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# Monthly Report

## Gas Supply Cuts as Russia's Weapon in the Economic War with the West

## Gazprom's Gas Exit

## Russia's Economic Suicide, Act 2

## Ukraine's Public Finances: Radical Change in Time of War

The Vienna Institute for International Economic Studies
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# Ukraine's Public Finances: Radical Change in Time of War

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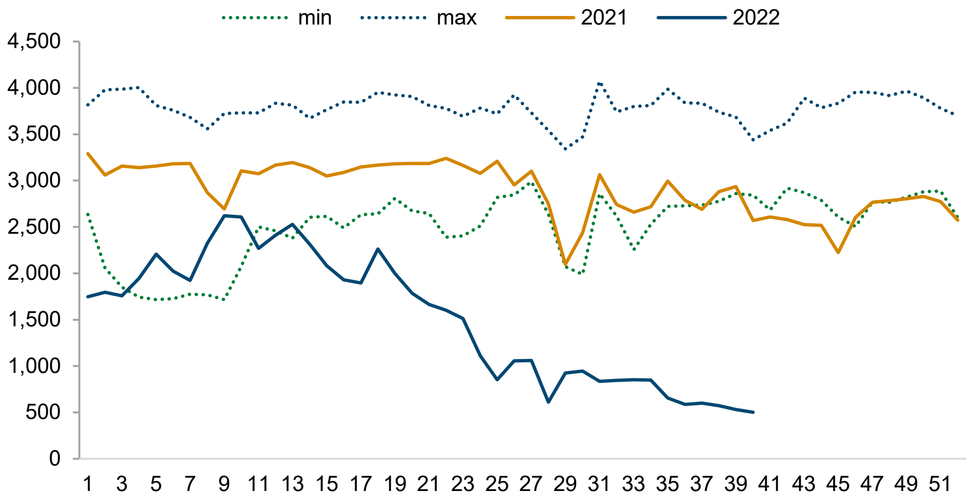
# Chart of the Month: Gas supply cuts as Russia's weapon in the economic war with the West

BY VASILY ASTROV

**Figure 1 / Imports of Russian natural gas into the EU and UK, by week, in million cubic metres**




Notes: Without liquefied natural gas (LNG). Minimum and maximum values are calculated from the period 2015-2020.
Source: B. McWilliams, G. Sgaravatti, G. Zachmann (2021), 'European natural gas imports', Bruegel Datasets, first published 29 October, available at https://www.bruegel.org/dataset/european-natural-gas-imports

Ever since the first export contract was concluded between the Soviet Union and Austria back in 1967, the USSR – and later Russia – cherished its reputation as a reliable supplier of natural gas to the EU. Up until recently, exports of Russian gas had continued largely unabated – despite the slow deterioration in Russia-EU relations and occasional price disputes with transit countries, such as Belarus and Ukraine (which led to brief interruptions in shipments to the EU, most notably in 2009). This reliability and the relative cheapness of Russian gas (largely supplied on long-term contracts) have been the main arguments for countries such as Germany to continue the Russia-EU 'energy dialogue', no matter what.

With the escalating 'economic war' between Russia and the West in the wake of the war in Ukraine, this reputation has now been shattered. Unlike the US and the EU, which both have a wide range of economic weapons to put the Russian economy under pressure – from asset freezes, to shutting off access to payment systems for Russian banks, to trade embargoes – Russia's economic arsenal is actually very limited: energy is one of the few weapons it has at its disposal. It is primarily against this background that the recent dramatic decline in Russian gas exports to the EU should be viewed.[1] By early October, exports had plunged to less than a fifth of their 'normal' level (Figure 1), contributing to

[1] For more details on the export dynamics of the main export routes for Russian gas to the EU, see the article by A. Belyi 'Gazprom's gas exit' in this report.

the energy crisis in Europe and concerns over the possible rationing of gas and electricity in those countries worst affected.

Despite the great pain this inflicts on many European economies, in the longer run the Russian strategy is likely to backfire. With Russia’s reputation as a reliable energy supplier gone, Europe will now do its utmost to diversify energy supplies away from Russia. This will be costly for the EU – but also for Russia, which is bound to lose what is by far its biggest and most profitable export market. The reorientation of Russian gas exports to Asia is complicated by infrastructural bottlenecks (most of the export pipelines currently run westwards), as well as by the likely adverse impact of Western trade sanctions on LNG production and exports.

# Gazprom's gas exit

BY ANDREI V. BELYI[1]

*By going to war with Ukraine, Russia clearly chose the short-term geopolitical agenda over its longer-term economic interests. In the aftermath of the EU sanctions and Russia's counter-sanctions, there is only one major gas export route to the EU that remains unaffected by Russia's supply cuts: the one via Turkey. Meanwhile, deliveries via the Yamal-Europe pipeline, Nord Stream 1 and Ukraine have all suffered to varying degrees. Thus, ironically, Gazprom has helped the EU in its efforts to reduce its dependence on Russian gas by two thirds by the end of the year.*

## INTRODUCTION

In the aftermath of Russia's invasion of Ukraine in February 2022, the EU adopted a new strategy aimed at phasing out Russian gas imports to Europe.[2] These should be reduced by two thirds by the end of 2022 – that is, by approximately 1,000 TWh per year, taking 2021 as a benchmark (Table 1). Accordingly, EU imports from Russia were to have been limited to 500 TWh a year by the end of 2022. However, it has also been noted that Russia remains in an advantageous position thanks to the scope it has to utilise spare capacity and increase the supply of gas at a cost that is lower than that of liquefied natural gas (LNG), Russian gas's main competitor in terms of its low capacity utilisation rate.[3]

**Table 1 / Structure of EU gas imports, 2021**

| | TWh | Bn cubic metres | Share of total EU gas imports | Capacity utilisation rate[4] |
|---|---|---|---|---|
| Russia | 1,550 | 157 | 41% | 55% |
| Norway | 890 | 91 | 24% | 81% |
| North Africa | 410 | 41.9 | 13% | 51% |
| Azerbaijan | 81 | 8.3 | 2% | 62% |
| LNG[5] | 730 | 74.5 | 20% | 40% |
| **Total** | **2,111** | **381.8** | **100** | **n.a.** |

Source: Bruegel.[6]

1 Balesene OU, Tallinn, Estonia, adjunct professor of Energy Law and Policy at the University of Eastern Finland, Joensuu, Finland. This article is part of a project called 'Decision-making in domestic and foreign policy processes in the Russian Federation', Tallinn, Estonia.

2 European Commission, REPowerEU Communication, Com/2022/230Final.

3 G. Zachmann, S. Tagliapietra, B. McWilliams and G. Sgaravatti (2022), 'Can Europe survive painlessly without Russian gas?', Bruegel blog, 27 January, https://www.bruegel.org/blog-post/can-europe-survive-painlessly-without-russian-gas

4 The capacity utilisation rate is calculated by dividing existing gas flows in 2021 by the pipeline capacity (for piped gas) or by LNG terminal import capacity (for LNG).

5 LNG imports include, inter alia, supplies from the Russian Novatek, whose share is approximately 20% of the EU market. So far, it has not been subject to restrictions, and so will not be considered in this article.

6 G. Zachmann, S. Tagliapietra, B. McWilliams and G. Sgaravatti (2022), 'Can Europe survive painlessly without Russian gas?', Bruegel blog, 27 January, https://www.bruegel.org/blog-post/can-europe-survive-painlessly-without-russian-gas

It may be worth recalling that 2021 already witnessed a gas supply crunch in Europe, triggered initially by a decline in LNG supplies in the aftermath of the pandemic and by a significant reduction in the injection of gas into Europe's underground storage facilities by Russia's gas monopoly Gazprom.[7] As a result, indirect competition between LNG and Russian gas for the role of swing suppliers commenced on the European markets. Political competition also emerged, as some EU experts openly appealed for political dialogue with Russia.[8] However, as Russia's foreign policy choices have led to antagonism with the West, the situation has been reversed. By early October 2022, LNG imports to the EU had surpassed Russian imports, while the share of Russian gas had almost halved compared to the 2021 level.

In order to demonstrate these points, this article will provide an overview of the gradual decline in Russia's exports to the EU on each pipeline route.

## OVERVIEW

Russia possesses a huge pipeline network that connects its gas production fields to the EU along four main transit routes:

› The oldest (and longest) network passes through Ukraine and has four exit routes – namely to Poland, Slovakia, Hungary and Romania – with a maximum cumulative capacity of 170 billion cubic metres (bcm) per annum at the border with the EU.

› Then, there is a pipeline via Belarus that connects Russia to Poland called the Yamal-Europe pipeline, with a capacity of 30 bcm/year.

› About a decade ago, a pipeline was built beneath the Baltic Sea. Called Nord Stream 1, it connects Russia directly to Germany and has an annual capacity of 55 bcm; it has recently been supplemented by another pipeline with the same capacity, Nord Stream 2.

› To the south, the TurkStream pipeline allows Russian gas exports to Europe via Turkey; it has an annual capacity of 31.5 bcm.

During the first decade of the twenty-first century, there were several transit conflicts between Russia and Ukraine and between Russia and Belarus.[9] As a consequence, the Nord Stream pipelines have become the biggest in terms of annual flow. There are also smaller pipelines that directly supply the Baltic states and Finland.

Russian piped gas is either contracted on a long-term basis or is delivered to European hubs, mainly on a spot basis. During the second half of 2021, it was observed that Gazprom's daughter company, Gazprom Operations and Trading, had reduced its participation on the European spot markets to a historic low, while the mother company, Gazprom Export, was focusing exclusively on fulfilling long-term commitments, which traditionally fall outside the hub trade, where spot transactions take place.

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7 G. Zachmann, B. McWilliams and G. Sgaravatti (2021), 'How serious is Europe's natural gas storage shortfall?', Bruegel blog, 21 December, https://www.bruegel.org/blog-post/how-serious-europes-natural-gas-storage-shortfall; A. Belyi (2021), 'Russia and the European gas crisis', wiiw Monthly Report No. 10, pp. 18-22.

8 T. Bros and J.-A. Vinois (2021), 'High energy prices: Russia fights back?', Policy Paper 272, Institut Delors, 29 November, https://institutdelors.eu/en/publications/high-energy-prices-russia-fights-back/

9 A. Belyi (2015), Transnational Gas Markets and Euro-Russian Energy Relations, Palgrave Macmillan.

At that time, there emerged a quasi-consensus of experts that Gazprom would probably return to the spot trade after Nord Stream 2 was commissioned: this was due to take place by mid-2022, following a certification procedure initiated by the German regulator.[10] The Nord Stream 2 pipeline found itself in the glare of the spotlight, the focus of various controversies. Some experts argued that there was a solid business case for it, as it would allow infrastructural diversification and more gas to flow across Europe.[11] This view has been criticised by others, who warned of the risk of Moscow's political grip tightening on the EU and Ukraine, in the event that the latter were to lose its leverage over Russian gas transit.[12] While supporters of the pipeline evidently underestimated the Kremlin's geopolitical ambitions, its opponents overestimated Russia's desire to secure the transit flows to Europe before it invaded Ukraine. In fact, the war began even before the Nord Stream 2 certification process was completed.

In itself, this goes to show that Russia's policy decisions on Ukraine do not necessarily take account of its gas export plans. Although it is possible that the various decision-makers in Moscow were operating independently of one another: that would explain why the political goals have diverged so visibly from the economic ones. The Nord Stream 2 certification procedure was hastily sacrificed by the German authorities right at the start of the dramatic events surrounding Ukraine.

## YAMAL-EUROPE PIPELINE: THE FIRST VICTIM OF THE WAR AND SANCTIONS

In the aftermath of Russia's invasion of Ukraine, the EU adopted a set of unprecedented sanctions against Russia's financial institutions.[13] As the financial restrictions also complicated money transfers for Russian suppliers, Moscow proposed changing the payment system for long-term gas supplies: it demanded payment in Russian roubles, with all payments channelled through Gazprombank, the only major Russian bank that was not sanctioned. Simultaneously, the country decided to cease deliveries to those who refused the new payment method.[14] Flows to Bulgaria, the Baltic states, Finland and Poland, among others, have been drastically reduced.

It may be worth recalling that gas flows via the Yamal-Europe pipeline faced sporadic reductions back in the winter of 2021-2022 – before the dispute over the new payment system – as Gazprom did not regularly book the capacity available for short-term operations via this route.[15] Once supplies were resumed, towards spring 2022, Russia introduced sanctions against EurPolGaz (which ships gas via the Yamal-Europe pipeline from Russia to Germany via Poland) and banned further flows via this route. As a result, gas transit to Europe via the Yamal-Europe pipeline ceased at the end of May 2022 (Figure 1).

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[10] Reuters, 16 December 2021, https://www.reuters.com/business/energy/german-regulator-says-nord-stream-2-launch-not-expected-h1-2022-2021-12-16/

[11] A. Goldthau (2016), 'Assessing Nord Stream 2: Regulation, geopolitics and energy security in the EU, Central Europe and the UK', King's College London, Strategy Paper 10.

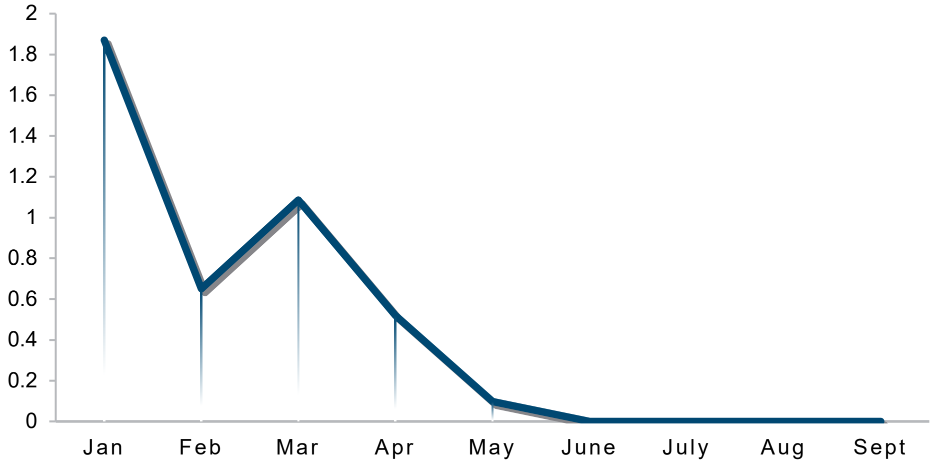
[12] A. Riley (2018), 'Nord Stream 2: Understanding the potential consequences', Atlantic Council, 20 June.

[13] European Council, EU sanctions against Russia explained, 15 September 2022.

[14] *Financial Times*, 29 March 2022, https://www.ft.com/content/7137b5da-f877-4032-b98e-fab6ffb78344

[15] For details, see A. Belyi (2022), 'Yamal-Europe gas pipeline shows how EU competition rules backfire during a shortage', *The Energy Post*, 11 January, https://energypost.eu/yamal-europe-gas-pipeline-shows-how-eu-competition-rules-backfire-during-a-shortage/; A. Prokip (2022), 'Russia's energy transit play, a crooked game', Focus Ukraine, 23 May, https://www.wilsoncenter.org/blog-post/russias-energy-transit-play-crooked-game

**Figure 1 / Yamal-Europe gas flows in 2022, in bcm**

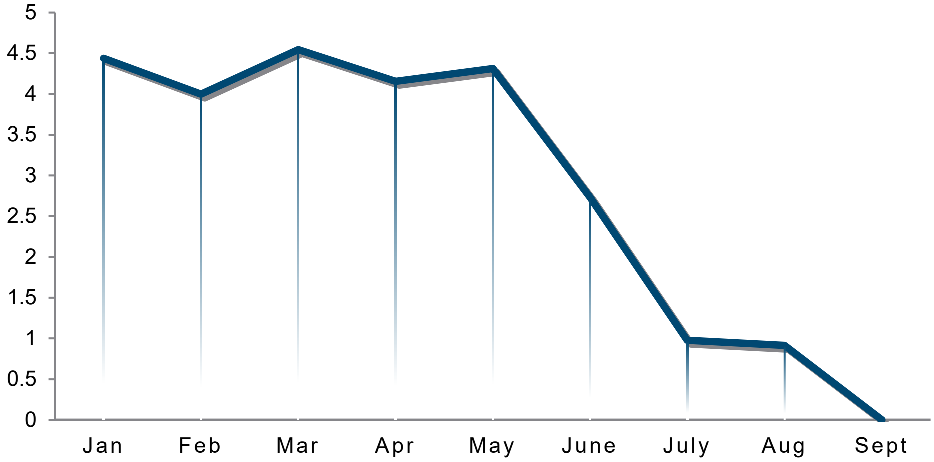



Source: Data collection on the basis of Route4Gas automated data collection from transmission system operators (TSOs).

## THE NORD STREAM SAGA: END OR CONTINUATION?

With the cancellation of Yamal-Europe flows, Nord Stream 1 became pivotal for Russian gas exports to Germany. However, over summer 2022, Gazprom decided to reduce flows via Nord Stream 1, citing the need to replace compressors, access to which was blocked by the West's sanctions. There was a gradual drop in gas flows via Nord Stream 1, until Russia decided to halt supplies altogether from September for as long as the restrictions on equipment supplies persist (Figure 2).

