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Call for applications: Klaus Liebscher Economic Research Scholarship

Please e-mail applications to *scholarship@oenb.at* by the end of October 2022. Applicants will be notified of the jury's decision by end-November 2022.

The Oesterreichische Nationalbank (OeNB) invites applications for the "Klaus Liebscher Economic Research Scholarship." This scholarship program gives outstanding researchers the opportunity to contribute their expertise to the research activities of the OeNB's Economic Analysis and Research Department. This contribution will take the form of remunerated consultancy services.

The scholarship program targets Austrian and international experts with a proven research record in economics and finance, and postdoctoral research experience. Applicants need to be in active employment and should be interested in broadening their research experience and expanding their personal research networks. Given the OeNB's strategic research focus on Central, Eastern and Southeastern Europe, the analysis of economic developments in this region will be a key field of research in this context.

The OeNB offers a stimulating and professional research environment in close proximity to the policymaking process. The selected scholarship recipients will be expected to collaborate with the OeNB's research staff on a prespecified topic and are invited to participate actively in the department's internal seminars and other research activities. Their research output may be published in one of the department's publication outlets or as an OeNB Working Paper. As a rule, the consultancy services under the scholarship will be provided over a period of two to three months. As far as possible, an adequate accommodation for the stay in Vienna will be provided.[1]

Applicants must provide the following documents and information:
- a letter of motivation, including an indication of the time period envisaged for the consultancy
- a detailed consultancy proposal
- a description of current research topics and activities
- an academic curriculum vitae
- an up-to-date list of publications (or an extract therefrom)
- the names of two references that the OeNB may contact to obtain further information about the applicant
- evidence of basic income during the term of the scholarship (employment contract with the applicant's home institution)
- written confirmation by the home institution that the provision of consultancy services by the applicant is not in violation of the applicant's employment contract with the home institution

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[1] *We are also exploring alternative formats to continue research cooperation under the scholarship program for as long as we cannot resume visits due to the pandemic situation.*

Recent economic developments and outlook

Developments in selected CESEE countries

Easing of the pandemic fuels growth and inflation[1,2]

1 Regional overview

The CESEE region continued its recovery from last year's COVID-19-induced economic recession in the first half of 2021. Average regional quarter-on-quarter growth accelerated from 1.2% in the final quarter of 2020 to 2.2% in the second quarter of 2021 and economic activity rebounded to pre-COVID (Q4 2019) levels in five of the ten countries under consideration. With that, and despite some regional heterogeneity, the return to normal economic conditions proceeded rather quickly. This is even more noteworthy as social and economic restrictions to contain the spread of the virus continued to be in place throughout most of the first half of 2021.

In fact, the CESEE economies only reopened in late spring after yet another COVID-19 wave forced governments to reintroduce containment measures. However, the measures were generally less strict than in 2020[3] and mainly targeted contact-intensive sectors like services and retail trade, while industrial production remained largely unrestricted. Personal mobility remained at a comparatively high level given the lighter lockdown regime and apparently weaker compliance. Still,

Table 1

Real GDP growth

	2018	2019	2020	Q1 20	Q2 20	Q3 20	Q4 20	Q1 21	Q2 21
Period-on-period change in %									
Slovakia	3.7	2.5	–4.8	–4.3	–7.1	9.0	0.5	–1.4	2.0
Slovenia	4.4	3.3	–4.2	–4.7	–9.5	12.1	–0.2	1.5	1.9
Bulgaria	3.1	3.7	–4.2	0.4	–10.1	4.3	2.2	2.5	0.6
Croatia	2.8	2.9	–8.0	–0.8	–14.9	5.9	4.1	5.4	–0.2
Czechia	3.2	3.0	–5.8	–3.4	–8.9	6.8	0.7	–0.4	1.0
Hungary	5.4	4.6	–5.0	–0.3	–14.4	10.6	1.6	2.0	2.7
Poland	5.4	4.7	–2.5	0.0	–9.3	7.9	–0.4	1.4	1.6
Romania	4.5	4.1	–3.9	0.5	–10.8	4.8	4.0	2.5	1.7
Turkey	3.0	0.9	1.8	0.1	–11.0	15.9	1.7	1.7	0.9
Russia	2.8	2.0	–3.0	–0.2	–4.4	2.4	1.1	1.0	3.5
CESEE average[1]	3.4	2.4	–2.4	–0.3	–7.8	7.2	1.2	1.3	2.2
Euro area	1.9	1.5	–6.3	–3.5	–11.7	12.6	–0.4	–0.3	2.2

Source: Eurostat, national statistical offices.

[1] *Average weighted with GDP at PPP.*

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[1] Compiled by Josef Schreiner with input from Stephan Barisitz, Antje Hildebrandt, Melanie Koch, Mathias Lahnsteiner, Thomas Reininger, Tomáš Slačík, Melani Stanimirovic and Zoltan Walko.

[2] This report focuses primarily on data releases and developments from April 2021 up to October 20, 2021. All growth rates mentioned refer to year-on-year changes and regional figures are aggregated using GDP weights unless otherwise stated. Geographically we cover ten countries: Slovakia, Slovenia, Bulgaria, Croatia, Czechia, Hungary, Poland, Romania, Turkey and Russia (indicated as CESEE region or CESEE). The countries are ranked according to their level of EU integration (euro area countries, EU member states, EU candidates and potential candidates and non-EU countries). For statistical information on selected economic indicators for CESEE countries not covered in the main text (Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, Serbia and Ukraine), see the statistical annex in this issue.

[3] The Oxford COVID-19 government response stringency index hovered around 65 points in the first four months of 2021, compared with about 80 points on average during the first COVID-19 wave in spring 2020.

despite increasing pandemic fatigue, the threat from COVID-19 remains, especially as vaccination rates in CESEE are generally lower than in the EU on average and far below the levels necessary to attain herd immunity. Russia, Bulgaria and Romania, for example, have not yet vaccinated even a third of their population.

Composition of growth shifts from exports (and investments) in the first quarter to private consumption in the second quarter of 2021

While GDP growth was very much driven by strong industrial dynamics and export activity in the first quarter of 2021, the momentum shifted to domestic demand and especially private consumption once restrictions were eased. Rebounding international demand and world trade had allowed the industrial sector to lead the recovery in late 2020. Global goods trade resurged more swiftly than during the global financial crisis of 2008, surpassing pre-pandemic volumes already in November 2020. World trade accelerated further over the first half of 2021 and grew at the highest rate in more than ten years in the second quarter of 2021. CESEE – as an internationally integrated and highly open economic area – benefited strongly from this development, reflected in firm export growth from late 2020 and throughout the first half of 2021. Export activity was also supported by strong demand for key CESEE export items (especially cars), currency weakness in several countries (especially Russia and Turkey) and by an incipient recovery of tourist

Chart 1

GDP growth and its main components

Percentage points, GDP growth in % (year on year)

Source: Eurostat, national statistical offices.

OESTERREICHISCHE NATIONALBANK
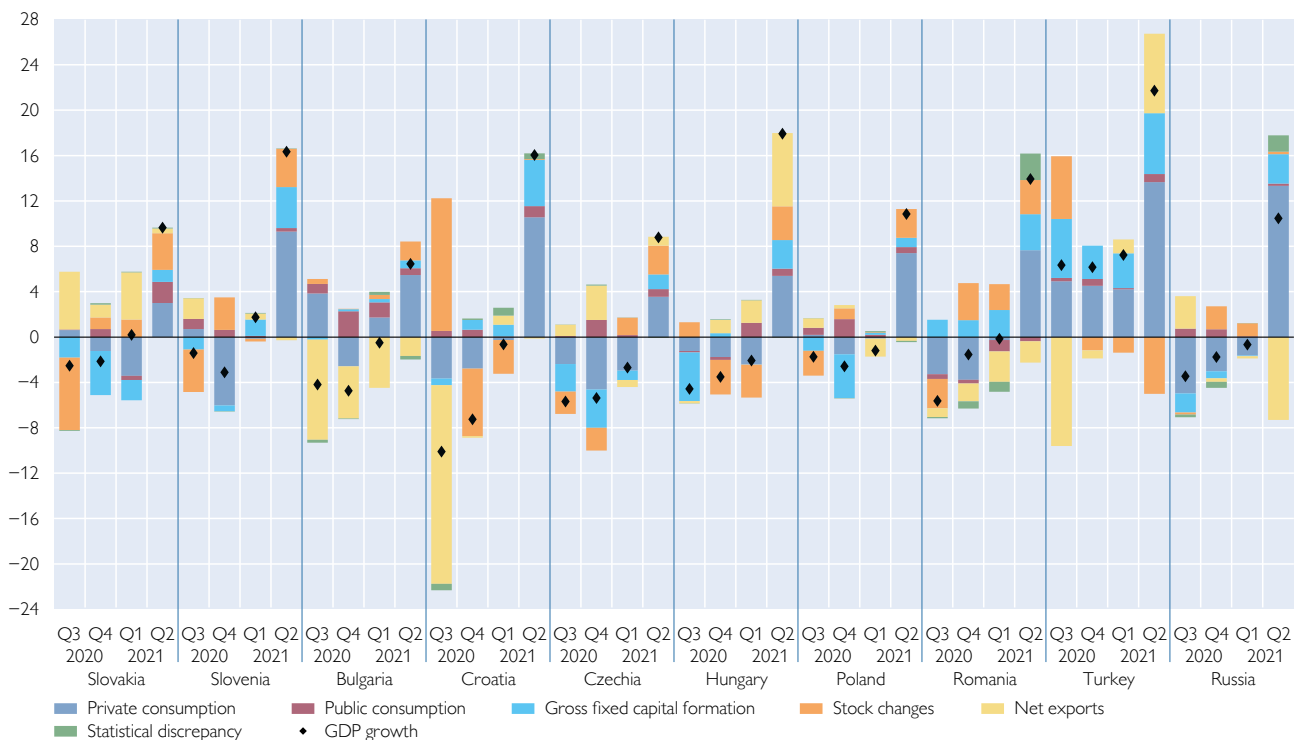
arrivals already in the second quarter of 2021. The latter fueled services exports in the countries that are most reliant on tourism, i.e. Bulgaria, Croatia and Turkey.

Import demand also strengthened during the first half of 2021, which translated into a moderately negative contribution of the external sector to GDP growth in most countries of the region. Import momentum reflected rising domestic demand. Gross fixed capital formation was the first to reembark on a growth trajectory in the first quarter of 2021, as booming industrial production fueled capacity utilization and export expectations, and as sentiment brightened. In some countries (e.g. Hungary), housing investment also contributed notably to capital formation. As a result, capital expenditure moderately lifted GDP growth already in the first quarter of 2021 in many countries and continued to fuel economic activity also in the second quarter of 2021.

The reopening of retail trade and services in late spring boosted private consumption as pent-up demand and – depending on households' saving ability – accumulated lockdown savings sparked a spending spree. Retail and service confidence indicators surged in the second quarter of 2021 and consumer confidence recovered as well as credit supply conditions eased. In addition, loan moratoria and widely available furlough schemes had sheltered households from the worst of the crisis. This is in stark contrast to the aftermath of the global financial crisis of 2008, when tight financing conditions, rising unemployment, and falling house and equity prices had affected consumer spending across the region for several years after the initial shock.

Labor market recovery exposes structural bottlenecks

Pandemic-induced turbulences, in fact, have not left any secular scars on CESEE labor markets. On the back of public support and more benign general economic conditions, the officially reported unemployment rate based on labor force survey (LFS) methodology declined from an average of 7.3% in February 2021 to 6.5% in August 2021, with Turkey reporting the by far highest unemployment rate (13.2% in August 2021). Especially in some CESEE EU member states, the unemployment rate is currently not substantially higher than it was at its low in 2019. Furthermore, companies again started to report rising labor shortages, especially in manufacturing and construction. In some countries, this was at least in parts due to COVID-related impediments on the inflow of foreign labor (e.g. in Russia). Declining unemployment and unmet labor demand supported wage developments, and nominal wage growth accelerated from its trough in mid-2020 (in some cases substantially so).

With that, problems with insufficient labor supply amid skill mismatches and labor market bottlenecks, that have plagued CESEE labor markets for many years, again came to forefront. Structural labor market shortcomings are also underlined by the fact that companies are struggling to hire new workers despite the actual labor market slack being notably larger than headline unemployment figures might suggest. According to Eurostat data (not available for Russia), persons with an unmet need for employment[4] accounted for an average of 15.5% of the extended CESEE labor force in the second quarter of 2021. This figure is more than twice as high as

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[4] *This includes unemployed and underemployed persons, persons available for the labor market but not seeking employment, as well as persons seeking employment but not available for the labor market.*

the average unemployment rate. Employment figures have also not yet embarked on a clear upward trend in most countries. Despite positive base effects, employment growth was stagnant or even negative in the second quarter of 2021 in half the countries under review.

Uptrend in activity and sentiment readings until summer 2021

Buoyed by strong world trade, pent-up demand, abundant job openings and rising wages, the CESEE economies entered the summer months with solid confidence readings and record high activity figures. The European Commission's economic sentiment indicator returned to its long-term average in April and increased further until June 2021. The momentum rested especially on strong improvements of services and retail confidence, while consumer and industrial confidence trended upward as well. Notable improvements were reported also for purchasing managers' indices, that even climbed to historical heights in Poland and Czechia in June 2021.

Industrial production and retail sales were growing at average rates of 25% and 22% respectively in the second quarter 2021, reflecting base effects but also genuinely strong dynamics. In some CESEE EU member states, output growth in industry spiked at spectacular rates of 60% and more. The willingness of CESEE households to make major purchases has increased steadily throughout the year and recently returned to pre-pandemic levels in many countries. This is not only underlined by survey data but also e.g. by new passenger car registrations.

Uptrend interrupted by rising tensions in international supply chains

This strong momentum, however, was not comprehensively sustained in the third quarter of 2021. Sentiment weakened on the back of lower industrial confidence, and activity growth trended down in all sectors. Industrial production even declined somewhat in month-on-month terms in half of the countries under observation in August 2021.

Chart 2

Leading indicators

Activity indicators (CESEE regional average)

Year-on-year change in %

— Industrial production   — Retail sales   — Construction output

Sentiment indicators

Points   *Points*

— ESI for CESEE EU member states (regional average, left-hand scale)
— PMI for Turkey (right-hand scale)
— PMI for Russia (right-hand scale)
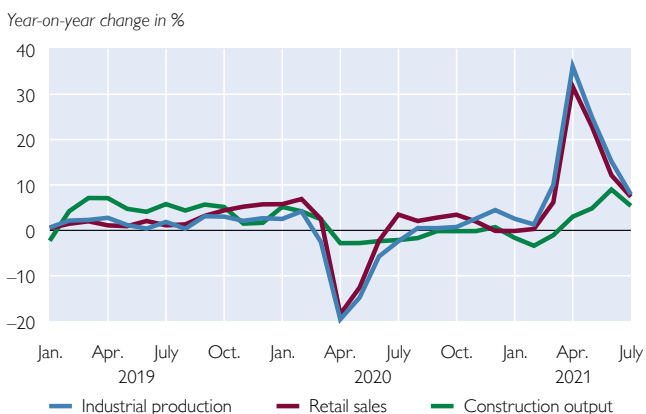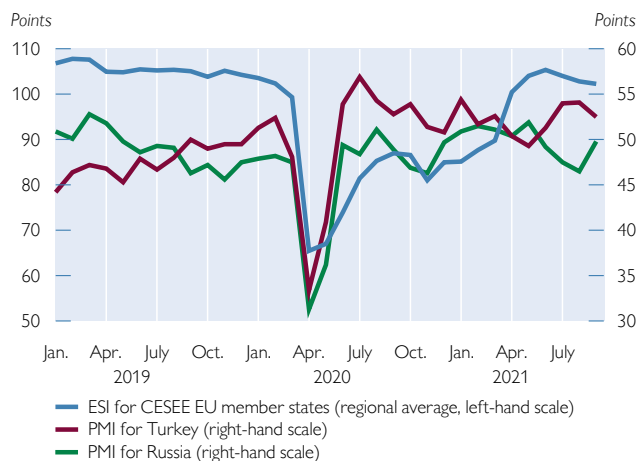
Source: Eurostat, wiiw, European Commission, Markit.

This cooling-off was related to rising tensions in international supply chains that were increasingly feeding through to production, sentiment and (producer) prices. International manufacturing currently suffers from tight international transport capacities and sector-specific production bottlenecks (e.g. shortages of semiconductors) but also from a broader range of shortages of general inputs (e.g. plastics, paints, metals, wood, rubber products and textiles). A case in point is the car industry, where production sites repeatedly had to be shut down (at least partly). However, problems are clearly not related to a single industry only. Purchasing managers' index surveys suggest that Central European manufacturers are generally struggling with growing backlogs of work coupled with longer supplier delivery times and rising prices of inputs. The respective figures climbed to historically high levels in summer of 2021, before retreating somewhat in the third quarter of 2021.

While these supply-side constraints are in principle a sign of healthy global demand for industrial produce, there is increasing evidence that supply chain bottlenecks are not going to disappear anytime soon and – coupled with labor shortages – could put a brake on the recovery. The IMF, for example, has already reduced its 2021 growth forecast for advanced economies due to such bottlenecks. For more information on prospective developments in CESEE in 2021 and beyond, please consult the recent GDP growth projections in the OeNB's current Outlook for selected CESEE countries and Russia in this issue of Focus of European Economic Integration.

Inflation mounts to highest level in years

Beside its implications for the outlook, supply-side constraints are also notably pushing up producer prices. Producer price growth accelerated strongly throughout 2021 and climbed to its highest level in more than 15 years. By August 2021, it reached an average of around 13% in the CESEE EU member states and as much as 28.5% and 45.4% in Russia and Turkey. While the pass-through of producer prices to consumers was rather limited before the COVID-19 pandemic, the currently

Chart 3

HICP inflation and its main drivers

Percentage points, contribution to year-on-year change in HICP; HICP in %
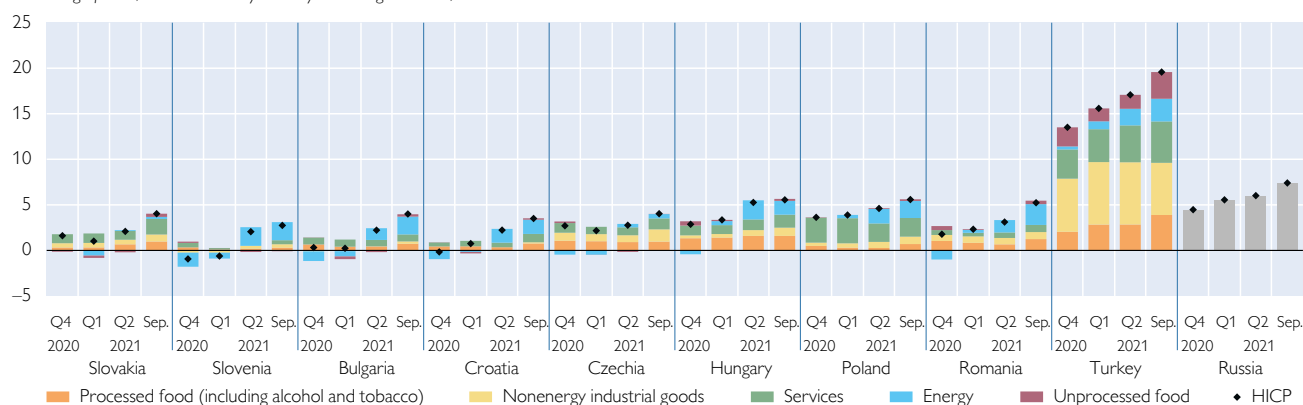
Source: Eurostat.

Note: CPI data for Russia. No breakdown according to COICOP available.

prevailing buoyant demand conditions could facilitate adding higher production costs onto final consumers prices.

In fact, price pressures for consumers have risen concurrently with producer prices. Harmonized consumer price inflation in the CESEE EU member states accelerated from 2.4% in January to 5% in September 2021, a level last seen in October 2008. In Russia, inflation climbed to 7.4% and in Turkey it even reached 19.6% in September 2021. Especially in Turkey, however, these extraordinary high levels also reflected substantial currency depreciation.

Consumer price increases strongly driven by the energy component

Inflation developments in the review period were strongly influenced by energy prices. Energy prices started to notably fuel inflation in the CESEE EU member states in February and accounted for roughly a third of total price growth by August 2021. While base effects after last year's pandemic-related collapse do play a role, energy prices have also genuinely gone up. The price for raw oil, for example, stood at some USD 78 per barrel (Brent crude) at the end of September 2021. This was the highest level in three years and 25% above its average of 2019. Prices of natural gas have surged too (in many countries to their highest level on record) due to a combination of higher demand, empty storage facilities and limited additional supply from Russia. The global economic recovery and the associated excess demand also clearly showed up in other commodity markets. The HWWI commodity price index (excluding energy), for example, stood some 40% above the level measured in August 2021.

But price pressures affect virtually the whole consumption basket

Price pressures, however, were not restricted to the energy component. Core inflation (i.e. headline inflation adjusted for price changes for energy and unprocessed food items) has generally remained somewhat elevated throughout the pandemic (at around 3% to 3.5% in the CESEE EU member states between April 2020 and September 2021) and notably trended up in several countries in the review period. The rise was particularly strong in Turkey, where core inflation reached 17.5% in September 2021. Throughout the region, cost-push as well as demand-pull factors were at play, above all arising from pent-up demand, disrupted seasonal patterns and imbalances between supply and demand after the reopening of the economies (especially in the services sector). While some of those factors should be of a temporary nature only (which also applies to the positive base effect that is currently observed in the figures), they already sparked a very broad-based price increase across the consumption basket. In September 2021, Eurostat statistics showed annual inflation rates of 3% and more for some 50% of all items in the consumption basket of the CESEE EU member states (of which items with inflation rates of above 5% accounted for 29 percentage points). This share has gone up from around 30% in January 2021 (and some 15 percentage points respectively).

Wage growth is gaining speed and inflation expectations are trending up

Following a three-year period of wage moderation, wage growth has been pushed up again by the labor market recovery and the re-emergence of labor shortages. After a trough at 4.1% in the CESEE EU member states and 4.7% in Russia in the second quarter of 2020, nominal wage growth accelerated to 9.2% and 12.7%

respectively in the second quarter of 2021. So far, higher wages have not yet translated into higher unit labor cost (ULC). While a relatively weak correlation between ULC and price growth was also observed for a prolonged period after the 2008 global financial crisis, the current disconnect might also be a statistical artefact linked to various (and partly opposing) base effects and statistical distortions from the previous recession and the pandemic (e.g. with respect to wage support and furlough schemes and/or delayed reactions of output and prices to economic shocks). Depending on the exact specification and duration of policies, wage growth might be overestimated in some countries.

Recent price developments already show up in survey-based inflation expecta-tions. Currently, a majority of surveyed companies in industry, retail and services expect prices to rise further over the short term according to the European Commission's business and consumer survey. The respective indicators reached ten-year highs in several countries in September 2021. While consumer price expectations are also trending up, indicators still come in somewhat lower than at their peak in April 2020.

Monetary policy authorities take decisive action

Rising prices and elevated inflation expectations prompted inflation-targeting central banks in the CESEE EU member states to raise their policy rates. The boldest steps were taken in Hungary and Czechia, leading to a gradual rise from 0.6% and 0.25% in June to 1.8% and 1.5%, respectively, in mid-October 2021. In late September 2021, the Czech central bank hiked its policy rate by 75 basis points, breaking the tradition of 25 basis point moves observed ever since the inflation target was adopted in 1997. In early October 2021, the Romanian and the Polish central bank joined the hiking cycle and increased their policy rates by 25 basis points to 1.5% and by 40 basis points to 0.5%, respectively. All four monetary authorities have also revised their near-term inflation forecasts and/or assume higher volatility in inflation and more upside risks in the months to come. In fact, inflation rates are currently running outside the upper tolerance bands of the respective inflation targets in all countries with explicit inflation targets (i.e.

Chart 4

Policy rate developments in selected CESEE countries

CESEE EU member states
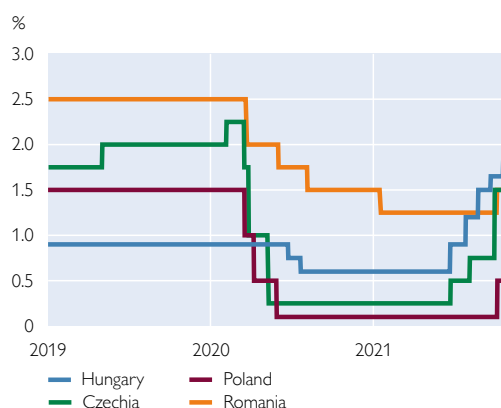
Russia and Turkey
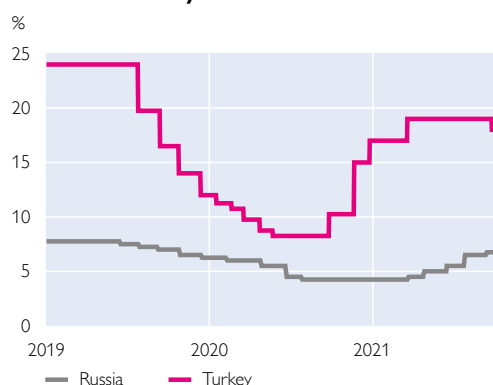
Source: Macrobond.

Czechia, Hungary, Poland and Romania) and a return to the targets is only expected in 2022 (mostly around mid-year).

In Russia, annual inflation rose to 7.4% in September 2021, exceeding the inflation target of 4% by a wide margin. Reflecting those price pressures, the Bank of Russia raised its policy rate in five steps from 4.25% in March to 6.75% in early October 2021, citing demand growth in excess of domestic supply potential and the pass-through of higher costs to consumers. It also argued that, given elevated inflation expectations, households may be tempted to frontload purchases, thus possibly stirring price growth even further in view of already tight production capacities. The Bank of Russia expects inflation to slow down in the fourth quarter of 2021 and to return to target in 2022, driven by base effects, monetary tightening and an oil price-supported strengthening of the ruble. However, the central bank explicitly holds open the prospect of further key rate hikes at its upcoming meetings.

The interest rate path chosen by the Turkish central bank deviates somewhat from the patterns observed in the rest of CESEE. Between September 2020 and March 2021, the policy rate was raised forcefully by ultimately 1,075 basis points to 19%. This was followed, in late September 2021, by a 100 basis point cut to 18%. The central bank argued that the recent increase in inflation had been driven by transitory factors such as rises in food and import prices, supply constraints, higher administered prices and demand generated by the lifting of COVID-19 restrictions on some service sector activities. It also stated that last year's monetary tightening and recent macroprudential measures were still curbing credit growth and domestic demand. At the same time, president Erdogan has repeatedly called for lower interest rates. Following the rate cut, downward pressure on the Turkish lira reintensified and the currency depreciated to an historically weak level in October 2021. Currency weakness but also strong inflationary expectations (after price increases had remained in the double digits throughout most of the past four years) will probably add to price pressures in the coming months, while base effects will exert some dampening effect on consumer price growth.

Unlike the Turkish lira, the Russian ruble appreciated in recent months on the back of higher oil prices. The Hungarian forint, the Czech koruna, the Polish złoty and the Romanian leu traded rather stably against the euro in September and October 2021, despite policy rate hikes and the fairly hawkish market outlook for future interest rates. This reflects rising real economic uncertainties related to the ongoing global shortage of production inputs for the vital industrial sectors, the recent deterioration of the pandemic situation throughout most of the region and capital outflows based on the expectations of a possibly tighter monetary policy stance in the euro area and the United States.

The region's external surplus is well supported by improving trade balances

The combined current and capital account balance for the CESEE region as a whole remained clearly positive and amounted to 1.3% of GDP in the second quarter of 2021 (end-2020: 1% of GDP) as strong surpluses in goods and services trade again outweighed structural outflows from primary (especially capital) income.

On the country level, current account developments were mostly driven by changes in the trade balance that reflected the strong international momentum and dynamic export activity. The trade balance notably lifted the external surplus in the review period in Slovakia, Hungary and Russia (aided by high oil prices in the

Chart 5

Combined current and capital account balance

% of GDP, four-quarter moving sum
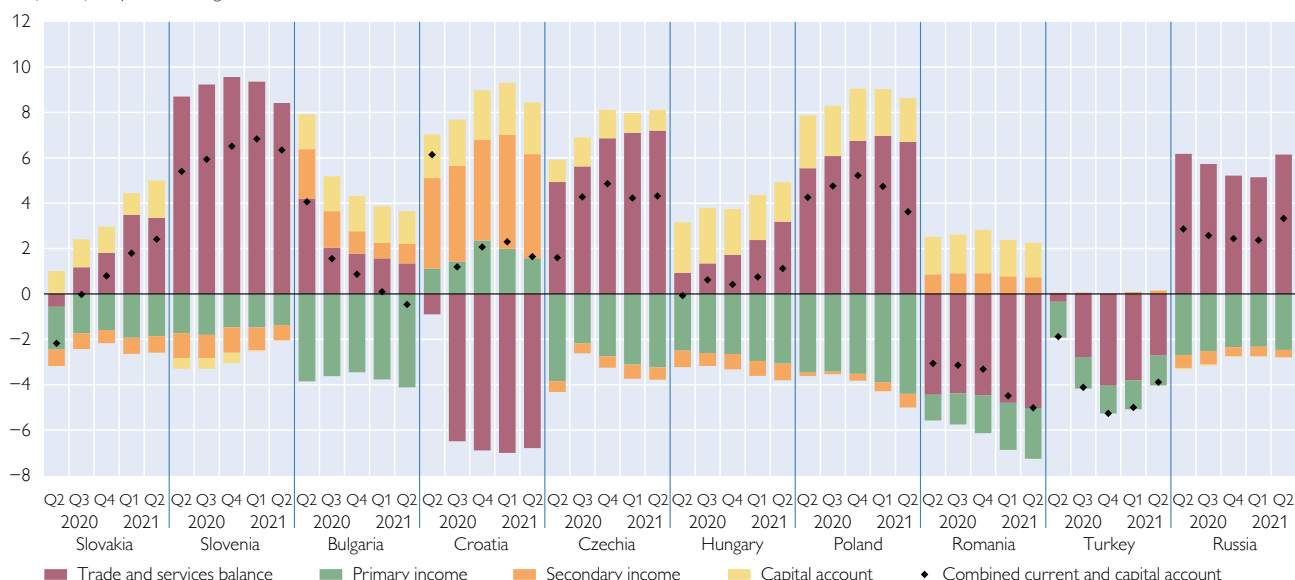
Source: Eurostat, IMF, national central banks.

case of Russia) and kept it on a high level in Slovenia, Czechia and Poland. At the same time, weakening trade balances (also related to lower exports of tourist services) weighed on the external accounts of Bulgaria, Croatia and Turkey. In Turkey, the deterioration has since been halted by the ongoing currency depreciation. Finally, six of the ten countries under review saw their primary income deficits widen, reflecting higher profit repatriations amid the general economic recovery. A larger deficit in primary income lifted Romania's current account deficit to the highest level among all CESEE countries (–5% of GDP).

Capital flows to the region remain volatile in the review period

High-frequency flow data show that, from autumn 2020, global investment funds started to flock back to CESEE bond markets, helping cumulative flows climb toward pre-pandemic levels. This trend was interrupted in February 2021, when bond flows suddenly declined and eventually dried up. From spring 2021 onward, aggregate fund flows for the ten countries under consideration recovered and hovered at around zero. Bond markets became more attractive again especially in the CESEE EU member states, while the situation remained more strained for Russia and Turkey, which repeatedly reported notable fund outflows throughout the review period. In most recent weeks, outflows again increased across the region, reaching close to USD 300 million per week in mid-October 2021 on rising expectations of a tightening policy stance in advanced economies. With that, capital flows to the region remain volatile.

This pattern is very much confirmed by more comprehensive financial account data that show notable inflows of portfolio investments in the final quarter of 2020, followed by equally large outflows in the first quarter of 2021 that again moderated

Chart 6

Capital flows to CESEE

Financial account balance

% of GDP
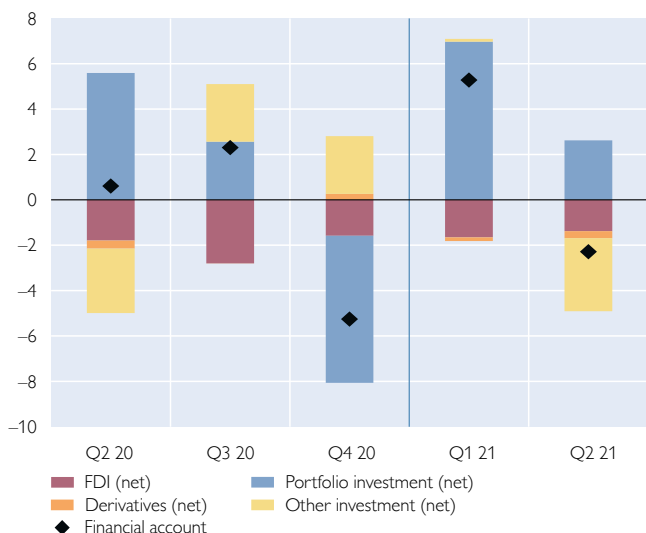
International fund flows into bond markets

USD million, weekly data

FDI (net)
Derivatives (net)
Portfolio investment (net)
Other investment (net)
Financial account
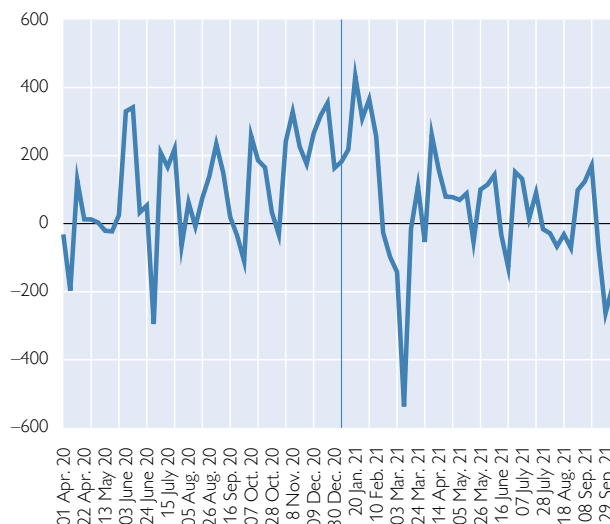
Source: Emerging Portfolio Fund Research (EPFR), Eurostat, national central banks.

