crisis in cereal-import dependent countries. For this reason, the EU should increase its contribution to the UN World Food Programme, which suffers from a €8bn shortfall. Secondly, when thinking on how to use EU funds, we should consider eligibility rules. Some things simply cannot be financed by the EU budget or the RRF (military expenditures, LNG imports) and others are subject to strict limits (gas infrastructures). Eligibility rules also limit the capacity to use existing EU funds to shelter consumers from high energy prices via tax cuts or fiscal compensations. But unlike Covid, the Ukrainian crisis has unfolded at the start a new MFF and this creates major opportunities to re-orient RRF and 2021-2027 Cohesion funds to further support the acceleration of the energy transition. Yet the challenge is not only finding extra EU funds but also spending them faster. It is thus essential to simplify permit procedures, strengthen administrative capacity and support the reskilling of the needed workforce to front-load investments in, e.g. buildings or renewables.

T. Eichstädt: The best option for Germany and Europe to step up on conflict resolution in the Ukraine war (27 April 2022)

This article uses negotiation analysis and non-cooperative game theory to argue that import taxes or tariffs can be an effective way to influence the duration of the conflict. According to Kennedy, further restrictions by Europe on Russian coal, oil, and gas exports would limit the inflow of foreign exchange to Russia and increase time pressure on political decision makers. A relevant finding of the game theory is that in a non-cooperative negotiation game with double-sided asymmetric information, no mechanism exists to guarantee a deal. In practice this means that although a negotiated and fully acceptable agreement for peace between Ukraine and Russia would be possible, it is unlikely to happen. Therefore, a broader set-up for peace negotiations involving NATO and EU representatives and other parties with interest in a solution should be considered. From a negotiation analysis perspective, it would be recommended to develop a system of credible threats that can be implemented in a step-by-step process. The author recommends the imposition of punitive tariffs on oil and gas at measurable levels of 20-30% of sales prices for oil and around 5-10% for gas initially. Clear rules for increasing tariffs should also be established. What is the most important is that the approach is communicated upfront and openly and that the progress is measurable and observable over time. Such an approach could maximise the credibility of threats and signal risk aversion among Europeans.
N. Roubini: The Gathering Stagflationary Storm (25 April 2022)

The new reality with which many advanced economies and emerging markets face is higher inflation and slowing economic growth due to a series of negative aggregate supply shocks. Even without the important short-term factors of the Covid-19 pandemic and the Russian invasion the medium-term outlook would be darkening. For starters, since the global financial crisis, there has been a retreat from globalization and a return to various forms of protectionism. Moreover, demographic aging in advanced economies and some key emerging markets will continue to reduce the supply of labour, causing wage inflation. In addition, Sino-American decoupling implies fragmentation of the global economy, balkanization of supply chains, and tighter restrictions on trade in technology, data, and information. Furthermore, climate change, too, will be stagflationary as droughts damage crops, ruin harvests, and drive up food prices, just as hurricanes, floods, and rising sea levels destroy capital stocks and disrupt economic activity. Finally, the weaponization of the US dollar is also stagflationary as not only creates severe friction in international trade in goods, services, commodities, and capital but also it encourages US rivals to diversify their foreign-exchange reserves away from dollar-denominated assets. Optimists may argue that we can still rely on technological innovation to exert disinflationary pressures over time but the technology factor is far outnumbered by the stagflationary factors listed above.
Annex 1: Weight in % in HICP based on individual consumption by purpose

<table>
<thead>
<tr>
<th>2022</th>
<th>Weight of various energy sources</th>
<th>Weight of Food</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Housing-related</td>
<td>Transport-related</td>
</tr>
<tr>
<td></td>
<td>Electricity</td>
<td>Gas</td>
</tr>
<tr>
<td>European Union - 27 countries</td>
<td>3.1</td>
<td>2.0</td>
</tr>
<tr>
<td>Euro area - 19 countries</td>
<td>3.1</td>
<td>2.2</td>
</tr>
<tr>
<td>Belgium</td>
<td>3.9</td>
<td>2.4</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>4.3</td>
<td>0.7</td>
</tr>
<tr>
<td>Czechia</td>
<td>3.7</td>
<td>2.0</td>
</tr>
<tr>
<td>Denmark</td>
<td>2.9</td>
<td>0.7</td>
</tr>
<tr>
<td>Germany</td>
<td>3.0</td>
<td>2.9</td>
</tr>
<tr>
<td>Estonia</td>
<td>4.3</td>
<td>1.2</td>
</tr>
<tr>
<td>Ireland</td>
<td>2.5</td>
<td>0.9</td>
</tr>
<tr>
<td>Greece</td>
<td>4.3</td>
<td>0.9</td>
</tr>
<tr>
<td>Spain</td>
<td>4.1</td>
<td>1.5</td>
</tr>
<tr>
<td>France</td>
<td>3.3</td>
<td>1.9</td>
</tr>
<tr>
<td>Croatia</td>
<td>5.1</td>
<td>1.7</td>
</tr>
<tr>
<td>Italy</td>
<td>2.4</td>
<td>2.3</td>
</tr>
<tr>
<td>Cyprus</td>
<td>3.1</td>
<td>0.3</td>
</tr>
<tr>
<td>Latvia</td>
<td>3.4</td>
<td>1.1</td>
</tr>
<tr>
<td>Lithuania</td>
<td>1.8</td>
<td>0.8</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Hungary</td>
<td>1.6</td>
<td>1.9</td>
</tr>
<tr>
<td>Malta</td>
<td>2.5</td>
<td>0.2</td>
</tr>
<tr>
<td>Netherlands</td>
<td>3.2</td>
<td>3.7</td>
</tr>
<tr>
<td>Austria</td>
<td>2.4</td>
<td>0.9</td>
</tr>
<tr>
<td>Poland</td>
<td>2.8</td>
<td>1.5</td>
</tr>
<tr>
<td>Portugal</td>
<td>2.7</td>
<td>1.0</td>
</tr>
<tr>
<td>Romania</td>
<td>2.0</td>
<td>2.3</td>
</tr>
<tr>
<td>Slovenia</td>
<td>3.2</td>
<td>1.0</td>
</tr>
<tr>
<td>Slovakia</td>
<td>4.2</td>
<td>3.6</td>
</tr>
<tr>
<td>Finland</td>
<td>3.4</td>
<td>0.0</td>
</tr>
<tr>
<td>Sweden</td>
<td>5.3</td>
<td>0.1</td>
</tr>
</tbody>
</table>