**Figure 2 / Nord Stream 1 gas flows in 2022, in bcm**



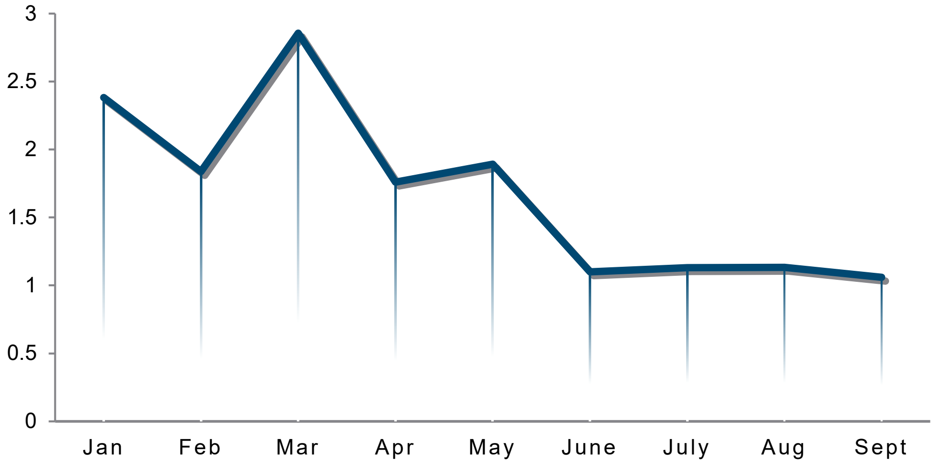

Source: Data collection on the basis of Route4Gas automated data collection from TSOs.

In this context, some of Gazprom's representatives have argued that Germany could still unfreeze the certification procedure for Nord Stream 2. An advisor to Gazprom Export even insisted on a Russian media channel that Nord Stream 2 would have to be launched. On 26 September, there were explosions – of unknown origin – on both Nord Stream 1 and 2, resulting in a complete halt to gas flows. A few days later, Gazprom announced that one of the two lines belonging to Nord Stream 2 had been repaired and could be used if the German authorities allowed it. This approach shows clearly that the Russian authorities have not abandoned the idea of forcing Germany to lift the sanctions introduced in February 2022.

## UKRAINIAN TRANSIT CURTAILED BY RUSSIAN INVASION

While the Yamal-Europe pipeline has lain idle and flows via Nord Stream 1 have been significantly reduced, transit via Ukraine has continued, despite the war. Yet the volumes are 60% down on those in 2021 (Figure 3), partly because for safety reasons Ukraine has halted transit via one of the entry points located in the newly Russian-occupied part of Luhansk region. Despite heavy military exchanges in the region, Gazprom has refuted Ukraine's claims of *force majeure*, stating that if the transit is discontinued, there is no reason to pay for it. This dispute harks back to earlier gas crises between Russia and Ukraine (most notably in 2009), which led to the complete interruption of gas flows.[16]

**Figure 3 / Gas flows via Ukraine in 2022, in bcm**




Source: Data collection on the basis of Route4Gas automated data collection from TSOs.

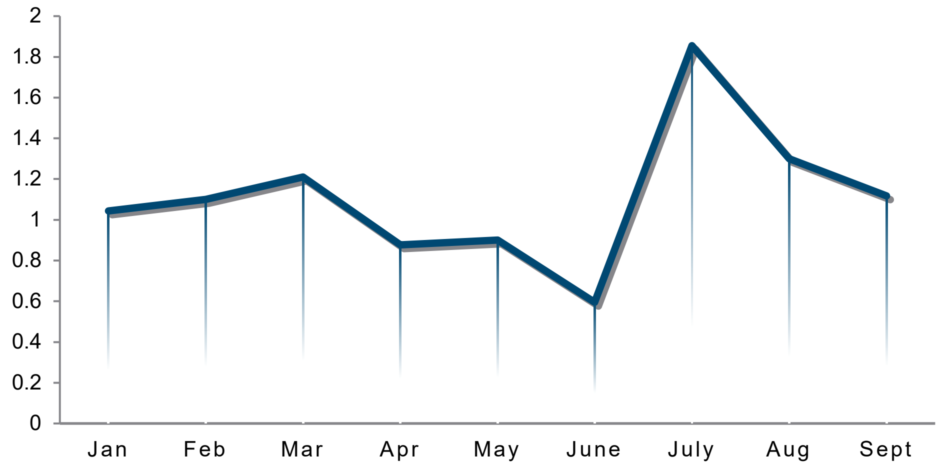
Although the pipeline is still operational, transit via Ukraine is at permanent risk of war-related damage.

## ASSESSING THE EFFECTS OF RUSSIAN SUPPLY CUTS

Finally, the Russia-Turkey pipeline, which is also called TurkStream, has increased its supply volumes (Figure 4). But with only 31.5 bcm of capacity, it is not capable of making up for the declines in Russian gas exports via pipelines elsewhere.

16 K. Yafimava (2012), *The Transit Dimension of EU Energy Security*, Oxford University Press.

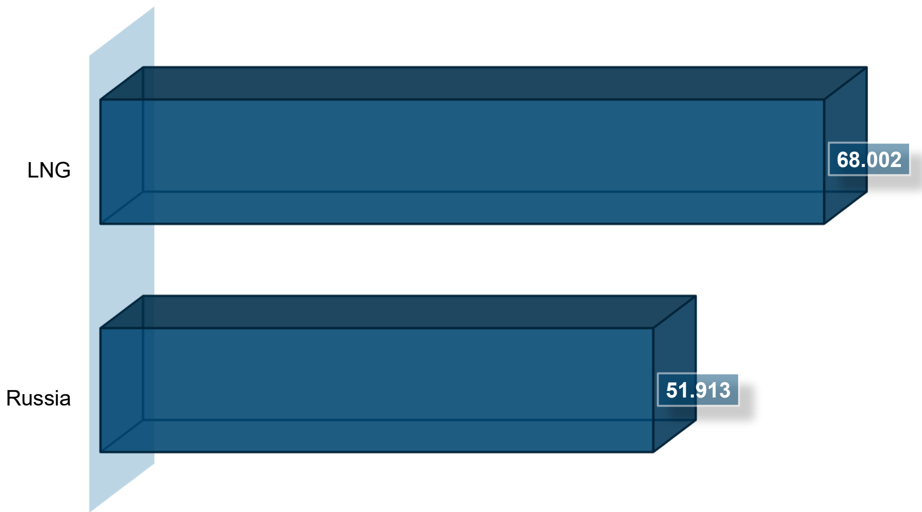
**Figure 4 / TurkStream gas flows in 2022, in bcm**




Source: Data collection on the basis of Route4Gas automated data collection from TSOs.

Consequently, overall Russian gas flows to the EU in January-September 2022 plunged by 45% (Table 2), to something over 500 TWh. Thus, ironically, Gazprom has helped the REPowerEU plan in its efforts to restrict the import of Russian gas in 2022 to approximately 500 TWh. In the meantime, LNG inflows to European import terminals have accelerated. At the same time, demand for gas has collapsed in the wake of numerous and diverse efforts to switch the fuel used in power and heat production.[17] By September 2022, the share of LNG on the EU's gas markets had exceeded Russian piped imports, marking a significant change from the pre-war market structure.

**Figure 5 / EU imports of Russian piped gas versus LNG in January-September 2022, in bcm**




Source: Data collection on the basis of Route4Gas automated data collection from TSOs.

[17] Timera Energy, European Gas Market: winter outlook, October 2022.

**Table 2 / Russian gas imports to the EU in January-September 2021 and 2022, TWh**

| | Nord Stream 1 | Ukraine | Yamal-Europe | TurkStream | Total |
|---|---|---|---|---|---|
| Y 2021 Mo 1-9 | 380.5 | 281.1 | 259.5 | 82.6 | **1003.7** |
| Y 2022 Mo 1-9 | 282.0 | 151.7 | 27.7 | 91.8 | **553.2** |
| Y-Y difference in % | -26% | -46% | -89% | 11% | **-45%** |

Source: Data collection on the basis of Route4Gas automated data collection from TSOs.

The long-term effects of the reduction in imports of Russian gas could be further tested, depending on whether or not REPowerEU succeeds in finding a balance between additional LNG imports and switching fuels. Ironically, Gazprom has itself made a major contribution to the EU's efforts to reduce its dependence on Russian gas. Further, unprecedented inflows of LNG may trigger real competition with Russian gas, despite the extra costs in the value chain of liquefaction and regasification. For Russia, this would signify the future loss of its most reliable gas market.

# Opinion Corner*: Russia's economic suicide, act 2

BY VLADISLAV INOZEMTSEV✦

*The economic consequences of the recently announced military mobilisation in Russia will be dramatic and manifold. Up to 8% of the male workforce will be lost, consumption and investment will suffer, and new Western sanctions are on the cards. As a result, Russian GDP could decline by 10% this year.*

More than six months into the war in Ukraine, Russia had managed to stabilise its economy: the rouble had recovered to its pre-conflict levels and went on to reach new highs, thanks to the capital controls introduced by the central bank; export revenues were growing, as the war propelled oil and gas prices in Europe to record levels; and inflation had been reined in, as the government allowed so-called 'parallel imports' and the financial authorities appeared to be in control of interest rates. Thus, towards the end of summer, when it was already clear that the military operation in Ukraine would last for several more months (if not years), the Russian economy was doing relatively well and major international financial institutions improved their forecasts for 2022 – from a fall of 10-12% of GDP to a mild contraction of 4.7% (as projected by Bloomberg)[1] or even a mere 2.9% (as predicted by Russia's Ministry of Economic Development).[2] For the most part, the Russian population did not seem unduly concerned about the ongoing conflict: mortgage lending had bounced back and retailers were issuing optimistic forecasts for the rest of the year.

## THE ANNOUNCEMENT OF A 'PARTIAL' MOBILISATION

So even though its economic prospects were threatened by the proposed European sanctions on oil (postponed, but now due to come into force on 5 December) and on petroleum products (due in February 2023), Russia's economy did seem to be doing quite well. However, the same could not be said of its military. Since April, the Russian forces had been in retreat along various stretches of the front line, and in late August the Ukrainians finally regained the initiative, launching a counteroffensive in Kharkiv and later Kherson region. With the Russian forces in retreat, with almost half of the army that had originally invaded Ukraine in February destroyed and with the defence industry apparently unable to plug the gaps in military supplies, the Kremlin decided that more radical action was needed.

First, President Putin announced that he wanted the ranks of the army to be swelled by 137,000 extra troops. Then he ordered the defence contractors to work overtime. And finally, on 21 September, he

* Disclaimer: The views expressed in the Opinion Corner section of the Monthly Report are exclusively those of the authors and do not necessarily represent the official view of wiiw.

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1 https://www.bloomberg.com/news/articles/2022-08-11/putin-s-war-hurls-russian-economy-back-four-years-in-one-quarter?srnd=premium-europe

2 https://www.forbes.ru/finansy/477727-minekonomrazvitia-rezko-ulucsilo-prognoz-spada-vvp-rossii

ordered a 'partial mobilisation' of up to 300,000 reservists. Meanwhile, those familiar with his order were talking of between 1m and 1.2m young (and not so young) men being sent to the front line.[3]

The mobilisation and everything that followed – the so-called 'referendums' in the occupied territories and their 'incorporation' into the Russian Federation – led to little change on the battlefield, as the Ukrainians continued their advances; however, the move has dealt the Russian economy an almighty blow. Most of my friends and colleagues in Russia admit that the effect of this military escalation has been far more serious than the aftermath of the original February invasion.

It seems to me that the measures introduced by the Kremlin in late September have affected the Russian economy in at least four different ways.

## LABOUR MARKET DISRUPTIONS

First, they have distorted the labour market right across the country. The mobilisation started in chaotic fashion (even the authorities recognised this and issued a clarification two weeks later) and sent a shock wave through many young people. Thousands of them flocked to the airports – and then, as the airline tickets sold out, to the land border crossings from Russia to Finland, Georgia, Kazakhstan and even Mongolia. The queues in early October were up to 6 km long, with waiting times of up to four days. Up to 1m roubles (EUR 17,000) were changing hands in return for an immediate escorted passage.[4] No one knows for sure how many people escaped; but as of 6 October, the most conservative estimates put the figure at 400,000, around three quarters of whom crossed into Georgia or Kazakhstan. And some estimates ranged as high as 700,000.[5]

Nevertheless, at least 200,000 people have been drafted[6] (many claim that a more realistic figure would be 400,000). For every person mobilised, there are at least three or four on the run, hiding out in the countryside or in houses and apartments that are not their officially registered residence. Many of them have quit their jobs, preferring not to be paid, just so long as they can stay out of reach of the military commissions. If we add all these figures together, it is clear that no fewer than 2.5m (and probably 3m) men of working age have been removed from the active workforce of 71.2m. Thus, 6-8% of the male workforce has vanished.

## WORST-HIT ECONOMIC SECTORS

Second, the workforce crisis is affecting large swathes of the economy. The retail trade sector, for example, had just started to adapt to the new conditions by hiring thousands of people who travelled abroad to establish new ties with traders in Turkey, China, the UAE, Hong Kong and South Korea and to organise the 'parallel imports'. But after the mobilisation was announced, their activities were greatly constrained, as foreign travel was blocked.

[3] https://novayagazeta.eu/articles/2022/09/22/istochnik-zasekrechennyi-punkt-ukaza-o-mobilizatsii-pozvoliaet-minoborony-prizvat-odin-million-chelovek-news ; https://meduza.io/feature/2022/09/23/istochnik-meduzy-v-armiyu-sobirayutsya-prizvat-1-2-milliona-chelovek

[4] https://theins.ru/news/255630

[5] https://www.forbes.ru/society/478827-rossiu-posle-21-sentabra-pokinuli-okolo-700-000-grazdan

[6] https://meduza.io/news/2022/10/04/sergey-shoygu-v-armiyu-pribyli-uzhe-bolee-200-tysyach-mobilizovannyh

It is in the small towns and the countryside that the mobilisation has taken its greatest toll: in some places, almost all working-age males have been taken as recruits, and in many companies up to half of the male workers have been mobilised. In larger cities, the proportion has been smaller, but there businesses are generally more competitive and tend to make more effective use of their workforce – thus, even just a handful of workers lost can have a devastating effect on productivity.

The crisis caused by Putin's mobilisation is different from what Russians normally think of as a crisis: it is not associated with a plummeting rouble or with high inflation. This time, it is developing at the microeconomic level, with thousands of enterprises failing and shutting up shop. It is barely perceptible – just as though termites were undermining a wall, without damaging the wallpaper – but it is even more dangerous than a pure financial crisis.

## A BLOW TO CONSUMER AND INVESTOR CONFIDENCE

Another consequence of the mobilisation is a gradual change in consumer confidence. Many Russians who had been thinking of purchasing a new car or a new apartment have suddenly revised their plans. Those who have fled the country have put their houses and flats on the market. Thousands of them. Today, at least half of the luxury real estate around Moscow is seeking a buyer, but almost no deals have been recorded over the past month. Real estate prices in Moscow and Saint Petersburg are 6-7% down on September 2021.[7] Meanwhile, the discounts being offered on new-build apartments can amount to 30% of the advertised value.[8] I believe this is just the start of a new trend, with real estate set to lose up to 20% of its peak 2022 value by the end of the year, and with the luxury segment even losing some 35-40%. Commercial real estate will follow suit. That will be quite painful for large cities, where the local economy has been more geared to the development and construction business than Russia as a whole.

People are expected to spend less in the coming months, as many of them are getting ready to bribe officials either in order to move abroad or to help their mobilised relatives. The decline in overall wages (in Russia, male workers earn up to 37% more than women)[9] will also contribute to a downturn in demand and will cause the economy to slow. Russia in the wake of mobilisation is on a war economy footing: nothing can be predicted. Thus, the investment climate is simply an outdated notion.

## A NEW ROUND OF WESTERN SANCTIONS

Fourth, the Western powers have (predictably) responded to the Russian move with fresh sanctions. They may not appear to be critical (the eighth EU sanctions package does not contain any crucial measures, as the oil price gap still has not been announced); but it is now certain that sanctions will be extended more and more, since there is no longer any hope of a reconciliation between Russia and Ukraine. Moreover, since Russia now claims to be waging a defensive war on its own territory, Moscow has a formal reason to use tactical nuclear weapons against the advancing Ukrainian forces. This increases the risk of global confrontation, which could provoke a deeper crisis in the Russian economy and even lead to a military assault by NATO forces on Russian territory.

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7 https://realty.rbc.ru/news/6335a7a39a79478d42a01e08

8 ibid.

9 https://inde.io/news/58254-tsifra-v-rossii-u-muzhchin-zarplata-v-srednem-na-37-protsentov-vyshe-chem-u-zhenschin

There is little doubt that the Western powers will sooner or later introduce additional sanctions that target the Russian financial sector, the IT industry and other high-tech capabilities, as the Ukrainian leadership now rules out any negotiations with President Putin[10] and is working on new suggestions for sanctions. Russia is very close to becoming a 'military camp', with an economy that is subservient to the needs of the war. It does look like the beginning of the end for Putin-era economic achievements – simply because over all these years, the Russian economy has grown accustomed to functioning as an ordinary market economy that cannot be effectively managed through a system of nationwide planning.