Note: Positive values indicate a net outflow of capital, negative values indicate a net inflow of capital.

somewhat in the second quarter of 2021. The second quarter of 2021 also brought about a return of inflows from other investments to the region, for the first time since spring 2020. FDI inflows remained broadly stable throughout the review period and in fact throughout the whole pandemic.

After ten-year government bond yields in CESEE countries remained broadly stable over the summer months, the recent surge of inflation translated into higher price expectations among investors and pushed up nominal yields. Between early September and late October 2021, bond yields increased by some 30 to 40 basis points in Slovenia, Slovakia and Russia, by 75 to 100 basis points in Czechia, Hungary, Poland and Romania and by 270 basis points in Turkey (Croatian yields remained more or less stable). This compares with an increase of about 35 basis points in the euro area and the United States.

CESEE banking sectors recovered rather quickly from the impact of the previous year's recession

To date, the recession in 2020 has only had a temporary impact on the region's banking sectors. This becomes especially apparent when recent trends are compared to the fundamental disruption triggered by the global financial crisis of 2008. This stark difference was related to the very nature of the shock that sent the region into recession. Moreover, the region's banking sectors entered the downturn on a much stronger footing than in 2008 (i.e. with stronger capital buffers, no excessive loan growth, a much lower foreign currency-denominated exposure and a strengthened regulatory environment).

Chart 7

Growth of credit to the private sector

Year-on-year change in %, adjusted for exchange rate changes   *Year-on-year change in %, adjusted for exchange rate changes*

Left chart legend: Slovakia, Croatia, Slovenia, Czechia, Bulgaria

Right chart legend: Hungary, Turkey, Poland, Russia, Romania
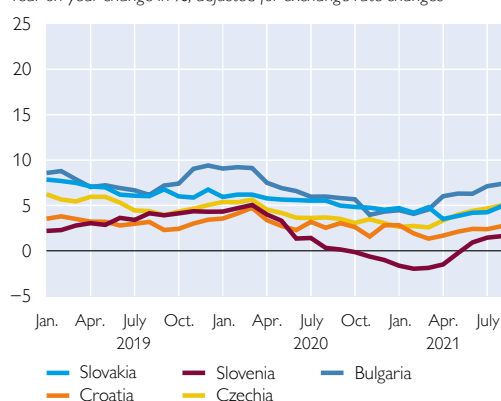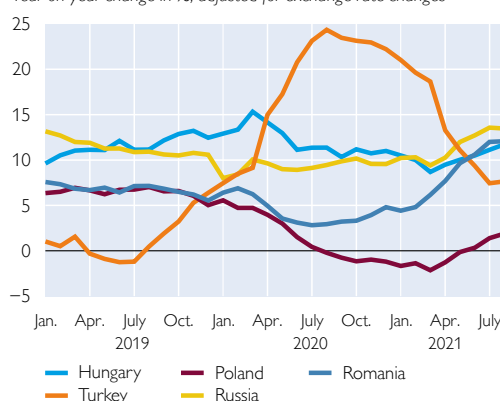
Source: National central banks.

Strong demand drove up credit growth, while supply conditions remain tight for corporates

Following weakening credit expansion since the first lockdown in early spring 2020 until the second quarter of 2021, credit growth returned to 2019 average levels in most countries in August 2021. This not only reflected policy support (including regulatory action, monetary policy support and public guarantee schemes) but also improving general economic conditions and brightening sentiment after the phasing out of the most severe COVID-19 containment measures. Surveys suggest that credit markets were primarily driven by rising credit demand. While higher demand was initially confined to certain demand segments only (e.g. to working capital needs, debt restructuring and positive housing market prospects), it notably broadened later on. Credit standards tightened across the client spectrum in the first quarter of 2021 (notably on SME and corporate lending) and turned broadly neutral in spring 2021. However, while credit standards for households were generally eased, SMEs and large corporates continued to face tightening. Among other factors, this reflected uncertainties following the temporary suspension of insolvency filing obligations.

NPL ratios might increase somewhat once government support is withdrawn

Nonperforming loan (NPL) ratios trended down somewhat in the review period and stood below their pre-pandemic levels in most countries of the region in mid-2021. This is a sign that borrowers were able to service their debt amid falling interest rates and borrowing costs and despite the economic downturn. All countries also introduced moratoria of some sort on the repayment of loans to alleviate financial strains for borrowers. Loan repayments were renegotiated by no more than 20% of borrowers in most cases according to surveys among individual banks. For the coming quarters, banks nevertheless expect the quality of loan applications to deteriorate across the client spectrum and NPLs to rise as government measures are slowly being withdrawn. Certain evidence to this effect is the high and partly increasing share of so-called stage 2 loans (loans with significantly

higher credit risks since initial recognition) in several countries over the past 12 months.

Crisis provisioning made in 2020 is slowly being released as the banking sector's outlook improves

The general resilience of the CESEE banking sectors is also underlined by the beginning release of (parts) of last year's crisis provisioning, reflecting the improved economic situation and outlook. Against this background, the average return on assets (RoA) increased to 1.2% in mid-2021 (ranging between 0.5% in Poland and 2.5% in Russia). This is 0.4 percentage points above the mid-2020 levels and only moderately below pre-crisis readings. Higher profitability also bolstered capital buffers. The capital adequacy ratio (tier 1) increased in most CESEE countries and hovered between 17% in Slovenia and 25% in Croatia at mid-2021. Substantially lower figures were only reported for Russia and Turkey (10.3% and 13.2%, respectively).

Box 1

Ukraine: economy struggles to recover amid tighter monetary policy conditions following rising inflation

Ukraine's economic recovery suffered a setback in the first half of 2021. Amid renewed COVID-19-related restrictions, GDP shrank in the first quarter, both year on year and quarter on quarter. In the second quarter, growth turned positive in year-on-year terms at 5.7% due to base effects (given a drop by 11.2% in the second quarter of 2020) but continued to fall in quarter-on-quarter terms. At the same time, the growth structure showed some weaknesses, with positive contributions stemming mainly from private consumption backed by robust real wage growth (i.a. due to a minimum wage hike) and a pension increase. Following a steep decline in gross fixed capital formation in 2020, year-on-year investment growth only became positive in the second quarter. Moreover, the economic recovery took a hit from a deeply negative contribution of net exports. Gross exports shrank by almost 10% in the first half of 2021 partly due to weak agricultural output (including last year's poor harvests), while gross imports were on the rise amid strengthening domestic demand. As vaccination progress has remained very low, new pandemic waves might trigger a retightening of containment measures.

Annual consumer price inflation rates moved up further and reached 11% in September, following some deceleration during the summer. Core inflation rates rose to 7.3% in June and stabilized afterward. Against the background of inflationary developments, the National Bank of Ukraine (NBU) tightened monetary policy. Since early 2021, it has raised its key policy rate in four steps by a total of 250 basis points, to 8.5%. In addition, it started to phase out anti-crisis monetary measures (i.e. long-term refinancing operations and interest rate swaps) at end-June, before terminating them from the beginning of the fourth quarter. The NBU expects headline inflation to decline below double-digit levels toward the end of this year and to return to its target of 5% in the course of next year.

The current account balance recorded a small deficit of 0.8% of GDP in the first half of 2021, following a surplus of 6.1% of GDP in the first half of 2020. This deterioration was mainly driven by the primary income balance, which turned to a deficit due to rising dividend payouts and reinvested earnings. As reinvested earnings (together with other types of investment) created net FDI inflows, the basic balance (current account plus net FDI inflows) was clearly positive in the first half of 2021. Official foreign currency reserves have remained largely unchanged since early 2021 and amounted to USD 28.7 billion (covering 4 months of imports) at end-September. Temporarily, official reserves had increased following the disbursement of USD 2.7 billion to Ukraine as part of SDR allocations by the IMF in August, but this increase was reversed in September by external debt repayments of similar magnitude. Looking ahead, Ukraine stands to receive the second tranche (EUR 600 million) of macro-financial assistance from the EU, having recently fulfilled the conditions.

In late September 2021, a virtual IMF mission was launched to work on remaining issues required to conclude the first review of Ukraine's Stand-By Arrangement with the IMF (SBA, originally scheduled for September 2020). The IMF repeatedly stressed the importance of strengthening the governance and autonomy of the National Bank of Ukraine, judicial reform as well as restoring and strengthening the anti-corruption framework. Of course, the IMF also has continued to keep an eye on the fiscal position. The budget plan endorsed by the government in mid-September foresees a budget deficit of 3.5% of GDP for 2022, down from 5.5% expected for 2021. According to the Ukrainian authorities, the talks also covered the extension of the current SBA by 6 to 9 months, in the absence of which the SBA would expire at end-2021.

Western Balkans[5]: removal of COVID-19-related restrictions fueled V-shaped recovery

COVID-19 infection rates eased until early/mid-July 2021 in the Western Balkan countries and the spread of the pandemic appeared to have been well contained. However, during the summer, registered infections increased due to international and diaspora travel, the loosening of restrictions and the occurrence of the more infectious COVID-19 delta variant. Developments were diverse at the country level: In Albania, North Macedonia and Bosnia and Herzegovina, new infections peaked around mid-September. Kosovo and Montenegro followed the same pattern except for steeper peaks in early September, with Montenegro exhibiting a somewhat slower deceleration of infection rates than Kosovo. In Serbia, the surge in new cases occurred later than in the other countries, and infection rates continue to be elevated. Vaccination rollout has gained some traction in most Western Balkan countries, yet the share of fully immunized people remains lower than in other European countries and ranges between 15% in Bosnia and Herzegovina and 42% in Serbia.

Turning to economic developments, annual GDP growth recovered in the first quarter of 2021 in most Western Balkan countries. Only in Montenegro and North Macedonia did economic growth remain negative in the first quarter. The removal or weakening of COVID-19-induced restrictions in the second quarter led to an immediate recovery in all Western Balkan countries, yielding double-digit GDP growth in annual terms. In Montenegro, the economy hit hardest by the pandemic, the pickup was strongest with 19% GDP growth (chart B1). Apart from the base effect (strict lockdown measures had a strong adverse effect on GDP growth in the second quarter of 2020), renewed growth is attributable to the improved confidence of

Mostly weak GDP growth in Q1 21, followed by strong recovery

Percentage points, year-on-year GDP growth in %
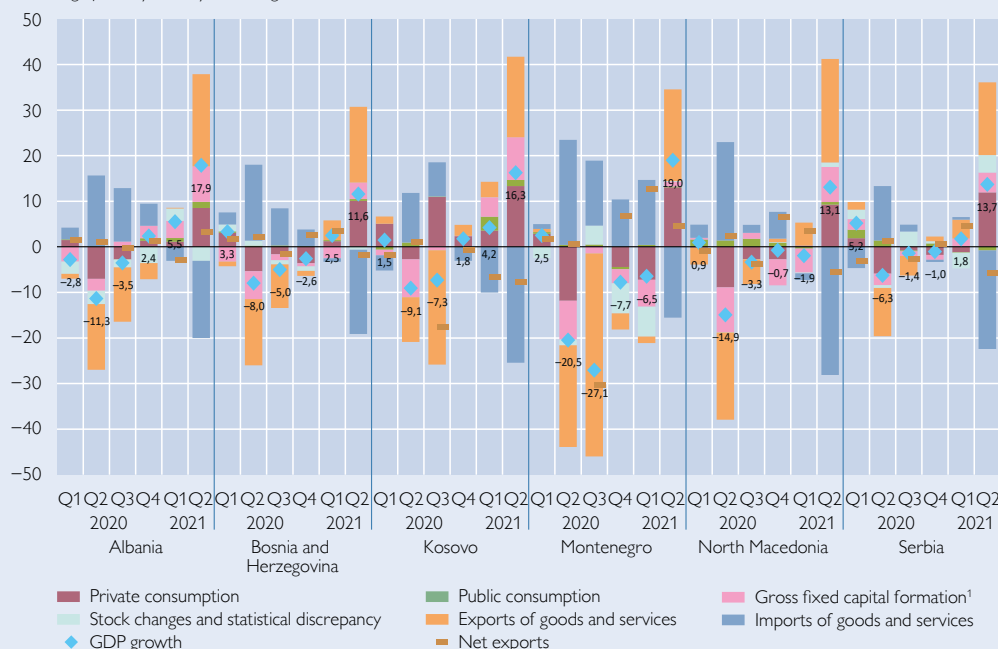
Source: National statistical offices.

[1] Gross capital formation for Bosnia and Herzegovina, Kosovo and North Macedonia.

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[5] *The Western Balkans comprise Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia and Serbia. The designation "Kosovo" is used without prejudice to positions on status and in line with UNSC 1244 and the opinion on the Kosovo Declaration of Independence.*

consumers and investors, pent-up demand as well as the recovery of trading partners. Continued support from monetary and fiscal policy added to the rebound.

While the drag of pandemic-induced uncertainties on private consumption in the Western Balkans continued in the first quarter of 2021, private demand became a major pillar of growth in the second quarter, largely supported by more optimistic consumer confidence, easing containment measures, favorable lending conditions (reflected in robust growth of lending to households, see below) and high wage growth in some countries. Moreover, consumption growth benefited from the rebound of remittances. The contribution of public consumption to growth remained rather stable across the Western Balkans and particularly strong in Kosovo, where consumption accelerated by more than 20% in the first quarter and by 9% in the second quarter of 2021, reflecting pandemic-driven support for households in the runup to parliamentary elections in February 2021.

Investment activity likewise gathered pace with improved investor confidence, strong FDI inflows and public investments adding to a sizable base effect. In most countries in the area, investments were also driven by a booming construction sector (in Albania also related to reconstruction after the earthquake of November 2019). In some countries, in particular Albania and Serbia, real estate investments of the diaspora gave impetus for investment growth as well.

Exports of goods and services were also increasing over the first two quarters in line with the resurgence of economic activity in the Western Balkans' main trading partners. Countries, like Albania or Kosovo, with a comparatively high share of exports of crude materials (such as metals or fuel) benefited from increasing global demand for commodities. North Macedonia and Serbia reaped the benefits of being integrated into European supply chains. With machinery and transport equipment accounting for one-third of their exports, they were benefiting strongly from the recovery of their main trading partners in the EU. Imports posted a similar pattern as all other major demand components: After rather weak import growth in the first quarter of 2021 (except for Albania and Kosovo) import growth was strong due the pickup of domestic demand, particularly for construction material. As a consequence, the net contribution of exports to growth turned out to be positive in most Western Balkan countries in the first quarter of 2021 but declined in the second quarter, becoming even deeply negative in Kosovo, North Macedonia and Serbia.

Despite government action to cushion the immediate impact, the pandemic has left its imprint on the already weak labor markets in the region.[6] Montenegro's labor market was particularly hard hit by the crisis as the unemployment rate (labor force survey data) increased by around 3 percentage points beyond pre-crisis levels. Several other countries, however, registered lower unemployment rates than one year earlier or more or less unchanged rates in the second quarter of 2021. Initial expectations at the outset of the pandemic fortunately did not materialize in full, partly due to the cushioning effect of policy support measures. Employment rates (labor force survey) declined in some of the Western Balkans, above all in Montenegro, which suffered a setback by around 10 percentage points to below 45% in the first quarter of 2021 amid large exits from the labor market (no data available for the second quarter of 2021). Wage growth was strong in most Western Balkan countries (except for Montenegro) due to rising public wages (particularly for health care employees) and wage subsidies.

Current account deficits (four-quarter moving average) widened in Bosnia and Herzegovina, Kosovo and Montenegro in the second quarter of 2021[7] compared to the same period of 2020 partly due to a higher deficit of the trade balance of goods and more so due to shortfalls in the service balance. As a major tourist destination, Montenegro was particularly hard hit in 2020 and also witnessed large losses in the first two quarters of 2021. Secondary income developed favorably over the period in all Western Balkan countries (or stayed more or less unchanged). The inflow of remittances was supported by accelerating formal transfers and the fading of informal transfers due to travel restrictions. Overall, the inflow of FDI remained robust, covering

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[6] Unemployment rates are traditionally higher compared to the CESEE EU member states.

[7] Data for Bosnia and Herzegovina only available until first quarter of 2021.

Chart B2

Current account balances and FDI

% of GDP, four-quarter moving average
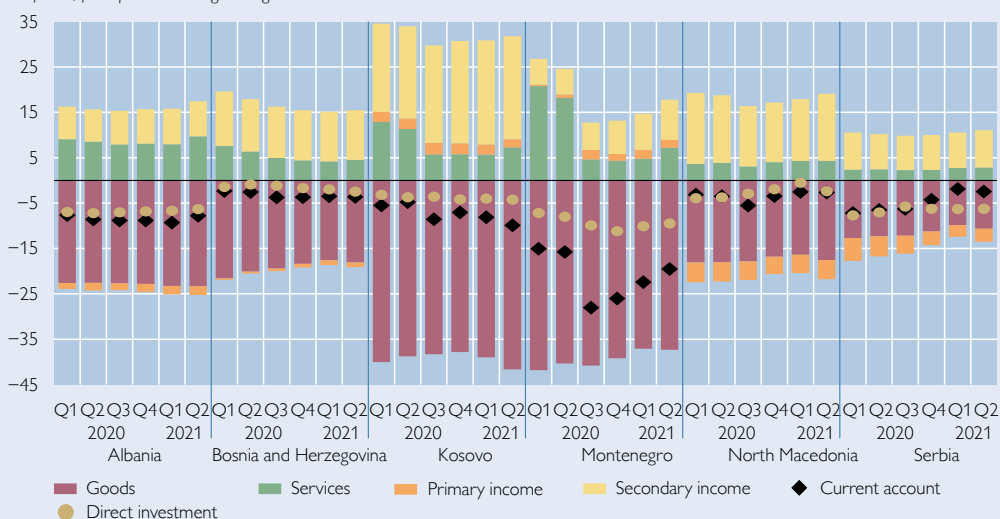
Source: National central banks, national statistical offices.

Note: A positive value in the category of direct investments indicates that net acquisition of assets is higher than net incurrence of liabilities; a
negative value indicates the opposite.

large parts of the external deficit, except for Montenegro, whose FDI coverage ratio is comparatively low.

Inflation remained still somewhat muted (and even negative in Bosnia and Herzegovina) in the first quarter but increased notably in all Western Balkan countries in the second quarter of 2021, showing a further acceleration from July to September 2021 (see chart B3). In the two inflation-targeting countries, inflation approached the inflation target (Albania) or surpassed the upper bound of the inflation band (Serbia). Prices went up largely due to strong cost-push factors related to the surge in prices for energy and commodities as well as food prices. Due

Chart B3

Inflation on the rise in all Western Balkan countries

%, year on year
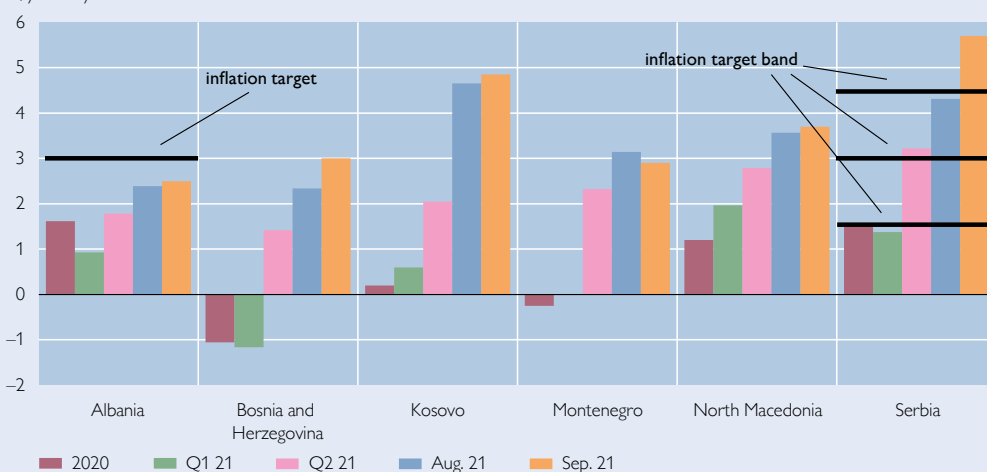
Source: National statistical offices.

to accelerating energy prices and anticipating the risk of energy shortages during the upcoming winter, Albania declared a state energy emergency in October. Rising prices for electricity and food even led to street protests in recent weeks. In Kosovo, increasing energy prices led to a temporary shutdown of a ferronickel plant with around 800 employees. Demand-driven price increases also played a role throughout the region, in line with the overall revival of domestic demand. Furthermore, the disruption of global value chains impacted prices in the more strongly integrated countries, namely North Macedonia and Serbia.

Albania and Serbia are the only Western Balkan countries with flexible exchange rate regimes. Pressure on the dinar to appreciate against the euro has increased since the second quarter of 2021 according to the National Bank of Serbia due to strong capital inflows. The Albanian lek continued to appreciate against the euro since spring 2021, also driven by capital inflows, but the lek's appreciation is in line with seasonal patterns according to the Bank of Albania.

Lending to the private sector was rather mixed across countries and sectors. Albania, Kosovo, North Macedonia and Serbia showed still robust lending rates in the first half of 2021. This development was largely driven by low cost of financing, improved confidence of households and corporates and remaining COVID-19 support measures (such as loan moratoria, guarantee schemes). In Kosovo, consumer loan borrowers receive a subsidy of 10% (or EUR 300 at most) from the beginning of October 2021. In Bosnia and Herzegovina as well as in Montenegro, loan growth was rather subdued, in particular compared to pre-crisis developments. Notably, in all Western Balkan countries, lending to household sector exceeded lending to the corporate sector. Demand for housing loans was strong in some countries, especially in Albania, in view of favorable financing conditions and rising house prices.

Apart from Montenegro, all Western Balkan countries reported lower NPL ratios in the second quarter of 2021 than in the same period of last year. In Albania, the NPL ratio was still highest in a regional comparison, at 7.1% in the second quarter of 2021 (same period of 2020: 8.1%). Montenegro's NPL ratio accelerated to 5.7% (second quarter of 2020: 5.3%), despite the extension of loan moratoria until end-August 2021 for households and corporates affected particularly hard by the pandemic.

Since the European Council's endorsement of the decision to open accession negotiations with Albania and North Macedonia in March 2020, no visible progress has been made. The opening of accession negotiations with North Macedonia has been blocked by Bulgaria. At the Western Balkan summit in Slovenia on October 6, 2021, the EU member states only provided the candidate countries and potential candidates with a general perspective of EU accession while not setting a timeline. One important feature of the EU's engagement in the area is the Economic and Investment Plan for the Western Balkans, providing up to EUR 9 billion of EU investment funding and up to EUR 20 billion of dedicated investment guarantees. As outlined in our last report, Montenegro was seeking EU support to repay the first tranche of a huge Chinese loan taken out for the construction of a highway. In this respect, the government completed a 14-year currency risk-hedging agreement with several Western banks in July 2021. Finally, a new 30-month Policy Coordination Instrument[8] for Serbia has been approved by the IMF. One important aim of this facility is to anchor Serbia's fiscal policy.

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[8] *The previous Policy Coordination Instrument was in place from 2018 to January 2021.*

2 Slovakia: strong economic rebound accompanied by rising inflation

The contraction of the Slovak economy in 2020 was less dramatic than initially projected and GDP growth was revised significantly upward compared to the first estimate. The fact that – despite a deep dive – the economy got off with a slap on the wrist is mainly attributable to the fact that, in the second half of 2020, the Slovak industry was largely spared from containment measures and benefited strongly from the rebound in foreign demand. As coronavirus infections started to subside quickly in the spring of 2021 on the back of vaccination progress and seasonal factors, the state of emergency was terminated in May 2021 after 14 months. Most restrictive measures were removed (at least those significant for economic activity). Particularly thanks to the retail and services sectors, and boosted by policy support measures, the economy rebounded strongly in the second quarter of 2021. Overall, in the first six months of 2021, GDP expanded by about 4.9% year on year, driven in roughly equal parts by net exports and domestic demand. The latter, however, was driven predominantly by the buildup of inventories and public consumption, while the resurgence in private consumption in the second quarter could not make up for the contraction in the first three months of the year. Fixed investment was still contracting in early 2021 and its growth contribution remained rather moderate in the second quarter as significant increases in prices of industrial goods and construction input materials as well as disruptions in global supply chains already started to weigh on dynamics. Particularly, the worldwide shortage of microchips has hindered the crucial automotive sector and other industries from producing and exporting at full speed.

Owing mainly to government job retention schemes and other measures to preserve employment, the detrimental impact of the pandemic on the labor market has been contained so far. The shock has been weathered on the basis of fewer working hours rather than job losses, even though hard-hit sectors (mainly services) and particularly vulnerable workers experienced dismissals. Hence, while the unemployment rate remained broadly stable in the first half of 2021, a full-fledged impact on the labor market will only unfold once the government schemes expire. Moreover, long-term unemployment remains a persistent issue. Headline inflation has been rising sharply since the beginning of 2021 and came in at 4% in September 2021, the highest figure since 2012. The acceleration has been largely driven by soaring prices of services (particularly those related to housing), industrial goods, processed food and increasingly swelling energy prices. Following direct fiscal support, loan guarantees and tax deferrals amounting to some 3.7% of GDP in 2020, fiscal response measures related to the coronavirus crisis worth 3.8% of GDP have been budgeted for 2021. Support measures in the form of grants for firms and self-employed entrepreneurs, subsidies to labor costs as well as sickness and care benefits have been extended until the end of 2021. The recipients of the support have shifted away from manufacturing toward construction, trade, hospitality and gastronomy as well as cultural and tourism services. In 2021, the general government deficit is expected to widen to more than 7% of GDP. Consequently, public debt is projected to go up from 48.1% of GDP in 2019 to above 61% of GDP in 2021. The Slovak economy has benefited from the accommodative monetary stance in the euro area. The countercyclical capital buffer rate for banks in the country was reduced from 2% to 1% between April and July 2020 (i.e. during the first COVID-19 wave) and was kept at that level also in the review period.

Main economic indicators: Slovakia

	2018	2019	2020	Q1 20	Q2 20	Q3 20	Q4 20	Q1 21	Q2 21
	Year-on-year change of period total in %								
GDP at constant prices	3.7	2.5	−4.8	−3.5	−10.9	−2.5	−2.1	0.2	9.6
Private consumption	4.1	2.7	−1.0	1.1	−4.0	1.1	−2.2	−5.5	5.0
Public consumption	0.1	4.6	0.3	2.0	−4.9	0.3	3.1	−1.8	8.7
Gross fixed capital formation	2.7	6.6	−12.0	−7.8	−15.2	−8.5	−15.4	−10.0	5.6
Exports of goods and services	5.2	0.8	−7.5	−5.7	−26.5	0.1	1.8	10.0	40.0
Imports of goods and services	5.0	2.1	−8.3	−2.3	−26.4	−5.8	0.6	5.4	39.6
	Contribution to GDP growth in percentage points								
Domestic demand	3.3	3.7	−5.5	0.1	−10.6	−7.7	−3.3	−4.1	9.1
Net exports of goods and services	0.3	−1.2	0.7	−3.5	−0.3	5.1	1.1	4.2	0.4
Exports of goods and services	4.9	0.8	−6.9	−5.7	−24.2	0.0	1.7	9.4	28.7
Imports of goods and services	−4.6	−2.0	7.7	2.2	23.9	5.0	−0.6	−5.2	−28.3
	Year-on-year change of period average in %								
Unit labor costs in the whole economy (nominal, per person)	4.3	5.2	6.5	9.5	8.3	2.7	5.4	0.7	−1.4
Unit labor costs in manufacturing (nominal, per hour)	4.4	5.6	4.2	7.9	21.0	−5.0	−5.3	−10.7	−19.7
Labor productivity in manufacturing (real, per hour)	4.7	1.2	1.2	−0.7	−11.7	7.6	9.5	11.4	24.5
Labor costs in manufacturing (nominal, per hour)	9.3	6.8	4.9	7.2	6.9	2.3	3.7	−0.5	0.0
Producer price index (PPI) in industry	2.4	1.8	−0.5	1.7	−1.4	−1.3	−1.0	−0.9	4.3
Consumer price index (here: HICP)	2.5	2.8	2.0	2.9	2.0	1.5	1.6	1.0	2.1
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	6.6	5.8	6.8	6.0	6.7	7.3	7.0	7.2	7.0
Employment rate (%, 15–64 years)	67.6	68.4	67.5	68.0	66.8	67.5	67.8	67.9	68.8
Key interest rate per annum (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Nominal year-on-year change in period-end stock in %								
Loans to the domestic nonbank private sector[1]	8.4	6.8	6.8	6.2	5.6	5.0	4.5	4.8	4.2
of which: loans to households	11.3	8.0	8.0	7.9	7.0	6.5	6.1	6.0	7.2
loans to nonbank corporations	3.4	4.4	4.4	3.0	3.0	2.1	1.4	2.5	−1.8
	%								
Share of foreign currency loans in total loans to the nonbank private sector	0.1	0.1	0.1	0.3	0.3	0.1	0.1	0.1	0.1
Return on assets (banking sector)	0.8	0.8	0.5	0.3	0.3	0.5	0.5	0.5	0.8
Tier 1 capital ratio (banking sector)	16.6	16.6	18.1	17.3	18.0	18.0	18.1	18.8	19.2
NPL ratio (banking sector)	3.0	2.8	2.4	2.8	2.7	2.5	2.4	2.6	2.1
	% of GDP								
General government revenues	40.7	41.4	41.8	..	..	..	..	..	..
General government expenditures	41.7	42.7	48.0	..	..	..	..	..	..
General government balance	−1.0	−1.3	−6.2	..	..	..	..	..	..
Primary balance	0.4	−0.1	−5.0	..	..	..	..	..	..
Gross public debt	49.6	48.2	60.6	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	55.0	53.3	55.7	..	..	..	..	..	..
Debt of households and NPISHs[2] (nonconsolidated)	42.6	43.7	47.5	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Goods balance	−0.3	−1.0	0.6	−3.5	0.1	2.9	2.5	4.3	0.3
Services balance	1.0	1.3	1.2	1.3	1.3	2.0	0.1	0.7	0.7
Primary income	−1.8	−2.1	−1.6	−0.7	−2.0	−1.7	−1.9	−2.2	−1.7
Secondary income	−1.2	−0.9	−0.6	−1.4	−0.8	−0.8	0.5	−1.9	−0.8
Current account balance	−2.2	−2.7	−0.4	−4.2	−1.4	2.4	1.2	0.9	−1.5
Capital account balance	1.0	0.7	1.2	1.7	0.3	0.6	2.0	0.9	3.1
Foreign direct investment (net)[3]	−1.3	−2.2	2.1	−1.6	3.9	6.3	−0.5	3.5	−1.6
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	114.9	112.4	121.2	112.7	123.3	121.7	121.2	118.9	117.5
Gross official reserves (excluding gold)	3.8	5.3	6.6	5.6	6.7	7.0	6.6	8.5	8.1
	Months of imports of goods and services								
Gross official reserves (excluding gold)	0.5	0.7	0.9	0.7	0.9	1.0	0.9	1.2	1.1
	EUR million, period total								
GDP at current prices	89,357	93,901	91,555	21,492	21,442	24,410	24,211	21,673	23,975

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiiw, OeNB.

[1] Foreign currency component at constant exchange rates.
[2] Nonprofit institutions serving households.
[3] + = net accumulation of assets larger than net accumulation of liabilities (net outflow of capital).
  − = net accumulation of assets smaller than net accumulation of liabilities (net inflow of capital).

3 Slovenia: underlying inflation pressure remains low despite strong GDP expansion

GDP gradually recovered during the first half of 2021 and posted an impressive growth rate of 16.3% during the second quarter. Among the domestic demand components, investments grew most rapidly following their deep slump a year earlier. Investments in machinery and equipment were the main drivers, reflecting not just base effects but also a capacity utilization level that rose to its highest level since 2000. Private consumption grew also sharply in the second quarter, in part due to a low base, but also due to improving labor market conditions, strong real wage growth and re-accelerating credit growth. Both exports and imports bounced back during the first half of 2021 (especially in the second quarter), and the contribution of net real exports to the overall GDP growth rate was neutral.

According to the latest forecast by the European Commission, Slovenia's budget deficit is expected to rise to 8.5% of GDP in 2021 despite a substantial economic rebound. The widening of the deficit will be caused by extended COVID-19 measures, such as wage compensation for short working hours, wage supplements for public sector employees, the partial coverage of companies' fixed costs and a significant increase in public investments, which will partly be financed under the Recovery and Resilience Facility (RRF). In late July 2021, the Council of the European Union approved RRF funds for Slovenia in the magnitude of EUR 1.8 billion in grants and EUR 0.7 billion in loans, the first installment of which (EUR 231 million) arrived in mid-September. According to its RRF plan, Slovenia will use around 42% of its allocation to measures that support climate objectives. The plan devotes 21% of total financing to the digital transition, while the rest will be spent on reinforcing Slovenia's economic and social resilience (e.g. investments in health-care, long-term care, public housing, enhancing productivity and innovation).