Source: Eurostat
## Annex 2: Some recent estimates on economic effects of total or partial embargo of Russian energy imports

<table>
<thead>
<tr>
<th>Institution</th>
<th>Key scenario</th>
<th>Methodology, assumptions, restrictions</th>
<th>GDP reduction (pp change compared to the baseline scenario)</th>
<th>Additional inflation (pp change compared to the baseline scenario)</th>
</tr>
</thead>
</table>
| **Bundesbank (22.04.22)** | Full embargo of Russian energy imports (alternative scenario) | The model calculations incorporate a component to map international economic ties (NiGEM), the macro-econometric model of the Bundesbank for the German economy (BbkM-DE), a linear sectoral input-output model (intended to capture rationing effects in energy use), and various satellite models. | DE: 1,0-3,25 pp (2022)  
DE: 3,5 pp (2023)  
EU: 1,75 pp (2022)  
EU: 1,75 pp (2023) | DE: 1,5 pp (2022)  
DE: 2,0 pp (2023) |
| **IMF April WEO (20.04.22)**  
(See Box 3 on page 18) | 12 month Russian gas and oil supply shut-off | The scenario presented by the IMF also assumes the disconnection of Russia from much of the global financial and trade system. In such a scenario the impact would propagate to the rest of the world through higher commodity prices, disruptions to supply chains, and tighter financial conditions. The resulting supply shock, at a time when commodity prices and inflationary pressures are already high, would lead to an upward shift in inflation expectations and require a greater tightening in monetary policy, further amplifying the negative impact on global activity. | EU: 3,0 pp (2023) | > 1,0 pp (2022 and 2023) |
| **Gemeinschaftsdiagnose (joint analysis of 12.04.22) by DIW, Ifo Institut & KOF/ETH Zürich, IfW Kiel, MHI, RWI & IHS Wien** | Stop-order by Russia concerning all oil and gas deliveries as of mid-April (alternative scenario) | The joint analysis *models* the external shock in five steps, based on the determination of the gas availability profile over time, immediate production losses in manufacturing, reinforcement and spillover effects on other sectors of the economy, loss of purchasing power due to higher energy prices, and a macroeconomic cycle analysis | EU: 0,5 pp (in 2022)  
EU: 2,5 pp (in 2023) | 1,0 pp (2022)  
1,1 pp (2023) |
| **Baqaee, Moll et al (Conseil d’Analyse Economique, 4.04.22)** | Full embargo of all Russian energy imports | Estimates rest on the assumption that the firms have the possibility to substitute intermediate goods or inputs in the production process. Not taking into account this effect would lead to higher impact, but | EU: 0,2 - 0,3 pp  
DE: 0,3 pp  
FR: 0,2 pp | - |
would not be realistic based on historical and empirical insights according to the authors.

<table>
<thead>
<tr>
<th>Study</th>
<th>Scenarios</th>
<th>Effects and Assumptions</th>
<th>DE: 3.0 pp</th>
<th>2.3 pp</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bayer, Kriwoluzky, Seyrich (DIW, 2022)</strong> (29.03.22)</td>
<td>Full embargo of gas and oil from Russia</td>
<td>Effects on the financial sector disregarded. No analysis of effects on different industry sectors. Assumption that Maastricht criteria remain suspended. Effects on perceived government default risk (and spreads) disregarded. Assumption that private consumption will not be affected.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OECD forecast</strong> (17.03.22)</td>
<td>Full embargo of Russian energy imports</td>
<td>Effects along the production chain not taken into account, could lead to smaller impact.</td>
<td>EA: 2.0 pp</td>
<td>3.5 pp</td>
</tr>
<tr>
<td><strong>Bachmann et al.</strong> (07.03.22)</td>
<td>Full embargo of all energy imports from Russia</td>
<td>Elasticities of substitution for the fossil energy imports concerned (gas, oil and coal) are said to be subject to a large degree of uncertainty. The estimated range of economic impact hence crucially depends on the assumed substitution effects and reallocation of energy inputs, and to some extent also depends on the model chosen. across sectors.</td>
<td>DE: 0.2 pp - 2.2 pp</td>
<td>-</td>
</tr>
</tbody>
</table>