## CONCLUDING REMARKS

To conclude, following the Russian mobilisation, I would expect the Q4 economic dynamics to be very weak, with Russian GDP declining by at least 6-7% compared to the previous quarter. In a recent commentary for The Economist, I argued that the overall decline in the Russian economy could reach 10% for the full year (2022),[11] as was predicted by many analysts immediately after the war started. The construction business, retail trade, accommodation and hospitality will be among the sectors hardest hit, though almost every branch of industry will suffer.

Most people failed to predict Putin's move because it was obvious that it would derail the Russian economy, which was performing relatively well after a half year of war. What happened on 21 September and later proves that the current Russian leadership simply does not care about the state of the economy (which I also mentioned some years ago),[12] and is ready to wage war on Ukraine to the last Russian soldier.

Mobilisation will generate huge social discontent, as thousands of new recruits are killed in action. Moreover, their families may not even get any compensation, since it will be hard to identify the casualties, and most will simply be declared 'missing in action'. The current Russian government has shown itself incapable of managing a modern war, and the Russian economy is the price the Kremlin must pay. Therefore, I would contend that this second act of the war (or rather, this transformation of the 'special military operation' into a full-scale war) will effectively kill off the Russian economy. To my mind, the end of Putin's regime is now less than a year away.

[10] https://news.liga.net/politics/news/zelenskiy-podpisal-dokument-ob-otkaze-ot-peregovorov-s-putinym

[11] https://www.economist.com/briefing/2022/10/06/ukraines-military-success-is-reshaping-russia-as-well-as-the-war

[12] https://www.project-syndicate.org/commentary/russia-economic-stagnation-prospects-by-vladislav-inozemtsev-2019-06

# Ukraine's public finances: radical change in time of war

BY TETIANA BOGDAN[1]

*Since the start of the Russian aggression, Ukraine's government revenues have plunged sharply; by contrast, expenditure has risen on the back of defence spending. So far, the ensuing fiscal gap has been covered by a combination of foreign aid and deficit monetisation; but more foreign aid will be needed to face the upcoming challenges.*

## BUDGET REVENUES: GENERAL CONTRACTION AND LARGE VARIATION ACROSS TYPES OF TAX

The war and the shrinking economy have exerted downward pressure on budget revenues: the total consolidated budget revenue fell by 12.3% in real terms in the period January–July 2022, relative to the same period of 2021. However, foreign grants accounted for 15.7% of total budget revenue (whereas they were close to zero in 2021). After correcting for foreign grants, we see a real decline in budget revenue of 26% (see Table 1).

Excise tax, VAT on imported goods and import duty saw the most substantial reductions; this was attributable to the collapse in imports at the beginning of the war and the tax exemptions for imports (effective in April–June).

Certain tax revenues that are highly susceptible to economic dynamics and domestic demand have also experienced a sharp decline, among them corporate profit tax, VAT and the single tax for entrepreneurs (which is an alternative to general taxation for small businesses). However, lessor's royalties and VAT on domestically produced goods performed quite well (the latter because VAT reimbursement has been frozen since the outbreak of the war).

In general, over January–July 2022, the government's own revenue (tax, non-tax and capital collections) covered only 63.1% of the expenditure required to run the economy and defend the country (in March–July, the figure was even lower: 51.6%). As for alternative financing tools, 18.3% of expenditure was covered by the National Bank of Ukraine (NBU) monetary financing; 11.7% by foreign grants; and 14.2% by foreign debt accumulation. Meanwhile, the net contribution of government domestic borrowing was negative – i.e. the government was repaying its debt, rather than borrowing.

[1] Scientific Director of the Growford Institute NGO (Kyiv) and guest researcher at wiiw.

**Table 1 / Consolidated budget revenue in absolute and real terms, January–July 2022**

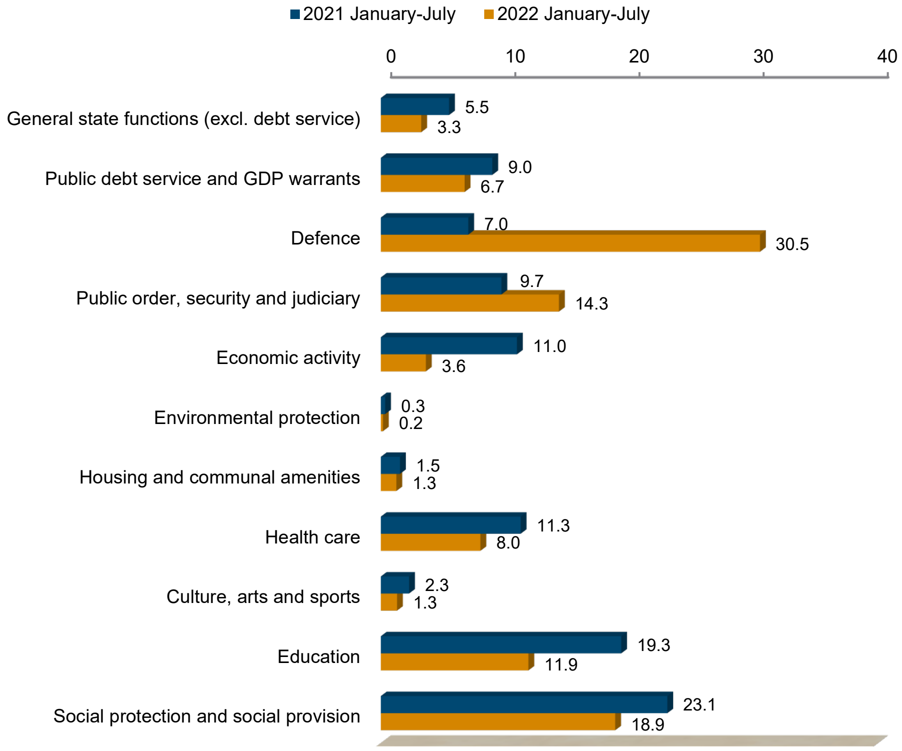
| Revenue indicators | Absolute volume, UAH billion | Real growth year on year, %* |
|---|---|---|
| Total revenue | 1,022.5 | -12.3 |
| Total revenue, excluding foreign grants | 862.4 | -26.0 |
| Tax revenue | 717.1 | -27.9 |
| Personal income tax | 218.0 | -14.0 |
| Corporate profit tax | 77.7 | -24.1 |
| Lessor's royalties | 50.6 | 30.4 |
| Excise tax | 57.2 | -54.6 |
| - on domestically produced goods | 28.2 | -52.2 |
| - on goods imported to Ukraine | 24.3 | -60.2 |
| VAT | 250.2 | -32.5 |
| - on domestically produced goods | 131.8 | 15.2 |
| VAT receipts | 172.7 | -24.6 |
| VAT reimbursements | -40.9 | 24.9 |
| - on goods imported to Ukraine | 118.4 | -53.8 |
| Import duty | 8.6 | -67.9 |
| Local taxes and fees | 47.4 | -29.0 |
| Real estate tax | 20.1 | -39.5 |
| Single tax for entrepreneurs | 27.1 | -18.7 |
| Non-tax revenue | 143.3 | -14.2 |
| National Bank of Ukraine profit transfer | 18.8 | -42.3 |
| Own receipts of budgetary entities | 60.4 | -17.1 |
| Official grants from the EU, foreign governments, international financial institutions, donor entities | 160.1 | 41,997 |

Note: *Deflated with GDP deflator.
Source: Ministry of Finance of Ukraine, author's calculations.

## BUDGET EXPENDITURE: SWINGEING CUTS ACROSS TRADITIONAL GOVERNMENT FUNCTIONS, BUT MORE FOR DEFENCE

The war and the extraordinary challenges facing Ukraine have brought about a substantial shift in the structure of public expenditure (Figure 1). In January–July 2022, the share of defence spending more than quadrupled to reach 30.5% of the total, while the share of public order and security spending increased by 1.5 times. In March–July, government spending on defence, security and public order combined accounted for 50% of total budget spending. Simultaneously, the relative expenditure on education, economic activity, health care and general state functions fell dramatically.

**Figure 1 / Structure of consolidated budget expenditure, %**




Source: Author’s calculations on the basis of Ministry of Finance data.

Consolidated budget expenditure rose in real terms by 15.1% over January–July 2022, compared to the same period of 2021. However, this was entirely due to increased expenditure on defence, public order and security. The remaining expenditure categories plummeted by 23.8% in real terms (see Table 2). Across functions of government, spending on economic activity declined by 61.9%; environmental protection by 43%; culture, arts and sports by 33.9%; and government lending by 84.9%.

Since the outbreak of war, the government has taken steps to cut major non-essential expenditure, including capital outlays. Meanwhile, it has continued to honour its social commitments and wages in the public sector (although their real values have been eroded by inflation).

Public expenditure policy in 2022-2023 has to tackle numerous challenges, among them maintaining a social safety net and the education system; reconnecting people to health care and housing services; repairing critical infrastructure damaged by the aggressor; restoring the normal functioning of business; and addressing macro-financial stability issues. It is important that these expenditure categories should be strictly prioritised, given the huge needs of Ukraine’s defence and security sector, and the tough financial constraints.

**Table 2 / Consolidated budget expenditure in absolute and real terms, January–July 2022**

| Expenditure indicators | Absolute volume, UAH billion | Real growth year on year, %* |
|---|---|---|
| Total expenditure | 1,026.2 | 15.1 |
| Total expenditure, excluding expenditure on defence, public order and security | 565.9 | -23.8 |
| General state functions (excluding debt service) | 33.4 | -31.8 |
| Public debt service and payments on GDP warrants | 69.2 | -13.5 |
| Defence | 313.1 | 398.9 |
| Public order, security and judiciary | 147.1 | 70.0 |
| Economic activity | 37.2 | -61.9 |
| Environmental protection | 1.8 | -43.0 |
| Housing and communal amenities | 12.9 | -6.6 |
| Health care | 82.3 | -18.0 |
| Culture, arts and sports | 13.4 | -33.9 |
| Education | 121.8 | -29.4 |
| Social protection and social provision** | 193.6 | -5.8 |
| Lending | 0.3 | -84.9 |
| Budget deficit | 258.6 | 1,305.1 |

Notes: *Deflated with GDP deflator. **Includes transfers to the Pension Fund.
Source: Ministry of Finance of Ukraine, author's calculations.

## DEFICIT FINANCING: RELYING ON FOREIGN SOURCES AND SEIGNIORAGE

Since the start of the Russian aggression, government financing needs have increased enormously, and in the first half of 2022 the budget deficit approached 17% of GDP. Over the same period, the public debt rose by 19 percentage points (pp) of GDP and is projected to increase by 42.7 pp of GDP over the entire year. This has been accompanied by heavy government borrowing from both domestic and external sources.

**Table 3 / Central government budget deficit and its financing, UAH billion**

| Indicators | Jan–July 2021 | Jan–July 2022 |
|---|---|---|
| Budget deficit and its financing | 18.4 | 344.3 |
| Gross borrowing | 304.8 | 620.2 |
| gross domestic borrowing | 238.3 | 402.3 |
| gross foreign borrowing | 66.5 | 217.9 |
| Net borrowing (excluding debt amortisation) | 35.8 | 356.1 |
| net domestic borrowing | -4.0 | 162.3 |
| net foreign borrowing | 39.8 | 193.8 |
| Other sources of budget deficit financing | 17.4 | -11.8 |

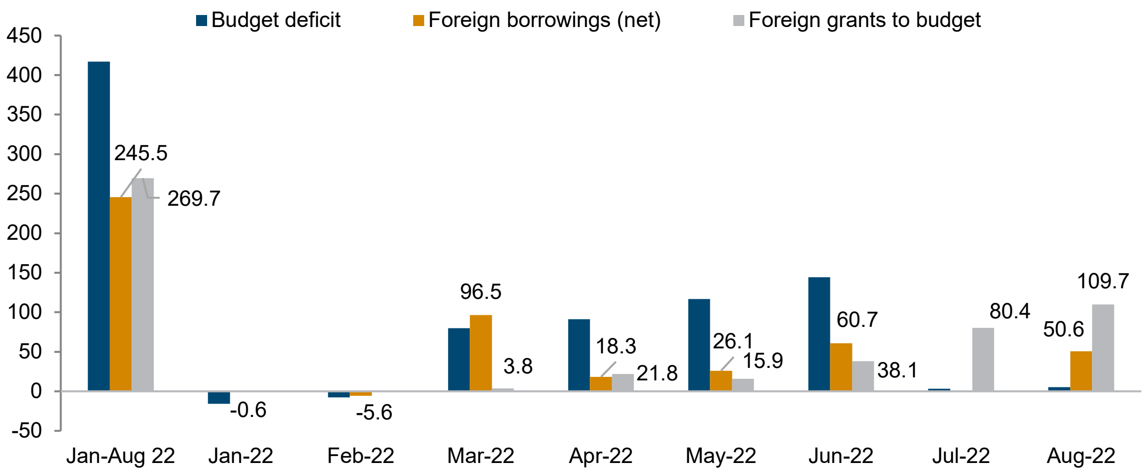
Source: Ministry of Finance of Ukraine, author's presentation.

The state budget deficit and the main components of its financing are shown in Table 3. At first glance, gross domestic borrowing would seem to have been the main source of budget deficit financing in the first seven months of 2022. However, more than half of that was used to repay domestic debt, which serves to highlight the significance of foreign financing. Over January–July 2022, net foreign borrowing made up almost 55% of total budget deficit financing.

Russia's invasion has devastated Ukraine's economy and exhausted its public finances. This has turned foreign concessional financing into an important prop shoring up the budget. Since the start of full-scale war, the Ukrainian government has received USD 17.4bn for the budget, in the form of external loans and grants (as of 6 September 2022). Altogether, Ukraine has been promised more than USD 33.5bn in budgetary aid by the most important donors. This implies that a further USD 16bn or so in foreign grants and loans will be provided over the final months of 2022 and the first months of 2023.

Figure 2 shows the monthly disbursement of official loans and grants to Ukraine and compares that with the monthly budget deficit. The data reveal that foreign financing played a minor role in April, May and June. However, the situation improved radically in July and August, when there was a major influx and the government received USD 5.5bn in foreign grants and USD 1.6bn in foreign loans. All in all, in January–August 2022, foreign loans constituted 58.9% of budget deficit financing and foreign grants made up 22.1% of consolidated budget revenue.

**Figure 2 / Foreign financing of central government budget deficit and foreign grants dynamics, January–August 2022, UAH billion**

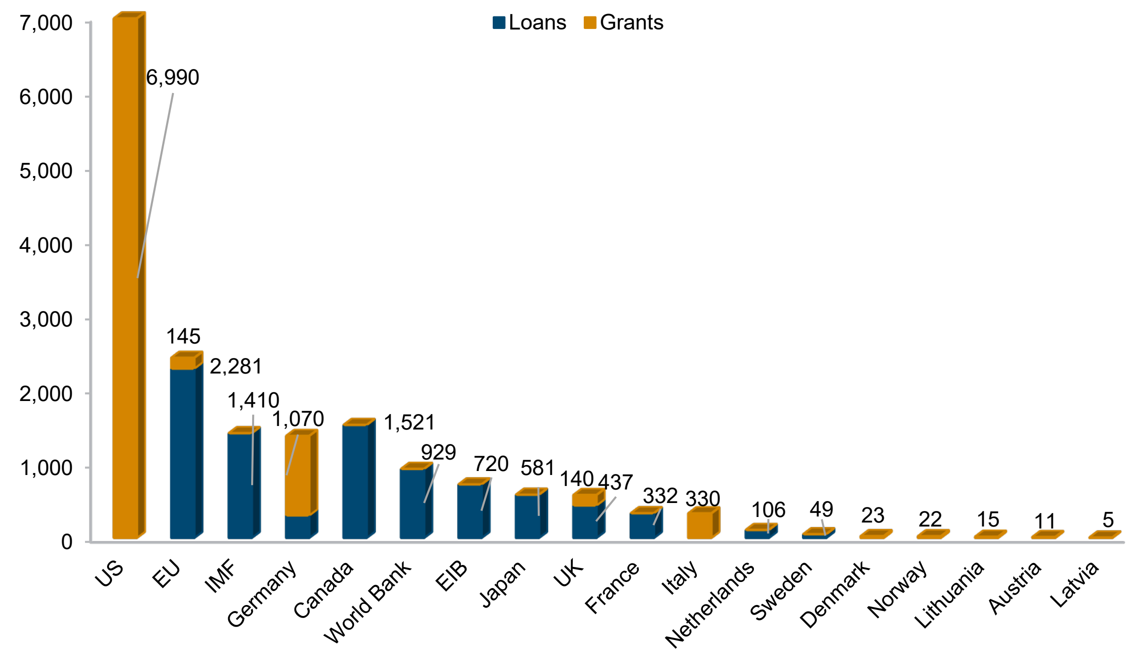



Source: author's calculations on the basis of Ministry of Finance data.

Figure 3 indicates the disbursement of foreign grants and loans by the major donors since the start of full-scale war. The most important donors to provide grants in support of the Ukrainian budget have been the US (USD 6.99bn), Germany (EUR 1.0bn), Italy (EUR 0.3bn), the UK (EUR 0.13bn) and the European Union (EUR 0.13bn).