Annual HICP inflation has picked up substantially since the beginning of 2021, rising from around –1% to +2.7% by September 2021. The acceleration has been primarily attributable to energy prices, where deep deflation at the turn of the year has transformed into double-digit inflation, affected both by base effects and intensified energy price rises. Core inflation, excluding energy and unprocessed food, was only modestly higher than at the beginning of the year and stood at 1.3% in September 2021. However, inflation for nonenergy industrial goods accelerated, mainly on the back of supply chain disruptions, rising commodity and producer prices. By contrast, services price inflation has slowed to around zero over the reference period, in part caused by changes in the weighting in the HICP basket.

Credit dynamics have improved since the second quarter of 2021, mainly on the back of higher demand for loans but also thanks to banks having discontinued the tightening of lending standards. The contraction of credit to the corporate sector has moderated (in line with strengthening investment activity), while credit to households has started to grow again. Loans for house purchase grew rapidly, while the contraction of consumption loans has moderated.

The banking sector's profitability improved during the first half of 2021, almost exclusively due to the net release of impairments and provisions, reflecting the improved economic situation and outlook. Net interest income was lower than a year earlier due to low interest rates and reduced lending activity as was noninterest income. Banks' portfolio quality has developed favorably, with the notable exception of the accommodation and food service sector and household consumption loans. It remains to be seen whether portfolio quality deteriorates once the legislative debt service moratoria gradually expire (by end-2021 at the latest).

Table 3

Main economic indicators: Slovenia

	2018	2019	2020	Q1 20	Q2 20	Q3 20	Q4 20	Q1 21	Q2 21
	Year-on-year change of period total in %								
GDP at constant prices	4.4	3.3	−4.2	−1.3	−11.0	−1.4	−3.1	1.7	16.3
Private consumption	3.6	4.8	−6.6	−3.1	−13.0	1.4	−11.1	−0.3	18.8
Public consumption	3.0	2.0	4.2	5.3	3.2	5.0	3.5	0.5	1.4
Gross fixed capital formation	9.7	5.5	−8.2	−6.6	−17.6	−5.7	−2.7	7.8	19.2
Exports of goods and services	6.2	4.5	−8.7	−0.8	−23.5	−8.9	−0.7	1.4	30.2
Imports of goods and services	7.1	4.7	−9.6	−1.2	−23.6	−12.2	−0.8	0.9	34.9
	Contribution to GDP growth in percentage points								
Domestic demand	4.6	3.0	−4.2	−1.5	−8.8	−3.2	−3.1	1.2	16.6
Net exports of goods and services	−0.1	0.3	−0.1	0.2	−2.2	1.8	0.0	0.5	−0.3
Exports of goods and services	5.1	3.8	−7.3	−0.7	−20.3	−7.4	−0.6	1.2	21.8
Imports of goods and services	−5.3	−3.6	7.2	0.9	18.0	9.2	0.6	−0.7	−22.1
	Year-on-year change of period average in %								
Unit labor costs in the whole economy (nominal, per person)	2.7	4.2	7.7	5.1	13.2	3.0	9.0	3.7	−5.5
Unit labor costs in manufacturing (nominal, per hour)	−2.7	0.1	8.0	3.2	21.8	5.2	3.0	2.6	−14.8
Labor productivity in manufacturing (real, per hour)	6.5	4.0	−4.4	1.6	−14.6	−2.9	−1.2	3.9	22.5
Labor costs in manufacturing (nominal, per hour)	3.6	4.0	3.1	4.8	3.9	2.2	1.8	6.5	4.4
Producer price index (PPI) in industry	2.1	0.6	−0.3	−0.1	−0.6	−0.3	−0.2	1.1	3.6
Consumer price index (here: HICP)	1.9	1.7	−0.3	1.6	−1.2	−0.6	−0.9	−0.6	2.1
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	5.2	4.5	5.0	4.6	5.2	5.2	5.1	5.7	4.4
Employment rate (%, 15–64 years)	71.1	71.9	70.9	71.5	70.0	70.8	71.1	68.1	71.9
Key interest rate per annum (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Nominal year-on-year change in period-end stock in %								
Loans to the domestic nonbank private sector[1]	1.9	4.3	4.3	5.1	1.3	0.1	−1.0	−1.9	0.9
of which: loans to households	6.4	5.8	5.8	4.1	1.6	1.2	0.1	0.8	2.9
loans to nonbank corporations	−2.2	2.8	2.8	6.1	1.1	−1.0	−2.2	−4.5	−1.1
	%								
Share of foreign currency loans in total loans to the nonbank private sector	2.0	1.7	1.4	1.6	1.6	1.5	1.4	1.3	1.2
Return on assets (banking sector)	1.3	1.3	1.0	0.6	0.6	1.2	1.0	0.8	1.0
Tier 1 capital ratio (banking sector)	17.6	17.8	16.7	16.3	17.7	18.2	16.7	16.5	17.0
NPL ratio (banking sector)	4.0	2.2	1.9	2.2	2.0	1.8	1.9	1.8	1.0
	% of GDP								
General government revenues	44.3	43.7	43.6	..	..	..	..	..	..
General government expenditures	43.5	43.3	52.0	..	..	..	..	..	..
General government balance	0.7	0.4	−8.4	..	..	..	..	..	..
Primary balance	2.8	2.1	−6.8	..	..	..	..	..	..
Gross public debt	70.3	65.6	80.8	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	51.5	48.5	48.5	..	..	..	..	..	..
Debt of households and NPISHs[2] (nonconsolidated)	26.9	26.9	27.8	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Goods balance	2.8	2.7	5.3	5.1	5.3	5.9	4.9	4.7	1.7
Services balance	5.7	5.8	4.2	4.5	3.6	4.4	4.4	4.1	3.8
Primary income	−1.8	−1.8	−1.5	−1.0	−1.7	−2.2	−0.9	−1.0	−1.3
Secondary income	−0.9	−1.1	−1.1	−1.5	−1.3	−0.8	−0.9	−1.0	0.0
Current account balance	5.8	5.6	7.0	7.2	5.9	7.3	7.4	6.8	4.1
Capital account balance	−0.5	−0.4	−0.5	−0.5	−0.2	−0.2	−1.0	1.2	−0.1
Foreign direct investment (net)[3]	−2.0	−1.5	0.0	−1.5	−1.0	−0.9	3.4	−1.5	−3.9
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	91.9	90.5	102.7	94.4	101.6	101.6	102.7	106.2	101.3
Gross official reserves (excluding gold)	1.5	1.6	1.9	1.7	1.8	1.8	1.9	2.0	2.0
	Months of imports of goods and services								
Gross official reserves (excluding gold)	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3
	EUR million, period total								
GDP at current prices	45,864	48,397	46,918	11,349	10,987	12,308	12,275	11,699	13,070

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiiw, OeNB.

[1] *Foreign currency component at constant exchange rates.*
[2] *Nonprofit institutions serving households.*
[3] *+ = net accumulation of assets larger than net accumulation of liabilities (net outflow of capital).*
  − = net accumulation of assets smaller than net accumulation of liabilities (net inflow of capital).

4 Bulgaria: fourth pandemic wave amid low vaccination rates and political instability

Since the start of the vaccination rollout in the EU, Bulgaria has been lagging behind its peers immensely. At the time of writing, less than 20% of the population was vaccinated. Given these low numbers and increased tourism activity over the summer, a further upsurge in infection rates in October did not come as a surprise. In August 2021, the caretaker government extended the epidemic declaration, which had followed the state of emergency between March and May 2020, until November 2021.

Still, since the beginning of 2021, real GDP has been slowly recovering. After a moderate contraction in the first quarter (–0.5%), it grew by 6.4% year on year in the second quarter of 2021. The accelerating momentum reflected stronger private consumption and booming exports. Although still lagging behind pre-pandemic levels, domestic and foreign tourism numbers rose in comparison to the previous year and bolstered the export of services. As in other European countries, HICP inflation began to rise in the second quarter, from 0.8% in March to 4% in September 2021, mostly due to rising energy prices. There was a mandatory energy price increase in July 2021 for households, and gas prices are expected to increase further in October 2021. This contrasts with decreasing prices for recreational and touristic activities (culture, hotels, and restaurants) especially in the summer months.

Several further measures were introduced to back the tourism sector, some financed by the European Commission. The unemployment rate stood at 5.6% by the end of August, which is slightly higher than a year before. In addition, labor market participation is still lower in comparison to pre-pandemic years. The most prominent worker support measure, the 60:40 wage support scheme, was again extended until the end of the year.

New support measures for SMEs, mostly related to receiving grants and loans, were announced in summer, and real wages continued to grow. Despite loan moratoria having mostly run out by the end of the first quarter, there was no sharp increase in private sector NPLs. NPLs marginally but steadily declined over the course of the pandemic, standing at 4% at the end of the second quarter of 2021.

The parliament just had to revise the 2021 budget in order to raise additional funds to combat the pandemic. At the same time, government revenues again increased in the second and third quarter of 2021 in comparison to the previous year. The larger budget will be used to extend work and business support measures, to finance additional spending on healthcare and additional support for pensioners. Against this background, the current budget target for 2021 amounts to –5.7% of GDP and the gross debt target to 26.7% of GDP. This is notably higher than in 2020 and in part reflects several elections held or to be held in 2021.

After two failed attempts to form a government, Bulgaria will hold its third parliamentary elections for this year on November 14, together with its regular presidential elections. Amid political instability, a caretaker government that was installed in May 2021 substantially revised the national recovery and resilience plan. The revised plan puts more emphasis on education, social policy, and green transition and was submitted to the European Commission in late October 2021. Moreover, at the end of June 2021, the authorities drafted a first detailed plan that is supposed to guide the planned euro adoption.

Table 4

Main economic indicators: Bulgaria

	2018	2019	2020	Q1 20	Q2 20	Q3 20	Q4 20	Q1 21	Q2 21
Year-on-year change of period total in %									
GDP at constant prices	3.1	3.7	−4.2	1.8	−8.5	−4.2	−4.7	−0.5	6.4
Private consumption	4.4	5.5	0.2	2.9	−4.0	7.1	−4.3	2.8	9.3
Public consumption	5.3	2.0	7.5	6.3	3.9	5.8	12.5	6.7	3.1
Gross fixed capital formation	5.4	4.5	−5.1	−10.2	−11.8	−1.4	0.9	2.1	3.5
Exports of goods and services	1.7	3.9	−11.3	3.2	−19.0	−17.7	−9.3	−3.0	22.2
Imports of goods and services	5.7	5.2	−6.6	0.4	−19.5	−6.1	−1.2	4.0	26.6
Contribution to GDP growth in percentage points									
Domestic demand	5.6	4.4	−0.9	−0.3	−8.8	4.8	−0.1	3.8	8.3
Net exports of goods and services	−2.5	−0.7	−3.2	1.9	0.3	−8.8	−4.6	−4.5	−1.7
Exports of goods and services	1.1	2.5	−7.3	2.2	−11.8	−12.3	−5.3	−2.0	11.6
Imports of goods and services	−3.6	−3.3	4.0	−0.3	12.1	3.5	0.7	−2.5	−13.2
Year-on-year change of period average in %									
Unit labor costs in the whole economy (nominal, per person)	6.3	3.5	7.6	3.1	8.9	8.5	10.5	7.8	4.3
Unit labor costs in manufacturing (nominal, per hour)	5.0	6.6	−0.2	4.6	5.3	−5.7	−4.9	−5.3	−4.8
Labor productivity in manufacturing (real, per hour)	3.6	4.8	5.3	3.9	4.5	3.6	8.8	3.8	6.9
Labor costs in manufacturing (nominal, per hour)	8.7	11.9	4.9	8.7	10.1	−2.2	3.5	−1.7	1.8
Producer price index (PPI) in industry	4.0	3.0	−2.0	1.4	−4.4	−2.8	−2.1	3.6	12.1
Consumer price index (here: HICP)	2.6	2.5	1.2	3.0	1.1	0.6	0.3	0.2	2.2
Period average levels									
Unemployment rate (ILO definition, %, 15–64 years)	5.3	4.3	5.2	4.6	6.0	4.9	5.3	6.4	5.7
Employment rate (%, 15–64 years)	67.7	70.1	68.5	68.1	67.4	69.6	68.8	66.9	67.8
Key interest rate per annum (%)[1]	..	..	..	..	..	..	..	..	..
Nominal year-on-year change in period-end stock in %									
Loans to the domestic nonbank private sector[2]	8.3	9.4	9.4	9.1	6.6	5.8	4.3	4.6	6.3
of which: loans to households	11.2	9.5	9.5	9.9	8.0	7.5	6.6	7.1	10.4
loans to nonbank corporations	6.6	9.3	9.3	8.7	5.7	4.7	2.9	3.0	3.7
%									
Share of foreign currency loans in total loans to the nonbank private sector	34.9	33.2	31.9	32.7	32.6	31.6	31.9	31.6	30.9
Return on assets (banking sector)	1.7	1.5	0.7	1.0	0.9	0.8	0.7	1.1	1.0
Tier 1 capital ratio (banking sector)	19.4	19.5	22.1	19.8	22.5	22.3	22.1	21.9	22.3
NPL ratio (banking sector)	5.1	4.2	4.3	4.2	5.2	4.9	4.3	4.1	4.0
% of GDP									
General government revenues	38.6	38.5	39.5	..	..	..	..	..	..
General government expenditures	36.6	36.3	42.9	..	..	..	..	..	..
General government balance	2.0	2.1	−3.4	..	..	..	..	..	..
Primary balance	2.7	2.8	−2.8	..	..	..	..	..	..
Gross public debt	22.3	20.2	25.0	..	..	..	..	..	..
% of GDP									
Debt of nonfinancial corporations (nonconsolidated)	83.5	80.0	82.5	..	..	..	..	..	..
Debt of households and NPISHs[3] (nonconsolidated)	23.0	23.1	24.7	..	..	..	..	..	..
% of GDP (based on EUR), period total									
Goods balance	−4.8	−4.8	−3.1	−3.1	−1.3	−2.4	−5.3	−3.8	−4.5
Services balance	7.3	8.0	4.9	5.5	4.5	6.2	3.4	5.3	6.6
Primary income	−4.8	−4.3	−3.5	−3.9	−3.5	−4.0	−2.6	−5.2	−4.8
Secondary income	3.2	2.9	1.0	3.5	1.2	0.3	−0.5	2.1	1.8
Current account balance	0.9	1.8	−0.7	2.1	0.9	0.1	−5.0	−1.6	−1.0
Capital account balance	1.1	1.5	1.6	1.4	2.0	1.5	1.3	1.6	1.3
Foreign direct investment (net)[4]	−1.3	−1.9	−3.2	−2.1	−2.0	−9.5	1.0	−0.5	−2.2
% of GDP (rolling four-quarter GDP, based on EUR), end of period									
Gross external debt	66.3	62.6	66.1	61.0	62.0	66.6	66.1	63.5	62.9
Gross official reserves (excluding gold)	42.1	37.7	47.5	39.8	42.8	47.7	47.5	43.8	44.1
Months of imports of goods and services									
Gross official reserves (excluding gold)	8.0	7.4	10.4	7.9	8.9	10.3	10.4	9.5	9.0
EUR million, period total									
GDP at current prices	56,112	61,240	60,643	13,290	14,201	16,196	16,956	13,833	15,935

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiiw, OeNB.

[1] Not available in a currency board regime.
[2] Foreign currency component at constant exchange rates.
[3] Nonprofit institutions serving households.
[4] + = net accumulation of assets larger than net accumulation of liabilities (net outflow of capital).
  − = net accumulation of assets smaller than net accumulation of liabilities (net inflow of capital).

5 Croatia: successful tourism season bolsters economic recovery

The economic recovery seems to progress better than expected, with Croatia's GDP rising by 7.7% in the first half of 2021. Growth was broadly based. Private consumption posted annual growth of 18.1%, while gross fixed capital formation grew by 18.3% in the second quarter of 2021. Exports increased by 40.9% in the same period, owing to the significant positive contribution of tourism-related services, rendering the contribution of net exports marginally positive in the review period. On the output side, the largest contribution to growth came from wholesale and retail trade, transport, accommodation and food service activities.

While the tourist season was better than expected, tourist arrivals in the first half of 2021 still lagged behind the first-half 2019 figures. However, Croatia's current account recorded a notable deficit in the second quarter of 2021, primarily due to the widening of the foreign trade deficit driven by buoyant import growth and, to a lesser extent, the deterioration in the primary income balance.

Inflation has picked up throughout 2021 and increased to 3.5% in September 2021 mostly on the back of rising energy prices. Core inflation climbed to 2.2% in September 2021, after oscillating around 1% annually over the past two years.

The increase of the minimum wage by 4.6% in January 2021 and the government measures in response to the pandemic have supported wage growth, which amounted to 5% in the second quarter of 2021. To mitigate the labor market impact of the pandemic and the earthquakes, a job retention scheme for affected businesses was implemented from July 2021. The unemployment rate decreased from 8.5% in December 2020 to 7.6% in August 2021. Strengthened economic activity due to the successful tourism season and government support measures positively contributed to this development. Also, the number of employed people increased in August by 2.1% in annual terms. The highest growth in the number of workers was recorded in the hospitality industry and is hence seasonal. At the same time, one of the challenges Croatia is facing is the shortage of skilled workers.

The Croatian banking system's return on assets grew to 1.1% at the end of the first half of 2021. The tier 1 capital ratio stood at 25% at the end of June 2021 and the NPL ratio was 5.1% compared to 5.4% at the end of 2020 due to an increase in total loans and advances by 3.2% and a decline in NPLs by 3.5%. The decline mostly stemmed from NPLs of nonfinancial corporations. As such, it seems that credit guarantees and other support measures have been supportive in helping viable companies come through the pandemic.

Long-run interest rates have remained at low levels in 2021. The ten-year government bond yield stood at 0.43% in August 2021, roughly the same level as in the months preceding the pandemic.

The European Commission has adopted a proposal to grant Croatia EUR 6.3 billion (12.8% of 2020's GDP) from its recovery and resilience plan. EUR 818 million in prefinancing were disbursed on September 28, 2021.

The participation in the exchange rate mechanism (ERM II) since July 2020 has been relatively smooth so far. The Croatian central bank has intervened twice on foreign exchange markets during 2021. In April, it sold EUR 190 million to local banks to counter the depreciation pressures on the local currency, while, on June 16, it bought EUR 120 million from local banks to counter appreciation pressures. According to recent statements by the Croatian prime minister, Croatia's target date for euro adoption is still January 1, 2023.

Main economic indicators: Croatia

	2018	2019	2020	Q1 20	Q2 20	Q3 20	Q4 20	Q1 21	Q2 21
	Year-on-year change of period total in %								
GDP at constant prices	2.8	2.9	−8.0	0.9	−14.4	−10.1	−7.2	−0.7	16.1
Private consumption	3.3	3.5	−6.2	0.8	−13.8	−7.3	−4.4	−0.4	18.1
Public consumption	2.3	3.4	3.4	6.1	1.7	3.0	3.1	0.2	4.0
Gross fixed capital formation	6.5	7.1	−2.9	3.1	−14.7	−3.0	4.2	4.6	18.3
Exports of goods and services	3.7	6.8	−25.0	−2.0	−40.7	−32.3	−9.8	−0.9	40.9
Imports of goods and services	7.5	6.3	−13.8	−5.0	−27.5	−14.1	−7.6	−2.1	30.3
	Contribution to GDP growth in percentage points								
Domestic demand	4.6	2.7	−2.3	−1.6	−9.4	8.0	−7.2	−2.1	15.7
Net exports of goods and services	−1.8	0.2	−5.8	2.1	−5.2	−17.5	−0.1	0.8	−0.1
Exports of goods and services	1.9	3.4	−13.0	−0.7	−20.0	−24.2	−4.1	−0.3	13.7
Imports of goods and services	−3.7	−3.2	7.2	2.8	14.8	6.7	4.0	1.1	−13.8
	Year-on-year change of period average in %								
Unit labor costs in the whole economy (nominal, per person)	..	..	..	..	..	..	..	..	..
Unit labor costs in manufacturing (nominal, per hour)	6.4	11.4	2.5	4.8	6.7	1.0	−2.5	−3.1	−7.5
Labor productivity in manufacturing (real, per hour)	2.2	−7.2	−2.4	−4.8	−6.1	−1.6	2.9	4.9	9.6
Labor costs in manufacturing (nominal, per hour)	8.9	3.6	−0.1	−0.3	0.2	−0.6	0.3	1.7	1.4
Producer price index (PPI) in industry	2.2	0.8	−3.2	−0.1	−5.4	−4.2	−2.9	0.9	8.0
Consumer price index (here: HICP)	1.6	0.8	0.0	1.2	−0.4	−0.5	−0.2	0.7	2.2
EUR per 1 HRK, + = HRK appreciation	0.6	0.0	−1.6	−0.9	−2.1	−1.8	−1.6	−1.1	0.7
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	8.6	6.7	7.6	7.1	6.5	7.5	9.2	10.0	7.9
Employment rate (%, 15–64 years)	60.7	62.1	62.0	61.4	62.2	63.0	61.5	61.4	63.6
Key interest rate per annum (%)	..	..	..	..	..	..	..	..	..
HRK per 1 EUR	7.4	7.4	7.5	7.5	7.6	7.5	7.6	7.6	7.5
	Nominal year-on-year change in period-end stock in %								
Loans to the domestic nonbank private sector[1]	2.4	3.4	3.4	4.7	2.3	3.0	2.8	1.3	2.4
of which: loans to households	4.7	6.7	6.7	5.3	3.0	3.2	1.6	1.9	3.7
loans to nonbank corporations	−0.8	−1.3	−1.3	3.9	1.2	2.8	4.8	0.4	0.5
	%								
Share of foreign currency loans in total loans to the nonbank private sector	54.7	51.5	52.0	51.5	51.4	51.1	52.0	52.1	51.8
Return on assets (banking sector)	1.2	1.4	0.6	1.0	0.8	0.7	0.6	0.9	1.1
Tier 1 capital ratio (banking sector)	22.1	24.0	25.0	22.7	24.0	24.3	25.0	24.6	25.0
NPL ratio (banking sector)	7.5	5.5	5.4	5.3	5.4	5.5	5.4	5.3	5.1
	% of GDP								
General government revenues	46.3	47.5	48.0	..	..	..	..	..	..
General government expenditures	46.1	47.2	55.4	..	..	..	..	..	..
General government balance	0.2	0.3	−7.4	..	..	..	..	..	..
Primary balance	2.5	2.5	−5.4	..	..	..	..	..	..
Gross public debt	74.3	72.8	88.7	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	91.7	85.9	94.2	..	..	..	..	..	..
Debt of households and NPISHs[2] (nonconsolidated)	33.9	34.5	38.2	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Goods balance	−18.6	−19.3	−17.6	−20.6	−17.0	−15.9	−17.2	−20.8	−19.0
Services balance	17.8	19.0	10.7	3.3	6.1	26.6	5.1	3.0	9.5
Primary income	−0.6	−0.1	2.3	2.5	1.3	0.3	5.4	1.1	−0.1
Secondary income	3.3	3.5	4.4	3.6	5.5	3.9	4.9	6.0	3.8
Current account balance	1.9	3.1	−0.1	−11.2	−4.1	14.9	−1.8	−10.7	−5.8
Capital account balance	1.3	1.6	2.2	1.8	2.5	1.8	2.7	2.2	2.5
Foreign direct investment (net)[3]	−1.6	−6.3	−1.4	−2.9	−1.4	−1.7	0.5	−4.0	−2.6
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	82.3	75.1	82.5	75.0	79.6	81.1	82.5	88.4	85.6
Gross official reserves (excluding gold)	33.6	34.1	38.5	30.6	33.4	36.3	38.5	42.9	41.7
	Months of imports of goods and services								
Gross official reserves (excluding gold)	7.9	7.8	9.3	7.1	8.0	8.8	9.3	10.3	9.7
	EUR million, period total								
GDP at current prices	51,956	54,243	49,287	12,151	11,371	13,463	12,302	12,115	13,751

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiiw, OeNB.

[1] Foreign currency component at constant exchange rates.
[2] Nonprofit institutions serving households.
[3] + = net accumulation of assets larger than net accumulation of liabilities (net outflow of capital).
 − = net accumulation of assets smaller than net accumulation of liabilities (net inflow of capital).

6 Czechia: sluggish rebound from an epic trough amid high inflation outlook

In 2020, the COVID-19 pandemic sent Czechia into the deepest economic down-turn in nearly three decades. As the epidemiological situation improved in spring 2021, many were expecting a rather fast and robust economic rebound driven by the global economic recovery, vaccination progress and the release of pent-up demand. However, these optimists were somewhat disappointed by the rather restrained growth performance of the Czech economy in the first half of 2021 (+3%). Particularly in the second quarter of 2021, quarterly GDP growth came in only about half as strong as projected. In the six months to June, the lion's share of growth was contributed by the buildup of inventories followed by public consumption. The overall impact of household consumption, investment and net exports was only moderate since significant negative contributions in the first quarter were only slightly more than offset in the second quarter of 2021. Rising prices have put a damper on private consumption and particularly on investment. Especially construction projects have often been put on hold as prices of raw materials have soared so that originally contracted conditions could no longer be fulfilled. In addition, fixed capital formation has suffered not only from still prevailing uncertainty but also from disruptions to supply chains. The most prominent example is the lack of microchips, which has resulted in a significant production slowdown in the crucial automotive industry and in thousands of unfinished cars waiting on provisional parking lots to be finished. This phenomenon largely explains the unprecedented buildup of inventories as well as – in combination with the rebound in domestic demand-driven imports – the moderate contribution of net exports.

The current account balance still recorded a significant surplus also in the first half of 2021. This reflects not only the performance of the goods and services balance but also the rather low deficit of the primary income balance on the back of still restricted outflows of dividends. For 2021, the parliament mandated a budget deficit of CZK 500 billion (about 8% of GDP). From January to August 2021, expenditures exceeded revenues by about CZK 300 billion, which compares to CZK 230 billion over the same period in 2020. The Ministry of Finance expects the deficit to rise to about CZK 400 billion by the end of the year (about 6.5% of GDP), well below the authorized level but still the highest shortfall ever.

Thanks to government support schemes, the harm of the economic downturn to the labor market has remained contained and has been reflected in fewer working hours rather than a rise in unemployment. Moreover, on the back of the gradual recovery, demand for labor has started to strengthen. Inflation has increased significantly to 4.9% (CPI) in September 2021 (central bank target: 2% ±1 percentage point) despite an appreciating koruna. Strengthening domestic and global demand, disruptions in supply chains and production processes and higher wage growth kept core inflation high, while food and energy prices trended notably higher. After mixed signals throughout most of the first half of 2021, the Czech National Bank reacted to rising inflation by raising its key interest rate in two 25-basis point steps in June and August 2021. In light of the sizable deterioration in the inflation outlook for the near term, the central bank sent a strong signal on September 30 by raising the policy rate – for the first time in almost 25 years of its inflation-targeting history – by 75 basis points to 1.5%. Markets expect a continuation of the hiking cycle this year.

Main economic indicators: Czechia

	2018	2019	2020	Q1 20	Q2 20	Q3 20	Q4 20	Q1 21	Q2 21
Year-on-year change of period total in %									
GDP at constant prices	3.2	3.0	−5.8	−1.0	−10.8	−5.7	−5.4	−2.7	8.8
Private consumption	3.5	2.7	−6.8	−2.1	−9.9	−5.1	−9.8	−6.4	7.7
Public consumption	3.8	2.5	3.4	3.9	1.8	0.5	7.2	0.9	3.1
Gross fixed capital formation	10.0	5.9	−7.2	−3.2	−4.4	−8.8	−11.1	−3.4	4.9
Exports of goods and services	3.7	1.5	−6.9	−2.5	−23.9	−4.6	3.5	2.5	31.9
Imports of goods and services	5.8	1.5	−6.9	−1.9	−18.8	−6.5	−0.7	3.8	32.7
Contribution to GDP growth in percentage points									
Domestic demand	4.4	3.0	−5.3	−0.3	−5.4	−6.7	−8.5	−2.1	8.0
Net exports of goods and services	−1.2	0.0	−0.5	−0.6	−5.3	1.0	3.0	−0.6	0.8
Exports of goods and services	2.9	1.1	−5.1	−2.0	−17.8	−3.2	2.6	1.9	19.8
Imports of goods and services	−4.1	−1.1	4.7	1.3	12.5	4.2	0.5	−2.5	−19.0
Year-on-year change of period average in %									
Unit labor costs in the whole economy (nominal, per person)	6.1	4.3	7.7	5.0	9.3	6.4	10.0	3.4	1.3
Unit labor costs in manufacturing (nominal, per hour)	4.7	9.1	2.4	2.6	14.8	−1.7	−5.4	−4.8	−14.2
Labor productivity in manufacturing (real, per hour)	3.9	−0.8	2.7	3.1	−7.8	3.8	11.5	7.6	17.8
Labor costs in manufacturing (nominal, per hour)	8.8	8.2	4.7	5.8	5.8	2.0	5.5	2.4	1.1
Producer price index (PPI) in industry	0.7	1.7	0.6	0.1	1.0	0.1	1.1	2.3	3.3
Consumer price index (here: HICP)	2.0	2.6	3.3	3.7	3.3	3.5	2.7	2.2	2.8
EUR per 1 CZK, + = CZK appreciation	2.7	−0.1	−3.0	0.3	−5.1	−2.8	−4.1	−1.7	5.6
Period average levels									
Unemployment rate (ILO definition, %, 15–64 years)	2.3	2.1	2.6	2.0	2.4	2.9	3.1	3.4	3.1
Employment rate (%, 15–64 years)	74.8	75.1	74.4	74.8	74.1	74.4	74.3	73.6	73.7
Key interest rate per annum (%)	1.1	1.9	0.8	2.0	0.6	0.3	0.3	0.3	0.3
CZK per 1 EUR	25.6	25.7	26.5	25.6	27.1	26.5	26.7	26.1	25.6
Nominal year-on-year change in period-end stock in %									
Loans to the domestic nonbank private sector[1]	6.8	5.0	5.0	5.6	3.6	3.5	3.0	2.6	4.4
of which: loans to households	7.5	6.1	6.1	6.3	6.1	6.3	6.5	6.9	8.1
loans to nonbank corporations	5.8	3.8	3.8	4.8	0.7	0.1	−1.3	−2.7	−0.3
%									
Share of foreign currency loans in total loans to the non-bank private sector	14.1	14.5	14.6	16.9	16.0	16.1	14.6	14.8	13.5
Return on assets (banking sector)	1.1	1.2	0.6	0.7	0.7	0.6	0.6	0.5	0.7
Tier 1 capital ratio (banking sector)	19.1	20.8	23.6	20.9	22.5	22.6	23.6	23.4	23.9
NPL ratio (banking sector)	3.1	2.4	2.6	2.3	2.4	2.2	2.6	2.6	2.6
% of GDP									
General government revenues	41.5	41.7	41.3	..	..	..	..	..	..
General government expenditures	40.6	41.4	47.5	..	..	..	..	..	..
General government balance	0.9	0.3	−6.2	..	..	..	..	..	..
Primary balance	1.6	1.0	−5.4	..	..	..	..	..	..
Gross public debt	32.1	30.3	38.1	..	..	..	..	..	..
% of GDP									
Debt of nonfinancial corporations (nonconsolidated)	59.8	55.1	56.4	..	..	..	..	..	..
Debt of households and NPISHs[2] (nonconsolidated)	31.6	31.7	34.1	..	..	..	..	..	..
% of GDP (based on EUR), period total									
Goods balance	3.7	4.1	5.0	4.9	2.2	5.4	7.3	6.8	3.0
Services balance	2.2	1.8	1.8	2.7	2.0	2.1	0.6	1.7	2.1
Primary income	−4.8	−5.0	−2.7	−0.3	−2.8	−1.0	−6.7	−1.8	−3.3
Secondary income	−0.7	−0.6	−0.5	−1.1	−0.2	−0.7	−0.1	−1.6	0.1
Current account balance	0.5	0.3	3.6	6.1	1.2	5.8	1.2	5.1	1.8
Capital account balance	0.2	0.4	1.3	1.4	1.5	1.3	0.8	−0.1	1.6
Foreign direct investment (net)[3]	−0.9	−2.4	−1.3	0.5	−2.5	1.5	−4.4	2.4	−2.2
% of GDP (rolling four-quarter GDP, based on EUR), end of period									
Gross external debt	81.3	76.5	76.1	72.1	74.2	73.6	76.1	76.1	73.0
Gross official reserves (excluding gold)	58.9	59.0	62.7	58.1	61.1	61.4	62.7	64.7	62.3
Months of imports of goods and services									
Gross official reserves (excluding gold)	9.9	10.4	11.7	10.4	11.2	11.5	11.7	12.0	11.1
EUR million, period total									
GDP at current prices	210,881	225,579	215,282	53,488	49,847	55,150	56,797	53,136	59,668

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiiw, OeNB.

[1] Foreign currency component at constant exchange rates.
[2] Nonprofit institutions serving households.
[3] + = net accumulation of assets larger than net accumulation of liabilities (net outflow of capital).
− = net accumulation of assets smaller than net accumulation of liabilities (net inflow of capital).