Among the Ukrainian government's foreign creditors, we should mention the EU (disbursed USD 2.28bn), Canada (USD 1.5bn), the International Monetary Fund (IMF) (USD 1.4bn), the World Bank (USD 0.9bn), the European Investment Bank (EIB) (USD 0.7 bn), Japan (USD 0.6bn) and the UK (USD 0.4bn).

**Figure 3 / Foreign grants and loans by creditors (donors), January–August 2022, USD million**




Source: author's calculations on the basis of Ministry of Finance data.

Thus, the Ukrainian government has received quite substantial amounts of foreign financing from the West as a whole, as a form of solidarity during the unprecedented war in Europe. However, this financing has proved to be less than is required to plug the big fiscal gap. Obviously, Ukraine needs substantial resources not only for future reconstruction, but – even more urgently now – to fight the aggressor and maintain the state's capacity to provide public services.

## DOMESTIC DEFICIT FINANCING AND THE ROLE OF THE CENTRAL BANK

Many experts argue that, in the absence of sufficient flows of funds from external partners, Ukraine will have to further pare its already bare-bones social expenditure and resort to ongoing monetisation of the budget deficit by the central bank. In the most extreme case, the financial crisis (driven by the devastation of the economy, rampant inflation, a dramatic exchange rate devaluation and the depletion of international reserves) could even translate into loss of the war.

In January–July 2022, gross domestic borrowing by the government was close to double its foreign borrowing: UAH 402.3bn versus UAH 217.9bn. However, the former figure comprises financing from the NBU, as the limited depth and liquidity of the internal market for government bonds forced the government to resort to monetary financing of the budget deficit. In February–August, monetary financing amounted to UAH 285bn, equivalent to roughly 11.5% of GDP.

While gross domestic borrowing from all types of creditors amounted to UAH 402.2bn, net domestic borrowing constituted only UAH 162.3bn – and that was more than provided for by the NBU (see Table 4). Net domestic financing of the budget deficit, excluding the NBU, was negative, reaching UAH -87.7bn over January–July 2022.

**Table 4 / Budget deficit financing from domestic sources, UAH billion**

| Domestic financing indicators | 2021 – 7 months | 2022 – 7 months |
|---|---|---|
| Gross domestic financing, all types of creditors | 238.3 | 402.3 |
| - borrowing from NBU | 0.0 | 250.0 |
| - borrowing from other domestic creditors | 238.3 | 152.3 |
| Net domestic financing (excluding debt amortisation), all types of creditors | -4.0 | 162.3 |
| Net domestic financing without NBU | -4.0 | -87.7 |

Source: author's calculations on the basis of Ministry of Finance data.

The major driving forces for these disappointing outcomes have been: the decline in the real income of Ukrainian residents since the war began; the negative real yields on government bonds, as from April; the lack of special channels of bond flotation for retail investors; and the NBU's placement among banks of highly profitable certificates of deposits, which compete directly with short-term government bonds. Since 3 June, the nominal yield on such certificates for banks has been set by the NBU at 23%. By comparison, the market interest rates on UAH deposits in the banks averaged 13.9% in June and 15.4% in July, while average interest rates on government bonds stood at 9.7% and 14.5%, respectively.

The share of NBU loans in the structure of budget deficit financing (on a gross basis) approached 40% in January–August 2022. With significant monetisation of the budget deficit, there is little wonder that inflation accelerated from 10.7% annually in February to 22.2% in July – although there were other factors, including the imbalance between supply and demand, rising inflationary expectations and the pass-through effect of the depreciating exchange rate. The danger is that rising inflation and the related uncertainty could erode UAH savings, enhance dollarisation of the financial flows and discourage private investments, the devastating effects of which would be pronounced both during and after the war.

## POLICY RECOMMENDATIONS

A worrying aspect of the current fiscal developments in Ukraine is that, by attracting domestic and foreign loans, the Ukrainian government is stoking the public debt burden, which will incur significant costs for the post-war economy, if it is not tackled in an appropriate way. A comprehensive public debt sustainability analysis (DSA) for Ukraine shows that, according to baseline projections, Ukraine will see its debt-to-GDP ratio shoot up in 2022-2023 from a modest 49.6% of GDP prior to the war to 102.5% of GDP at the end of 2023 – a rise of 42.7 pp in 2022 and 10.2 pp in 2023. The DSA's baseline also suggests a pessimistic dynamic for the government's gross financing needs: this indicator would soar from 11.6% of GDP in 2021 to 27.4% in 2022.

Overall, unless corrective policy actions are taken, public debt is assessed as being unsustainable. In particular, a deep economic recession, a sharp exchange rate devaluation and significant primary budget deficits would result in a dramatic rise in public debt. In assessing Ukraine's public finance prospects, we must assume depressed tax and non-tax government revenue in the foreseeable future, the government's inability to borrow on international capital markets and the limited potential of the domestic capital market to absorb the public debt issuance. Under such circumstances, the government must mobilise substantial resources to cover the extraordinary defence expenditure, as well as to assist the population suffering from the war. As the government has only limited capacity to cut the budget deficit during a war, one logical solution would be to raise more foreign grants, attract more official loans on concessional terms and restructure the debt owed to euro-bond holders.

Through the first six months of war, the government used such a policy mix to maintain public finances and support the war effort: the central bank printed money (seigniorage), foreign aid arrived from the western allies and there were cuts in non-military spending.

For the future, steady and sizable financial flows to the Ukrainian budget are needed from abroad, with a simultaneous increase in the collection of tax revenue, further rationalisation of non-military expenditure and a reduced reliance on seigniorage. The Ukrainian government should also consider introducing a progressive tax on personal income and imposing a higher 'war levy' on income over a certain threshold. Any form of 'tax expenditure' (tax exemptions, tax reductions or tax holidays) during a war must be halted for those activities and areas not directly affected by military action.

We agree wholeheartedly with the conclusion of the World Bank experts,[2] who provide a rationale for the rapid and large-scale transfer of resources to Ukraine from abroad, in order to address the combination of: (i) the urgent need for massive social support to reduce human suffering; (ii) the totally eroded domestic resource-generating capacity; and (iii) the time needed for output, exports and budget revenue to recover. Unless adequate resources from Ukraine's external partners become available to meet its fiscal needs, the country's government will have to tighten further its core social and other public expenditure, as well as to rely heavily on seigniorage. In such a scenario, Ukraine could lose its economic and financial stability, with all the inevitable side effects for the outcome of the war and with far-reaching global consequences for order and security in the world.

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2 See World Bank, 'Relief, recovery and resilient reconstruction: Supporting Ukraine's immediate and medium-term economic needs', https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099608405122216371/idu08c704e400de7a048930b8330494a329ab3ca

# Monthly and quarterly statistics for Central, East and Southeast Europe

The monthly and quarterly statistics cover **22 countries** of the CESEE region. The graphical form of presenting statistical data is intended to facilitate the **analysis of short-term macroeconomic developments**. The set of indicators captures trends in the real and monetary sectors of the economy, in the labour market, as well as in the financial and external sectors.

Baseline data and a variety of other monthly and quarterly statistics, **country-specific** definitions of indicators and **methodological information** on particular time series are **available in the wiiw Monthly Database** under: https://data.wiiw.ac.at/monthly-database.html. Users regularly interested in a certain set of indicators may create a personalised query which can then be quickly downloaded for updates each month.

**Conventional signs and abbreviations used**

| | |
|---|---|
| % | per cent |
| ER | exchange rate |
| GDP | Gross Domestic Product |
| HICP | Harmonised Index of Consumer Prices (for new EU member states) |
| LFS | Labour Force Survey |
| NPISHs | Non-profit institutions serving households |
| p.a. | per annum |
| PPI | Producer Price Index |
| reg. | registered |
| y-o-y | year on year |

The following national currencies are used:

| | | | | | |
|---|---|---|---|---|---|
| ALL | Albanian lek | HRK | Croatian kuna | RON | Romanian leu |
| BAM | Bosnian convertible mark | HUF | Hungarian forint | RSD | Serbian dinar |
| BGN | Bulgarian lev | KZT | Kazakh tenge | RUB | Russian rouble |
| BYN | Belarusian rouble | MKD | Macedonian denar | TRY | Turkish lira |
| CZK | Czech koruna | PLN | Polish zloty | UAH | Ukrainian hryvnia |

EUR euro – national currency for Montenegro, Kosovo and for the euro-area countries Estonia (from January 2011, euro-fixed before), Latvia (from January 2014, euro-fixed before), Lithuania (from January 2015, euro-fixed before), Slovakia (from January 2009, euro-fixed before) and Slovenia (from January 2007, euro-fixed before).

Sources of statistical data: Eurostat, National Statistical Offices, Central Banks and Public Employment Services; wiiw estimates.

**Online database access**

| wiiw Annual Database | wiiw Monthly Database | wiiw FDI Database |
|---|---|---|

The wiiw databases are accessible via a simple web interface, with only one password needed to access all databases (and all wiiw publications).

You may access the databases here: https://data.wiiw.ac.at.

If you have not yet registered, you can do so here: https://wiiw.ac.at/register.html.

**Service package available**

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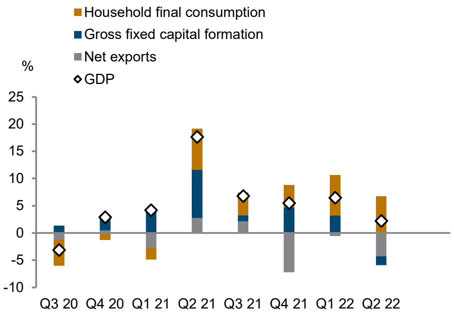
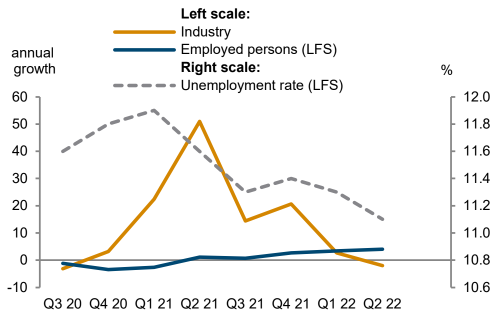
For more information on database access for Members and on Membership conditions, please contact Ms. Barbara Pill (pill@wiiw.ac.at), phone: (+43-1) 533 66 10.

# Albania

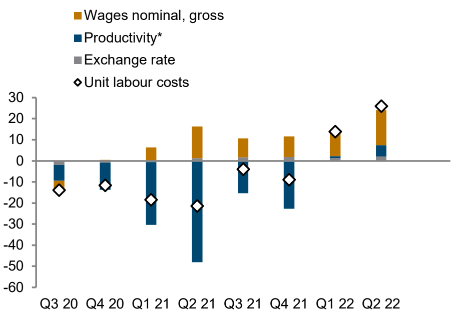
**Real GDP growth and contributions**
y-o-y



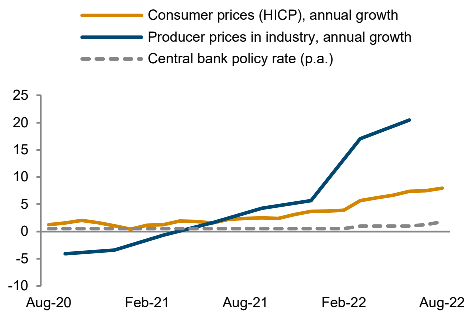

**Real sector development**
in %



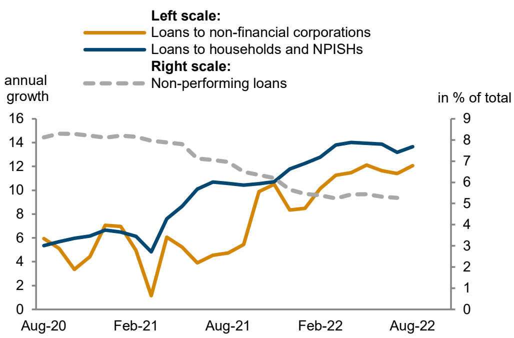

**Unit labour costs in industry**
annual growth rate in %



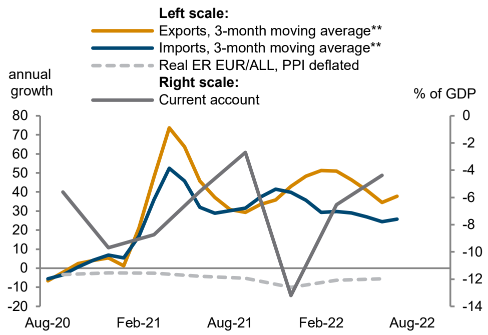

**Inflation and policy rate**
in %




**Financial indicators**
in %




**External sector development**
in %

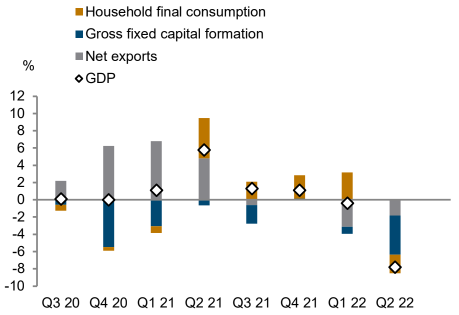



*Positive values of the productivity component on the graph reflect decline in productivity and vice versa.
**EUR based.

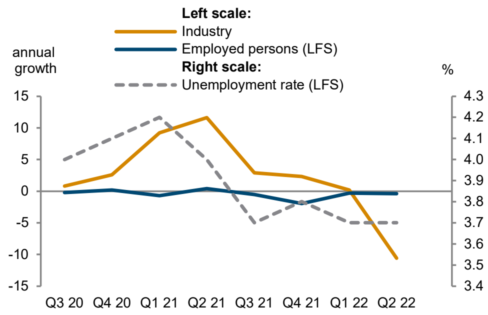
Source: wiiw Monthly Database incorporating Eurostat and national statistics.
Baseline data, country-specific definitions and methodological breaks in time series are available under:
https://data.wiiw.ac.at/monthly-database.html

# Belarus

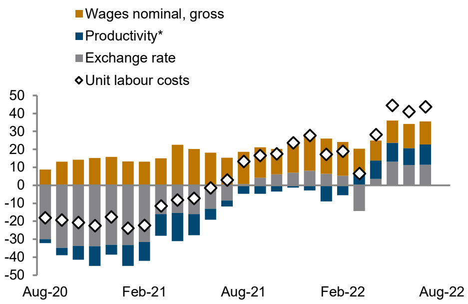
**Real GDP growth and contributions**
y-o-y



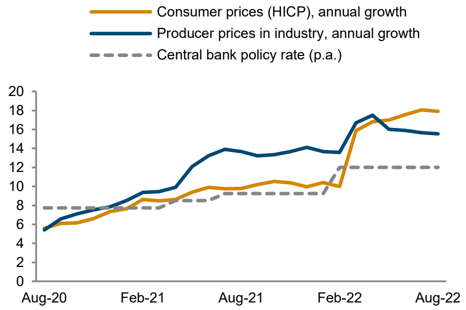

**Real sector development**
in %



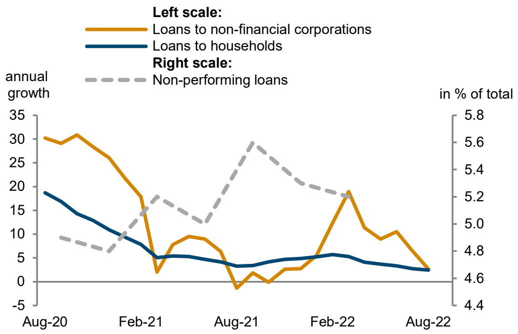

**Unit labour costs in industry**
annual growth rate in %



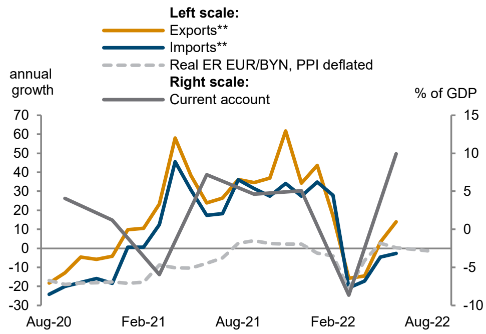

**Inflation and policy rate**
in %




**Financial indicators**
in %




**External sector development**
in %

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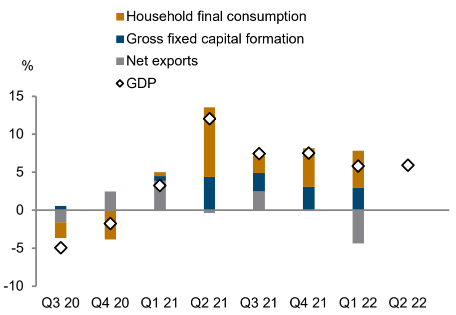
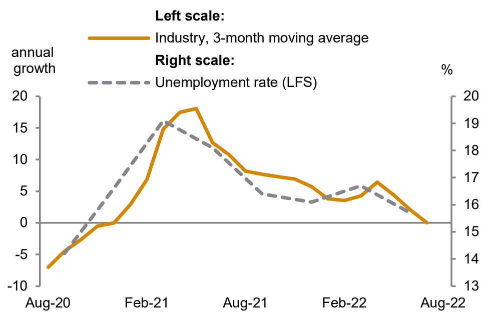
# Bosnia and Herzegovina

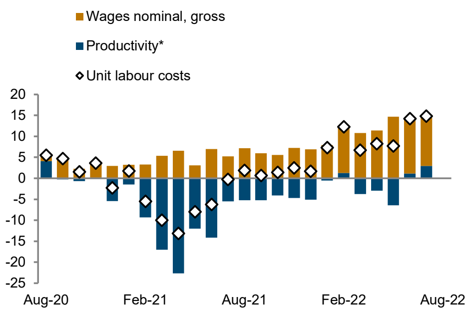
**Real GDP growth and contributions**
y-o-y



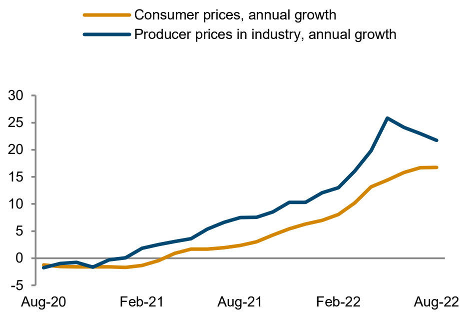

**Real sector development**
in %



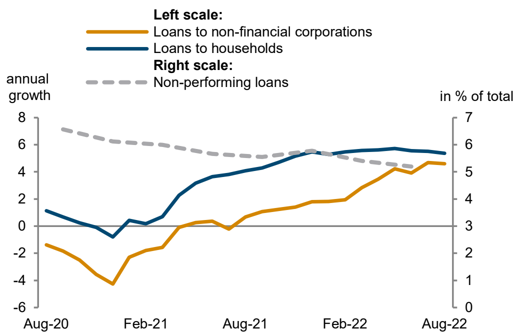

**Unit labour costs in industry**
annual growth rate in %



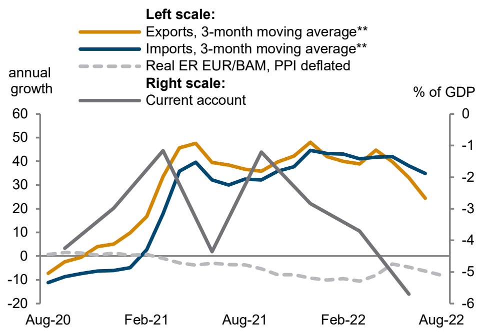

**Inflation**
in %




**Financial indicators**
in %




**External sector development**
in %

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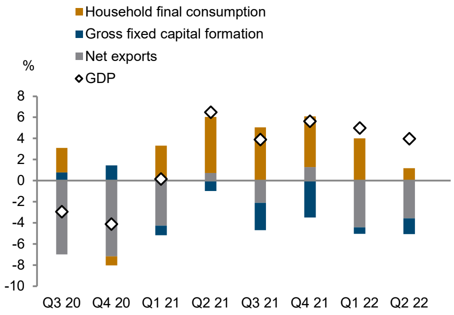
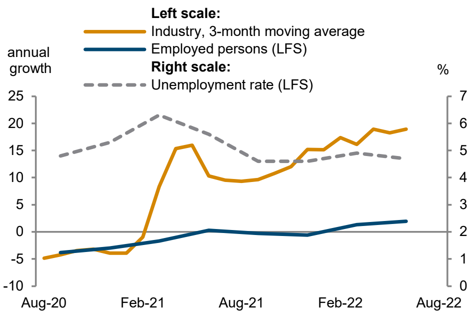
# Bulgaria

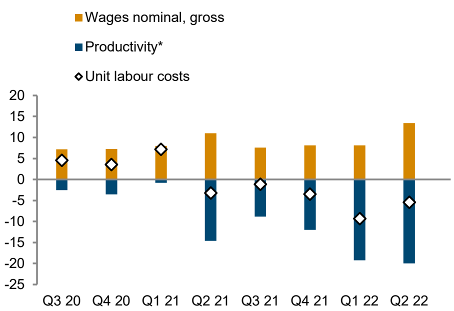
**Real GDP growth and contributions**
y-o-y



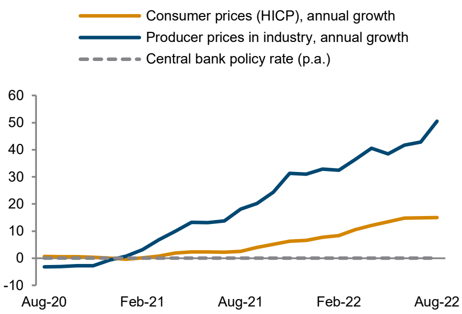

**Real sector development**
in %



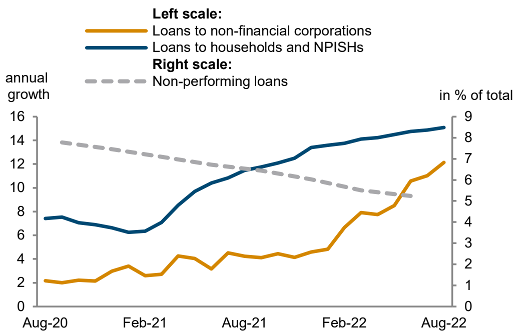

**Unit labour costs in industry**
annual growth rate in %



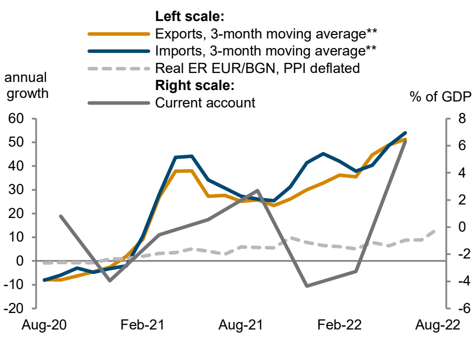

**Inflation and policy rate**
in %




**Financial indicators**
in %




**External sector development**
in %




*Positive values of the productivity component on the graph reflect decline in productivity and vice versa.
**EUR based.

Source: wiiw Monthly Database incorporating Eurostat and national statistics.
Baseline data, country-specific definitions and methodological breaks in time series are available under:
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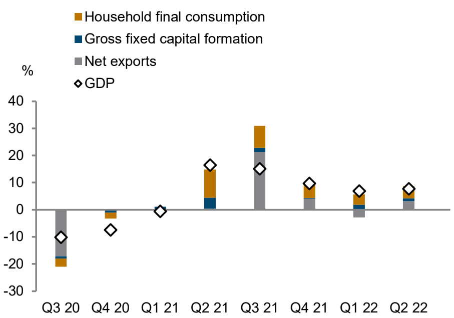
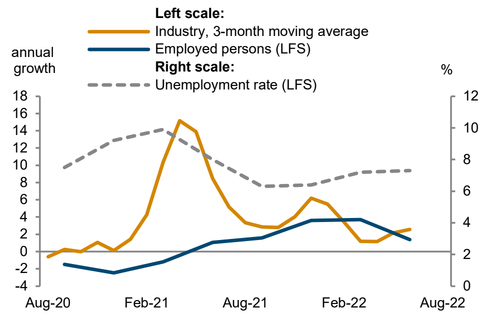
# Croatia

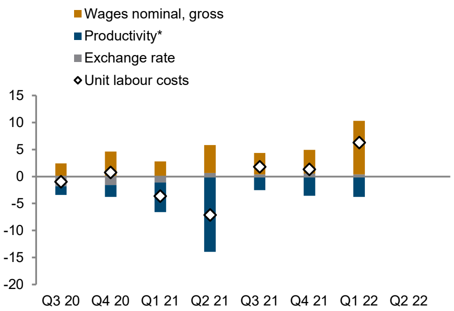
**Real GDP growth and contributions**
y-o-y



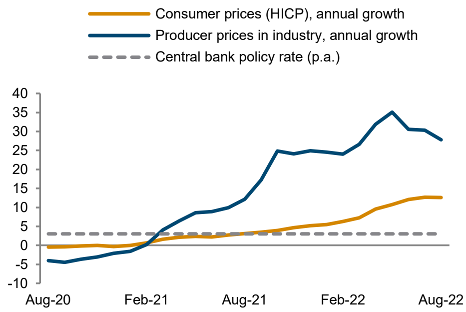

**Real sector development**
in %



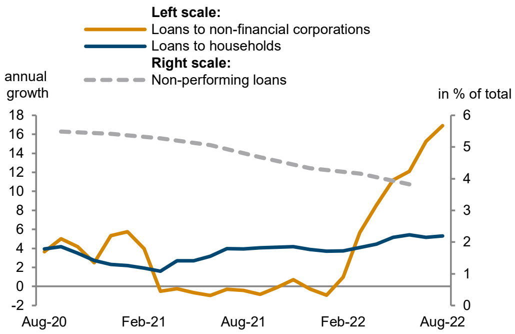

**Unit labour costs in industry**
annual growth rate in %



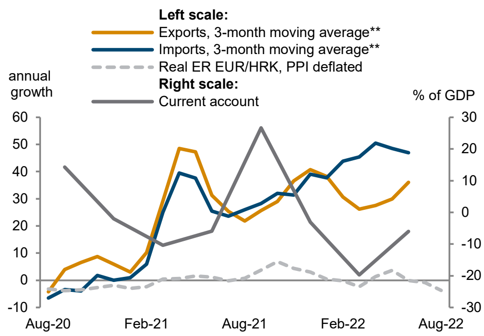

**Inflation and policy rate**
in %




**Financial indicators**
in %




**External sector development**
in %

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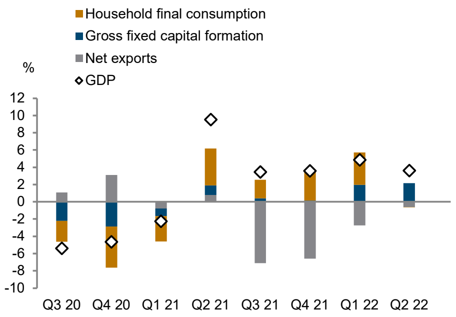
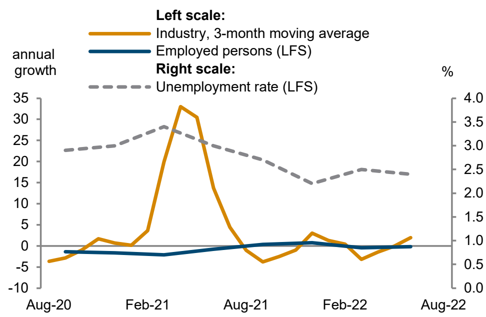
# Czechia

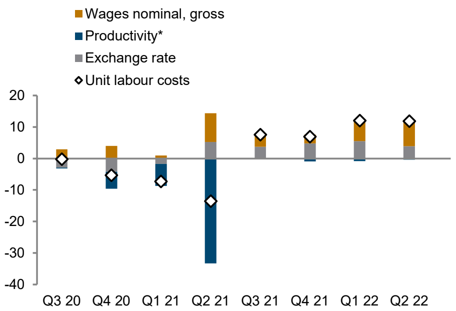
**Real GDP growth and contributions**
y-o-y



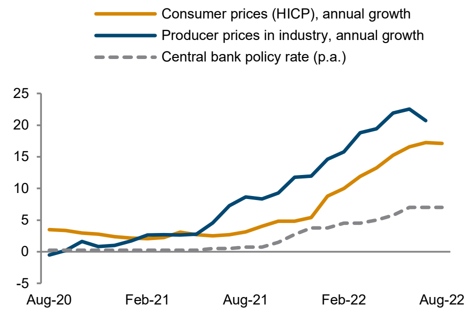

**Real sector development**
in %



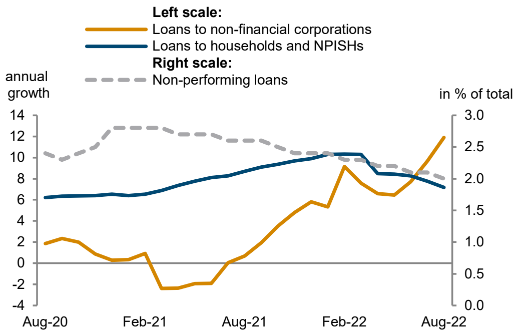

**Unit labour costs in industry**
annual growth rate in %



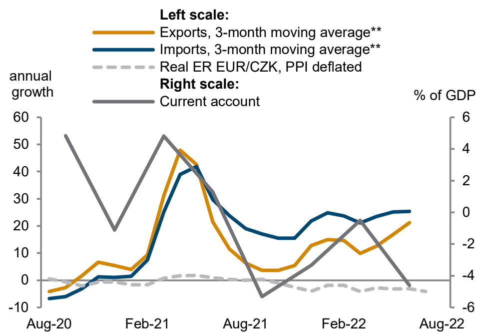

**Inflation and policy rate**
in %




**Financial indicators**
in %




**External sector development**
in %

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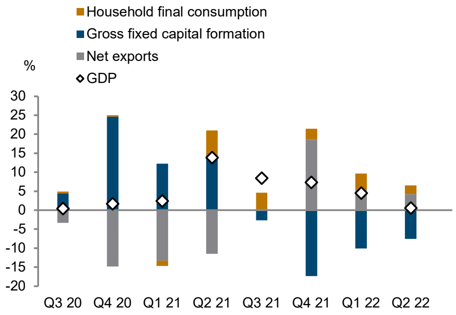
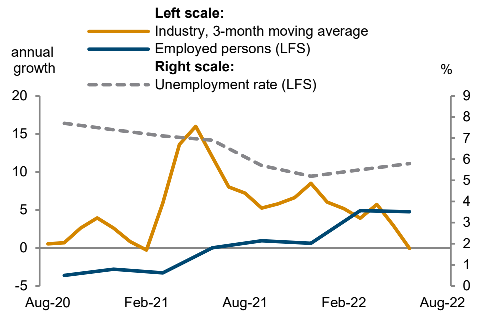
# Estonia

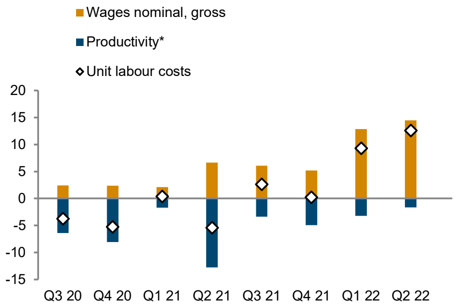
### Real GDP growth and contributions
y-o-y



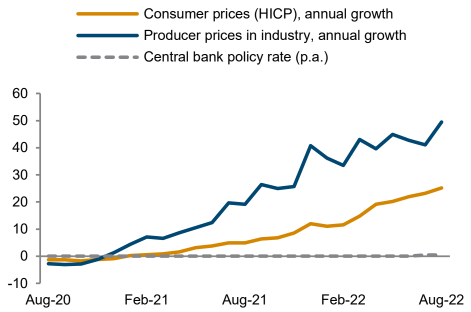

### Real sector development
in %



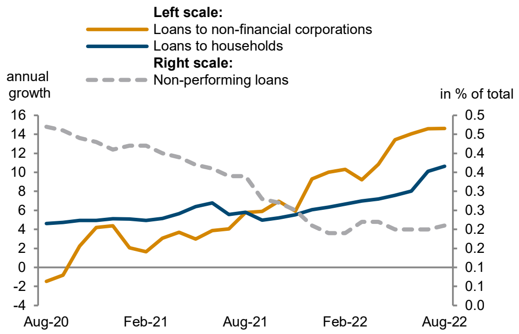

### Unit labour costs in industry
annual growth rate in %



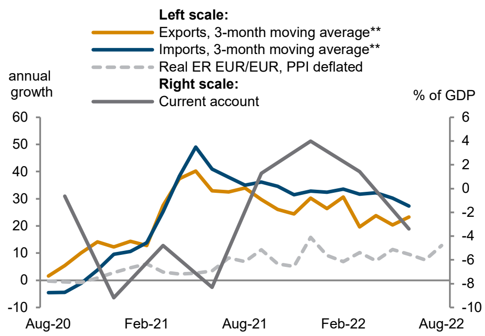

### Inflation and policy rate
in %




### Financial indicators
in %




### External sector development
in %

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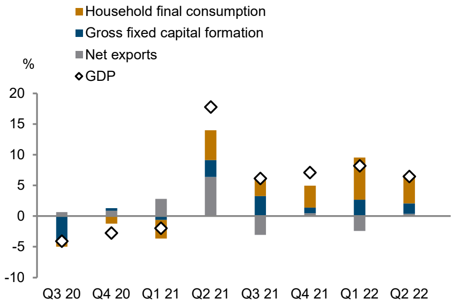
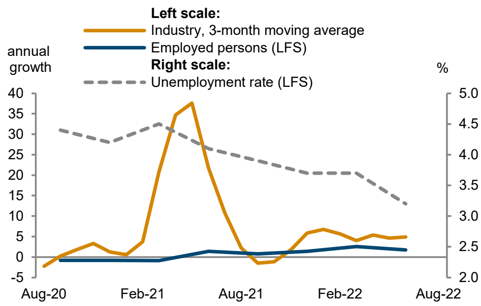
# Hungary

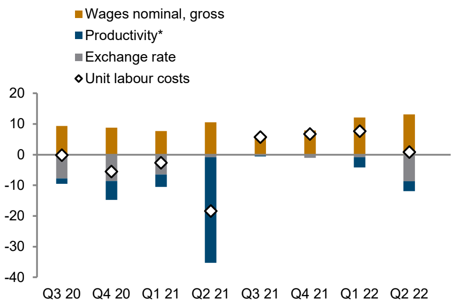
**Real GDP growth and contributions**
y-o-y