7 Hungary: GDP bounces back accompanied by rising inflation

Hungary's GDP continued to recover during the reference period, and growth hit 17.9% during the second quarter of 2021. This was partially caused by the low base in the second quarter of 2020, when large parts of the economy were closed down due to the pandemic. Still, the economy showed very strong growth dynamics as well. On the domestic side, growth was driven by both investments and consumption. Strong investment growth was mainly caused by base effects. Growth was strongest for machinery and transport equipment, reflecting rising capacity utilization rates. Investments in dwellings expanded as well, supported by the strengthening of household credit growth and various government measures to underpin home construction and renovation. Private consumption benefited from some improvement on the labor market and the acceleration of real wage growth. Exports recovered more than imports during the reference period so that net real exports contributed strongly to growth.

According to the European Commission's latest forecast, Hungary's budget deficit should decline to 6.8% of GDP in 2021. This is lower than the government's deficit target, which was raised from 2.9% to 7.5% of GDP in May 2021. Various government measures will work toward a deterioration of the fiscal balance from 2021 onward, such as the refund of personal income tax paid by families in 2021 (if 2021 GDP growth exceeds 5.5%), personal income tax exemption for employees under the age of 25, stepped-up public investments, (at least) one further weekly installment of the 13th month pension as well as a pension premium and further reductions in employers' social tax. Notwithstanding heightened uncertainty about the timing and the magnitude of the EU funds available for Hungary, the government has pledged to prefinance projects, using the proceeds from three eurobond issues in mid-September.

HICP inflation has accelerated rapidly since the beginning of 2021 to 5.5% in September 2021 (i.e. well above the central bank's 3% ±1 percentage point target). The acceleration of inflation has partially been linked to increases in the tobacco tax and the sharp rise in energy prices. Nevertheless, inflation has also accelerated for nonenergy industrial goods and services, which has reflected unbalanced demand-supply conditions due to the lifting of COVID-19 restrictions, international supply chain disruptions, rapid wage growth and strong consumer demand. Against this background, Magyar Nemzeti Bank resumed a tightening cycle in June 2021. From June through October 2021, it raised the base rate in four steps from 0.6% to 1.8% and signaled further monthly rate hikes for the fourth quarter of 2021. It has also ended or reduced its various quantitative easing programs (e.g. Funding For Growth Go! (F4G), long-term covered loans for banks, forint-providing foreign currency swaps, government bond purchases). At the beginning of August, it launched a new green mortgage bond purchase program and resumed rolling over maturing nongreen mortgage bonds, while it raised the volume of its corporate bond purchase program. In order to additionally support demand for green assets, it has granted green securities preferential treatment as eligible collateral since September 2021. In early October 2021 it also started a new green home program subject to the same preferential conditions as used in the F4G programs. The government extended the existing loan repayment moratorium until mid-2022 for selected debtor groups (e.g. pensioners, people raising children and people with decreased income and companies with revenue loss of at least 25%) and ordered banks to retroactively recalculate interest on credit card debt and overdraft credit under the moratorium at more favorable interest rates for the debtors.

Table 7

Main economic indicators: Hungary

	2018	2019	2020	Q1 20	Q2 20	Q3 20	Q4 20	Q1 21	Q2 21
	Year-on-year change of period total in %								
GDP at constant prices	5.4	4.6	–5.0	2.1	–13.3	–4.6	–3.5	–2.1	17.9
Private consumption	5.1	5.1	–2.3	4.7	–7.3	–2.6	–3.6	–4.7	10.4
Public consumption	1.7	4.0	–1.0	0.6	–2.5	–0.7	–1.3	6.2	2.8
Gross fixed capital formation	16.4	12.8	–7.3	–4.1	–10.9	–13.7	1.3	–0.1	8.3
Exports of goods and services	5.0	5.8	–6.8	0.4	–23.6	–4.8	1.1	3.3	33.0
Imports of goods and services	7.0	8.2	–4.4	2.7	–15.2	–4.7	–0.4	1.1	23.4
	Contribution to GDP growth in percentage points								
Domestic demand	6.6	6.3	–2.9	4.0	–5.6	–4.4	–4.7	–4.1	11.5
Net exports of goods and services	–1.2	–1.7	–2.1	–1.9	–7.7	–0.2	1.2	2.0	6.5
Exports of goods and services	4.3	4.9	–5.6	0.3	–19.7	–3.9	0.8	2.9	24.0
Imports of goods and services	–5.5	–6.5	3.5	–2.2	12.0	3.7	0.3	–0.9	–17.5
	Year-on-year change of period average in %								
Unit labor costs in the whole economy (nominal, per person)	3.4	3.0	8.1	4.6	14.7	6.5	6.5	8.5	–3.1
Unit labor costs in manufacturing (nominal, per hour)	7.4	6.4	8.4	6.3	25.5	1.9	0.4	–0.7	–15.9
Labor productivity in manufacturing (real, per hour)	1.5	4.3	–0.1	2.3	–11.9	2.5	6.3	4.6	20.7
Labor costs in manufacturing (nominal, per hour)	9.0	10.9	7.6	8.7	10.5	4.5	6.7	3.8	1.5
Producer price index (PPI) in industry	5.6	2.2	4.3	4.1	2.8	4.0	6.1	8.0	10.9
Consumer price index (here: HICP)	2.9	3.4	3.4	4.4	2.5	3.8	2.9	3.3	5.3
EUR per 1 HUF, + = HUF appreciation	–3.0	–2.0	–7.4	–6.3	–8.2	–7.2	–7.9	–6.1	–0.8
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	3.8	3.5	4.3	3.8	4.7	4.5	4.2	4.5	4.1
Employment rate (%, 15–64 years)	69.3	70.1	69.7	69.7	68.7	70.2	70.2	71.8	72.8
Key interest rate per annum (%)	0.9	0.9	0.8	0.9	0.9	0.6	0.6	0.6	0.6
HUF per 1 EUR	318.8	325.2	351.2	339.1	351.7	353.6	360.5	361.0	354.7
	Nominal year-on-year change in period-end stock in %								
Loans to the domestic nonbank private sector[1]	9.9	12.5	12.5	15.3	11.1	10.3	11.0	8.7	10.5
of which: loans to households	5.8	15.5	15.5	18.0	18.5	14.9	14.1	13.4	15.5
loans to nonbank corporations	13.1	10.4	10.4	13.5	6.2	7.1	8.8	5.4	6.8
	%								
Share of foreign currency loans in total loans to the non-bank private sector	24.0	23.8	22.3	25.6	24.4	23.4	22.3	21.9	20.0
Return on assets (banking sector)	1.4	1.2	0.4	0.2	0.3	0.5	0.4	1.1	1.3
Tier 1 capital ratio (banking sector)	17.8	16.4	17.4	15.6	15.7	15.8	17.4	17.3	17.2
NPL ratio (banking sector)	2.2	2.6	2.4	2.5	2.9	2.8	2.4	2.3	2.2
	% of GDP								
General government revenues	43.8	43.6	43.5	..	..	..	..	..	..
General government expenditures	45.9	45.7	51.6	..	..	..	..	..	..
General government balance	–2.1	–2.1	–8.1	..	..	..	..	..	..
Primary balance	0.2	0.1	–5.7	..	..	..	..	..	..
Gross public debt	69.1	65.5	80.4	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	63.9	62.5	66.1	..	..	..	..	..	..
Debt of households and NPISHs[2] (nonconsolidated)	17.6	18.1	20.2	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Goods balance	–1.7	–2.5	–1.0	–1.2	–2.7	–0.4	–0.1	3.7	–1.4
Services balance	5.9	4.9	2.8	4.1	1.2	4.1	1.7	2.0	3.6
Primary income	–3.7	–2.5	–2.6	–2.6	–2.7	–2.8	–2.5	–3.9	–3.2
Secondary income	–0.4	–0.5	–0.7	–1.3	–0.9	–0.3	–0.4	–1.2	–1.1
Current account balance	0.2	–0.7	–1.6	–1.0	–5.1	0.7	–1.4	0.6	–2.1
Capital account balance	2.3	1.9	2.0	1.7	2.1	2.1	2.1	1.6	1.2
Foreign direct investment (net)[3]	–1.9	–0.5	–1.6	–3.1	–2.7	–1.6	0.6	0.2	0.2
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	79.3	72.5	80.5	70.9	77.3	80.2	80.5	86.0	84.0
Gross official reserves (excluding gold)	19.3	18.5	23.6	16.6	20.4	22.2	23.6	20.4	18.5
	Months of imports of goods and services								
Gross official reserves (excluding gold)	2.9	2.8	3.6	2.5	3.1	3.4	3.6	3.1	2.8
	EUR million, period total								
GDP at current prices	135,815	145,963	135,796	32,567	30,831	34,681	37,718	32,048	37,780

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiiw, OeNB.

[1] Foreign currency component at constant exchange rates.
[2] Nonprofit institutions serving households.
[3] + = net accumulation of assets larger than net accumulation of liabilities (net outflow of capital).
  – = net accumulation of assets smaller than net accumulation of liabilities (net inflow of capital).

8 Poland: modest rate hike to keep inflation from becoming entrenched above target

GDP in Poland grew at an annual rate of 4.8% in the first half of 2021, as in the second quarter the base effect lifted year-on-year growth to almost 11% from negative territory, while quarter-on-quarter growth accelerated to 2.1% from 1.3% in the first quarter. Both domestic and foreign demand contributed to quarter-on-quarter growth in the final quarter of 2020 and the first two quarters of 2021, although export growth paused in the first quarter. As quarterly import growth was more sustained, the contribution of net exports to both annual and quarterly GDP growth was negative. However, in balance of payment terms, the goods and services balance was largely unchanged compared to the previous year. With both the primary and secondary income balance deficit rising, the current account surplus declined by 2.5 percentage points to 1.2% of GDP in the first half of 2021. The capital account surplus and stable positive net FDI inflows amounted to 1.4% and 3.2% of GDP, respectively. Regarding domestic demand, private consumption showed quarter-on-quarter growth accelerating to 2.8% in the second quarter from 1.7% in the first. The relatively high saving rate of previous periods, rising employment and substantially improved consumer confidence supported growth. Annual growth was lifted by a base effect. Gross fixed capital formation showed a highly volatile quarter-on-quarter growth pattern, rising at a double-digit rate in the first quarter and shrinking at a similar rate in the second quarter of 2021. Hence, its annual growth was quite modest in the first half of 2021 despite the favorable base effect. Both capacity utilization and the gross profit share of non-financial corporations rose to almost pre-pandemic levels, which will boost investment going forward.

In manufacturing, nominal ULC declined more in Poland than in the euro area in both quarters, while the złoty's value in euro has remained stable. According to the HICP (and national CPI) definition, annual headline inflation rose from 3.6% (2.4%) in February to 5.6% (5.9%) in September 2021. In parallel, core inflation stood at 4.2% (3.7%) in February and came in at 4.3% (4.2%) in September 2021. Services continue to be the main inflation-driving category within core inflation. The Monetary Policy Council (MPC), pursuing a CPI inflation target of 2.5% ±1 percentage point, maintained an asymmetric band with its main policy rate (seven-day open-market rate) at 0.1%, the deposit rate at 0.0% and the lombard rate at 0.5%. On October 6, it raised the main policy rate to 0.5% and the lombard rate to 1.0%, re-establishing a symmetric band. It argued that, even though the impact of some supply-side factors that are currently increasing inflation would fade next year, inflation may remain elevated longer than expected, amid further economic recovery and favorable labor market conditions, and this would generate a risk of inflation staying above the inflation target in the medium term. In parallel, the MPC continued its open-ended outright purchases of government(-guaranteed) debt securities in the secondary market with flexible scale. The accepted bids implied a rise in the average three-year government bond yields by 0.5 percentage points to 0.9% and in the ten-year segment by 1.1 percentage points to 2.6% from March to September 2021.

Regarding fiscal policy, the European Commission, in May, forecast a decline in the general government deficit to 4.3% of GDP in 2021 and a decrease in general government debt to 57% of GDP. Apart from growth effects and the easing of the pandemic, revenues are set to rise by 0.4% of GDP due to a new sugar tax, retail tax and power fee, while expenditures are scheduled to rise due to a one-off 14th pension benefit.

Main economic indicators: Poland

	2018	2019	2020	Q1 20	Q2 20	Q3 20	Q4 20	Q1 21	Q2 21
Year-on-year change of period total in %									
GDP at constant prices	5.4	4.7	−2.5	2.1	−7.8	−1.7	−2.6	−1.2	10.8
Private consumption	4.5	3.9	−2.9	1.0	−10.4	0.3	−3.0	−0.2	13.2
Public consumption	3.5	6.5	4.9	3.2	3.9	3.6	8.2	1.1	2.7
Gross fixed capital formation	9.4	6.1	−9.0	2.3	−8.9	−7.0	−15.3	1.3	5.2
Exports of goods and services	6.9	5.2	0.1	3.2	−13.4	2.2	8.2	6.8	29.0
Imports of goods and services	7.4	3.0	−1.2	1.6	−15.8	0.7	8.5	10.8	34.4
Contribution to GDP growth in percentage points									
Domestic demand	5.3	3.5	−3.2	1.1	−8.4	−2.6	−2.8	0.3	11.3
Net exports of goods and services	0.0	1.3	0.7	1.0	0.5	0.8	0.3	−1.6	−0.3
Exports of goods and services	3.8	2.9	0.1	1.9	−7.6	1.2	4.2	4.0	15.3
Imports of goods and services	−3.8	−1.6	0.6	−0.9	8.1	−0.4	−3.9	−5.5	−15.6
Year-on-year change of period average in %									
Unit labor costs in the whole economy (nominal, per person)	3.1	2.4	6.3	3.9	10.1	4.3	7.1	7.4	−0.9
Unit labor costs in manufacturing (nominal, per hour)	4.7	4.2	4.9	6.1	15.5	−1.0	−0.8	−3.8	−13.1
Labor productivity in manufacturing (real, per hour)	3.1	2.4	1.6	2.1	−7.8	4.8	7.2	9.9	23.3
Labor costs in manufacturing (nominal, per hour)	8.0	6.7	6.2	8.4	6.5	3.7	6.4	5.7	7.1
Producer price index (PPI) in industry	2.1	1.3	−0.5	0.3	−1.2	−1.0	−0.1	2.5	6.6
Consumer price index (here: HICP)	1.2	2.1	3.7	3.9	3.4	3.7	3.6	3.9	4.6
EUR per 1 PLN, + = PLN appreciation	−0.1	−0.9	−3.3	−0.5	−4.9	−2.7	−4.9	−4.9	−0.6
Period average levels									
Unemployment rate (ILO definition, %, 15–64 years)	3.9	3.4	3.2	3.2	3.2	3.3	3.2	4.1	3.6
Employment rate (%, 15–64 years)	67.4	68.2	68.7	68.4	67.9	69.0	69.4	69.2	70.0
Key interest rate per annum (%)	1.5	1.5	0.5	1.4	0.4	0.1	0.1	0.1	0.1
PLN per 1 EUR	4.3	4.3	4.4	4.3	4.5	4.4	4.5	4.5	4.5
Nominal year-on-year change in period-end stock in %									
Loans to the domestic nonbank private sector[1]	6.4	5.0	5.0	4.7	1.5	−0.8	−1.2	−2.2	0.3
of which: loans to households	5.6	5.6	5.6	5.1	2.9	2.1	1.6	1.3	3.0
loans to nonbank corporations	7.6	4.1	4.1	4.1	−0.9	−5.6	−6.0	−8.0	−4.4
%									
Share of foreign currency loans in total loans to the non-bank private sector	20.8	19.2	19.6	20.2	19.8	19.6	19.6	19.3	18.1
Return on assets (banking sector)	0.7	0.7	0.0	0.3	0.3	0.4	0.0	0.4	0.5
Tier 1 capital ratio (banking sector)	17.1	17.0	18.9	16.3	18.0	18.4	18.9	18.9	18.3
NPL ratio (banking sector)	6.8	6.6	7.0	6.7	6.9	7.0	7.0	6.7	6.5
% of GDP									
General government revenues	41.3	41.1	41.7	..	..	..	..	..	..
General government expenditures	41.5	41.8	48.7	..	..	..	..	..	..
General government balance	−0.2	−0.7	−7.0	..	..	..	..	..	..
Primary balance	1.2	0.7	−5.7	..	..	..	..	..	..
Gross public debt	48.8	45.6	57.5	..	..	..	..	..	..
% of GDP									
Debt of nonfinancial corporations (nonconsolidated)	46.0	45.2	45.6	..	..	..	..	..	..
Debt of households and NPISHs[2] (nonconsolidated)	34.7	34.7	33.9	..	..	..	..	..	..
% of GDP (based on EUR), period total									
Goods balance	−1.2	0.3	2.4	0.8	3.0	2.4	3.3	2.1	1.6
Services balance	4.3	4.5	4.4	4.9	4.3	4.3	4.0	4.5	4.6
Primary income	−4.0	−4.0	−3.5	−2.0	−3.3	−4.6	−4.1	−3.5	−5.4
Secondary income	−0.3	−0.3	−0.3	−0.6	0.4	−0.2	−0.7	−1.0	−0.5
Current account balance	−1.3	0.5	2.9	3.1	4.4	1.9	2.5	2.1	0.3
Capital account balance	2.1	2.0	2.3	1.5	2.9	1.4	3.3	0.6	2.2
Foreign direct investment (net)[3]	−2.6	−1.9	−2.1	−4.7	−1.6	−1.7	−0.6	−5.1	−1.5
% of GDP (rolling four-quarter GDP, based on EUR), end of period									
Gross external debt	63.6	59.0	57.9	56.3	56.9	57.1	57.9	58.8	56.9
Gross official reserves (excluding gold)	19.6	19.6	21.8	18.4	19.6	20.3	21.8	23.7	22.7
Months of imports of goods and services									
Gross official reserves (excluding gold)	4.5	4.6	5.3	4.4	4.8	5.0	5.3	5.7	5.2
EUR million, period total									
GDP at current prices	497,645	533,674	523,576	129,430	117,617	131,573	144,956	129,210	136,237

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiiw, OeNB.

[1] Foreign currency component at constant exchange rates.
[2] Nonprofit institutions serving households.
[3] + = net accumulation of assets larger than net accumulation of liabilities (net outflow of capital).
 − = net accumulation of assets smaller than net accumulation of liabilities (net inflow of capital).

9 Romania: vivid economic recovery so far, but persistent twin deficits and rising inflation

The Romanian economy has continued to recover quickly in the first half of 2021. As a result, seasonally adjusted quarterly real GDP already surpassed the pre-lockdown level in the second quarter of 2021. The re-introduction of some restrictions to contain the spread of the coronavirus in the first few months of the year was followed by reopening steps. The vaccination progress has remained comparatively modest and stagnated over the summer months. In early October 2021, the government tightened restrictions in response to strongly rising infection numbers.

Rebounding private consumption was an important pillar of the rapid recovery, as pent-up demand was released, economic sentiment brightened, and real wages were on the rise. Yet, while the year-on-year growth rate rose steeply in the second quarter of 2021 due to base effects, private consumption in fact contracted in quarter-on-quarter terms. Gross fixed capital formation expanded further in the first half of 2021. In parallel, domestic credit growth accelerated, partly benefiting from government guarantee schemes available for households (new home program) and companies. So far, the NPL ratio has ticked up only marginally from the post-2008 low reached at end-2020. Alongside recovering external demand, real exports grew further in the first half of 2021 resulting in a formidable year-on-year growth rate in the second quarter. It is worth noting that the export-oriented automotive sector was still constrained by semiconductor shortages. As imports rose as well, the GDP contribution of net exports remained negative.

The general government budget plan for 2021 was initially built on a real GDP growth projection of 4.3%. Though this projection was raised to 7% in the context of the budget revision (endorsed in early September 2021), the cash deficit projection was lowered only marginally (from 7.16% of GDP to 7.13% of GDP; around 8% in ESA terms). The increase of expenditures in parallel to higher than expected revenues was criticized by Romania's Fiscal Council. Meanwhile, a dispute over a local investment plan triggered the collapse of the government coalition. Within the framework of the excessive deficit procedure, Romania should put an end to the excessive deficit situation by 2024 at the latest and gradually reduce its deficit until then. The European Council established the deadline of October 15, 2021, for Romania to report its consolidation strategy. It is noteworthy that the European Commission endorsed Romania's EUR 29.2 billion recovery and resilience plan in late September 2021, but it is still subject to Council approval.

The considerably increasing deficit in the goods and services balance and the rising deficit in the primary income balance (due to reinvested earnings) were the main drivers behind the marked increase in the current account deficit in the first half of 2021. As the surplus in the capital account fell due to lower inflows of EU funds, the deterioration was even more pronounced in the combined current and capital account. Rising net FDI inflows covered 55% of this shortfall.

Consumer price inflation climbed to 6.3% in September 2021, largely driven by a rise in energy prices. Hence, it markedly exceeded the upper bound of the inflation target variation band of 2.5% ± 1 percentage point. Core inflation rose from about 3% in early 2021 to 3.2% in August 2021. In early October, the National Bank of Romania hiked its key policy rate by 25 basis points to 1.5%. Government bond purchases on the secondary market (introduced during the first wave of the pandemic) had already been stopped earlier this year.

Table 9

Main economic indicators: Romania

	2018	2019	2020	Q1 20	Q2 20	Q3 20	Q4 20	Q1 21	Q2 21
	Year-on-year change of period total in %								
GDP at constant prices	4.5	4.1	−3.9	2.4	−10.0	−5.6	−1.4	−0.2	13.0
Private consumption	7.6	4.0	−4.9	3.8	−12.6	−4.3	−6.2	0.9	10.1
Public consumption	4.6	7.3	1.8	4.5	4.3	−2.1	1.9	−4.4	2.5
Gross fixed capital formation	−1.0	12.8	7.2	17.4	2.6	6.0	6.5	11.7	12.0
Exports of goods and services	5.3	4.0	−9.6	−1.7	−28.8	−5.2	−1.8	1.0	41.0
Imports of goods and services	8.7	7.1	−5.8	2.5	−22.6	−3.9	2.3	3.9	40.3
	Contribution to GDP growth in percentage points								
Domestic demand	6.1	5.3	−2.2	5.0	−7.9	−5.1	0.2	3.6	12.4
Net exports of goods and services	−1.6	−1.2	−1.6	−2.8	−1.8	−0.8	−1.6	−2.7	−1.9
Exports of goods and services	2.2	1.9	−3.9	−0.4	−11.8	−2.7	−1.2	0.3	12.9
Imports of goods and services	−3.8	−3.1	2.3	−2.4	10.0	1.9	−0.4	−2.9	−14.7
	Year-on-year change of period average in %								
Unit labor costs in the whole economy (nominal, per person)	8.5	6.3	9.4	6.6	11.7	12.4	7.4	−6.1	−12.4
Unit labor costs in manufacturing (nominal, per hour)	7.0	13.2	5.9	11.5	8.1	2.9	1.7	0.1	0.7
Labor productivity in manufacturing (real, per hour)	5.5	−0.8	0.4	−1.7	−5.0	1.7	6.8	5.3	11.4
Labor costs in manufacturing (nominal, per hour)	12.8	12.4	6.4	9.6	2.7	4.7	8.6	5.4	12.1
Producer price index (PPI) in industry	5.0	4.0	0.0	2.7	−1.4	−0.8	−0.5	2.3	10.1
Consumer price index (here: HICP)	4.1	3.9	2.3	3.1	2.1	2.4	1.8	2.3	3.1
EUR per 1 RON, + = RON appreciation	−1.8	−1.9	−1.9	−1.3	−1.9	−2.3	−2.1	−1.7	−1.7
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	4.3	4.0	5.2	4.4	5.5	5.4	5.4	6.1	5.1
Employment rate (%, 15–64 years)	64.8	65.8	65.6	65.4	65.2	66.0	65.8	60.8	62.4
Key interest rate per annum (%)	2.4	2.5	1.9	2.4	1.9	1.6	1.5	1.3	1.3
RON per 1 EUR	4.7	4.7	4.8	4.8	4.8	4.8	4.9	4.9	4.9
	Nominal year-on-year change in period-end stock in %								
Loans to the domestic nonbank private sector[1]	7.9	5.5	5.5	6.2	3.1	3.2	4.8	6.2	10.6
of which: loans to households	9.1	6.7	6.7	7.1	5.3	4.8	4.2	4.6	7.5
loans to nonbank corporations	6.6	4.2	4.2	5.3	0.6	1.4	5.5	7.9	14.3
	%								
Share of foreign currency loans in total loans to the non-bank private sector	34.0	32.4	30.5	32.8	32.2	31.4	30.5	29.9	28.9
Return on assets (banking sector)	1.6	1.4	1.0	1.3	1.1	1.2	1.0	1.3	1.4
Tier 1 capital ratio (banking sector)	18.6	20.1	23.2	18.5	20.7	20.8	23.2	22.7	22.1
NPL ratio (banking sector)	5.0	4.1	3.8	3.9	4.4	4.1	3.8	3.9	3.8
	% of GDP								
General government revenues	31.9	31.8	33.1	..	..	..	..	..	..
General government expenditures	34.9	36.2	42.4	..	..	..	..	..	..
General government balance	−2.9	−4.4	−9.2	..	..	..	..	..	..
Primary balance	−1.9	−3.2	−7.9	..	..	..	..	..	..
Gross public debt	34.7	35.3	47.3	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	32.9	32.3	32.7	..	..	..	..	..	..
Debt of households and NPISHs[2] (nonconsolidated)	15.8	15.4	16.0	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Goods balance	−7.5	−8.0	−8.8	−9.9	−9.5	−8.0	−8.2	−11.3	−9.7
Services balance	4.1	3.9	4.3	4.8	4.8	4.2	3.7	4.6	4.0
Primary income	−1.8	−1.4	−1.7	2.1	−2.8	−3.5	−1.9	0.2	−3.4
Secondary income	0.6	0.7	0.9	0.7	0.8	0.8	1.2	0.1	0.6
Current account balance	−4.6	−4.9	−5.2	−2.2	−6.6	−6.5	−5.2	−6.3	−8.4
Capital account balance	1.2	1.3	1.9	2.6	1.7	1.0	2.4	1.1	1.4
Foreign direct investment (net)[3]	−2.4	−2.2	−0.8	0.9	−3.0	−0.9	−0.5	−4.5	−2.8
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	48.8	49.2	57.8	48.6	51.8	54.3	57.8	56.6	57.0
Gross official reserves (excluding gold)	16.2	14.7	17.2	15.1	15.9	15.0	17.2	16.3	16.3
	Months of imports of goods and services								
Gross official reserves (excluding gold)	4.3	4.0	4.9	4.1	4.5	4.3	4.9	4.6	4.4
	EUR million, period total								
GDP at current prices	204,493	222,921	218,009	45,470	46,626	58,719	67,194	46,128	54,589

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiiw, OeNB.

[1] Foreign currency component at constant exchange rates.
[2] Nonprofit institutions serving households.
[3] + = net accumulation of assets larger than net accumulation of liabilities (net outflow of capital).
  − = net accumulation of assets smaller than net accumulation of liabilities (net inflow of capital).

10 Turkey: strong growth amid weaker currency, rising inflation and lower external deficit

GDP in Turkey grew annually at 14.1% in the first half of 2021, as in the second quarter a base effect lifted growth to more than 20%. In terms of total final demand, it was mainly domestic demand (excluding inventory change) that contributed positively to growth, while foreign demand played a complementary role. Within domestic demand, both private consumption and fixed investment grew strongly, with the particularly large weight of private consumption implying a larger contribution. Fixed investment was supported by state bank credit. Foreign demand growth stabilized in quarter-on-quarter terms after having grown at double-digit quarterly rates in the first half of 2020. Annual growth of all these three major demand components were lifted by a base effect in the first half of 2021. While this is true also for imports, the sharp decline in gold imports resulted in a comparatively lower import growth rate. This import growth dampening did not imply higher GDP growth, because the decline of gold imports implied smaller inventory buildup and hence a negative contribution of inventory change to growth. But the net export contribution to growth in the first half of 2021 was substantially smaller without the effect of the change in gold imports, albeit still clearly positive (4.1 percentage points). The goods and services balance was negative at –1.9% of GDP in the first half of 2021 and the current account deficit reached 3.5% of GDP. While net FDI inflows stood almost unchanged at 0.7% of GDP and net portfolio investment flows were minor, the large buildup of other investment liabilities financed not only the increase of foreign assets but also a large part of the current account deficit, effectively substituting for the foreign portfolio capital outflow in 2020.

Following the hike of the key policy rate by 200 basis points to 19% at mid-March 2021 and the ensuing dismissal of the central bank's governor by the Turkish president, the lira depreciated by 17% in euro terms until June 2021, more than reversing the previous appreciation since October 2020. This depreciation was not accompanied by rising gold imports, possibly due to fungibility considerations following rumors of potential gold deposit nationalization. In parallel, official foreign currency reserves declined until May. From June, the lira stabilized and reserves recovered in view of rising European vaccination rates and an improved tourism outlook as well as further swap agreements (e.g. with the People's Bank of China). At end-August 2021, reserves stood at the highest level since February 2020, covering three months of imports. Inflation was roughly stable in spring 2021, after previous monetary tightening and lira appreciation, then rose again in June and July 2021, reflecting the renewed depreciation, and reached 17.1% (core) and 19.2% (headline) in August 2021. After the supervisory authority had extended forbearance rules until end-September, it tightened rules on consumer loans in July. The Turkish central bank tightened reserve requirement ratios in July and mid-September, but on September 23 it lowered the key rate to 18%, pointing to the stabilization of core inflation, supply constraints, hikes in administered prices and signs of loan contraction.

According to a forecast published in early May, the European Commission expects the budget deficit to contract to 4% of GDP in 2021. The ban on layoffs and the partial short-time labor payments phased out by end-March were re-introduced until end-June in the wake of a further three-week lockdown from end-April. Together with one-off payments to agriculture and several sectors hit by that lockdown, these expenditures may prevent the deficit from shrinking in 2021.

Table 10

Main economic indicators: Turkey

	2018	2019	2020	Q1 20	Q2 20	Q3 20	Q4 20	Q1 21	Q2 21
	Year-on-year change of period total in %								
GDP at constant prices	3.0	0.9	1.8	4.4	−10.4	6.3	6.2	7.2	21.7
Private consumption	0.6	1.5	3.2	5.0	−9.2	8.5	7.9	7.0	22.9
Public consumption	6.5	4.1	2.2	2.9	−0.3	2.0	3.7	0.7	4.2
Gross fixed capital formation	−0.2	−12.4	7.2	−0.6	−5.9	22.6	11.7	12.4	20.3
Exports of goods and services	8.8	4.6	−14.8	−1.1	−36.4	−21.4	0.5	3.0	59.9
Imports of goods and services	−6.2	−5.4	7.6	21.6	−8.0	16.4	3.0	−1.8	19.2
	Contribution to GDP growth in percentage points								
Domestic demand	1.2	−2.1	4.0	3.3	−6.9	10.4	8.1	7.4	19.7
Net exports of goods and services	3.8	2.5	−5.7	−4.8	−7.9	−9.6	−0.7	1.2	7.0
Exports of goods and services	2.1	1.2	−4.0	−0.3	−9.7	−5.9	0.1	0.8	11.3
Imports of goods and services	1.7	1.3	−1.8	−4.5	1.8	−3.7	−0.8	0.4	−4.3
	Year-on-year change of period average in %								
Unit labor costs in the whole economy (nominal, per person)	..	..	..	..	..	..	..	..	..
Unit labor costs in manufacturing (nominal, per hour)	18.0	21.9	10.0	16.0	13.6	3.6	6.9	8.8	12.9
Labor productivity in manufacturing (real, per hour)	1.7	1.7	8.2	3.9	13.6	6.9	8.3	5.1	−6.5
Labor costs in manufacturing (nominal, per hour)	20.4	23.8	18.9	20.5	29.0	10.7	15.8	14.3	5.6
Producer price index (PPI) in industry	27.0	17.6	12.2	8.9	6.1	11.4	22.2	28.2	38.8
Consumer price index (here: HICP)	16.3	15.2	12.3	12.1	11.7	11.8	13.5	15.6	17.1
EUR per 1 TRY, + = TRY appreciation	−27.7	−10.4	−21.0	−9.4	−12.7	−25.5	−31.8	−24.3	−25.2
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	11.1	14.0	13.4	13.9	13.1	13.4	13.0	13.8	12.0
Employment rate (%, 15–64 years)	52.0	50.3	47.5	47.6	45.9	48.8	47.7	48.0	49.7
Key interest rate per annum (%)	15.5	20.6	10.2	11.0	8.8	8.4	12.5	17.3	19.0
TRY per 1 EUR	5.7	6.4	8.0	6.7	7.6	8.5	9.4	8.9	10.1
	Nominal year-on-year change in period-end stock in %								
Loans to the domestic nonbank private sector[1]	12.0	11.0	36.3	15.2	29.1	41.3	36.3	31.9	20.7
of which: loans to households	3.2	15.9	40.1	23.4	36.4	48.4	40.1	35.4	24.9
loans to nonbank corporations	15.0	9.5	35.0	12.9	27.0	39.1	35.0	30.8	19.4
	%								
Share of foreign currency loans in total loans to the nonbank private sector	38.5	35.2	30.9	34.8	31.7	32.0	30.9	32.4	32.8
Return on assets (banking sector)	1.5	1.1	1.0	1.3	1.2	1.2	1.0	1.0	1.0
Tier 1 capital ratio (banking sector)	13.4	13.9	14.1	13.3	14.8	14.5	14.1	13.4	13.2
NPL ratio (banking sector)	4.1	5.7	4.4	5.3	4.7	4.4	4.4	4.1	3.9
	% of GDP								
General government revenues	31.9	29.5	30.4	..	..	..	..	..	..
General government expenditures	34.7	34.0	34.9	..	..	..	..	..	..
General government balance	−2.8	−4.5	−4.5	..	..	..	..	..	..
Primary balance	0.1	−1.9	−1.6	..	..	..	..	..	..
Gross public debt	30.4	32.6	39.5	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	..	..	..	..	..	..	..	..	..
Debt of households and NPISHs[1] (nonconsolidated)	..	..	..	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Goods balance	−5.1	−2.2	−5.3	−5.5	−5.7	−5.7	−4.4	−3.7	−3.4
Services balance	3.9	4.7	1.3	2.0	−0.6	1.8	1.8	1.3	2.0
Primary income	−1.5	−1.7	−1.2	−1.4	−1.8	−0.8	−1.0	−1.5	−1.9
Secondary income	0.1	0.1	0.0	−0.2	0.0	0.2	0.1	0.1	0.2
Current account balance	−2.7	0.9	−5.2	−5.0	−8.2	−4.5	−3.6	−3.9	−3.1
Capital account balance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Foreign direct investment (net)[2]	−1.2	−0.8	−0.6	−1.2	−0.1	−0.6	−0.7	−0.7	−0.6
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	57.8	54.7	53.9	53.8	52.9	52.8	53.9	54.1	53.0
Gross official reserves (excluding gold)	9.6	10.3	6.5	8.1	6.3	5.0	6.5	6.5	7.5
	Months of imports of goods and services								
Gross official reserves (excluding gold)	3.6	4.1	2.4	3.2	2.5	1.9	2.4	2.4	2.7
	EUR million, period total								
GDP at current prices	662,417	678,772	625,264	158,869	137,101	167,165	162,128	155,820	156,088

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiiw, OeNB.

[1] Nonprofit institutions serving households.
[2] + = net accumulation of assets larger than net accumulation of liabilities (net outflow of capital).
  − = net accumulation of assets smaller than net accumulation of liabilities (net inflow of capital).

11 Russia: recovery driven by strong domestic demand and favorable oil price development

After contracting by 0.7% in the first quarter of 2021 (year on year), Russian GDP recovered strongly by 10.5% in the second quarter, given the base effect of the severe lockdown in April and May 2020. While private consumption had still declined by 2.8% in the first quarter, it skyrocketed by 27.8% in the second quarter. Fixed investment stagnated (–0.4%) in January to March, before expanding by 12.8% in April to June 2021. Government consumption growth, which had given an anticyclical boost to the economy during the recession of 2020, slowed down in the first half of 2021. Overall, strong domestic demand recovery fueled an import expansion, resulting in a negative contribution of net exports to growth.

Russia's economy also benefited from the oil price upswing, helped by the global economic recovery and the OPEC+ agreement. Thus, the average Urals price rose by 60% to USD 65 per barrel in the first eight months of 2021 against the corresponding period of 2020. According to the Bank of Russia, GDP had already reattained its pre-pandemic level in the second quarter of 2021. The unemployment rate (ILO definition) declined from a peak of 6.5% in September 2020 to a pre-pandemic level of 4.4% in August 2021. While vaccination has only been proceeding sluggishly in Russia (by October 2021, about 33% of the population had been vaccinated at least once), and new infections remain at an elevated level, only few new restrictions have been introduced recently.

CPI inflation continued to climb, from 5.8% in March to 7.4% in September 2021. This inflation level is substantially higher than the monetary authority's target of 4.0%. Price rises have been pushed by the strong rebound in domestic demand, some structural supply and labor market bottlenecks, increasing global commodity prices, somewhat poor crop harvests and by persistently high inflationary expectations. The Bank of Russia reacted by substantially tightening its monetary stance: the key rate was raised in five consecutive steps (in March, April, June, July and September) from a record low of 4.25% to 6.75%. The monetary authority has not excluded further tightening.

Buoyed by the recovery of the oil price and rising proceeds, the federal budget balance switched back to a surplus (estimated at about 1.5% of pro-rata GDP in the first eight months of 2021). Moreover, the authorities have so far maintained somewhat higher spending than originally set out in their fiscal guidelines (aimed at phasing out the stimulus launched in 2020). As of end-August 2021, the assets of the National Welfare Fund, most of which are included in Russia's international reserves, came to EUR 161 billion, 60% of which are liquid assets.

The substantial oil price rise also drove back up Russia's current account surplus in January to June 2021 to 5.4% of pro-rata GDP. Net private capital outflows reached about last year's level (3.5% of GDP). While Russia's gross foreign debt in the first six months rose by 3% to EUR 402 billion, its international reserves (excluding gold) rose by 4% to a level of EUR 388 billion (29.8% of GDP).

Although the temporary regulatory forbearance linked to the coronavirus crisis expired at end-June 2021, the elevated NPL ratio hardly budged (end-July 2021, broader definition: 16.2%). Lending continued to be driven by loans to households (+20.3% in the second quarter of 2021), particularly by subsidized mortgage lending and by unsecured consumer loans. The Bank of Russia is implementing measures to rein in lending in these two risky subsectors. Given very low real interest rates, deposits have grown more sluggishly, with retail deposits even slightly contracting.

Main economic indicators: Russia

	2018	2019	2020	Q1 20	Q2 20	Q3 20	Q4 20	Q1 21	Q2 21
	Year-on-year change of period total in %								
GDP at constant prices	2.8	2.0	–3.0	1.4	–7.8	–3.5	–1.8	–0.7	10.5
Private consumption	4.2	3.1	–8.5	2.2	–21.5	–9.0	–5.7	–2.8	27.8
Public consumption	1.3	2.4	4.0	3.6	4.1	4.2	4.1	0.3	1.0
Gross fixed capital formation	0.6	1.5	–4.3	–0.5	–6.7	–7.9	–2.1	–0.4	12.8
Exports of goods and services	5.6	0.7	–4.3	–2.4	0.1	–8.1	–6.5	–2.4	–2.7
Imports of goods and services	2.7	3.4	–12.0	1.8	–22.6	–19.9	–5.5	–2.1	31.9
	Contribution to GDP growth in percentage points								
Domestic demand	2.1	2.9	–4.5	2.6	–13.4	–6.1	–0.9	–0.5	16.3
Net exports of goods and services	0.8	–0.6	1.7	–1.1	5.5	2.9	–0.3	–0.2	–7.3
Exports of goods and services	1.5	0.2	–1.2	–0.7	0.0	–2.1	–1.7	–0.7	–0.8
Imports of goods and services	–0.6	–0.8	2.9	–0.4	5.5	5.0	1.3	0.5	–6.5
	Year-on-year change of period average in %								
Unit labor costs in the whole economy (nominal, per person)	..	..	..	..	..	..	..	..	..
Unit labor costs in manufacturing (nominal, per hour)	1.8	3.9	8.3	5.9	11.1	9.3	6.5	6.8	0.8
Labor productivity in manufacturing (real, per hour)	4.8	3.7	–2.0	1.9	–6.2	–3.4	–0.6	0.6	10.9
Labor costs in manufacturing (nominal, per hour)	6.6	7.8	5.9	8.0	4.1	5.6	5.9	7.3	11.9
Producer price index (PPI) in industry	12.1	2.3	–3.7	–2.4	–12.1	–1.9	1.6	10.5	31.1
Consumer price index (here: HICP)	3.0	4.6	3.4	2.5	3.2	3.6	4.5	5.5	6.0
EUR per 1 RUB, + = RUB appreciation	–11.0	2.2	–12.3	1.6	–8.9	–16.8	–22.4	–17.9	–11.0
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	4.8	4.6	5.8	4.7	6.0	6.3	6.1	5.6	5.0
Employment rate (%, 15–64 years)	..	..	..	..	..	..	..	..	..
Key interest rate per annum (%)	7.4	7.3	5.0	6.1	5.5	4.3	4.3	4.3	5.0
RUB per 1 EUR	74.1	72.5	82.6	73.7	79.7	86.3	90.9	89.7	89.5
	Nominal year-on-year change in period-end stock in %								
Loans to the domestic nonbank private sector[1]	10.7	10.6	10.6	10.1	8.9	9.9	9.6	9.4	12.7
of which: loans to households	21.8	19.0	19.0	16.8	12.0	12.9	12.9	13.5	20.3
loans to nonbank corporations	6.6	7.1	7.1	7.1	7.5	8.5	8.0	7.5	9.3
	%								
Share of foreign currency loans in total loans to the non-bank private sector	14.6	11.8	12.6	13.5	12.4	13.3	12.6	12.3	10.8
Return on assets (banking sector)	1.5	2.2	1.9	2.4	1.6	1.8	1.9	2.4	2.5
Tier 1 capital ratio (banking sector)	8.8	9.2	9.7	10.0	10.5	10.4	9.7	10.8	10.3
NPL ratio (banking sector)	17.8	17.0	17.1	16.9	17.4	17.4	17.1	17.0	16.2
	% of GDP								
General government revenues	35.9	36.2	35.7	..	..	..	..	..	..
General government expenditures	33.0	34.2	39.7	..	..	..	..	..	..
General government balance	2.9	1.9	–4.0	..	..	..	..	..	..
Primary balance	..	..	..	..	..	..	..	..	..
Gross public debt	12.1	12.4	17.7	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	..	..	..	..	..	..	..	..	..
Debt of households and NPISHs[2] (nonconsolidated)	..	..	..	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Goods balance	11.8	9.8	6.2	8.9	5.0	4.9	5.9	8.0	9.4
Services balance	–1.8	–2.2	–1.2	–1.8	–0.6	–1.0	–1.3	–0.7	–1.0
Primary income	–2.4	–3.2	–2.3	–0.6	–3.6	–2.6	–2.8	–0.3	–4.0
Secondary income	–0.5	–0.6	–0.4	–0.3	–0.4	–0.4	–0.3	–0.5	–0.1
Current account balance	7.0	3.8	2.3	6.2	0.4	0.9	1.5	6.5	4.4
Capital account balance	–0.1	0.0	0.0	0.0	–0.1	0.0	–0.1	0.1	–0.1
Foreign direct investment (net)[3]	1.4	–0.6	–0.2	1.2	–0.5	–1.4	–0.2	1.0	0.7
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	28.4	29.5	30.1	27.9	30.4	29.3	30.1	31.7	30.8
Gross official reserves (excluding gold)	23.8	26.2	28.8	26.7	27.0	27.6	28.8	30.4	29.8
	Months of imports of goods and services								
Gross official reserves (excluding gold)	13.7	15.0	16.8	15.2	15.6	16.2	16.8	17.5	16.7
	EUR million, period total								
GDP at current prices	1.399,811	1.510,646	1.293,140	335,903	297,025	319,507	340,705	298,386	344,760

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiiw, OeNB.

[1] *Foreign currency component at constant exchange rates.*
[2] *Nonprofit institutions serving households.*
[3] *+ = net accumulation of assets larger than net accumulation of liabilities (net outflow of capital).*
    – = net accumulation of assets smaller than net accumulation of liabilities (net inflow of capital).

Outlook for selected CESEE countries and Russia

CESEE-6: broad-based recovery subject to still high uncertainty – Russia: from rebound back to moderate growth amid persistently high risks[1,2]

Taking into account the sharp economic rebound observed in the second quarter of 2021, we have revised upward our regional economic growth projections for Bulgaria, Croatia, Czechia, Hungary, Poland and Romania (CESEE-6) to 5.1% p.a. for the full year. For 2022 and 2023, we forecast continued strong growth of 4.5% and 3.8%, respectively. So far, Croatia, Romania and Hungary have exhibited the strongest growth dynamics, while the rebound has been muted in Czechia. Regarding growth drivers, domestic demand remains strong, albeit with a some-what declining contribution to overall growth over the projection horizon. The composition of domestic demand will shift from private consumption toward gross fixed capital formation backed by EU funds from 2022 onward. With double-digit growth of both exports and imports in 2021 – the latter in line with strong internal demand – and continued solid growth beyond 2021, the net contribution of exports will remain negative over the forecasting horizon, with a few exceptions. The positive growth differential toward the euro area last observed in 2020 will not re-emerge until 2023 (+1.7 percentage points), given the strong rebound assumed for the euro area in 2021 and 2022. One-and-a-half year into the coronavirus pandemic, our forecast continues to be surrounded by considerable uncertainty,

Table 1

OeNB-BOFIT GDP projections for 2021 to 2023 compared with the IMF forecast

	Eurostat/Rosstat	OeNB-BOFIT projections, October 2021			IMF WEO forecast, October 2021		
	2020	2021	2022	2023	2021	2022	2023
	Year-on-year growth in %						
CESEE-6	−3.8	5.1	4.5	3.8	5.6	4.9	3.7
Bulgaria	−4.3	4.4	3.8	2.8	4.5	4.4	4.0
Croatia	−7.8	7.0	4.1	3.5	6.3	5.8	4.0
Czechia	−5.8	3.3	4.1	3.2	3.8	4.5	4.1
Hungary	−4.8	6.2	4.5	3.2	7.6	5.1	3.8
Poland	−2.5	4.4	4.8	4.1	5.1	5.1	3.5
Romania	−3.7	7.0	4.5	4.1	7.0	4.8	3.8
Russia	−3.0	3.7	2.8	2.4	4.7	2.9	2.0

Source: Eurostat, Rosstat, OeNB/BOFIT, IMF World Economic Outlook (WEO).

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[1] Cutoff date for data underlying the CESEE-6 outlook: October 1, 2021. The projections for the CESEE-6 countries were prepared by the OeNB, those for Russia by the Bank of Finland in cooperation with the OeNB. All projections are based on the assumptions of the September 2021 ECB staff macroeconomic projection exercise (MPE) for the euro area, according to which real annual GDP growth in the euro area is projected to amount to 5.0% in 2021, 4.6% in 2022 and 2.1% in 2023. Import growth is projected to come to 9.0% in 2021, 7.0% in 2022 and 3.8% in 2023.

[2] Compiled by Julia Wörz with input from Stephan Barisitz, Melanie Koch, Mathias Lahnsteiner, Thomas Reininger, Tomáš Slačík, Melani Stanimirovic and Zoltan Walko.

with the balance of risks tilted to the downside, depending on pandemic and international supply chain developments.

Furthermore, we now see the Russian economy recovering from last year's comparatively mild 3% dip to above 3.5% growth in 2021 and easing to slightly over 2.5% p.a. on average in 2022/2023. We have thus also revised upward our spring economic forecast for Russia, to reflect improved prospects for global economic growth and hence exports, coupled with already high oil prices that are expected to rise even further in 2022.[3] While this short-term outlook is subject to significant uncertainties, we do not see Russia's long-term growth exceeding 1.5% to 2.0% p.a. as there are no signs of broader systemic adjustments that would improve the functioning of markets and boost economic activity in the forecast period.

1 CESEE-6: balanced growth composition, with contributions shifting from private consumption to fixed investment over the forecast horizon

COVID-19 vaccination started in the first half of 2021, raising hopes for a quick exit from pandemic mode even though initial vaccine shortages and people's vaccine hesitancy have so far prevented vaccination from acting as a full game changer. Vaccination rates (measured as the share of the total population who have received all doses prescribed by the vaccination protocol) have hardly increased since August 2021 and ranged from 20% in Bulgaria to almost 60% in Hungary in early October 2021. In economic terms, a decisive recovery set in during the first half of 2021 in all CESEE-6 economies apart from Czechia, and vigorous inflation dynamics induced first interest rate hikes by the four central banks in the region that pursue an inflation target (for further details on the most recent developments see the section on "Recent Developments in selected CESEE countries" in this issue).

Fading out policy stimulus

While these monetary policy reactions added to the generally tightening financial conditions, we do not expect that they will exert a significant dampening effect in the current year, especially since nonstandard measures, such as quantitative easing programs in Hungary and Poland, and other measures, like state guarantees in Romania, remain in place. In our baseline projections, we continue to assume a gradual and orderly phasing out of the monetary stimulus. Hence, the monetary policy stance will attenuate economic activity in the region only moderately, at least in the near term.

At the same time, fiscal support is being reduced. Yet, in contrast to the scaling-back of fiscal stimulus in normal times, the removal of crisis-related measures such as wage support and furlough schemes will not weigh on growth dynamics, especially in light of vivid demand. Beyond the removal of crisis-related measures, we do not expect substantial fiscal consolidation. Although pandemic-related support measures are being scaled back, other fiscal support measures in individual countries add toward an overall rather supportive fiscal stance. Cases in point are higher pension benefits in Bulgaria, Czechia, Hungary, Poland (due to a one-off 14th pension payment) and Romania (due to the indexation system in place), family support

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[3] *Forecast oil prices based on the average of oil futures contracts for the ten days preceding October 8–10, 2021, yield the following oil price per barrel: USD 70 in 2021, USD 78 in 2022 and USD 71 in 2023.*

measures in Bulgaria and Hungary, and personal income tax or social security exemptions in Hungary and Poland. In sum, we expect the mildly dampening effect of monetary policy to be compensated by a still moderately positive impetus from fiscal policy.

### Some deceleration of economic activity in the second half of 2021

Compared to the first half of 2021, growth will decelerate again during the second half of the year but remain solid, prompting us to revise our regional forecast upward by 1.1 percentage points for 2021 to 5.1% year on year. The most striking difference across countries is marked by the considerable weaker performance of the Czech economy, which is among other things related to supply chain frictions, the shutdown of a major car production line in the final quarter of the year, surprisingly strong monetary tightening and worsening business and household sentiment. Also, in Poland, high inflation and weaker consumer spending expected for late 2021 will lead to a comparatively moderate GDP expansion of 4.4% year on year, albeit implying an upward revision. Thereafter, CESEE-6 GDP growth will slow down somewhat to 4.5% in 2022 and 3.8% in 2023. Deviating from this pattern in line with weaker performance this year, GDP growth in Poland and Czechia will accelerate in 2022 before softening again in 2023. The positive growth differential of the CESEE-6 region vis-à-vis the euro area in 2020 (almost 3 percentage points) will vanish to zero in 2021 and 2022 and re-emerge only in 2023 (+1.7 percentage points).

Pre-crisis GDP levels were reached in the second quarter of 2021 in Hungary, Poland and Romania. According to our projections, Bulgaria will catch up in the final quarter of 2021, Croatia in the second quarter of 2022 and Czechia in the third quarter of 2022. Note that these figures do not reflect GDP loss, though, which has to be measured against a counterfactual without the pandemic. According

Chart 1

CESEE-6: GDP and GDP components

GDP contributions in percentage points, year-on-year GDP growth in %
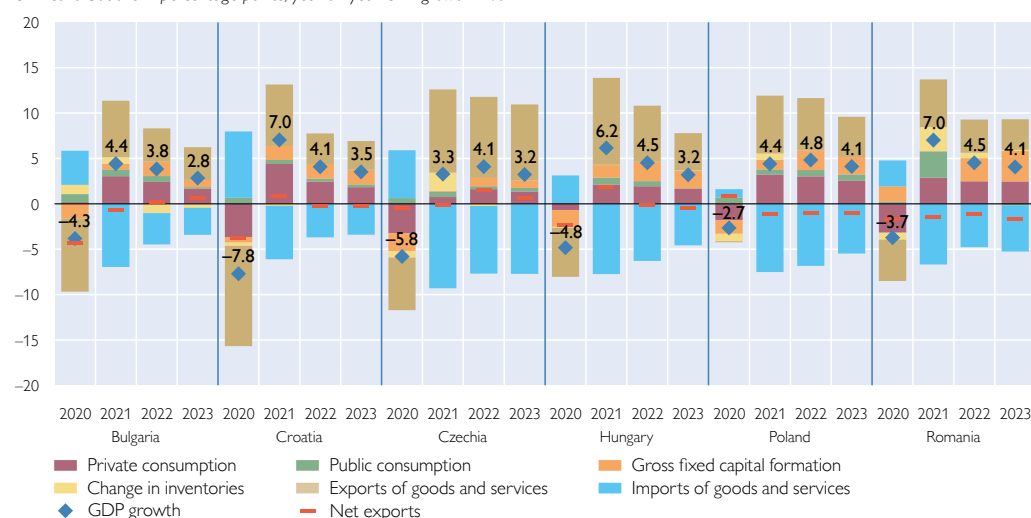
Source: Eurostat, OeNB.

Note: Actual outcomes for 2020, projections for 2021 to 2023.

to our current projections, the GDP levels projected by the European Commission in its Winter 2020 Economic Forecast for end-2021 will likely be reached with a delay of around one year in all countries in this sample, with the exception of Bulgaria (where we estimate the delay to be almost two years).

Economic growth will be balanced, resting on both strong domestic and external demand, which will moderately increase the weight of domestic demand in total final demand in the CESEE-6 aggregate over the projection horizon. Within domestic demand, the growth composition will shift from private consumption toward gross fixed capital formation from 2022 onward, as the latter will strongly be backed by EU funds. With solid growth of exports and imports, the net contribution of exports remains negative over the projection horizon, with a few exceptions (see chart 2).

Private consumption remains a major growth pillar

Private consumption will lead the rebound of domestic demand during 2021, adding some 2.7 percentage points to GDP growth for the full year. With reviving employment growth, decreasing unemployment rates and robust wage growth, labor market conditions remain favorable and, together with rising pension income, will spur private consumption. At the same time, currently strong inflation dynamics will weigh on disposable incomes in the near term before being (partially) incorporated in wage increases, especially so in Poland. As such, negative inflation effects on private consumption should be more than offset by positive labor market developments over the projection horizon. Overall, private consumption growth will remain robust at around 4% p.a. in 2022 and 2023, while its growth contribution will decline somewhat.

Public consumption will also make a notable growth contribution of more than 1 percentage point in 2021. Apart from pandemic-related spending that is not accounted for as transfers, this increase will be driven by public sector wage increases (Bulgaria, Hungary), government job creation measures (Croatia) and election-related spending (Hungary). As the fiscal stimulus weakens, the growth contribution of public consumption will halve in 2022 and fall further in 2023. Beyond Hungary, where some pre-election spending will continue until spring 2022, no elections have been scheduled in other CESEE-6 countries for 2022, but there is a certain risk of early elections in Romania.

EU funds back investments from 2022 onward

Gross fixed capital formation, while rebounding strongly in 2021, has so far been mainly driven by base effects. In 2021, a sharper rebound has been prohibited by comparatively low levels of capacity utilization (despite a pronounced increase since the trough observed in the second quarter of 2020) and continuously elevated uncertainty. Croatia is an outlier, as earthquake reconstruction efforts have been supporting gross fixed capital formation already in 2021. For 2022 and 2023, we expect a notable boost with the greatly increased availability of EU funds from the overlapping payment cycles of two multiannual financial frameworks (2014–2020 and 2021–2027) and recourse to the Recovery and Resilience Facility, the center-piece of the NextGenerationEU program. The growth contribution will more than double in this period to 2 percentage points, driven by particularly buoyant investment growth in Hungary, Poland and Romania (subject to the caveat that Romania's

absorption rate is hard to pin down as yet). While tightening financing conditions act as a countervailing factor, investment growth is underpinned by increasing labor shortages, loan guarantee programs and subsidies in some countries (i.e. loan guarantees for corporates in Bulgaria, new home program in Romania, housing subsidies in Hungary).

Strong trade dynamics, yielding a negative net contribution to growth

Overall, foreign demand remains a major growth pillar given the simultaneous strong recovery of economic activity in important trading partner countries and the deep economic integration of all CESEE-6 countries. Exports will record double-digit growth rates in 2021 and remain strong beyond 2021, although they will soften year after year. It is unclear to what extent delivery bottlenecks and hence supply shortages will weigh on export growth, thus counteracting favorable external demand conditions. In tandem with export growth, import growth will recover vividly as well, backed further by strong domestic demand, including fixed investment. This will render the net contribution of exports slightly negative over the forecast horizon, except for Hungary in 2021, and Czechia and Bulgaria in 2022 and 2023.

Risks to CESEE-6 projections are skewed downward, uncertainty remains elevated

The future evolution of the COVID-19 pandemic continues to pose a major risk due to comparably low vaccination rates and little vaccination progress. There is also a residual risk of the emergence of coronavirus variants against which suitable vaccines are not readily available, and this risk is inverse to the level of (global and country-specific) vaccination rates. That said, new economy-wide lockdowns appear to be highly unlikely in most CESEE-6 countries, apart from Bulgaria and Romania. Should further full lockdowns materialize nonetheless, we would generally expect the decoupling of economic trends from the development of the pandemic to prevail. The probability of targeted lockdowns, affecting individual economic sectors or parts of the population, differs across countries. Sectoral lockdowns could present a severe strain on the recovering tourism sectors especially in Bulgaria and Croatia. More generally, the pandemic strongly raises uncertainty for all countries, especially in the near term.

A second major risk – which again affects individual countries to different degrees – are persistent disruptions in global value chains, as have already occurred in the last few months. Over the forecast horizon, the coincidence of intense global demand coupled with protracted input shortages may cause standstills in production lines beyond what we see currently. This would further increase backlogs in delivery and production. Unwinding these distortions may take more time than anticipated, thus hampering the recovery of exports, which is a major growth pillar in our baseline projections. In our baseline, we expect these imbalances to fade out in 2022, yet in the worst case this risk could prevail over the entire projection horizon.

Political uncertainty is also prevalent in the region, in different forms, and may potentially affect economic activity, thus rendering our projections too optimistic. In Bulgaria and Romania, the difficulties in forming stable governments have been impairing an adequate management of the pandemic, thus compounding pandemic-related risks. In Poland and Hungary, the ongoing dispute with the EU about the

conformity of national regulations with EU law has created uncertainty about the disbursement of EU funds, including NextGenerationEU funds, and thus poses a significant downward risk to our projections in particular for these two countries.

With domestic inflation posing a nonnegligible downward risk, the central banks of the inflation-targeting countries among the CESEE-6 may have to tighten their monetary policies more sharply than anticipated, as a result of which financing conditions would worsen beyond what we assume in our baseline. Alternatively, too little or too late a monetary policy response implies the risk of monetary policy remaining behind the curve and may lead to persistently high inflation, thus lowering consumers' disposable income by more than envisaged if inflation is not fully incorporated in wage increases. At the current juncture, it is hard to assess how long the currently elevated inflation rates will prevail and whether price pressures will indeed ease in mid-2022 as anticipated by the central banks.

As always, economic growth in the CESEE-6 depends largely on the economic growth of their trading partners. Therefore, should the world economy, and in particular the euro area economy, grow at a faster or slower pace than that we assumed in our baseline scenario, the growth prospects of the CESEE-6 countries would improve or deteriorate accordingly, notwithstanding supply problems related to disruptions in global value chains.

Overall, uncertainty remains elevated and we assess the balance of risks to be strongly on the downside, with some rebalancing of risks toward the end of the projection horizon.

2 Projections for Bulgaria, Croatia, Czechia, Hungary, Poland and Romania

Bulgaria: delayed policymaking and low vaccination rate might hamper long-term growth

We have revised our forecast for 2021 upward and now expect a full rebound of the Bulgarian economy to happen by the end of the year. During the summer, rising domestic tourism and fewer pandemic-related restrictions spurred private consumption. The low vaccination rate will make increased public spending necessary for longer than anticipated while investments will be delayed due to political uncertainty. Subdued international tourist arrivals and, at the same time, revitalized international trade caused imports to recover much faster than exports. Downward revisions for 2022 and 2023 are mostly due to base effects. We still project that GDP growth will come back to its pre-pandemic trajectory in mid-2023.

We expect that Bulgaria will experience further infection waves over the projection horizon. Vaccination rates are substantially below the worldwide average, posing a risk to private consumption over the next few quarters and in particular to domestic winter tourism. Public consumption will continue to be high in 2022, dampening the negative effects of the pandemic and of rising energy prices. Wage support measures will remain in place at least until the end of 2021. Increases in pensions and heating allowances for the poorest are planned for the winter, and further rises in minimum wages are envisaged for 2022. Both private and public consumption growth rates are expected to ease off only in 2023.

Gross fixed capital formation, while threatened by political instability and hence by delays in major public investment projects, is still expected to fuel economic

growth in the years ahead. The submission of the country's recovery and resilience plan to the European Commission was delayed until late October 2021 by political quarrels surrounding parliamentary elections. Moreover, some initial investments have already been postponed due to issues around public procurement procedures. The fact that the composition of the new parliament and government is still uncertain jeopardizes chances to fully absorb the NextGenerationEU funds until 2027.

The numbers of tourists from abroad and the tourism industry's revenues have remained far below pre-pandemic levels in 2021. Given the simultaneous rise in energy prices in recent months, the contribution of net exports to GDP is negative in 2021 and will become slightly positive from 2022 onward. Imports already reached pre-pandemic levels in early 2021 whereas exports are not expected to catch up before the second half of 2022. Inflationary pressures in the service sector have been low so far, creating favorable conditions for international tourism. However, the low vaccination rate and vaccine hesitancy constitute a serious downside risk. This makes Bulgaria less attractive as a travel destination than its peer countries in the region that have higher vaccination rates.

Croatia: speedy recovery toward pre-crisis GDP level

The surprisingly strong performance of the Croatian economy in the first half of 2021, which was in particular related to the successful tourism season and the strong increase of exports, prompted us to revise our 2021 GDP forecast up to 7% year on year (from 4.2% in the previous forecast). The strong increase is also due to a pandemic-related base effect. We thus project Croatia to reach pre-crisis GDP levels by mid-2022.

The upward revision in GDP growth is attributable to all growth components. Private consumption will benefit from pandemic-related support measures (job retention schemes and tax reliefs) as well as continually strong employment and wage growth. Job retention grants remain in place but have been narrowed down to businesses that continue to be affected by the pandemic, such as travel agencies, catering and the event industry. However, the impetus has shifted from job preservation to job creation measures. Beyond pandemic-related conditions, employment is expected to continue to rise due to efforts to reconstruct earthquake-hit areas and in line with the absorption of EU funds. After the revival of bank lending to households in the first half of 2021, the further acceleration of household lending will also stimulate consumer spending. Hence, private consumption is now expected to rise by more than 7% year on year.

Public consumption will make mildly positive contributions to growth over the forecast horizon as Croatia will endeavor to keep the balance between necessary fiscal stimulus for pandemic recovery and fiscal consolidation toward meeting the convergence criteria for euro adoption.

Regarding gross fixed capital formation, we are projecting continued growth of close to 7% over the forecast horizon, mainly driven by intensified reconstruction works in earthquake-hit areas, the absorption of EU funds and the implementation of investment measures as outlined in Croatia's recovery and resilience plan. In terms of digital transformation and green transition, national strategic projects such as P3 Mobility (development of driverless passenger vehicles, with Rimac Automobili being the main shareholder) will receive notable grants from the EU's Recovery and Resilience Facility as well as increasingly attract foreign investors.

Overall, while the growth contribution from private consumption will be receding over the projection horizon, gross fixed capital formation will provide a sustained notable contribution over all three years.

Furthermore, we are projecting net exports to make a positive contribution to growth in 2021, given first-half results for 2021 and the fact that the summer tourist season exceeded expectations. Increasing domestic demand over the forecast horizon will, however, accelerate import growth and thus lead to a small negative growth contribution of the external sector in 2022 and 2023.

Overall, we continue to expect that economic growth in Croatia will be relatively strong at 4.1% and 3.5% year on year in 2022 and 2023. Apart from the envisaged euro adoption as of January 1, 2023, Croatia's aim of joining the Schengen Area in 2022 could also further stimulate GDP growth in the next few years. Yet, uncertainty with regard to corporate and household solvency poses a downside risk to the economy.

Czechia: gradual economic recovery amid pandemic hangover and accelerating inflation

Following the deepest dive since the beginning of transformation in 2020, the Czech economy started to recover at a relatively modest pace in the first half of 2021. As a result of long shadows of the pandemic particularly in the form of frictions in supply chains, elevated inflation with ensuing monetary policy tightening and the phasing-out of fiscal stimuli, we expect the economy to recover only gradually over the forecast horizon. Quite unusually, this year's GDP growth will be driven mainly by public consumption and the buildup of inventories while the contribution of private consumption will strengthen progressively. Fixed investment and net exports will return to play a more significant role as growth drivers only in the medium term.

As a result of the severe COVID-19 situation that lasted until early March 2021 and the fact that restrictions were not significantly loosened before late spring, economic recovery in the first half of 2021 was rather muted. For the medium term ahead, business and consumer confidence indicators imply continued massive disruptions to global supply chains and production processes (particularly the lack of microchips in the country's crucial automotive industry) and ballooning prices (especially of industrial goods but also of food and services, for both global and domestic reasons). Frictions in raw material and component supplies, particularly the shortage of semiconductors, are expected to last well into 2022. So far, this has translated, inter alia, into reduced production and/or the buildup of large stocks of unfinished products. Accordingly, we expect enforced stockpiling to remain a key driver of growth not only in the remainder of this year but also well into 2022. In the short to medium term, supply chain disturbances and the shortage of inputs will moreover affect exports, which could otherwise benefit more strongly from the recovery in foreign demand. In the second half of the forecast horizon, the frictions should start to ease, triggering a significant destocking and boosting exports.