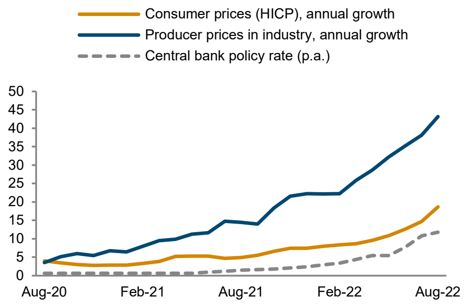

**Real sector development**
in %



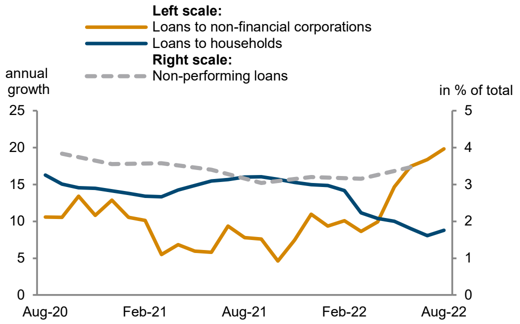

**Unit labour costs in industry**
annual growth rate in %



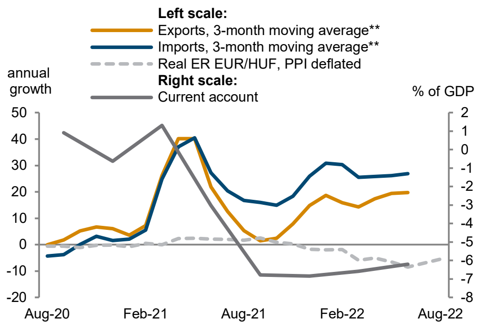

**Inflation and policy rate**
in %




**Financial indicators**
in %




**External sector development**
in %

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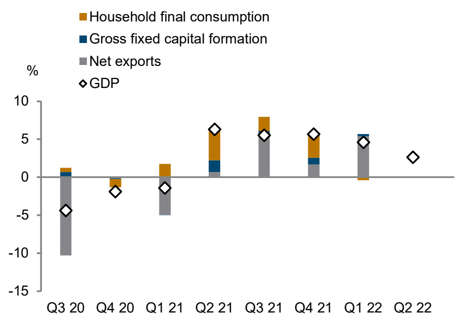
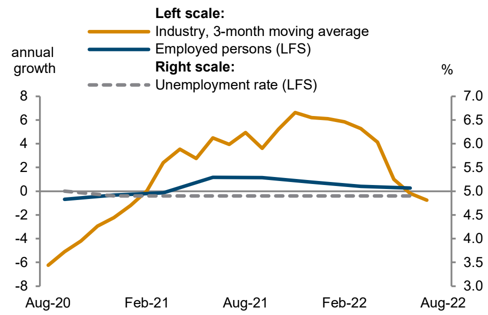
# Kazakhstan

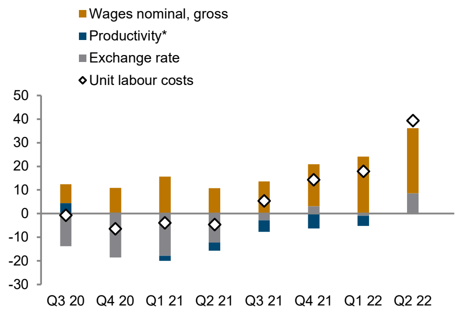
**Real GDP growth and contributions**
y-o-y



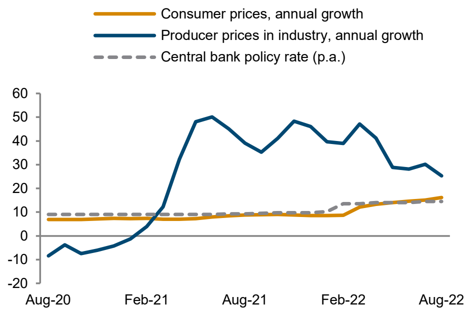

**Real sector development**
in %



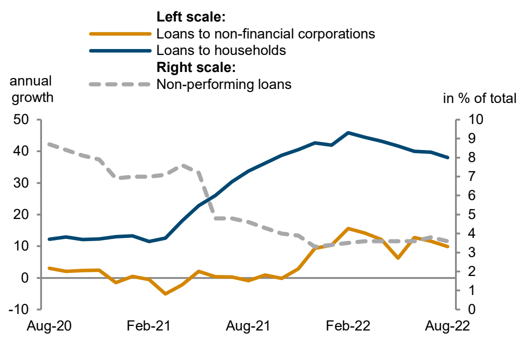

**Unit labour costs in industry**
annual growth rate in %



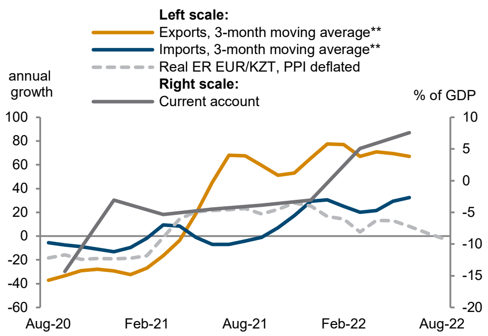

**Inflation and policy rate**
in %




**Financial indicators**
in %




**External sector development**
in %

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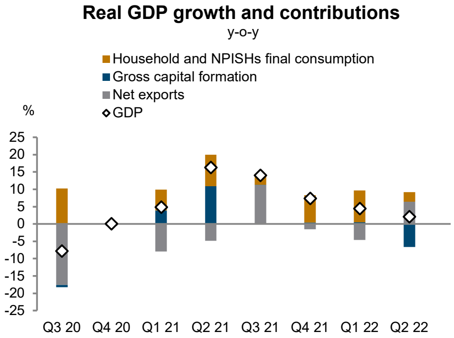
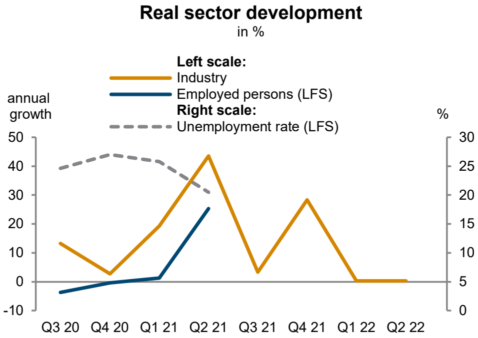
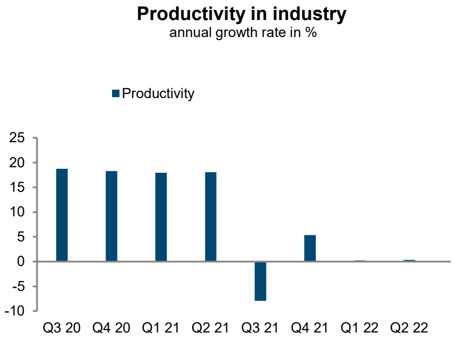
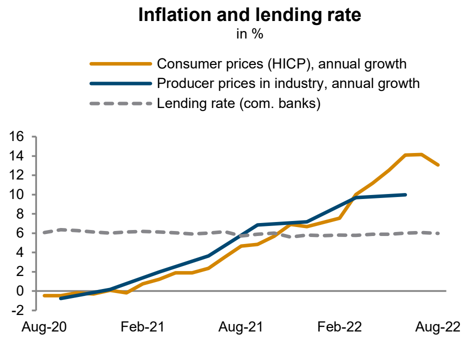
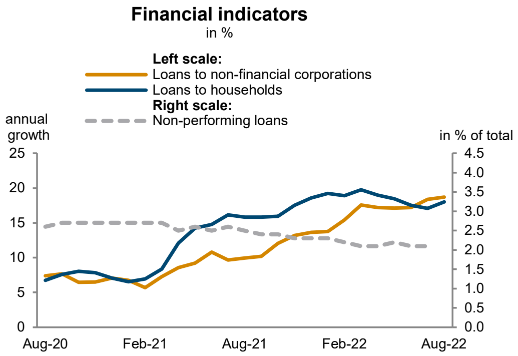
# Kosovo

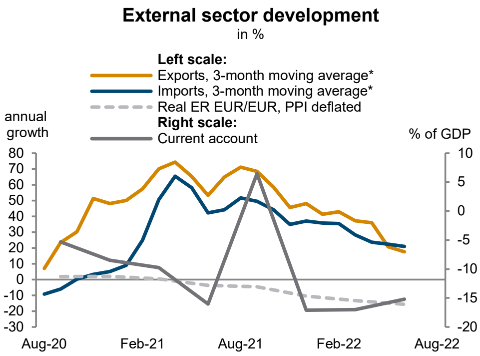



*EUR based.

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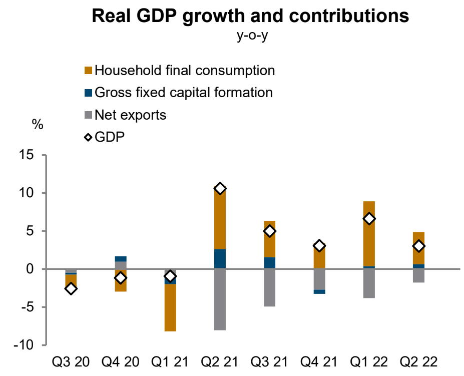
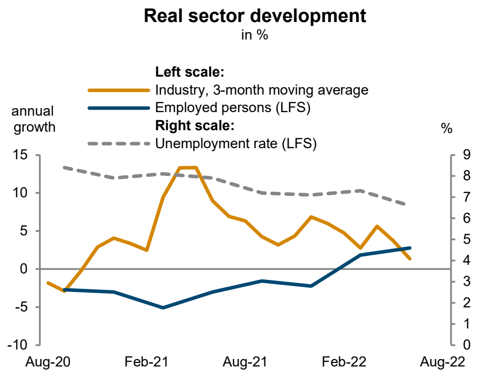
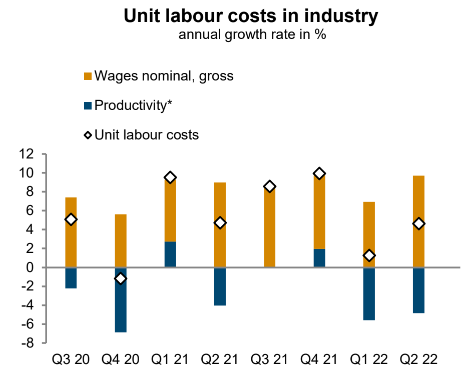
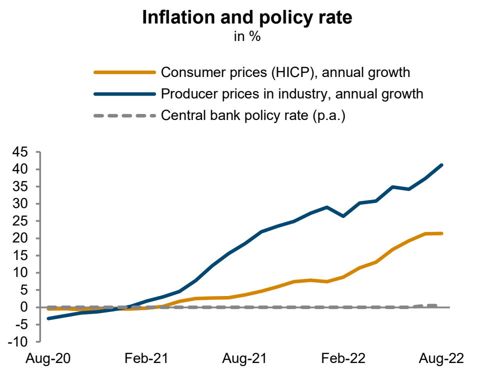
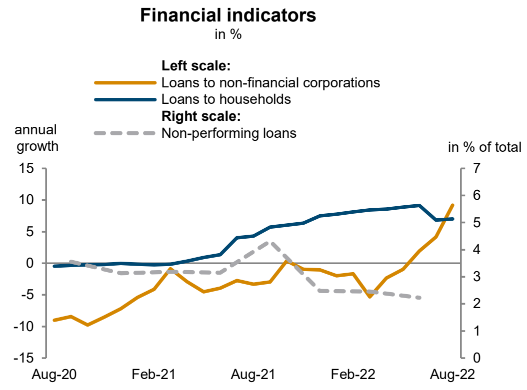
# Latvia

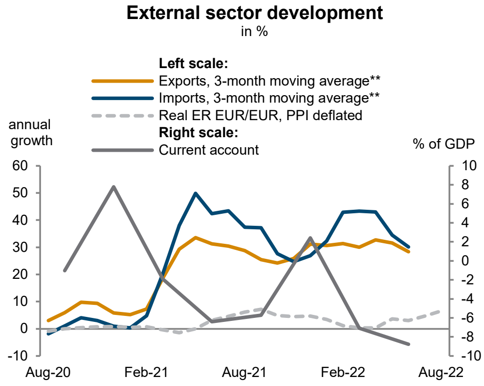
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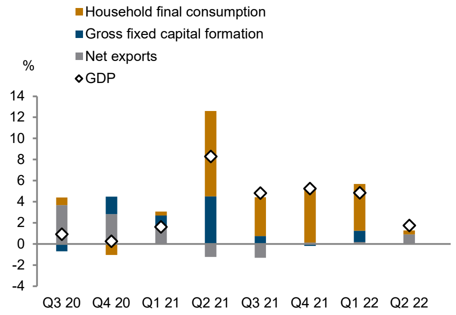
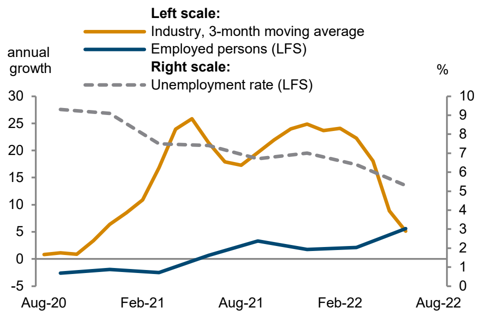
# Lithuania

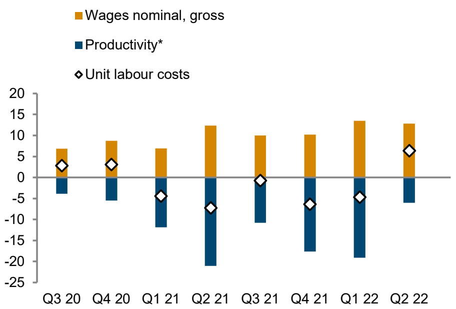
**Real GDP growth and contributions**
y-o-y



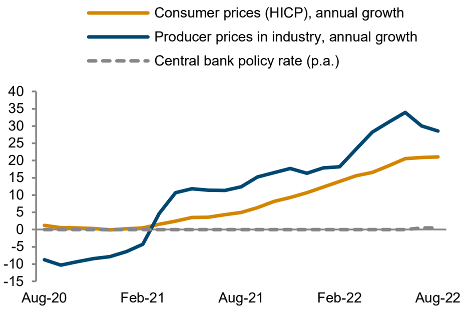

**Real sector development**
in %



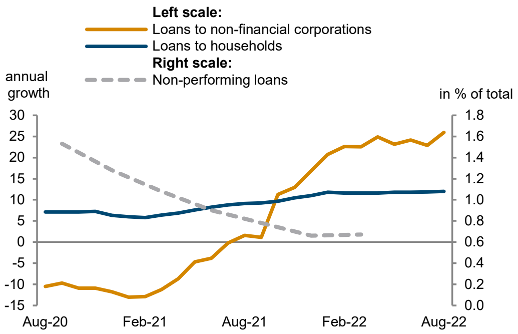

**Unit labour costs in industry**
annual growth rate in %



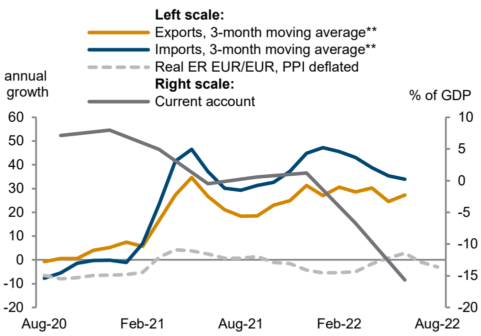

**Inflation and policy rate**
in %




**Financial indicators**
in %




**External sector development**
in %

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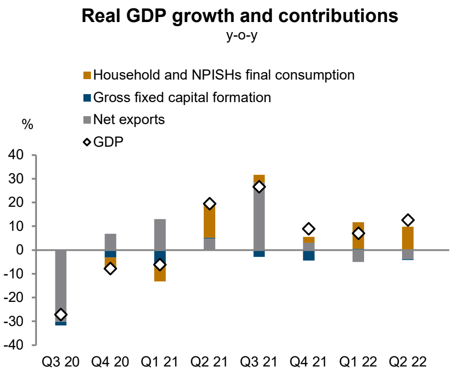
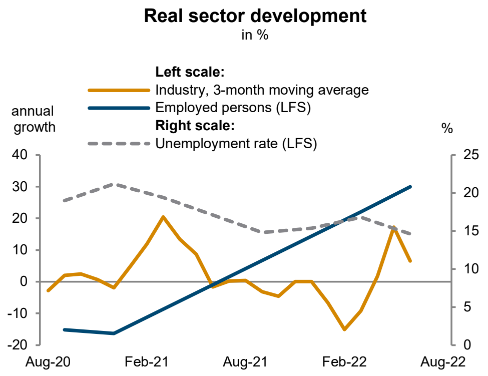
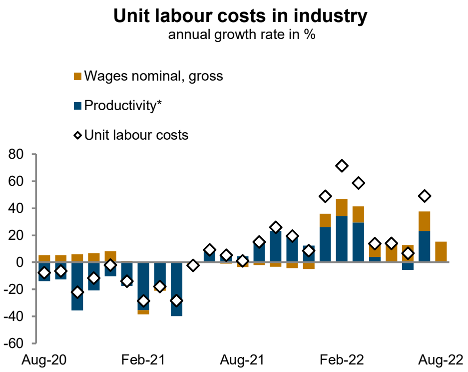
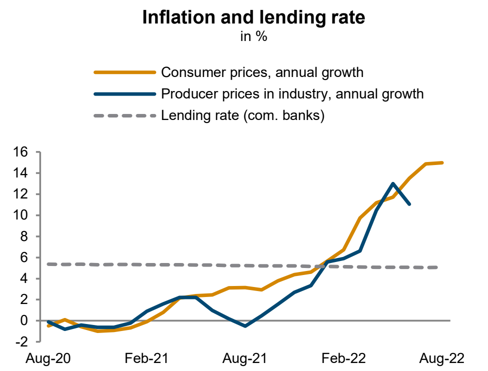
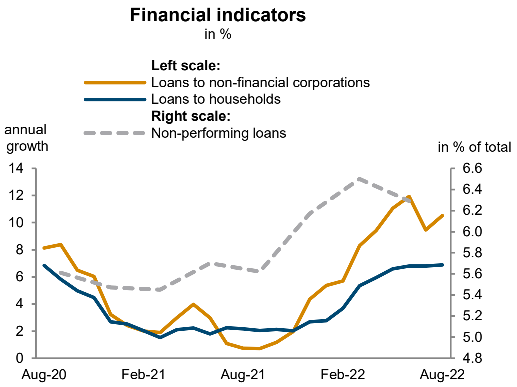
# Montenegro