The marked inflationary pressures are likely to persist for quite some time, certainly until mid-2022. Sharp increases in the prices of imported (particularly industrial) goods and energy will be exacerbated by domestic factors such as renewed signs of an overheating labor market, post-pandemic price adjustments or the development of owner-occupied housing costs. To contain inflationary pressures

and prevent inflation expectations from becoming unanchored, the Czech central bank is resolutely determined to accelerate its monetary policy tightening. As a result, the growth contribution of private consumption (to some extent) and that of fixed investment will be dampened in the short to medium term before strengthening again, not least on the back of a stronger drawdown of funds under the EU's Recovery and Resilience Facility. Public consumption will be a significant driver of growth in 2021 due to high health care-related expenditures – particularly on COVID-19 testing and vaccination – as well as extraordinary payments for health, social and security services employees. Yet this effect will be only temporary. Correspondingly, fiscal policy will exercise a significant positive impact on GDP growth in 2021 due to government support for firms and households hit by the pandemic in combination with higher social expenses and tax reliefs. Yet, as most support measures will be gradually wound down, the fiscal impulse will fade away in the second half of 2021 and turn negative in 2022 despite a renewed significant increase in pensions.

While renewed waves of the pandemic are possible, they pose only a limited economic risk, as a potential deterioration of the health situation should remain relatively contained given the progress of the vaccination program and, in particular, the broad-based decoupling of the economy from pandemic developments. Major downside risks to this forecast thus stem mainly from possible (structural) changes to the global and domestic economy if these were to result in lasting supply chain disruptions, more persistent inflation or an unanchoring of inflation expectations.

Hungary: economy bounces back from low base supported by strong dynamics

Hungarian GDP expanded by 7.2% year on year during the first half of 2021, i.e. substantially more strongly than we had expected. Net real exports accounted for more than half of the annual growth rate as exports recovered more quickly than imports. Led by public consumption, domestic demand components recovered as well, but by much less than overall GDP growth. Much of annual GDP growth during the first half of 2021 was caused by the base effect related to restocking. Only private consumption grew more strongly than during the period from 2017 to 2019 on average. Overall, we have revised our growth projection substantially upward for 2021 and downward for 2022, envisaging a somewhat steeper GDP path over the forecast horizon.

In 2021, we expect the economic policy impetus to become somewhat less supportive of growth than in 2020. In response to rising inflation and higher inflation expectations, the central bank embarked on a rate hike cycle in June 2021 and also scaled back its quantitative easing measures. At the same time, it launched various new (mainly "green") quantitative easing programs. Fiscal policy is expected to remain loose, with plans to bring down the budget deficit from an estimated 7.5% of GDP in 2021 to no more than 5.9% in 2022, despite strong expected GDP growth.

In 2022, private consumption will benefit from various fiscal policy measures, such as the conditional refund of personal income tax paid by families in 2021, a personal income tax exemption for employees under the age of 25 and the increase of the 13th pension payment by at least one further weekly installment. Wage growth will likely accelerate on the back of the proposed hike in minimum wages

by nearly 20% (with a compensation for companies), wage hikes in the public sector and in state-owned enterprises and the increasing tightness on the labor market. Households' net financial assets continued to rise to record highs through the first quarter of 2021, and we expect pent-up demand to materialize over the forecast horizon. Moreover, the government extended the loan repayment moratorium until mid-2022 for selected debtor groups.

The outlook for investment activity has become more mixed than expected in our previous forecast but remains positive, overall, for the forecast horizon. While monetary tightening may negatively affect corporate investment activity, the Hungarian central bank's "green" programs should offer partial compensation. Also, the amount of net financial assets held by nonfinancial corporations is comparatively large by historic standards. Although capacity utilization in industry is still below its long-term average, it has gradually increased over the past few quarters, which together with rising labor costs may be an increasing motivation for corporate investments. Higher budgets have been allocated for gross fixed capital formation in 2021 and 2022. While there is heightened uncertainty about the timing and magnitude of EU funds available for Hungary, the government has pledged to prefinance projects even if payments by the EU are delayed. Lending to households has remained elevated, which – combined with households' strong net financial position – bodes well not only for consumption but also for housing investments. Moreover, the preferential VAT rate on new house purchases will remain in place while some of the various home purchase or reconstruction subsidies will be made more generous.

Government consumption expanded strongly during the first half of 2021. Going forward, we expect it to gain momentum prior to the parliamentary elections in spring 2022, especially as recent polls continue to suggest a close run.

In line with the economic recovery in main trading partner countries, export growth is expected to bounce back after it collapsed in 2020. Exports should also benefit from past and ongoing investments in main export industries and the relatively weak exchange rate. At the same time, strong expected wage growth may eat into price competitiveness. Partly due to their much smaller contraction in 2020, imports will rebound in 2021, although by somewhat less than exports. In this context, the contribution of net exports will become positive in 2021. However, with import growth outpacing export growth in 2022 and 2023, we expect the contribution of net real exports to turn negative again in the second half of the forecast horizon.

Poland: moderate acceleration of growth in 2022

Following a contraction by 2.5% year on year in 2020, we expect GDP growth in Poland to reach 4.1% in 2021 and to accelerate to 4.8% in 2022. In 2021, the contribution of foreign demand will moderately exceed the contribution of domestic demand to total final demand and GDP growth, followed by an almost balanced situation in 2022. In 2021, exports, with a weight of about 38% in total final demand, will expand substantially by about 11%, on the back of a large carryover and the fact that goods export-oriented branches, particularly manufacturing, have generally been less affected by the pandemic. Domestic demand is expected to grow by about 5.5% and thus less than exports, but this rate will be by far sufficient to offset the decline seen in 2020. In 2022, export growth will slow moderately to

a still high level of 9.5%, on account of weaker German import growth and substantially weaker growth of global imports excluding euro area imports. Domestic demand growth is expected to accelerate slightly to almost 6%, still at a lower rate than exports.

As a result, in both 2021 and 2022, strong foreign and domestic demand growth will lead to strong import growth, after imports contracted due to declining domestic demand in 2020 and stagnating exports. In both years, import growth is forecast to exceed export growth. While starting from a sizable external surplus, the growth differential will be sufficiently large to push the contribution of net exports to GDP growth into negative territory (about –1 percentage point of GDP). From the domestic demand side, inventory increases will decisively contribute to higher imports in 2021, while fixed investment will play a far stronger role in 2022.

Private consumption is expected to grow strongly at a rate of close to 5.5% in 2021, after having grown by 6.2% in the first half of the year although quite restrictive health policy measures were in force until end-April. The strong growth measured in 2021 was supported by the favorable base effect between March and May and by the partial extension of crisis-mitigation measures, including wage subsidies, exemptions from social security contributions, support to the self-employed and the childcare allowance. On top of this, one-off 14th pension payments will be made in the second half of 2021. In 2022, private consumption growth will remain strong at about 5%. In both years, pent-up demand and accumulated additional savings together with expanding employment and rising real wages, including hikes in minimum wages, will constitute major supportive factors. The decline of consumption loans in the first half of 2021 will probably not reflect credit supply constraints for private consumption going forward. However, the temporary rise of inflation in the fourth quarter of 2021 and in early 2022 may dampen private consumption slightly, until wage increases will partly reflect this acceleration of inflation. Public consumption growth will be below 4% and thus weaker than in the previous year.

Fixed investment is expected to expand at about 6% in 2021, after having grown by only 3.4% in the first half of the year when less EU funds were available for public investment from the previous multiannual financial framework (MFF) and new EU funds were not yet available. In 2022, fixed investment growth will accelerate strongly to about 12%, with both public and corporate sector fixed investment benefiting from the new MFF funding cycle and the NextGenerationEU recovery package via the national recovery and resilience plan. In both years, growth of exports and private consumption as well as strongly rising capacity utilization levels coupled with substantial corporate saving and supportive monetary conditions for loan supply will be conducive to strong corporate investment. Bottlenecks in the supply chain for semiconductors may be a limiting factor. Residential housing investment will benefit from employment growth in combination with the higher saving rate and low interest rates.

Romania: outlook for robust GDP growth clouded by pandemic and political instability

Romania's economy recovered more strongly in the first half of 2021 than expected in our spring forecast. Hence, we have revised upward our GDP growth projection

for this year to 7% and expect growth to consolidate at still robust rates of 4.5% in 2022 and 4.1% in 2023. The forecast for 2021 implies a growth deceleration in quarter-on-quarter terms in the third and fourth quarters. Short-term economic indicators overwhelmingly showed softening tendencies at the beginning of the third quarter of 2021. As vaccination progress has been modest so far in Romania, further waves of the pandemic will go hand in hand with the tightening of containment measures and will weigh on economic recovery in the final quarter of 2021 and possibly also in 2022. Due to the political turmoil in the country, uncertainty about the fiscal consolidation course has increased. The first budget revision for 2021 missed out on the opportunity to use higher-than-expected revenues to bring down the deficit significantly. Hence, further measures will be required to correct the budget deficit in the years until 2024 under the excessive deficit procedure.

After rebounding sharply from its lockdown-related depressed levels, private consumption will likely continue to make a noticeable contribution to GDP growth. Yet, real income growth will be more moderate over the next few years than in the years up to 2019/2020, when minimum wages and pensions rose steeply. Starting from January 2022, the statutory minimum gross wage will be raised by 10.9%. Furthermore, pensions are expected to increase according to the existing indexation system (inflation plus 50% of the increase in average real wages). We assume that the government will stick to the nominal public sector wage freeze for 2022. Positive effects of the economic recovery on the labor market will also provide some support for private consumption, but renewed restrictions may dampen labor demand in certain sectors. In particular, consumer loan growth has recovered in the course of 2021 and might underpin consumption growth.

Gross fixed capital formation will be a key growth driver over the forecast horizon. International companies have signaled further interest in investing in Romania's automotive sector. Beyond this, substantial support will come from remaining funds that still flow from the 2014—2020 EU multiannual budget, funds allocated to Romania under the multiannual budget 2021—2027 and the Next-GenerationEU program. Yet, substantial uncertainty remains about effective EU fund absorption and full implementation of the national recovery and resilience plan in particular in case of prolonged or recurrent political instability. As regards financing conditions, elevated inflation will probably prompt the central bank to tighten its monetary policy further (after a 25 basis point hike to 1.5% in early October). The IMM Invest program that offers state-guaranteed loans to corporates is scheduled to run until end-2021.

Exports will also continue to recover in line with our external assumptions. However, global semiconductor shortages will dampen automotive production and related exports for a while. The growth contribution of net exports will remain negative as the projected pickup in domestic demand will entail a considerable rise in imports.

3 Russia: from rebound back to moderate growth amid persistently high risks

We now see the Russian economy recovering from last year's comparatively mild 3% dip to above 3.5% growth in 2021 and easing to slightly over 2.5% p.a. on average in 2022/2023. Hence, we have revised upward our spring economic forecast for Russia to reflect improved prospects for global economic growth and thus exports,

coupled with already high oil prices. However, we do not see Russia's long-term growth exceeding 1.5% to 2.0% p.a. in the presumed absence of broader systemic adjustments that would improve the functioning of markets and boost economic activity in the forecast period. Meanwhile, our outlook is subject to significant uncertainties. There could be unexpected changes related to the COVID-19 pandemic, global growth, oil prices, the return of international tourism, the development of (pent-up) consumer demand and possibilities for more generous budget spending.

While the pandemic will likely restrain growth in Russia in 2022, some growth-supporting factors have also gathered momentum. Most importantly, the price of oil has gone up and is expected to rise even further in 2022, while market expectations of its gradual decline have somewhat moderated and now see the oil price at around USD 71 per barrel in 2023.[4]

Related to this, the outlook for Russia's export industry is supported by the more benign forecasts for the global economy. The easing of oil production ceilings in the OPEC+ agreement this summer has improved the outlook for Russian oil exports. The outlook for gas exports has also become more favorable. Russia's revenues from travel (over 2% of export earnings in 2019) should also recover in the later part of the forecast period.

With a growing economy, rising household incomes and employment will lift private consumption to the extent that it should (finally) surpass the 2014 peak in 2023. The rise in pensions should exceed projected inflation by a couple of percent in line with the 2019–2024 pension hikes. Consumption should also receive a boost from the yet-to-materialize unwinding of the unusually high accumulation of household assets in 2020. Travel abroad from Russia contracted sharply last year and should reverse at a good pace in 2022 and 2023.

The recovery in fixed investment will continue, and capital formation should (finally) exceed the 2012–2014 level by 2023. While the rise in fixed investment is not expected to be particularly swift as, e.g., industrial capacity utilization remains quite low, selected projects are expected to receive higher financing from the National Welfare Fund (NWF) in the near term. The aim is also to motivate corporate investors to participate and thus boost investment growth while avoiding crowding-out effects.

With both export and domestic demand recovering robustly, Russian goods and services imports should also increase rather well. Growth in imports, however, will be limited by the Russian ruble's real exchange rate, which is expected to remain fairly stable as Russian inflation should only slightly outpace inflation in the country's trading partners. The recovery in expenditure on travel will raise Russia's total imports substantially as travel had accounted for 10% of total imports in 2019 (before imports collapsed). Russia's total imports should eventually re-attain about 90% of their 2012–2014 peak. The country's current account surpluses will remain substantial throughout the forecast period.

There are no signs that the Russian government considers abandoning its current fiscal rule, which was relaxed in 2019 to allow for extra spending, similar to the policies pursued in the wake of the 2009 and 2015 recessions. Rising fiscal

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[4] *Forecast oil prices based on the average of oil futures contracts for the ten days preceding October 8–10, 2021, yield the following oil price per barrel: USD 70 in 2021, USD 78 in 2022 and USD 71 in 2023.*

revenues and improved revenue prospects from higher oil prices would permit the government to ease its tight spending plan.

Forecast saddled with several significant uncertainties

The development of the COVID-19 pandemic as well as of global economic growth and of the oil price could take unexpected turns. Notably, the pandemic may not subside globally as expected, thus pulling down growth and oil price indicators. Russia's relatively difficult situation, which is characterized by rising COVID-19 fatalities and still modest vaccination rates, might trigger new restrictive measures or lockdowns that might stifle economic activity. Global markets and Russia's relatively nonintegrated markets could heighten inflationary pressures, which in turn could create risks of an increased erosion of households' and other sectors' purchasing power.

At the same time, rising oil price futures and brisk economic activity in Russia in recent weeks produce upside risks. Surprise upswings in private consumption may materialize with the unwinding of last year's unusually large accumulation of household assets. Investment growth could strengthen by more than anticipated if planned NWF financing brings in corporate investors in a manner that raises overall corporate investment. Swelling government budget revenues may create considerable room for higher budget spending. Last but not least, certain branches and parts of the Russian economy (e.g. goods transportation including pipeline transmission, and services offered to households) have still not experienced post-COVID-19 recoveries. Sectoral recovery timelines are hard to foresee, and the speed at which international travel returns to normal may vary.

Studies

Green transition: what have CESEE EU member states achieved so far?

Andreas Breitenfellner, Mathias Lahnsteiner, Thomas Reininger and Jakob Schriefl[1]

Scientific evidence and political commitments require decisive measures to both mitigate and adapt to climate change. This stock-taking exercise sheds light on the green transition to climate neutrality in Central, Eastern and Southeastern Europe (CESEE), comparing the EU members in CESEE in the aggregate with the group of other EU countries. Over the last three decades, CESEE economies have converged substantially to EU averages with respect to both carbon intensity and income per capita – on the back of their profound and painful restructuring process mainly in the first decade of their transition to market economies. Analyzing the development of greenhouse gas emissions in CESEE from 1990 to 2018, we find that energy intensity dropped markedly, the share of transport sector emissions increased sharply and reliance on coal, while still substantial, declined. Industry electricity prices before taxes in CESEE are roughly on a par with the EU average, but household energy prices before taxes are still moderately lower in nominal – but clearly higher – in real terms (adjusted for income levels). At the same time, (implicit) CO_2 prices are below EU average levels. Comparing EU member states' climate policy commitments, we find that both the CESEE and the other EU members are very likely to have met the long-standing targets for 2020 on aggregate, with the targets for the CESEE region having been relatively modest. We conclude that despite their still lagging behind somewhat, CESEE economies are generally well positioned to advance their green transition at relatively low costs and to compete for market shares in green industries. However, all EU member states must step up their efforts in the coming years to have a reasonable chance of reaching their net-zero emission target in 2050 and the intermediate target to reduce net emissions by 55% up to 2030. Our assessment is relevant for the ongoing drive in the EU to mobilize finance for sustainable growth – a drive which involves central banks and supervisors in banks' home and host countries.

Three decades after having embarked on an unprecedented and difficult transition from centrally planned to market economies, EU member states in Central, Eastern and Southeastern Europe (CESEE)[2] are now increasingly focusing on a new – green – transition. This transition to a low-carbon economy is likely to last another 30 years. Given their experience, CESEE countries are well equipped to embrace transition as a permanent process (Holzmann, 2019). This is also supported by a transition risk assessment comprising exposure and resilience indicators that was conducted by Peszko et al. (2020).

Viewed as an economic priority by the IMF, climate change presents risks to the functioning and stability of economic and financial systems. Meanwhile, the response to this challenge, which has been enshrined in the multilateral Paris Agreement with the goal to limit global warming to well below 2°C above pre-industrial levels and to pursue efforts to keep it to 1.5°C, also offers opportunities for growth and jobs (IMF, 2020a). To be sure, a skill transformation will also be necessary (Strietska-Ilina and Tahmina, 2019). The International Energy Agency (IEA, 2021b) calls the Paris-aligned objective of net-zero emissions by 2050 a "monumental task" and points to the implied need to stop issuing permits for new oil or gas fields, to close all inefficient coal-fired power plants by 2030 and to stop selling cars with combustion engines by 2035. In support of this objective, the EU has prepared its Green Deal for Europe to become the first climate-neutral continent by mid-century. To this end, it pursues an intermediate target – cutting net emissions, compared to 1990, by at least 55% by 2030 (EC, 2019 and 2021e; EU, 2021). For the CESEE countries, meeting these targets might be an even bigger challenge in the medium term, given their aspiration to reach above-average growth to ensure convergence.

The exposure of CESEE EU countries to physical climate change damage is likely to be generally below the European average, according to the International Panel on Climate Change (IPCC, 2018), although the Southeastern European subregion is more vulnerable to droughts and other extreme weather events.

In terms of climate awareness, there seems to exist a West-East gap among EU member states (MS). According to an EIB survey (Lecerf, 2021), 33% of all EU residents, but only 22% in CESEE EU MS, perceive climate change to be the biggest challenge in their country.

While the costs of green transition may be perceived to be comparatively high, the long-term costs of inaction are even higher (IMF, 2020a). Short-term incentives to free ride on mitigation notwithstanding, no country can, at the end of the day, claim to be a "winner" by not acting. For the Paris Agreement to succeed, every country must contribute to climate change mitigation, while compensations must ensure that nobody is left behind in a transition that implies higher (shadow) prices for greenhouse gases and energy. This is why the EU's Green Deal focuses on a just transition to climate neutrality, while maintaining the polluter-pays principle.

That said, transition also offers significant opportunities for CESEE economies in the EU. Compared with other EU MS, their still lower energy efficiency and higher carbon intensity might provide some low-hanging fruit for decarbonization, left over from the previous harvest. Moreover, CESEE's trade openness and integration in value chains – together with a high stock of human and physical capital – facilitate access to technologies and markets. As the costs for renewable energy, storage and other critical technologies are on a downward spiral, green transition promises productivity gains in certain sectors (IMF, 2020b) and could help enhance energy security in view of the region's geopolitical environment. Hence, CESEE EU MS have reason to look at the European Green Deal as a window of opportunity rather than as a risk of widening technology and income gaps between Western and Eastern EU members.

The remainder of the article is structured as follows: section 1 takes stock of greenhouse gas emissions in CESEE and their relationship with economic development, energy intensity and energy products. Section 2 discusses international and

EU-related climate policy commitments and their fulfillment to date. Providing an initial stocktaking, the analysis is focused on comparing the aggregate of CESEE EU MS with that of other EU MS. Country-level information is generally limited to ranges for the two country aggregates. The final section summarizes our assessment of the state of play.

1 Comparative stocktaking of greenhouse gas emissions

As a starting point, we look at total greenhouse gas (GHG) emissions (without LULUCF)[3] in the context of CESEE EU countries' economic catching-up process. Then, we decompose GHG emissions per capita into emission intensity, energy intensity and GDP per capita (reflecting both GDP and population growth). After highlighting sectoral emissions, we examine energy supply and the role of coal.

1.1 Greenhouse gas emissions and the economy

CESEE's economic transition started in 1990, and that year is also a major reference point for international climate policy commitments. The transition process in CESEE, which was both profound and painful, brought structural change toward services as well as shifts and modernization within the industrial sector, implying a massive wave of decarbonization. As shown in the left panel of chart 1, the CESEE economies went through a sharp transformation recession in the early 1990s. Until the great financial crisis (GFC) in 2008, GDP per capita at PPP grew swiftly and at a markedly higher rate than in the other EU MS. After the GFC, the catching-up process resumed.

In parallel, from 1990 until the early 2000s, total GHG emissions fell substantially in the CESEE EU MS on aggregate, while they did not decline in the group of other EU MS but remained largely unchanged in this period.[4]

Chart 1

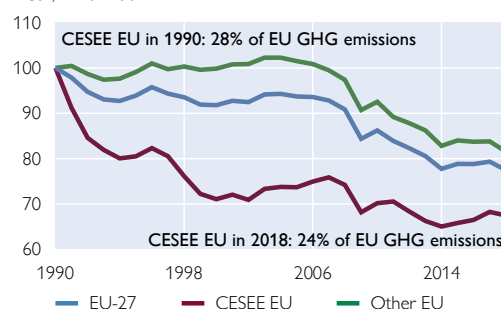### Developments of GDP per capita and total GHG emissions

GDP per capita at PPP

Index, 1990=100

CESEE EU in 2018: 17% of EU GDP

CESEE EU in 1990: 14% of EU GDP

— EU-27   — CESEE EU   — Other EU
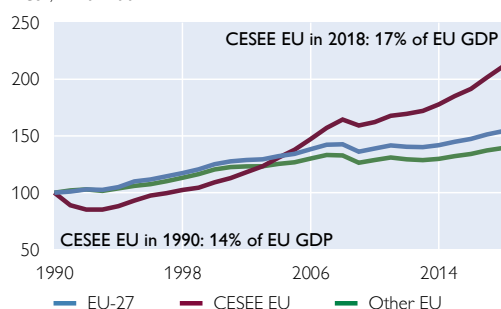
Source: Eurostat, wiiw, authors' calculations.

Total GHG emissions without LULUCF

Index, 1990=100

CESEE EU in 1990: 28% of EU GHG emissions

CESEE EU in 2018: 24% of EU GHG emissions

— EU-27   — CESEE EU   — Other EU

Source: UNFCCC, authors' calculations.
Note: LULUCF = land use, land-use change and forestry.

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[3] All monitored types of greenhouse gases are included and converted into CO_2 equivalents. Hence, also the term "carbon" (e.g. in "carbon emissions") relates to this concept. LULUCF is short for "land use, land-use change and forestry"; unlike other sectors, this category can be both a source and a sink of carbon emissions, depending on human activity. A country's GHG emissions include emissions related to export production but not those related to imports. The latter are, however, not deducted either – thus, unlike the concept of GDP, that of GHG emissions is more similar to the concept of total final demand.

[4] Please note that when we talk about CESEE EU MS and other EU MS in this study, we refer to the aggregates of these two regions.

From about 2005, GHG emissions, however, fell much more strongly in the other EU MS than in the CESEE EU MS. The CESEE region even saw an increase in GHG emissions during the years of very fast GDP per capita growth until the GFC, after which GHG emissions declined until 2014, before rising again up to 2017. Over the whole observation period from 1990 to 2018 (at the time of writing the last year for which comprehensive, detailed datasets were available), GHG emissions declined more strongly in the CESEE region than in the other EU MS, which was mainly due to reductions between 1990 and the early 2000s.

To better understand the factors driving emissions, we decompose GHG emissions per capita into (1) emission intensity (GHG/energy use, i.e. GHG emissions per unit of energy used[5]), (2) energy intensity (energy use/GDP at constant prices and purchasing power parities, i.e. energy used per unit of real income produced) and (3) GDP per capita, i.e. real income produced per person (see e.g. OECD, 2012; Köppl et al., 2019). We present these four indicators in charts 2a to 2d, which depict the regional weighted average and the minimum-maximum ranges (with country names in parentheses) for the CESEE EU MS and the group of other EU MS. To visualize both developments over time, all indicators are indexed to the EU-27 level in 1990 (EU-27/1990 level).

Note that GHG emissions per capita levels in the CESEE region stood only slightly above those in the group of other EU MS in 1990. Yet, the starting position of the CESEE economies was characterized by higher emission intensity and markedly higher energy intensity. At the same time, GDP per capita levels achieved by these economies were much lower compared with those of the other EU MS. Taken together, the lower degree of economic development in the CESEE region almost fully offset the higher degree of carbon intensity (i.e. the product of energy and emission intensities) of its economies, when it comes to GHG emissions per capita. While the CESEE EU countries diverged somewhat less than the other EU MS in terms of emission intensity, which depends mainly on the type of fuel mix used, they diverged much more in terms of energy intensity. The lowest country-specific level among CESEE EU MS stood below the average level of the other EU MS in terms of emission intensity but was close to that level in terms of energy intensity. Overall, the adjustment potential in CESEE was particularly large with respect to energy intensity.

Indeed, in CESEE, the transformation recession and economic restructuring away from energy-intensive heavy industries caused energy intensity to fall sharply, from about 160% of the EU-27 level in 1990 to slightly below that level in 2005. Emission intensity declined only from about 120% of the EU-27 level in 1990 to about 110% of that level in 2005. From 2005 to 2018, energy intensity decreased at a much slower pace and emission intensity at a somewhat faster pace than before.

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[5] *Energy use relates to "final energy consumption" (FEC), i.e. consumption of all types of fuel by all types of end users (households and companies). Thus, FEC includes as one major component "transformation output" (especially electricity and heat) produced by the energy sector from "transformation input" (e.g. coal, oil and gas), which is excluded from FEC.*

Chart 2

(a) Emission intensity (GHG/energy use) in CESEE EU MS and other EU MS
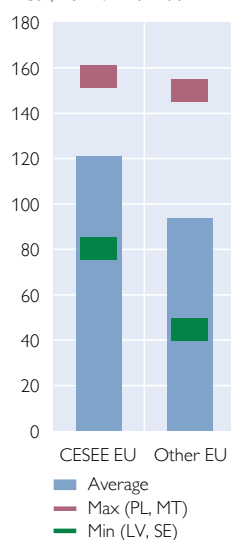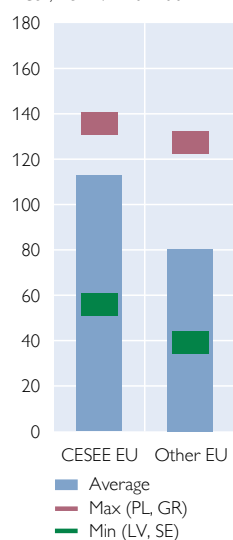
1990

Index, EU-27/1990=100

2005

Index, EU-27/1990=100

2018

Index, EU-27/1990=100

- Average
- Max (PL, MT)
- Min (LV, SE)

- Average
- Max (PL, GR)
- Min (LV, SE)

- Average
- Max (EE, GR)
- Min (LV, SE)

Source: UNFCCC, Eurostat, authors' calculations.

Note: Energy use = final energy consumption.

(b) Energy intensity (energy use/GDP) in CESEE EU MS and other EU MS
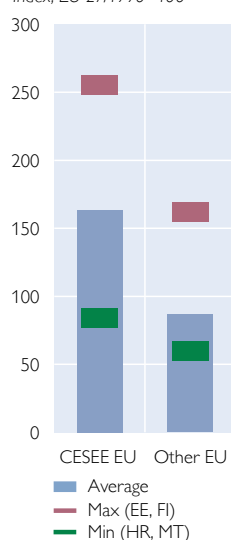
1990

Index, EU-27/1990=100

2005

Index, EU-27/1990=100

2018

Index, EU-27/1990=100

- Average
- Max (EE, FI)
- Min (HR, MT)

- Average
- Max (SK, FI)
- Min (LT, MT)

- Average
- Max (LV, FI)
- Min (RO, IE)
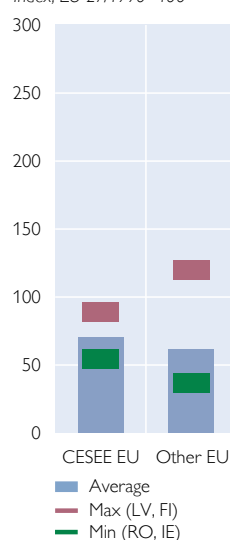
Source: Eurostat, wiiw, authors' calculations.

Note: Energy use = final energy consumption, GDP calculated at constant prices and using purchasing power parities.

Chart 2 continued

(c) GDP per capita in CESEE EU MS and other EU MS
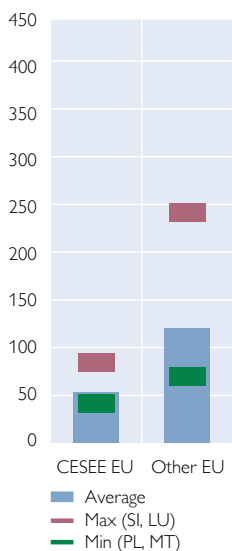
1990

Index, EU-27/1990=100

Average
Max (SI, LU)
Min (PL, MT)

2005

Index, EU-27/1990=100

Average
Max (CZ, LU)
Min (BG, MT)

2018

Index, EU-27/1990=100

Average
Max (CZ, LU)
Min (BG, GR)
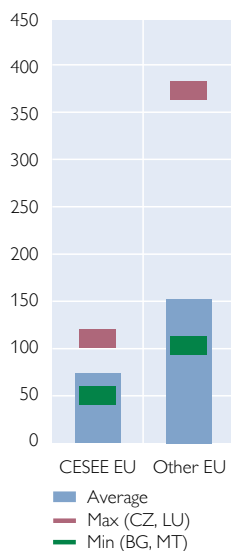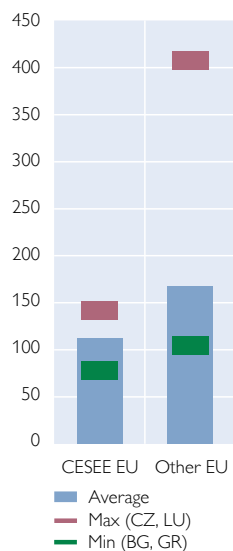
Source: Eurostat, wiiw, authors' calculations.

Note: GDP calculated at constant prices and using purchasing power parities.

(d) GHG emissions per capita in CESEE EU MS and other EU MS
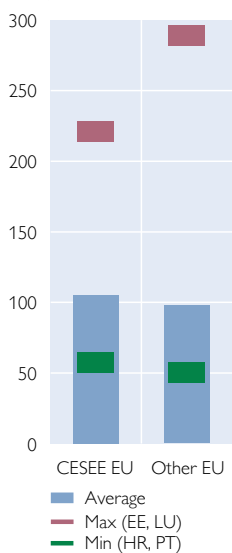
1990

Index, EU-27/1990=100

Average
Max (EE, LU)
Min (HR, PT)

2005

Index, EU-27/1990=100

Average
Max (CZ, LU)
Min (LV, MT)

2018

Index, EU-27/1990=100

Average
Max (EE, LU)
Min (HR, MT)

Source: UNFCCC, Eurostat, authors' calculations.

In the group of the other EU MS, energy intensity's decline accelerated after 2005, but did not match the pace seen in CESEE, while emission intensity's decline continued at an unchanged pace after 2005, equal to the accelerated pace of decline in CESEE. In sum, from 1990 to 2018, the decline in energy intensity was much more pronounced in CESEE than in the comparison group, while the reduction in emission int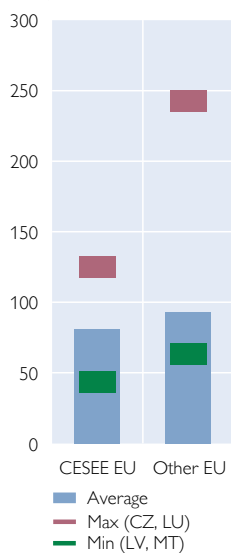ensity was moderately higher in the other EU MS. Taken both indicators together, carbon intensity declined by 65% in CESEE and by 47% in the group of other EU MS. The strong reduction of energy intensity was broad based across the CESEE region, with the range narrowing considerably, driven by a sharply lower maximum level.
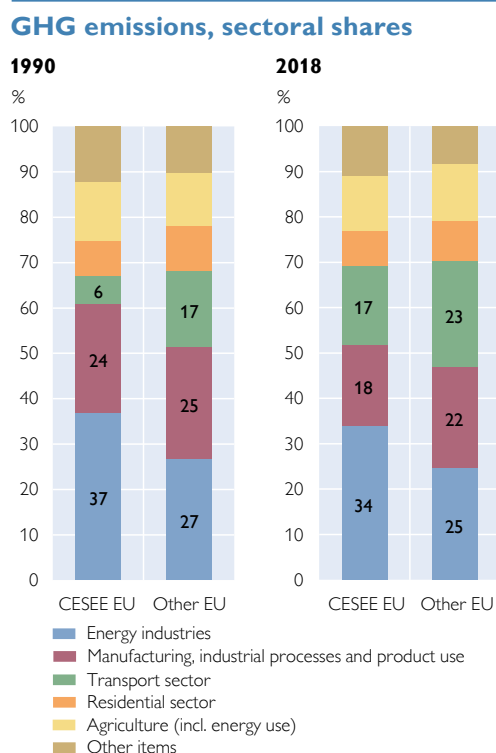
How did the decline in carbon intensity, which went hand in hand with a strong rise in GDP per capita in the CESEE region and a less pronounced rise in the other EU MS (see chart 1), impact on GHG emissions per capita levels? Well, GHG emissions per capita declined roughly equally in both groups from 1990 to 2018. As shown in the right panel of chart 2d, GHG emissions per capita in CESEE stood at slightly below 80% of the EU-27/1990 level in 2018, again only a little above the level of the other EU MS.

The roughly equal decline of GHG emissions per capita in CESEE and the other EU MS translates into a substantially stronger reduction of total GHG emissions in CESEE (chart 1), as the population decreased by 7% in CESEE but increased by 11% in the other EU MS in the period under review.

Let us do a thought experiment to appreciate the decisive role that the decrease in carbon intensity played (mainly through reducing energy intensity): had energy and emission intensities remained constant and GDP grown at the actually registered speed, economic growth would have driven up GHG emissions per capita to more than 220% of the EU-27/1990 level. Thus, economic restructuring in CESEE during transition proved beneficial in terms of both economic convergence (measured by GDP per capita) and carbon efficiency (i.e. the inverse of carbon intensity), with the latter being so pronounced that GHG emissions per capita declined despite substantial economic catching-up. Indeed, from 1991 to 2015, GHG emissions per capita in the CESEE region stood below that in the group of the other EU MS. Thereafter, however, the other EU MS were more successful than the CESEE countries in bringing down GHG emissions per capita by reducing carbon intensity. Overall, as is evident from chart 2, the difference between CESEE and the other EU MS declined considerably for all indicators from 1990 to 2018. Yet, there is still scope for further convergence with respect to both carbon intensity and GDP per capita – and both are moving targets.

A sectoral breakdown of GHG emissions provides further insights into differences between the CESEE region and the other EU MS (chart 3). In both regions, energy industries, manufacturing (including industrial processes and product use) and transport accounted for the bulk of total emissions in 1990 as well as in 2018. While having declined slightly in both regions since 1990, energy industry emissions nevertheless continued to constitute a markedly higher share in total emissions in CESEE. The share of emissions from the manufacturing sector decreased more strongly in CESEE than in the other EU MS as a result of structural change and modernization. The share of transport sector emissions rose considerably in both country groups, and particularly strongly in the CESEE region; the latter's share continued to remain somewhat below the corresponding figure for the other EU

Chart 3

GHG emissions, sectoral shares

1990

%

	CESEE EU	Other EU
	Other items	Other items
	Agriculture	Agriculture
	6	17
	24	25
	37	27

2018

%

	CESEE EU	Other EU
	17	23
	18	22
	34	25

- Energy industries
- Manufacturing, industrial processes and product use
- Transport sector
- Residential sector
- Agriculture (incl. energy use)
- Other items

Source: UNFCCC, authors' calculations.

MS in 2018, however. In both groups, transport emissions increased not only in relative but also in absolute terms, while all other sectors registered GHG decreases.

Absolute transport emissions provide the most telling evidence: in the period under review, they rose by 86% in the CESEE region and by 14% in the other EU MS. In 2018, 53% (CESEE) and 58% (other EU MS) stemmed from emissions from passenger cars, which had risen by 125% and 11% in the respective groups. Notably, in the other EU MS, transport sector emissions, which had peaked in 2004, declined up to 2012. Despite a moderate uptick in 2015/2016, they fell clearly short of the 2004 peak level in 2018. By contrast, the rise in transport sector emissions in CESEE accelerated markedly in the early 2000s. The upward trend was only temporarily reversed in the wake of the GFC, after which transport sector emissions increased again strongly.

Having started from less than 50% of the EU-27 average in 1990, CESEE's transport sector emissions per capita almost reached that level in 2018, while the emissions of the other EU MS stood about 20% above that level both in 1990 and 2018 (chart 4). The divergence among CESEE countries widened, as the maximum level moved up more strongly than the minimum level, illustrating very high growth in transport emissions in some CESEE countries. In 2018, divergence among the CESEE EU MS was considerably more pronounced than that among the other EU MS.

1.2 The role of coal as an energy source

In 2018, fossil fuels (including nonrenewable waste) accounted for 79% (CESEE EU MS) and 69% (other EU MS) of total energy supply[6]. The shares of nuclear energy stood at 8% and 15%, while energy from renewable sources contributed 12% and 16%. Among fossil fuels, coal held a share of 40% in CESEE in 2018, compared to 16% in the other EU MS. This is one of the reasons why emission intensity in CESEE has remained markedly higher than in the other EU MS.

At the start of the transition period in 1990, coal made up 46% of CESEE's total energy supply. This figure was more than double the other EU MS average and even exceeded their maximum country level (chart 5). In the individual CESEE countries, the share of coal ranged from 5% to 76%, and was (well) above 20% in the five largest economies. In CESEE and in the region's five largest economies,

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[6] *Total energy supply includes as one major component "transformation input" but excludes "transformation output," and it also includes energy for non-energy use.*

Chart 4

Transport sector emissions per capita

1990

Index, EU-27/1990=100

LU: 429

CESEE EU   Other EU

- Average
- Max (EE, FI)
- Min (RO, MT)

2005

Index, EU-27/1990=100

LU: 970

CESEE EU   Other EU

- Average
- Max (SI, CY)
- Min (RO, MT)

2018

Index, EU-27/1990=100

LU: 623

CESEE EU   Other EU

- Average
- Max (SI, AT)
- Min (RO, MT)
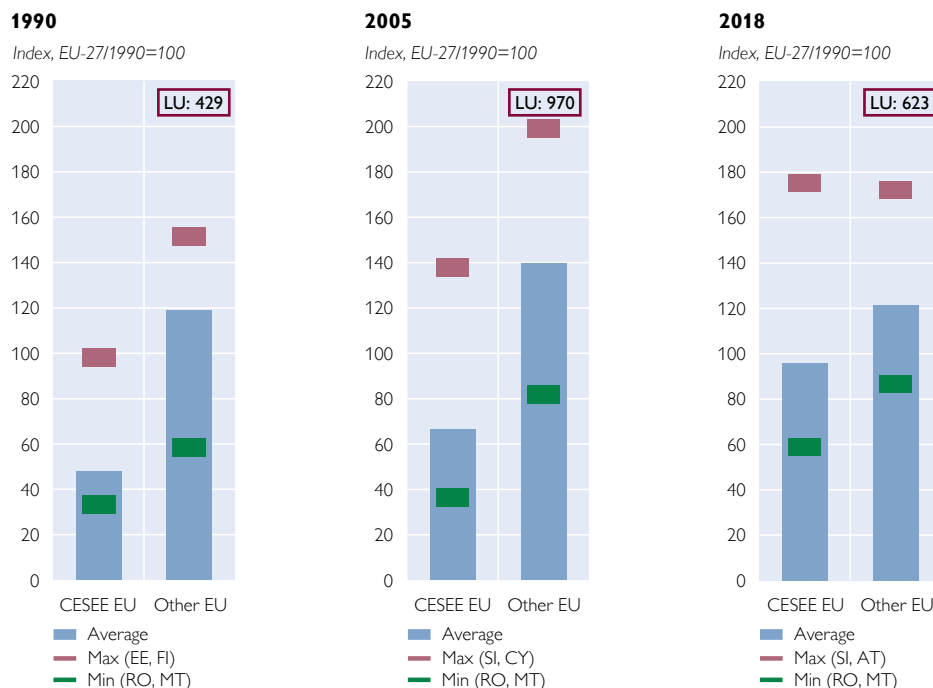
Source: UNFCCC, authors' calculations.

Note: The values for the outlier Luxembourg are shown separately at the top of each panel.

economic transformation led to a considerable decline in the importance of coal as an energy source. Its share fell markedly, reaching 31% in 2018, which, however, still exceeded the level the other EU MS had registered in 1990. In the other EU MS, the share of coal went down to 11% in the period under review. The substantial decline in the share of coal in CESEE is even more remarkable as total energy supply contracted considerably (–18%) at the same time, while the other EU MS saw a 5% increase in total energy supply.

When we take a look at the use of coal in the EU as a whole in 2018, we see that 41% was attributable to CESEE, while the other EU MS accounted for the remaining 59%. The three countries with the highest shares in EU-wide coal use are Germany (32%), Poland (23%) and Czechia (7%) (IEA, 2021a).

Chart 5

Share of coal in total energy supply

1990

%

PL (Max 1990)

EE (Max 2018)

GR (Max 1990)

DE (Max 2018)

CESEE EU   Other EU

- Average
- Max 1990 (PL, GR)
- Max 2018 (EE, DE)

2018

%

EE (Max 2018)

PL (Max 1990)

DE (Max 2018)

GR (Max 1990)

CESEE EU   Other EU

- Average
- Max 1990 (PL, GR)
- Max 2018 (EE, DE)
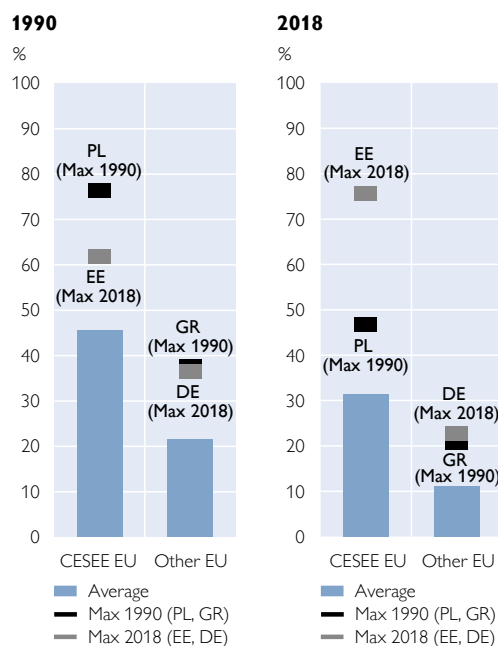
Source: IEA, authors' calculations.

Between 2018 and 2020, within the EU only these three countries established new coal-fired power plants, yet only in Poland did the new capacities exceed the retired old ones. In the EU, coal mines operate not only in CESEE countries (Poland, Czechia, Romania, Bulgaria, Hungary) but also in Germany and Greece. New coal mines have, however, been proposed only in Poland, Czechia and Romania (GEM, 2021).

Note in this context that higher shares of (mostly domestic) coal in CESEE have gone hand in hand with lower import shares in total energy supply (42% in CESEE EU MS versus 60% in the other EU MS in 2018), with imports including imports from other countries of the same group.

1.3 Energy prices and (implicit) carbon taxes

For completeness, we want to add that, in CESEE, electricity prices (before taxes) for industry are roughly on a par with the EU average, likely also thanks to the introduction of the EU-wide Emissions Trading System (ETS). Household electricity, natural gas and diesel prices (before taxes) in the region are still moderately lower in nominal but clearly higher in real terms than the respective EU averages (IEA, 2021a). At the same time, (implicit) CO_2 prices in CESEE are below the EU averages (OECD, 2021); these topics merit further research.

2 International commitments and their fulfillment

The Kyoto Protocol to the United Nations Framework Convention on Climate Change of 1992 (UNFCCC) was adopted in 1997 and entered into force in 2005. For 37 countries and the EU, this protocol set the objective to reduce GHG emissions by 5% over the 2008–12 period compared to 1990 levels (ECA, 2017, p. 17). The EU committed itself to reducing its emissions by 8% instead of 5% (Council of the EU, 2002). The countries belonging to the EU at that time (including the UK) did reduce their emissions by 11% on aggregate (with emission levels in 2011–12 even lower than in the crisis year 2009), while the current CESEE EU countries cut emissions by 30% as a result of reductions in the 1990s (see section 1).

2.1 Climate policy targets for 2020

Setting an overall climate policy target for 2020, the EU and its member states committed to reducing their GHG emissions by 20% by 2020 compared to 1990 levels (with a view to cutting emissions by 60% to 80% by 2050 compared to 1990). Following initial political declarations in 2007, this became a unilateral commitment in 2009, and a multilateral commitment under the Doha amendment of the Kyoto Protocol in 2012 (EU, 2009a; ECA, 2017, p. 17)[7]. To fulfill this commitment, the EU chose a three-pronged approach comprising (1) direct subtargets for GHG emissions, (2) targets for the minimum share of energy from renewable sources in total final energy consumption, and (3) targets for the reduction of primary and final energy consumption to advance energy efficiency.

These targets were set both for the entire EU and for each member state (EU, 2009a to 2009c; EU, 2012). The MS targets for energy efficiency (third item in the

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[7] *In the international negotiations on further climate policy steps after expiry of the initial Kyoto Protocol, the EU had offered in March 2007 to cut GHG emissions by 30% compared to 1990 levels by 2020. This was on the condition that other developed countries commit themselves to comparable emission reductions and economically more advanced developing countries commit themselves to contributing adequately according to their responsibilities and capabilities (EU, 2009a, Recital 3).*

following list) were indicative, i.e. nonbinding, and, having been originally set in 2012/13, they were partly revised later (EC, 2017 and 2020b).

First, binding GHG emission subtargets were set compared to 2005 levels. In the ETS sectors, the aim was to reduce EU-wide allowances by 21%, and in other (non-ETS) sectors, to cap the aggregate increase in CESEE at 14% and to attain an aggregate reduction by at least 13% in the other EU MS (excluding the UK, see footnote 2) and hence by 8% for the EU-27 (see table 1). Emissions in other sectors were allowed to increase in each CESEE country, ranging from +4% (Slovenia) to +20% (Bulgaria), while in the other EU MS, slight increases were envisaged only for Malta and Portugal.

Second, the binding targets set for the shares of energy from renewable sources (particularly hydro, wind, solar, biomass) in total final energy consumption (FEC) were 20% for the EU-28, and (based on country-specific targets) implicitly 17% for the CESEE EU MS on aggregate, 21% for the group of the other EU MS (excluding the UK) and hence 20.6% for the EU-27. Compared to 2005, these target shares implied an increase by 6.5 percentage points for CESEE and by 11 percentage points for the rest of the EU.

Third, the binding 20% reduction at the EU level, when compared to the FEC level projected in 2007 for 2020, implied the need to decrease EU-28 FEC by 9% until 2020 compared to 2005. Eventually, member states set final national indicative FEC targets meant to deliver the agreed reduction on aggregate. The targets implied a maximum aggregate increase (+4.5% against 2005) for CESEE and an aggregate reduction (−11%) for the other EU MS (excluding the UK) and −8% for the EU-27. The increase in CESEE overall was to be due to substantial increases in Poland, Romania and Latvia. Of the other EU MS, three countries likewise envisaged increases, namely Finland, Cyprus and Malta.

Turning to actual changes, we note that all the abovementioned targets were roughly met. First, by 2018, the CESEE EU MS had on aggregate increased their GHG emissions in other (non-ETS) sectors by 5% compared to 2005, while the other EU MS had lowered their GHG emissions by 13% (see table 1). Thus, both groups complied with their target. The said rise in CESEE was attributable to only four (of the eleven) countries, two of which exceeded their respective established limits for increases. Among the other EU MS, only Malta registered an (excessive) increase, but eight other countries clearly failed to reduce GHG emissions in the non-ETS sectors to the extent required. At the EU level, the 2020 target was very likely to have been met already in 2018, and considering the impact of the pandemic even more so in 2020.

Second, regarding renewable energy targets, CESEE had, by 2019, on aggregate increased its share of energy from renewable sources in total FEC by about 6.5 percentage points compared to 2005. It thus met its aggregate target for 2020. The other EU MS raised their respective aggregate share by 10 percentage points, hence falling slightly short of their 2020 target. Four (of the eleven) CESEE countries had not yet reached their 2020 target by 2019, compared to ten (of the sixteen) other EU MS.

Third, as to the FEC reduction at the EU level, the CESEE countries had by 2019 on aggregate increased FEC by 6% compared to 2005 levels, hence needing to reduce it by 1.5% in 2020. The other EU MS decreased FEC by 8% compared to 2005 and needed to reduce it by another 3% in 2020. Performance at the country level

differed considerably relative to the indicative national targets. In 2020, the EU-level target was very likely to have been achieved on the back of the COVID-19 pandemic.

2.2 Climate policy targets for 2030 and beyond

Developing climate policy targets for 2030 and beyond, the European Council in October 2009 supported the more ambitious objective of reducing EU-wide GHG emission by 80% to 95% compared to 1990 levels by 2050. Starting in October 2014, it repeatedly endorsed a binding target of reducing said emissions by at least 40% by 2030 compared to 1990. Both this overall target and consistent subtargets in line with the three-pronged approach were formally set in 2018 (EU, 2018a to 2018d).

Binding GHG emission subtargets were set again relative to 2005 levels. In the ETS sectors, this translated to an EU-wide reduction of allowances by 43%. The aggregate reductions envisaged for the other sectors amounted to 7% in CESEE and to at least 34% in the rest of the EU (excluding the UK).

The renewable energy share was to meet a binding target of 32% for the EU-28. In addition, member states were obliged to set national targets for their contributions to the EU-wide increase, possibly considering an agreed formula (EU, 2018c). The latter was meant to yield aggregate targets of 27.3% for CESEE, 33.2% for the other EU MS and 32.1% for the EU-27. However, the objectives defined by member states in their national energy and climate plans (NECPs) implied targets of only 25.4% for CESEE but 34.7% for the other EU MS (excluding the UK), yielding 33% for the EU-27.

The indicative FEC targets set by member states in their NECPs imply aggregate reductions of 3% for CESEE and of 12% in the other EU MS (excluding the UK), compared to 2019 levels.

The Paris Agreement did not immediately raise the Union's 2030 energy and climate targets (EU, 2018e). However, it helped raise awareness about both the need for achieving net-zero greenhouse gas emissions in the Union by 2050 (EC, 2018) and the concept of climate neutrality as the cornerstone of the European Green Deal (EC, 2019). As a result, the new European Climate Law, which, after having been endorsed by the European Parliament and the Council, entered into force on July 29, 2021, also raised the level of intermediate commitment: "the binding Union 2030 climate target shall be a domestic reduction of net greenhouse gas emissions (after deduction of removals) by at least 55% compared to 1990 levels by 2030" (EU, 2021, Art. 4 (1)). As the amount of net removals to be deducted is determined by law (Art. 4 (3)), this target corresponds to a gross reduction of GHG emissions of about 52.5%, up from the previous 40% target. Based on this new overall target, the European Commission on July 14, 2021 proposed its "Fit for 55" package of legislative proposals, in which the subtargets under the three-pronged approach were consistently revised (EC, 2021a to 2021d).

The proposed GHG emission subtargets, set again relative to 2005 levels, include a reduction by 61% for ETS sectors. In non-ETS sectors, the implied aggregate reductions were revised to 18% (CESEE) and 45% (other EU MS). Table 1 provides an overview of overall commitments, corresponding subtargets and actual achievements with respect to GHG emissions. The proposed EU-wide target share of renewables equals 40%, up 7 to 8 percentage points from the current target. The proposed EU-wide FEC target is 11% lower than the current total of indicative national targets, which implies a 20% reduction against the 2019 level.

Table 1

EU GHG emissions: targeted changes compared with actual changes

	CESEE EU			Other EU			EU-27		
	Total	ETS	Other	Total	ETS	Other	Total	ETS	Other
	Change in %								
Actual:									
1990 to 2005	−26	−27	−25	2	5	−1	−6	−6	−7
2005 to 2018	−8	−21	5	−20	−28	−13	−17	−26	−10

2020 target agreed in 2007–09 to reduce EU-28 emissions by 20% versus 1990:

Thus, agreed subtargets for sectoral changes versus 2005: (a) current ETS sectors: −21%, and (b) other sectors: specific minimum reductions or maximum increases for individual MS ranging from −20% to +20%, which imply the following aggregate targeted changes for the EU-27 and the two subgroups:

	CESEE EU			Other EU			EU-27		
2005 to 2020	−4	−21	14	−17	−21	−13	−14	−21	−8

2030 target agreed in 2014–18 to reduce EU-28 emissions by 40% versus 1990:

Thus, agreed subtargets for sectoral changes versus 2005: (a) current ETS sectors: −43%, and (b) other sectors: −30% for the EU-28, with specific minimum reductions for individual MS ranging from −40% to 0%, which imply the following aggregate targeted changes for the EU-27 and the two subgroups:

	CESEE EU			Other EU			EU-27		
2005 to 2030	−26	−43	−7	−38	−43	−34	−35	−43	−29
2018 to 2030	−19	−28	−12	−23	−21	−24	−22	−23	−21

2030 target agreed in 2021 to reduce EU-27 net emissions by 55% versus 1990:

Thus, subtargets for sectoral changes versus 2005, as proposed by the European Commission: (a) current ETS sectors: −61%, and (b) other sectors: −40% for the EU-27, with specific minimum reductions for individual MS ranging from −50% to −10%, which imply the following aggregate targeted changes for the EU-27 and the two subgroups:

	CESEE EU			Other EU			EU-27		
2005 to 2030	−41	−61	−18	−52	−61	−45	−49	−61	−40
2018 to 2030	−35	−51	−22	−40	−46	−37	−39	−47	−33

Source: European Commission (2021a, 2021b), EEA (2021), EU (2018a, 2018b, 2021b), UNFCCC (2021).

Note: For implied targeted changes, uniform ETS application across member states is assumed for simplicity. ETS covers most energy industries (electricity and heat plants, petroleum refining) and the major part of manufacturing with respect to both fuel combustion and industrial processes and product use. Thus, other (i.e. non-ETS) covers inter alia the remaining energy industries, transport, residential and commercial buildings, other industrial processes and product use, agriculture, and waste (outside heat plants).

3 Summary and conclusions

In this study, we analyzed the state of play of the green transition in the EU, comparing the progress made in the eleven CESEE EU MS from 1990 to 2018 with that of the 16 other EU MS. The physical risks of climate change are broadly the same in both country groups. In contrast, transition risks that occur on the bumpy road to a low-carbon economy are still more of an issue in CESEE, given this region's higher carbon intensity.

CESEE EU MS achieved sizable cuts in greenhouse gas emissions in the first decade of their transition to market economies. Then, their priority was to fundamentally restructure the economy to raise both competitiveness and income. Apart from a shift to services, this process meant overhauling manufacturing and energy industries by investing in state-of-the-art technology. As the CESEE countries succeeded in reducing energy intensity (substantially) and emission intensity (moderately), GHG emissions per capita (and in total) decreased while income per capita increased. CESEE's transition to market economies thus already implied a kind of green transition – even if this was not the result of a targeted climate policy

but an unintended side effect of painful structural change that largely resulted from policies meant to restore competitiveness and address consumer preferences.

After EU accession, CESEE countries' GHG emissions rose during the boom until the great financial crisis but declined again thereafter while (and even though) their catching-up process to average EU income levels continued. However, their pace of reducing emissions decelerated substantially, trailing that of the other EU MS so that CESEE economies to some degree still lag behind the rest of the EU in terms of emission and energy intensities. To a considerable extent, this may be ascribed to the fact that the 2020 climate policy targets the EU had agreed for the CESEE EU MS in 2009 (concerning GHG emission reductions and shares of renewables) and in 2013 (concerning energy efficiency) were less demanding than the targets for the other EU MS. Granted, the targets for the CESEE countries were meant to acknowledge the remarkable achievements in reducing GHG emissions against the international reference year of 1990. Also, more ambitious targets were considered a potential threat to faster growth for catching-up in per capita income levels. For similar reasons, binding targets for reducing national GHG emissions that were jointly agreed in 2018 for 2030 were again modest for CESEE EU countries. The national targets set by the member states summed up to disappointingly low target levels for the CESEE region as a whole. One may doubt that the lack of more challenging targets and greater ambition has been beneficial overall for the CESEE EU countries themselves. Going forward, the CESEE countries can certainly do better. When negotiating the Commission's July 2021 proposals for achieving the jointly agreed climate policy targets, all EU MS, and particularly the CESEE EU MS, should carefully weigh the benefits of doubling ambition and effort.

Both the CESEE and the other EU MS must step up their efforts in the coming years if they want to have a realistic chance of reaching the intermediate target to reduce net emissions by 55% up to 2030 and net-zero emissions and a climate-neutral economy by 2050, as jointly agreed in the European Climate Law. This implies doing away with fossil fuel subsidies and introducing a price for carbon that covers its external costs. It also requires substantially scaling up green investment, as envisaged for instance in the current national recovery and resilience plans, and cushioning vulnerable households, workers and partly also businesses to avoid adverse distributional and allocative effects. While expensive, this would offer long-term economic opportunities in terms of energy-efficient production and consumption, low-cost renewables, enhanced energy independence and modernized infrastructure. In this context, new nuclear power plants are unlikely to be an appropriate alternative to fossil fuels given high economic (opportunity) costs, long and uncertain construction time (delaying emission cuts), dependence on uranium as well as safety concerns regarding plant operation and nuclear waste disposal (Schneider and Froggatt, 2020). CESEE countries would benefit from participating in innovative greening industries at the competitive edge, as this would help reconcile economic convergence with environmental progress. Lagging behind in innovation and technology development, however, CESEE EU countries tend to be assemblers and importers of green technologies from other EU member states. Nonetheless, there are encouraging examples of green product market leaders from the region, e.g. Solaris buses from Poland.

Our findings may contribute to future work on measuring and assessing climate-related risks in the CESEE region's financial sectors. Regarding cross-

border banking, it is important for parent banks and their subsidiaries as well as supervisors to consistently quantify exposures to these financial risks. Increasingly aligning their portfolios to net-zero targets, markets seem to be prepared for transition but they still need political guidance. While central banks can play a role in this (Magyar Nemzeti Bank, 2021), sound carbon pricing – by addressing the initial market failure – would be most effective in mobilizing private capital for public goods.

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Which borrower in CESEE gets which loan? Evidence from the OeNB Euro Survey

Marc Bittner[1]

This paper sheds light on the distribution of three types of retail loans as well as their drivers in ten countries of Central, Eastern and Southeastern Europe (CESEE). Based on data from the OeNB Euro Survey, the study aims at analyzing the characteristics of individuals taking out loans for (1) housing, (2) consumption or (3) education, business or professional activities and other purposes. Logistic regression is used to analyze average marginal effects of a variety of independent variables, such as sociodemographic factors, (economic) attitudes and expectations, trust in institutions, and financial literacy. Identifying and understanding characteristics of borrowers holding certain types of loans may inform the formulation of microprudential policies and thus help promote financial stability. Apart from being married, trusting domestic banks and the EU as well as having an internet connection at home, having earned income is very important for all three types of loans, with the level of personal income impacting on housing loans only. Borrowers' level of education is a key driver of both housing loans and loans for education, business or professional activities and other purposes, and less so of consumer loans. High inflation expectations have a significant impact on consumer loans as well as on loans for education, business or professional activities and other purposes. Depending on the loan type, the number of significant drivers differs greatly.

This study focuses on factors that influence retail lending in Central, Eastern and Southeastern Europe (CESEE). The factors range from sociodemographic characteristics such as gender, age, education, income, household size (factors most often referred to in similar analyses) to economic attitudes and expectations, trust in institutions and financial literacy. Available for a multiyear observation period, such variables may be derived from the OeNB Euro Survey for ten CESEE countries in which the euro is not an official means of payment. This unique data set enables us to cover – and compare – this CESEE region by applying the same instrument to each country during the same observation period. As a result, we arrive at overall statements about the region. Furthermore, we may not only investigate the drivers of loan growth from a microperspective but also differentiate between types of retail loans. Looking at the determinants of such loans, this study complements macroeconomic analyses that are based on publicly available loan data at the macro-level. Here, a logistic regression model is used that takes all the abovementioned variables into account to obtain a broad, yet detailed picture of factors that may determine who is likely to hold particular types of retail loans. The loan purpose has important implications for macrofinancial stability. Potential risks stem especially from an increase in consumer loans. Such loans typically consist of unsecured products, thus exposing lenders to nonrepayment risks. In the CESEE region, the share of consumer loans is higher than in advanced economies, whereas

the share of housing loans in total loans is typically lower. Housing loans may be considered relatively safe as they are often backed by collateral. Yet, long-term housing loans also carry risks as they make households more sensitive to interest rate risk and currency risk (Riedl, 2019, pp. 10–12). Several CESEE central banks recently noted that borrowers with consumer loans were somewhat more strongly affected by the COVID-19 pandemic than people holding housing loans. This was evident in the former's higher participation in loan moratoria and/or faster increase in nonperforming exposures or stage 2 classifications (see e.g. Magyar Nemzeti Bank, 2020; Czech National Bank, 2020). Finally, loans taken out for education, business or professional activities can pave the way for higher income levels in the future and thus back a sustainable recovery from the current pandemic. Different loan types have different implications in the household sector; analyzing the broad range of drivers at the micro-level is therefore crucial. Getting a grasp on borrowers' characteristics can make a valuable contribution to formulating microprudential policies and thus help promote financial stability.

In light of rising demand and supply, consumer lending in many EU countries has recorded a significant increase in recent years. Demand has been driven mainly by GDP growth and decreasing unemployment, whereas supply has been fueled by low interest rates and a search for increased margins by banks (EBA, 2020, p. 21). Central and Eastern European countries accounted for the highest figures for consumer lending as a proportion of total lending in the EU. In particular, 20% of Hungarian banks' total lending was toward consumer credit. In this respect, Hungary was followed by Bulgaria (17%), Romania (16%), Slovenia (15%) and Poland (12%) (EBA, 2020, p. 10).

Over the past decades, household debt has risen steadily in most economically advanced societies, which is closely linked to changing patterns of consumption and institutional reforms that have made financial credit accessible to growing segments of the population. Social scientists largely attribute this development to an ever more pervasive consumer society on the one hand, and stagnant income levels in the middle and lower social classes on the other hand. In many countries, homeownership has been on the rise, with mortgage debt gaining traction (Lewin-Epstein and Semyonov, 2016). As to the determinants of taking out a loan, the literature has mainly discussed sociodemographic factors to date.

Using data from the OeNB Euro Survey (see the next section for details) for the period from 2009 to 2017, Hake and Poyntner (2019) explored the question whether interpersonal comparisons affect a household's probability of having a loan. The results support the notion that the relative income position, along with absolute income, has an impact on households' likelihood of having a loan, but this is valid mainly for households above the median of the income distribution. While the impact was shown for almost all components of household debt, the evidence proved strongest for mortgage and car loans. In CESEE countries with a more equal income distribution, interpersonal comparisons turn out to be a weaker predictor of a household's propensity to have a loan (Hake and Poyntner, 2019, p. 75). Results of a study by Rosan and Zauder (2020) suggest a "hump-shaped" age profile of debt participation: households with middle-aged heads are more likely to hold debt as well as higher amounts of debt. Households at the upper end of the income distribution have better access to mortgages. In addition, households whose head is highly educated are more likely to use and have access to secured debt

(Rosan and Zauder, 2020, pp. 29–30). Using data from the 2001 Survey of Consumer Finances, Yilmazer and DeVaney (2005) examined how type and amount of household debt change over the life cycle. Their findings show that the likelihood of holding particular types and amounts of debt compared to total assets decreases with age (p. 285). Other household demographics that have significant effects on the likelihood of holding both secured and unsecured debt and on the respective amounts compared to total assets are household income, being self-employed and being retired. Characteristics such as marital status, race, education, and the number of children living in the household have a negative effect on the likelihood of holding unsecured debt. Overall, people appear to reduce debt as they approach retirement, an adjustment that is consistent with the life cycle hypothesis of savings (p. 301). Bover et al. (2016) show that household members' age and income level are important determinants of debt. The probability of borrowing peaks for cohorts aged thirty-five to forty-four years (Bover et al., 2016, p. 120). A study by Altundere (2014), which draws on data from thirteen European countries that were collected in the second wave of the SHARE project, shows that the incidence of mortgage debt is strongly influenced by having attained high-school and college education and being in employment.

Compared to the existing literature, the present study provides insight into a specific region, namely ten CESEE countries that do not use the euro as official currency. In addition, it draws on more diverse variables than just sociodemographic ones to analyze the drivers of different types of retail loans. Including e.g. additional wealth indicators and borrowers' (economic) attitudes, experiences, opinions and expectations results in a much broader picture of potential determinants.

The study is structured as follows: section 1 provides information on the OeNB Euro Survey as the empirical data basis for this analysis. Section 2 highlights the distribution of different types of retail loans in ten CESEE countries; loan types are classified by three purposes: (1) housing, (2) consumption and (3) education, business or professional activities and other purposes. Section 3 analyzes the drivers of these loan types. Specifically, we analyze borrowers' largest, most important loans, using a logistic regression and presenting the average marginal effects in percentage points. The results indicate borrowers' probability of having a particular type of loan based on individual characteristics. Section 4 presents the commonalities and differences regarding the three loan types. Section 5 summarizes and concludes.

1 Empirical data basis: the OeNB Euro Survey

The OeNB has been conducting the OeNB Euro Survey since 2013 to learn more about the use of the euro in CESEE. The survey covers ten countries, namely six EU member states (Bulgaria, Croatia, Czechia, Hungary, Poland, Romania) and four non-EU countries (Albania, Bosnia and Herzegovina, North Macedonia, Serbia). In the annual survey waves, a representative sample of approximately 1,000 individuals per country is polled in a multistage stratified random sampling procedure. The sample is representative of the country's population with regard to

age, gender and region.[2] The target population comprises residents aged 15 years or older. Interviews are carried out face to face at the respective respondent's home. The OeNB Euro Survey complements aggregate statistics and allows to identify causal relationships.

The annual questionnaire of the OeNB Euro Survey contains a standard set of questions plus focus modules or questions that change every year. The standard questions relate in particular to cash holdings in foreign currencies, savings deposits, portfolio composition, loans taken out and planned as well as an assessment of the economic situation, (economic) expectations and trust in institutions and currencies. The questionnaire is complemented by a wide range of sociodemographic and socioeconomic variables as well as paradata, i.e. interview duration and technique, willingness to cooperate, information on the interviewers and location size (Bittner, 2020).