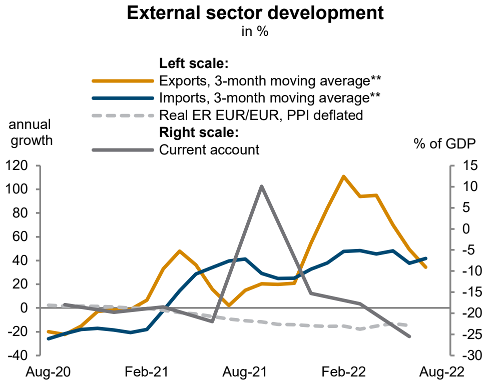
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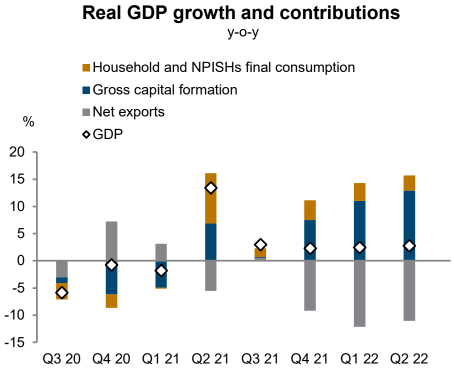
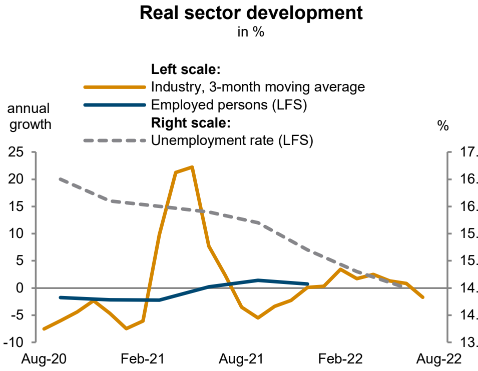
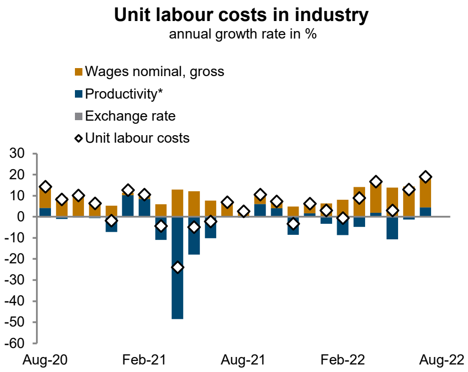
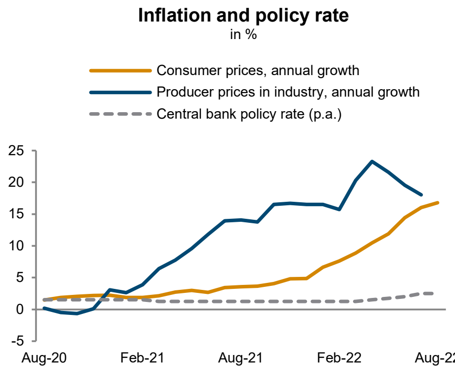
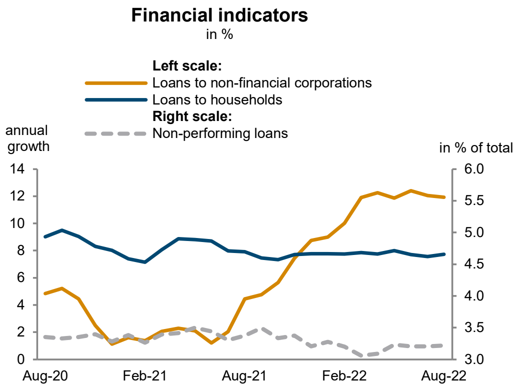
# North Macedonia

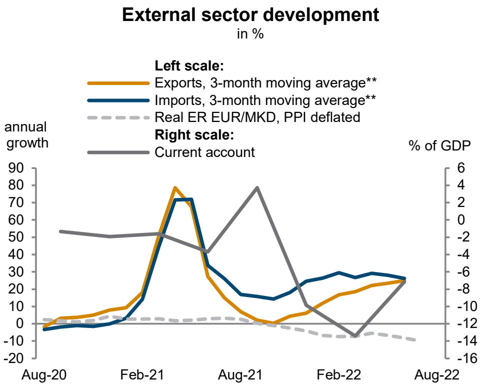
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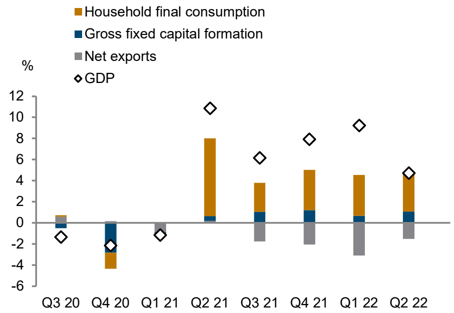
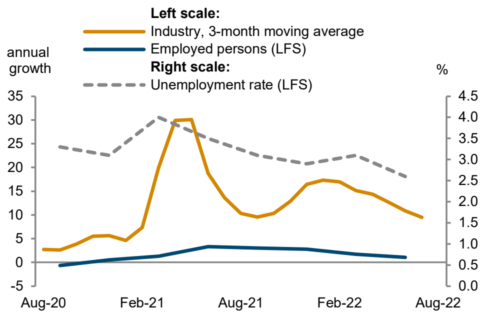
# Poland

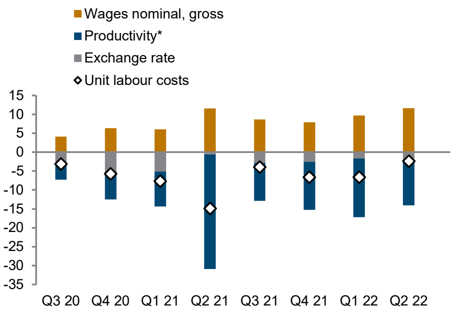
**Real GDP growth and contributions**
y-o-y



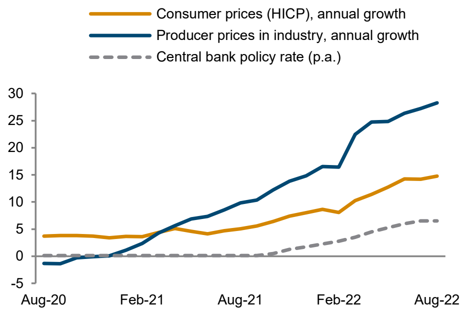

**Real sector development**
in %



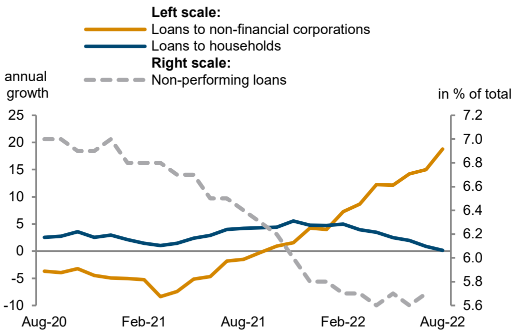

**Unit labour costs in industry**
annual growth rate in %



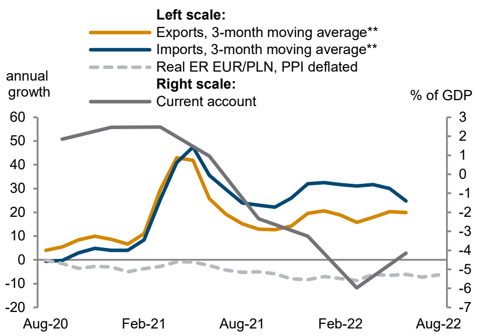

**Inflation and policy rate**
in %




**Financial indicators**
in %




**External sector development**
in %

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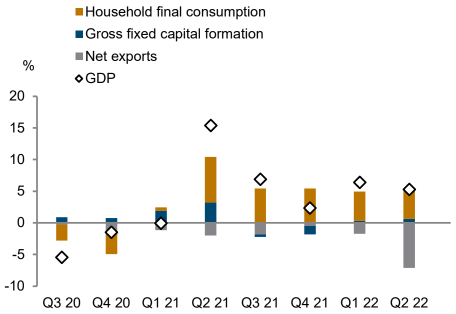
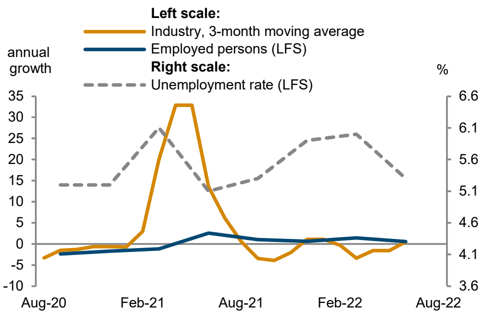
# Romania

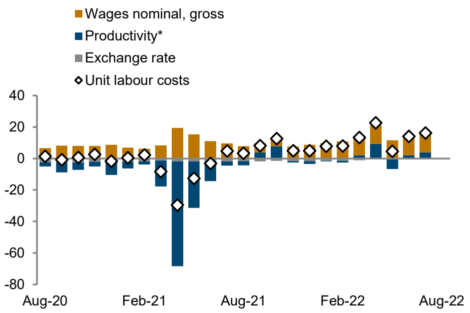
**Real GDP growth and contributions**
y-o-y



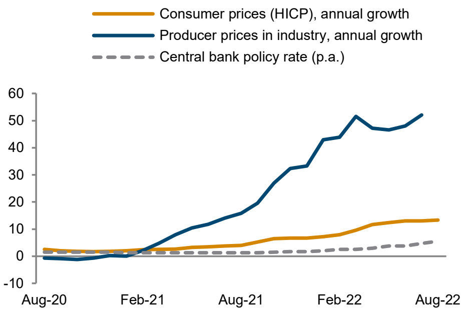

**Real sector development**
in %



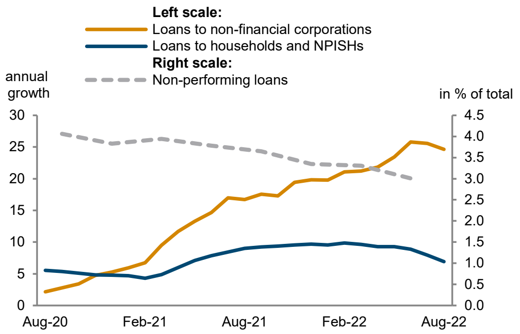

**Unit labour costs in industry**
annual growth rate in %



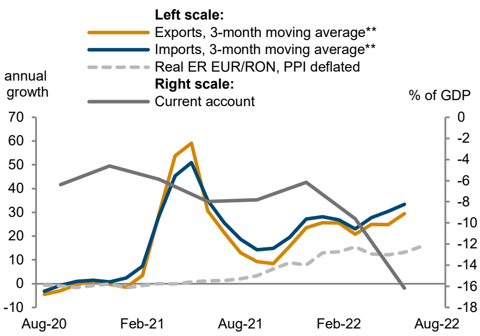

**Inflation and policy rate**
in %




**Financial indicators**
in %




**External sector development**
in %

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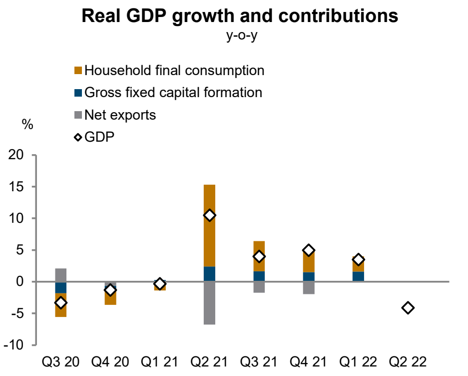
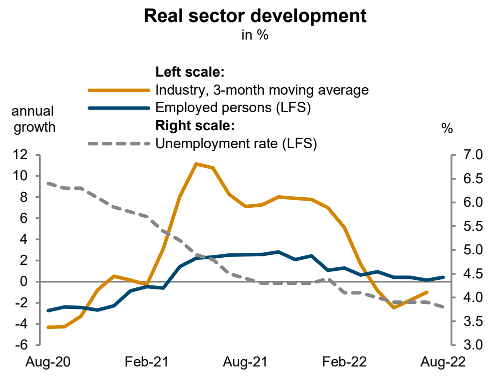
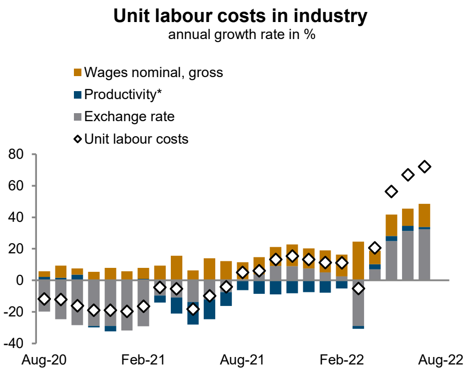
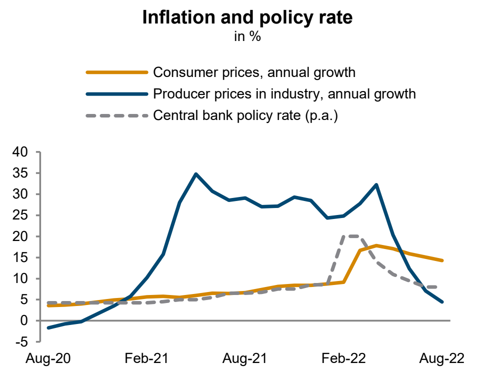
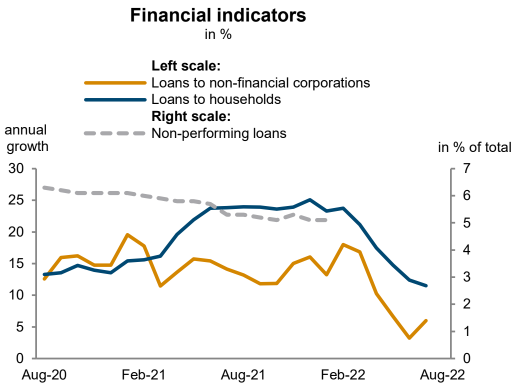
# Russia

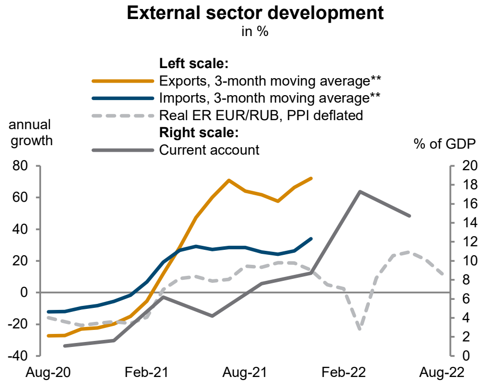
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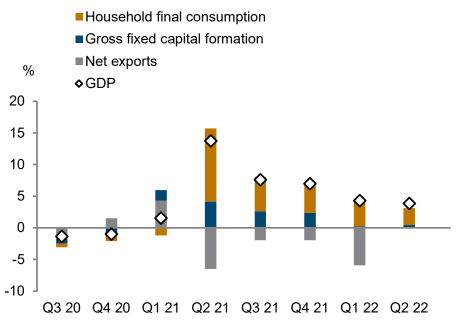
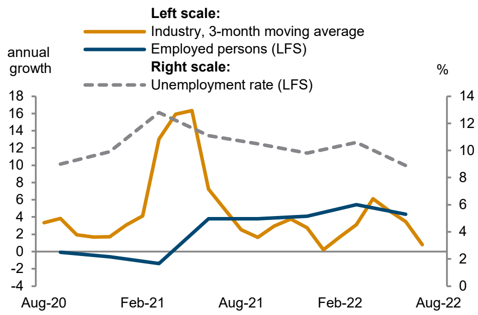
# Serbia

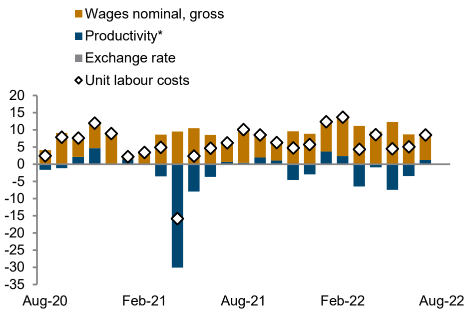
**Real GDP growth and contributions**
y-o-y



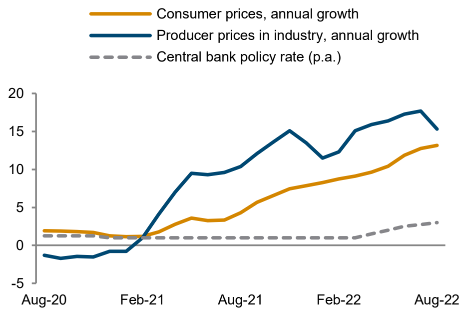

**Real sector development**
in %



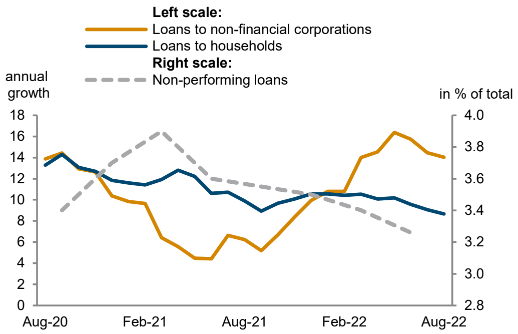

**Unit labour costs in industry**
annual growth rate in %



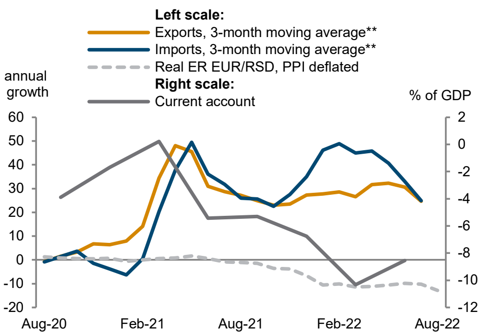

**Inflation and policy rate**
in %




**Financial indicators**
in %




**External sector development**
in %

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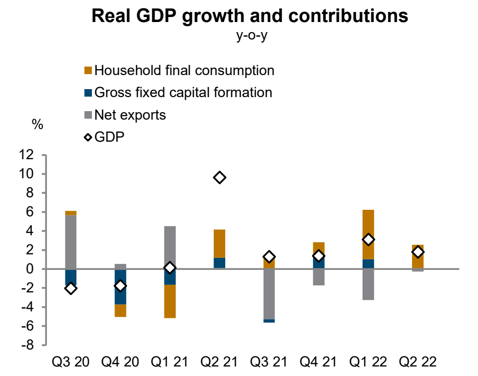
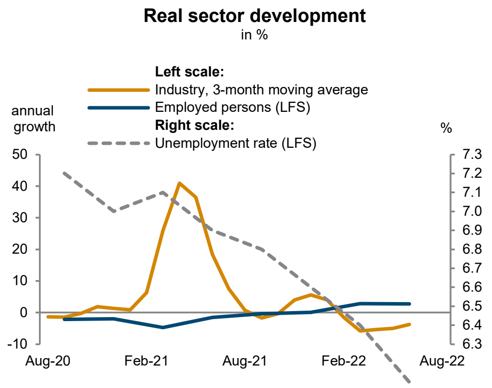
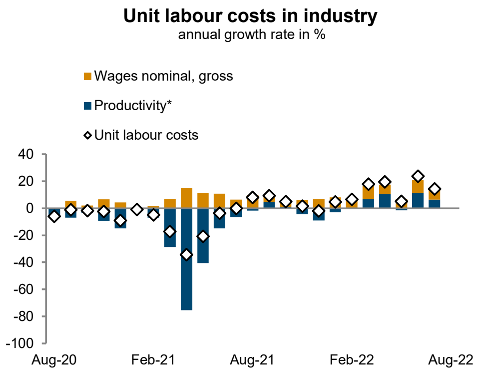
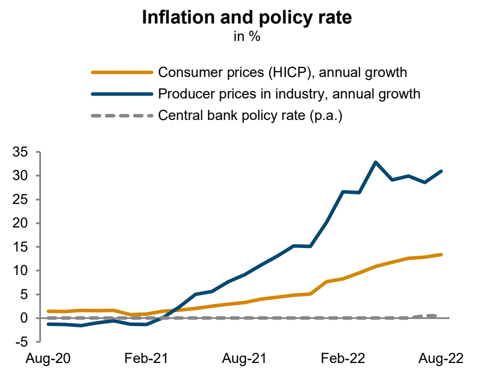
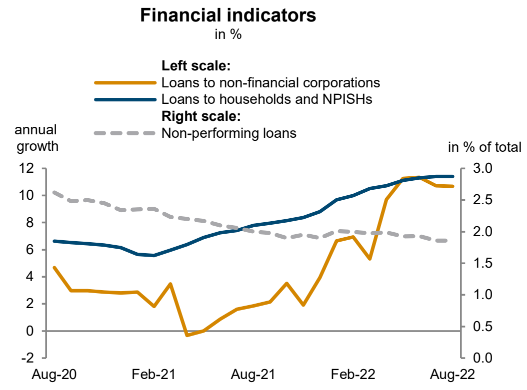
# Slovakia

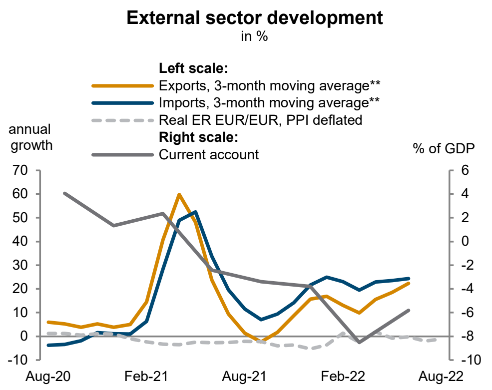
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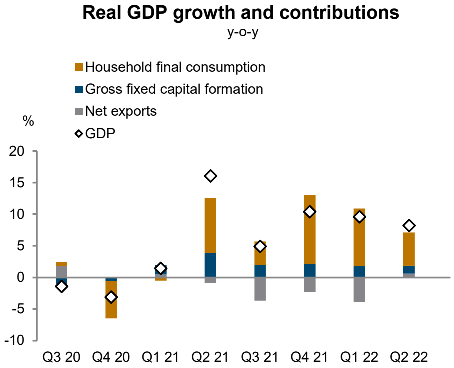
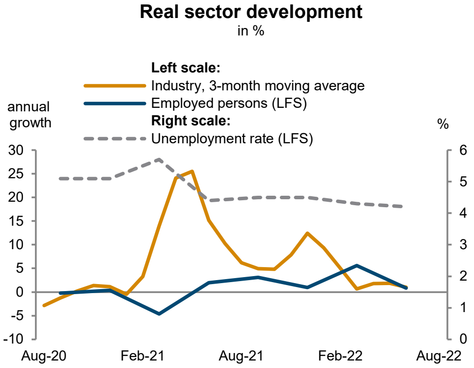
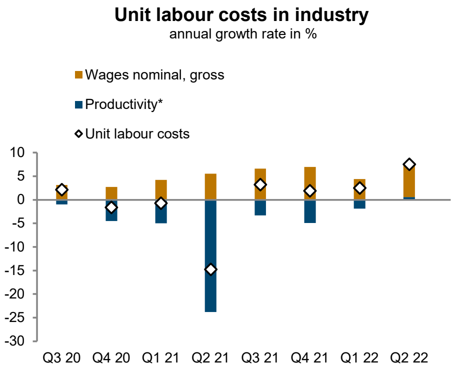
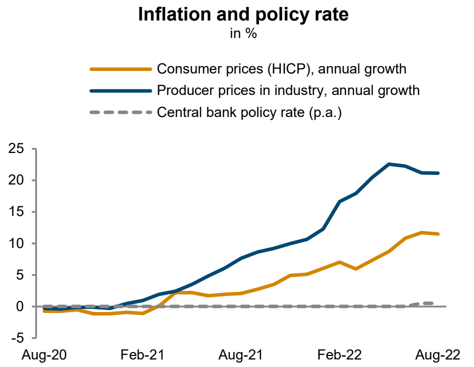
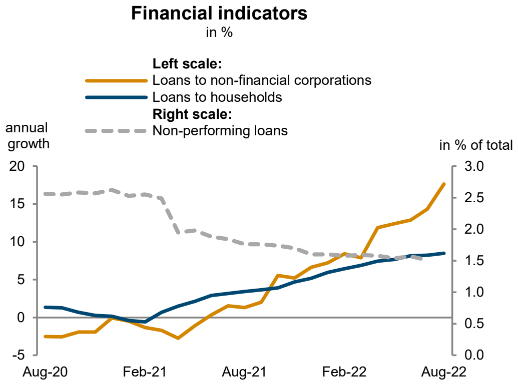
# Slovenia

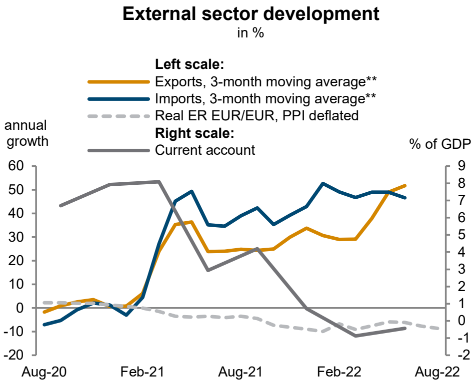
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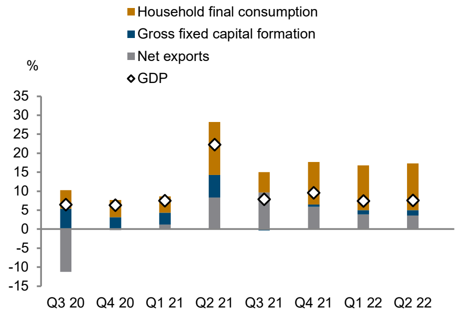
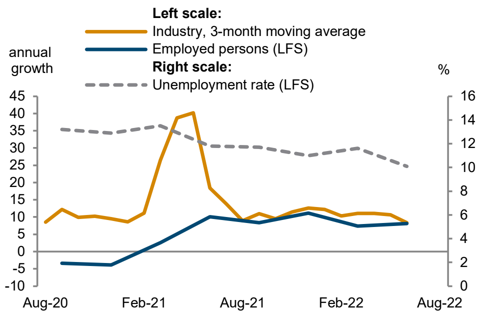
# Turkey

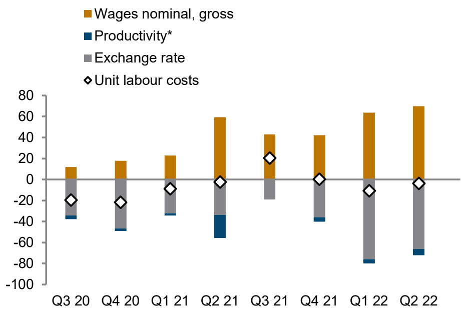
**Real GDP growth and contributions**
y-o-y



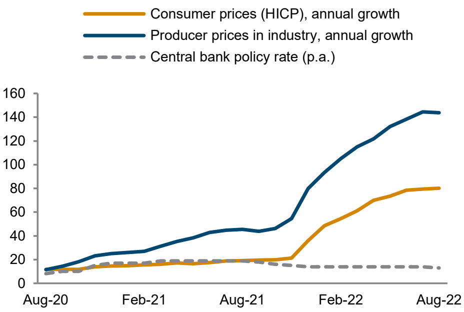

**Real sector development**
in %



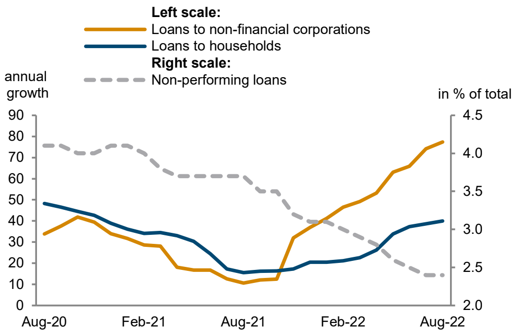

**Unit labour costs in industry**
annual growth rate in %



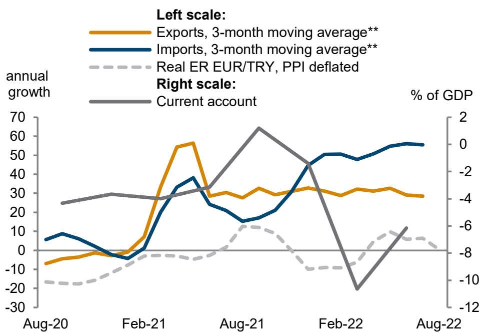

**Inflation and policy rate**
in %




**Financial indicators**
in %




**External sector development**
in %

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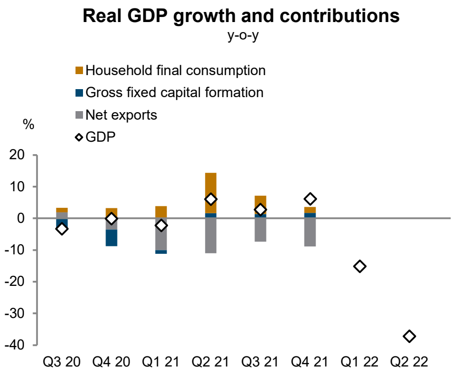
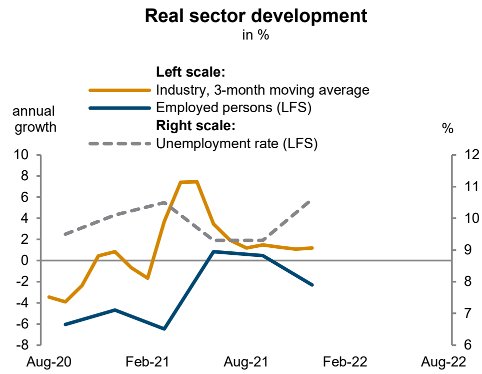
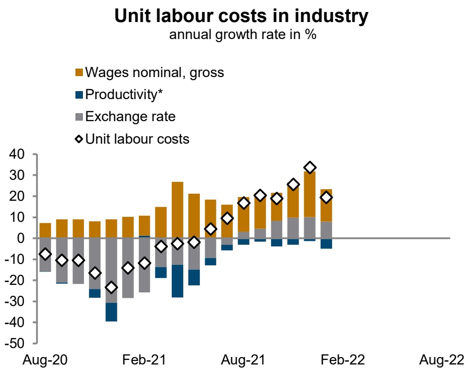
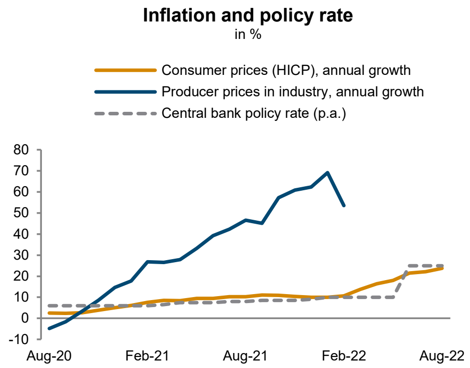
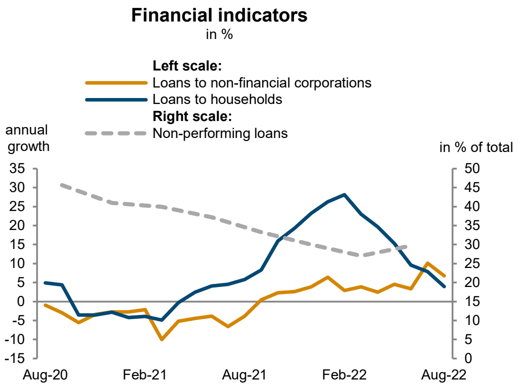
# Ukraine

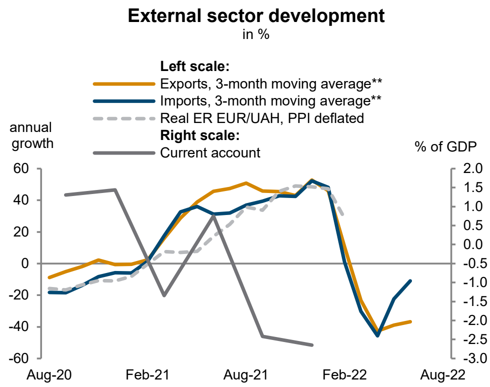
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**multi-country articles and statistical overviews**

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Economics editor: Vasily Astrov

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