This study is based on OeNB Euro Survey data collected during the survey waves 2017 to 2019, which include a number of comparable questions related to borrowers' largest, most important loans. Combined with sociodemographic variables and variables on (economic) attitudes and behavior, these micro-level data allow for an in-depth analysis of the drivers behind borrowers' largest, most important loans in CESEE.

2 Descriptive analysis

First, we provide an overview of how selected sociodemographic variables are distributed in the country samples of the OeNB Euro Survey (table 1). This will allow us to better classify the descriptive results later on.

Table 1 shows that the gender and income distributions are very similar across all countries. With regard to the age distribution, note that in Albania, Bulgaria, Poland and Serbia in particular, the share of the young age group (up to 34 years) is above average and that of the age group 60 years and older is below average. As to the level of education, a higher proportion of low-skilled respondents can be found in Bosnia and Herzegovina, North Macedonia, Poland and Serbia, while an above-average number of respondents in Albania, Bulgaria and Hungary report a high level of education. In turn, Croatia, Romania and Czechia are the countries with particularly high proportions in the medium education category.

Second, we explain the procedure for selecting and operationalizing the dependent research variable ("purpose of largest, most important loan"). The survey question "Do you, either personally or together with your partner, currently have any loans that you are still paying off?" was used to identify the share of respondents with loans. The shares for each of the ten countries and three survey waves (2017–2019) form the basis for all further calculations.[3]

Chart 1 shows the country-specific shares as well as overall shares of respondents who have a loan for each year under observation. The overall share rose slightly from 22% in 2017 to 25% in 2019. When we look at the individual CESEE countries, different patterns become evident. Countries registering the highest

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[2] *Data weighting is used to ensure a nationally representative sample for each country; sampling weights use population statistics on gender, age and region and, where available, education and socioeconomic status as well as ethnicity.*

[3] *The resulting overall sample size totals about 30,000 respondents, i.e. some 1,000 respondents per country and survey wave.*

Table 1

Selected sociodemographic distributions by country

	Gender		Age			Education			Income		
	Male	Female	Up to 34 years	35–59 years	From 60 years	Low	Medium	High	Low	Middle	High
	%										
Albania	49.5	50.5	34.3	49.6	16.1	9.1	56.5	34.4	35.2	33.7	31.1
Bosnia and Herzegovina	48.6	51.4	29.0	45.7	25.3	30.9	57.6	11.5	35.1	33.1	31.8
North Macedonia	49.7	50.3	34.5	44.6	20.9	24.7	56.6	18.7	34.5	35.0	30.5
Bulgaria	48.0	52.0	22.4	44.0	33.6	11.6	65.1	23.3	34.5	35.1	30.4
Croatia	47.7	52.3	26.4	43.8	29.8	8.9	73.5	17.6	35.0	33.0	32.0
Poland	47.4	52.6	30.3	45.6	24.1	22.4	61.7	15.9	34.2	33.5	32.3
Romania	48.2	51.8	26.1	44.4	29.5	2.4	78.2	19.4	34.9	34.0	31.1
Serbia	48.1	51.9	29.0	44.8	26.2	30.6	52.4	17.0	34.8	32.4	32.8
Czechia	49.2	50.8	25.0	46.4	28.6	6.7	80.1	13.2	33.6	34.4	32.0
Hungary	46.9	53.1	23.3	44.1	32.6	13.3	65.4	21.3	33.9	35.0	31.1

Source: OeNB Euro Survey 2017–2019.

Note: Respondents answering "don't know" or "no answer" have been excluded.

Chart 1

Respondents who have a loan
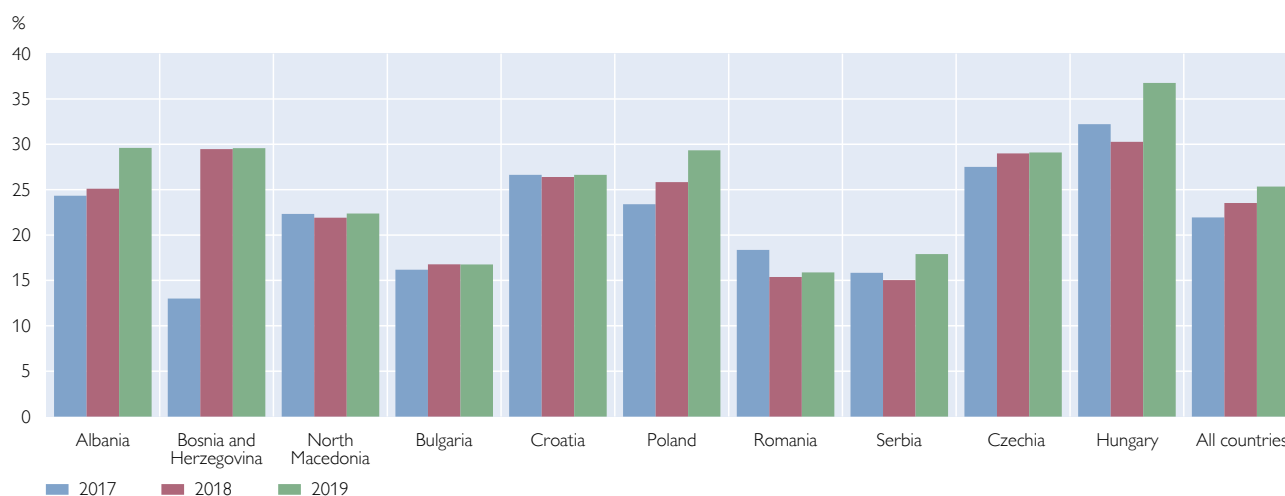
Source: OeNB Euro Survey 2017–2019.

Note: Respondents answering "don't know" or "no answer" have been excluded.

percentages in 2019 are Albania, Bosnia and Herzegovina, Poland, Serbia and Hungary. Only one country (Romania) saw a decrease in the observation period. In North Macedonia, Bulgaria, Croatia and Czechia, there were hardly any changes over time.

Macrodata from the wiiw (EIB, 2019, p. 119) show that, from 2017 to 2019, the growth rates of loans to the private sector remained clearly positive throughout the region, except for negative growth rates in Albania in the fourth quarter of 2018 and in Croatia in the fourth quarter of 2017. At the end of 2019, the highest growth rates were posted by Hungary (+13.1%; given a continuously strong

increase since 2017), Serbia (+8.9%) and Bulgaria (+7.4%), while the lowest value was recorded by Croatia at +3.9%, albeit with an increasing trend over time. In Albania, the negative trend of 2018 turned clearly positive again (+6.6%). According to the CESEE Bank Lending Survey (EIB, 2019, p. 10), demand for loans and credit lines continued to go up in the region, which marked the fourteenth consecutive increase.

An additional set of questions is introduced in the OeNB Euro Survey by the statement "I would now like to ask you some questions about your largest, most important loan." Here, the following question is key: "What is the purpose of this loan? I/we took out the loan to finance…". Respondents may choose one item[4] from these options: (1) my/our current main residence, (2) another house or apartment, (3) consumption goods (furniture, traveling, household appliances, etc.), (4) a car, (5) education, (6) a business or professional activity, or (7) other.

We used this question to calculate the shares of borrowers taking out their largest, most important loan for different purposes. We defined three purposes: (1) "housing", which consists of the items "my/our current main residence" and "another house or apartment"; (2) "consumption," which comprises the items "consumption goods (furniture, traveling, household appliances, etc.)" and "a car"; and (3) "education, a business or professional activity or other" (in the following "other" purposes or loans). This way, we ended up with approximately three equal groups for statistical analysis. As an investment in personal development, loans for education and business or professional activities serve similar goals, which is why the aggregation seems legitimate.

Analyses of the 2017–2019 OeNB Euro Survey data show that 8.7% of the respondents in the CESEE region have a housing loan as their largest, most important loan, 9.5% a consumer loan and 5.1% a loan for other purposes (chart 2). The shares of respondents whose largest, most important loan is a housing loan rose only marginally. Consumer loans saw a stronger increase between 2018 and 2019. Other loans registered only little change, with a small peak in 2018.

Chart 3 shows the relative distribution of the largest, most important loans by purpose. In Bulgaria, Romania and Serbia, 50% of the largest, most important loans are consumer loans. This type of loan also plays a dominant role in Bosnia and Herzegovina (44%) as well as in North Macedonia (38%). In Croatia and Czechia, by contrast, housing loans account for the highest shares in relative terms (47% and 46%). In both Poland and Hungary, housing and consumer loans amount to similar shares of around 40%. Only in Albania are the shares for all three loan purposes

Chart 2

Respondents whose largest, most important loan is a loan for...
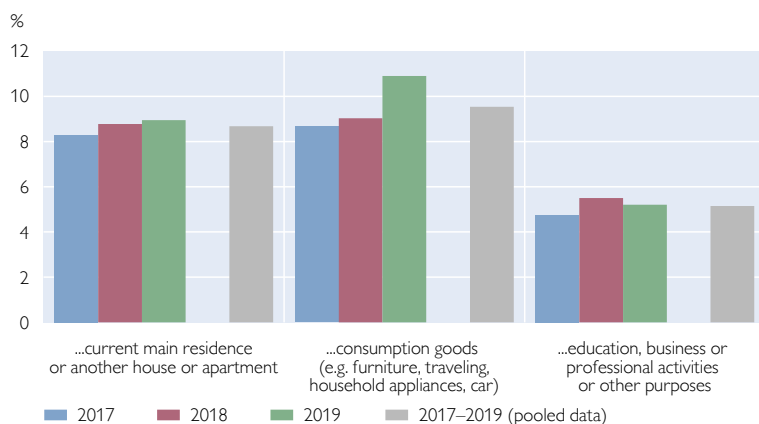
Source: OeNB Euro Survey 2017–2019.

Note: Respondents answering "don't know" or "no answer" have been excluded.

[4] Single punch question allowing only one answer.

Chart 3

Purpose of largest, most important loan

% of respondents who have a loan
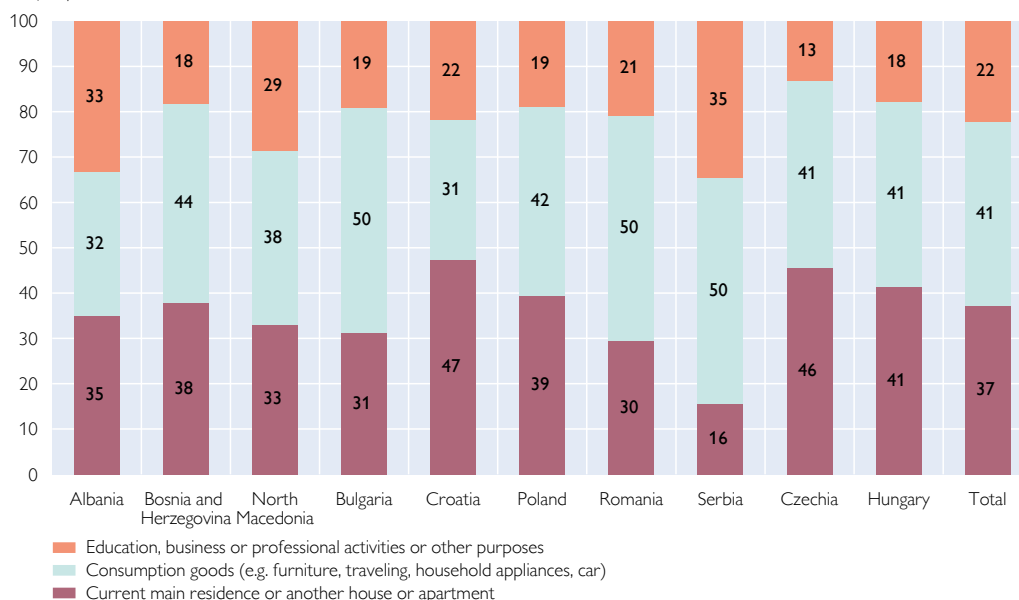
Education, business or professional activities or other purposes
Consumption goods (e.g. furniture, traveling, household appliances, car)
Current main residence or another house or apartment

Source: OeNB Euro Survey 2017–2019.

Note: Respondents answering "don't know" or "no answer" have been excluded.

about equal. Across all ten countries, the share of consumer loans totals 41%, followed by housing loans (37%) and other loans (22%).

The survey data for each individual wave (2017, 2018, 2019) show that the overall shares for the three loan types hardly vary (slight decreases over time for housing and other loans, slight increases for consumer loans). At the country level, we see, for example, that the relative importance of housing loans was declining in both Bosnia and Herzegovina and Croatia, while the loan portfolio showed a shift toward consumer loans in Bulgaria, Croatia and Romania at the end of the observation period. With regard to other loans, the shares declined over time, especially in Bulgaria, Poland and Serbia.

3 Multivariate analysis: results of a logistic regression

To analyze the key drivers for taking out a (largest, most important) loan, we use the method of logistic regression, i.e. a statistical model with a logistic function to model a binary dependent variable. The dependent variables for this analysis are binary measures. Each respondent is characterized as being a person whose largest, most important loan is (1) a housing loan or not, (2) a consumer loan or not, and (3) a loan for other purposes (education, business or professional activities and other purposes) or not.

The independent variables we use are not limited to sociodemographic characteristics, but cover also attitudes, opinions, experiences and expectations. Variable availability and comparability across all three OeNB Euro Survey waves between 2017 and 2019 were an important prerequisite. We accounted for potential overlaps of individual variables (high internal correlation), using statistical measures of

association. We checked collinearity for the non-sociodemographic variables, integrating the most valuable ones into the regression model. We tested different versions of the model to guarantee that we use the model with the highest explanatory value.

To gain a broader data basis for the logistic regression, we pooled the data available for the three survey waves of 2017, 2018 and 2019. Plus, to maximize the number of observations (as a prerequisite for results of highest statistical validity), we put the focus of the multivariate analysis on the CESEE region as a whole, i.e. the ten CESEE countries in which the OeNB Euro Survey is conducted, and not on the country level.[5]

Based on the results of the logistic regression analysis, the core indicators for this study are the average marginal effects, given in percentage points, which – on the basis of predicted values and their differences[6] – indicate by how many percentage points the probability of having a loan of one of the three types differs in the presence of a certain characteristic (e.g. "woman") compared to a reference group (characterized by the absence of this characteristic, e.g. "man"). A positive (negative) proportion means that the examined characteristic has a positive (negative) effect on taking out a loan.[7]

The following subsections present the average marginal effects (in percentage points) for the whole sample of the ten countries over the period 2017–2019 (charts 4 to 6). This allows us to draw conclusions about the size of the effects that the independent variables have on borrowers' likelihood to have one of the three loan types as their largest, most important loan. The charts show the average marginal effects of all the variables with a significant influence (at the 0.05 level).

3.1 Housing loans

According to Eurostat, the CESEE EU countries covered in this study, i.e. Romania, Croatia, Hungary, Bulgaria, Poland and Czechia, recorded very high owner-occupied housing rates in 2018, of at least 75% each (and even 96% in Romania).[8] OeNB Euro Survey data presented by Beckmann et al. (2019, p. 84) showed that high ownership rates (above 80%) also apply to the four non-EU countries in CESEE under review (Albania, Bosnia and Herzegovina, North Macedonia and Serbia). In 2015, Beckmann et al. pointed out that the high levels of owner-occupied housing in the region go back to the privatization or restitution process at the beginning of transition[9], but in part they also resulted from a lack of rental housing. Furthermore, according to that study, mortgage financing was more prevalent in the CESEE EU countries than in the non-EU Western Balkan countries, possibly because credit markets are more developed in the former (Beckmann et al., 2015, p. 28).

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[5] *See table 2 for details on the independent variables used and the statistical results of the logistic regression (regarding the three types of loans) for the whole observation period (pooled data 2017–2019).*

[6] *Marginal effects can be interpreted as the percentage by which the dependent variable increases or decreases if – assuming all other variables to be constant – the respective characteristic of the explanatory variable applies instead of the reference category (Apel and Fertig, 2009, p. 20).*

[7] *For an example of the application of this method, see WIFO/Prospect (2015, pp. 22–28).*

[8] *https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Archive:Housing_statistics.*

[9] *After the fall of the communist regimes, many tenants were offered the option of buying the dwellings at a low price. See https://www.oecd.org/els/family/HM1-3-Housing-tenures.pdf.*

Table 2

Results of the logistic regression: all ten CESEE countries, pooled data 2017–2019

	Housing loan	Consumer loan	Loan for other purposes
Quality of the model			
n total	29,638	29,638	29,638
n loan	2,578	2,840	1,527
Nagelkerke R	0.133	0.067	0.036
% explained cases	91.3	90.4	94.8
P-values of the independent variables			
Wealth indicators			
Income	*0.000*	0.229	0.091
I am able to save money	*0.036*	*0.000*	*0.000*
I currently have savings	*0.000*	0.703	*0.014*
I own a house	*0.000*	*0.000*	0.101
I own a car	*0.002*	*0.000*	0.537
I have internet at home	*0.000*	*0.000*	*0.000*
Condition of dwelling	0.933	*0.000*	*0.000*
Sociodemographic variables			
Gender	0.294	0.904	0.500
Age	*0.000*	0.849	0.134
Marital status	*0.000*	*0.000*	*0.000*
Size of household	0.122	*0.023*	0.071
Education	*0.000*	0.625	*0.000*
Financial literacy	*0.010*	0.061	0.354
Employment	*0.000*	*0.000*	*0.038*
Attitudes			
I prefer cash to a savings account	*0.000*	0.635	*0.000*
Readiness to take risks in financial investments	0.059	0.583	0.478
Migration intention	*0.003*	0.610	*0.039*
Trust in government	*0.000*	0.553	0.778
Trust in police	*0.002*	0.223	*0.008*
Trust in domestic banks	*0.009*	*0.000*	*0.009*
Trust in foreign banks	0.164	0.149	0.197
Trust in EU	*0.000*	*0.004*	*0.010*
Expectations, opinions, experiences			
Financial situation of household will improve	0.252	0.069	*0.003*
Economy of country will improve	0.975	0.156	0.163
Prices will strongly increase	0.386	*0.001*	*0.000*
Euro will be stable and trustworthy	0.196	0.589	0.966
Local currency will be stable and trustworthy	0.636	0.306	*0.047*
Depositing money at banks is safe	*0.003*	0.124	*0.031*
It is common to hold euro cash	*0.002*	0.083	*0.000*
I remember periods of high inflation	0.715	0.158	*0.000*
I remember restrictions of access to my savings deposits	*0.011*	0.090	*0.047*

Source: Author's calculations based on OeNB Euro Survey data.

Note: Figures in italics denote significance at the 0.05 level.

Compared with the other two loan types, housing loans have by far the largest number of (significant) influencing variables. Chart 4 shows that the following characteristics have a significantly high positive effect on the chances of having a housing loan as the largest, most important loan (p<=0.05): a high income increases a person's chances of having a housing loan by +10.8 percentage points compared with people with a low income. The results for education-related loans are similar: having attained a high level of education increases a person's probabil-

Chart 4

Probabilities of having a housing loan[1]

Category	Value
Employment (retired); ref: working	−8.0
Employment (student); ref: working	−7.4
Employment (unemployed); ref: working	−6.0
Age (60+); ref: up to 34	−4.0
Employment (self-employed); ref: working	−4.0
I prefer cash to a savings account; ref: no	−3.3
Migration intention: yes; ref: no	−3.2
I remember restrictions of access to my savings deposits; ref: no	−1.6
It is common to hold euro cash; ref: no	−0.4
Trust in government; ref: no	−0.2
Trust in EU; ref: no	0.7
Trust in police; ref: no	1.6
I am able to save money; ref: no	2.1
Age (35 to 59); ref: up to 34	2.3
Depositing money at banks is safe; ref: no	2.7
Financial literacy (high); ref: low	3.0
Trust in domestic banks; ref: no	3.0
I currently have savings; ref: no	4.5
Education (medium); ref: low	4.6
Income (middle); ref: low	5.3
I own a house; ref: no	6.2
I own a car; ref: no	7.1
I have internet at home; ref: no	7.3
Married; ref: not married	7.8
Education (high); ref: low	10.4
Income (high); ref: low	10.8

Average marginal effects in percentage points

Source: OeNB Euro Survey 2017–2019.

Note: Respondents answering "Don't know" or "no answer" have been excluded. All values significant at the 0.05 level. "Ref" stands for reference category.

[1] *Reading example for charts 4–6: the average marginal effects of the income variable on having a housing loan is +10.8 percentage points, which means that a high income would increase the likelihood of having a loan by +10.8 percentage points compared to the reference category "low income." A higher age (60 years and older) decreases the likelihood of having a housing loan by −4.0 percentage points compared to respondents who are up to 34 years old.*

ity of having a loan of this type by +10.4 percentage points.[10] Moreover, being married likewise increases a person's chance of having a housing loan, with the probability being +7.8 percentage points higher. Digitalization and personal ownership also seem to be of great importance: if someone has internet access at home, owns real estate or a car, the chances of having a housing loan increase by +7.3, +7.1 and +6.2 percentage points, respectively. Other variables significantly increasing the probability of having a housing loan are savings (+4.5 percentage points)[11], trust in domestic banks and high financial literacy (+3.0 percentage points each), higher age (35–59 years: +2.3 percentage points), trust in police (+1.6 percentage points) and trust in the EU (+0.7 percentage points).

On the negative side, not being employed significantly reduces a person's chances of having a housing loan. This is true for retired persons (–8.0 percentage points), students (–7.4 percentage points), unemployed persons (–6.0 percentage points), and even for self-employed persons (–4.0 percentage points). Other factors that decrease the probability of having a housing loan are greater age (60 years and older: –4.0 percentage points), a preference for using cash over having a savings account (–3.3 percentage points), a migration intention (–3.2 percentage points) or restricted access to savings deposits (–1.6 percentage points).

3.2 Consumer loans

The number of independent variables that have a significant influence on loans is lowest for consumer loans – relative to the other two loan types (chart 5). Also for consumer loans, significantly ($p <= 0.05$) high positive effects on the probability of having this type of loan as the largest, most important loan are found for having internet at home (+5.7 percentage points), owning a car (+5.1 percentage points), being married (+5.0 percentage points) and household size (three persons vs. one person: +4.6 percentage points; two persons vs. one person: +4.0 percentage points). Furthermore, trust in domestic banks (+2.3 percentage points) and high inflation expectations ("prices will strongly increase": +1.1 percentage points) significantly increase the chances of having a consumer loan.

Like in the case of housing loans, not being employed accounts for the most significant negative influence on having a consumer loan, as is evidenced by retired persons (–7.6 percentage points), self-employed persons (–7.0 percentage points), students (–5.9 percentage points) and unemployed persons (–5.3 percentage points). Other factors that significantly decrease a person's probability of holding a consumer loan are owning a house (–3.7 percentage points) and the ability to save money (–1.7 percentage points).

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[10] *When comparing a medium income or a medium level of education with the respective lowest category, we find similar significant correlations, albeit at a somewhat lower level (chart 4).*

[11] *Variables with similar characteristics (the "belief that depositing money in banks is safe" or the "ability to save money") show similar, but slightly lower effects (chart 4).*

Chart 5

Probabilities of having a consumer loan

Employment (retired); ref: working	−7.6
Employment (self-employed); ref: working	−7.0
Employment (student); ref: working	−5.9
Employment (unemployed); ref: working	−5.3
I own a house; ref: no	−3.7
I am able to save money; ref: no	−1.7
Trust in EU; ref: no	0.0
Condition of dwelling (good); ref: bad	0.2
Prices will strongly increase; ref: no	1.1
Trust in domestic banks; ref: no	2.3
Size of household (2 persons); ref: 1 person	4.0
Size of household (3+ persons); ref: 1 person	4.6
Married; ref: not married	5.0
I own a car; ref: no	5.1
I have internet at home; ref: no	5.7

Average marginal effects in percentage points

Source: OeNB Euro Survey 2017–2019.

Note: Respondents answering "Don't know" or "no answer" have been excluded. All values significant at the 0.05 level. "Ref" stands for reference category.

3.3 Other loans

In the case of other loans – for education, business or professional activities and other purposes, the effects of the independent variables are much lower in general than for housing or consumer loans (chart 6). The most important significant positive drivers of a person's chances of having a loan of this type are a high level of education (+2.1 percentage points), being married (+2.0 percentage points) and having internet at home (+1.7 percentage points). Having experienced high inflation in the past, agreeing with the statement that euro cash is common in the country as well as trust in domestic banks significantly increase the probability of having a loan for other purposes (+1.5 percentage points each). A few other variables also show small positive effects of around +1.0 percentage points.

Like with housing and consumer loans, lack of employment significantly reduces the probability of having a loan for other purposes. This concerns students (−1.3 percentage points) and retired persons (−0.4 percentage points) in particular. Other factors with a significant negative effect are the ability to save money (−1.5 percentage points), living in a dwelling in good condition (−0.9 percentage points), a preference for holding cash over having a savings account (−0.9 percentage points) and personal savings (−0.5 percentage points).

Chart 6

Probabilities of having another loan

Category	Value
I am able to save money; ref: no	−1.5
Employment (student); ref: working	−1.3
Condition of dwelling (good); ref: bad	−0.9
I prefer cash to a savings account; ref: no	−0.9
I currently have savings; ref: no	−0.5
Employment (retired); ref: working	−0.4
Employment (unemployed); ref: working	0.0
Local currency will be stable and trustworthy; ref: no	0.1
Trust in EU; ref: no	0.3
Migration intention: yes; ref: no	0.6
Financial situation of household will improve; ref: no	0.8
Education (medium); ref: low	0.9
Employment (self-employed); ref: working	0.9
Trust in police; ref: no	1.1
I remember restrictions of access to my savings deposits; ref: no	1.2
Depositing money at banks is safe; ref: no	1.2
Prices will strongly increase; ref: no	1.2
Trust in domestic banks; ref: no	1.5
It is common to hold euro cash; ref: no	1.5
I remember periods of high inflation; ref: no	1.5
I have internet at home; ref: no	1.7
Married; ref: not married	2.0
Education (high); ref: low	2.1

Average marginal effects in percentage points

Source: OeNB Euro Survey 2017–2019.

Note: Respondents answering "Don't know" or "no answer" have been excluded. All values significant at the 0.05 level. "Ref" stands for reference category.

4 Understanding the drivers of loans: commonalities and differences

Only five factors significantly impact all three types of loans examined in this study: (dependent) employment, being married, trust in domestic banks, trust in the EU and having internet at home. Taking out an official loan usually requires that a person be employed. This is corroborated by our analysis. Moreover, a high level of trust in banks plays an important role given that banks tend to be the first point of contact for a loan request of any kind. Married people are more likely to take out a loan – on the one hand, this may be due to having better options to secure a loan thanks to joint liability and, on the other, to a greater range of potential

collateral compared with one-person households. The ability to use the internet from home is an indicator of higher digital literacy, as it allows people to obtain better information about loans as such and about the intended purchases for which a loan is taken out.

Owning a car (as an indicator of a certain degree of wealth) has a significant effect on both housing and consumer loans. For both housing and other loans, in turn, the following factors are relevant: higher education, the belief that depositing money in banks is safe, trust in police and a preference for cash over a savings account. While education is of secondary importance for the more vague category of consumer loans, a higher level of formal education helps deliberately choose to take out a housing loan or a loan for education, business or professional activities and other purposes.

Only one factor turned out to be significant for both consumer and other loans: the expectation that prices will increase strongly over the next year. This may cause people to rush to buy consumer goods, and take out a loan to this end. In light of the statistical results, this also seems to be true for other loans, while it is less relevant for housing loans.

Higher income (often a prerequisite for banks to grant a loan) has a significant influence on housing loans. Interestingly, income does not play a significant role for consumer loans or loans for other purposes.

Additional factors impacting on housing loans are being of middle age (35–59 years), owning real estate (which can serve as collateral), having savings and being able to save money as well as high financial literacy and a lack of interest in emigration. That these variables are significant does not come as a surprise: people in the middle of their working life tend to earn an income high enough for taking out and qualifying for larger loans such as housing loans. The same holds true for people who have savings and are able to save, which allows them to sustainably service a long-term loan. People having acquired a certain level of financial knowledge are less likely to fall into potential credit traps. Also, people financing a home purchase with a housing loan are not or less likely to have migration intentions than people without any long-term obligations in their home country and who have not built or bought their own home there.

Factors that are only significant for taking out consumer loans are a large household size of at least three persons and the absence of real estate ownership. Multiperson households usually need to buy more consumer goods for daily use, and sometimes have to do so on credit. Owner-occupied housing, in turn, is often financed by mortgages and leaves little room for taking out further loans.

Some of the independent variables used in the logistic regression are only significant for loans for education, business or professional activities and other purposes: having no current savings, having experienced periods of higher inflation, believing that it is very common in the country to hold euro cash, intending to migrate and living in a dwelling in poor condition. The two most straightforward factors are lack of savings, which necessitates borrowing, and the intention to migrate, which often serves an educational purpose or a career change.

5 Summary and conclusions

In this study, we examined the drivers of retail loans taken out for one of three purposes: (1) housing, (2) consumption, and (3) education, business or professional activities and other purposes, based on 2017–2019 survey data coming from the OeNB Euro Survey that covers ten CESEE countries. To begin with, the analysis revealed that housing loans have by far the largest number of significant drivers compared with the other two loan types. As a case in point, earned income proves to be a key factor for taking out any of the three types of loans, while the level of personal income only impacts on housing loans. Furthermore, characteristics such as being married, having trust in domestic banks and in the EU as well as having an internet connection at home significantly increase the likelihood of taking out a loan of all three categories. The level of education is less important for consumer loans, but appears to be a key driver for both housing loans and loans for education, business or professional activities and other purposes. High inflation expectations have a significant impact on both consumer loans and other loans. Moreover, we identified characteristics that are only significant for one of the loan types. For instance, housing loans are more prevalent in the middle age group (35–59 years; a period in which a corresponding level of professional income is most probable), among individuals owning real estate (collateral), among people with current savings and who report an ability to save (ability to also sustainably service a long-term loan), individuals with high financial literacy (good risk assessment) and who do not intend to emigrate (close and enduring connection to the home country). Factors that are only significant for consumer loans are a large household size (need to buy more consumer goods for daily use) and the absence of real estate owner-ship. Out of several variables exclusively significant for other loans, the two most intuitive are lack of savings (which necessitates borrowing) and the intention to migrate (often serving an educational purpose or a career change).

The data collected in the OeNB Euro Survey offer diverse variables that could influence individuals in CESEE in taking out different types of loans. They include not only sociodemographic characteristics, but also information on economic attitudes, expectations, trust in institutions and financial literacy. Hence, our analysis resulted in a comprehensive picture of potential determinants and their importance. Apart from offering interesting insights from a scientific point of view, our study provides some policy-relevant takeaways. First, the importance of a high income level, current savings and the ability to save (for having a housing loan) as well as the importance of disposing of earned income (for all three loan types under investigation) suggest strong interrelations between macroeconomic, redistribution and microprudential policies for financial stability. From a macro-financial point of view, a higher share of consumer loans may be regarded as risky if these loans are repaid out of current income and not backed by secured products. The descriptive analysis showed that the shares of consumer loans increased strongly in several CESEE countries (Albania, Bulgaria, Croatia, Poland, Serbia and Czechia) between 2018 and 2019. While housing loans in general can be considered safer in this respect, housing loans with higher maturities bear risks as households' income paths may be subject to change (impressively demonstrated by the COVID-19 pandemic) besides being more sensitive to interest rate risk and currency risk. According to the OeNB Euro Survey data, especially Bosnia and Herzegovina and North Macedonia saw their shares of housing loans rise between

2017 and 2019. Second, well-considered loan decisions driven by long-term goals are strongly related to a high level of education (the data show this for housing loans and for loans for education, business or professional activities and other purposes) as well as to pronounced financial literacy (in the case of housing loans), with both factors potentially lowering the risk propensity of the borrower. In contrast, the propensity of having a consumer loan is not correlated to (financial) education. Furthermore, our analysis provided evidence for the significant influence trust in both domestic banks and the EU has on borrowers to take out any loan regardless of its purpose. Trust in institutions as a prerequisite for a stable society ensures consumption and investment also via loans and will thus help strengthen the economic system in times of weak economic activity.

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Event wrap-ups

88th East Jour Fixe

Household financial vulnerabilities in CESEE: what impact has COVID-19 had and how to best measure the changes?

Compiled by Elisabeth Beckmann, Pirmin Fessler, Julia Wörz[1]

Households across the globe have lost income in the wake of the COVID-19 pandemic. However, some households have been hit harder than others, with big variations across countries. The OeNB's most recent East Jour Fixe[2] on October 12, 2021, highlighted these heterogeneities and explored to what extent income vulnerabilities already existed before the pandemic or emerged amid the pandemic.

A case study from the UK: tracking labor market and financial inequalities through the pandemic

In the keynote lecture, chaired by *Birgit Niessner* (OeNB), *Thomas Crossley* (European University Institute) shared insights from "A year of COVID-19: Tracking labour market and financial inequalities through the crisis with the Understanding Society Covid-19 Study."[3] While prior to the pandemic, research-oriented surveys often took several years to complete, the pandemic created a need for rapid processing and data release. A particular challenge of event-triggered, high-frequency surveys is to understand how the short field periods and restricted mode of surveys affect nonresponse and sample-to-population inferences. The Understanding Society Covid-19 study, conducted in the UK from April 2020, builds on a pre-existing longitudinal survey and is derived from a probability sample. Unlike in convenience and quota samples, in a probability sample, every unit of the target population has a knowable, non-zero probability of selection. In addition to preventing bias, the team conducting the Understanding Society Covid-19 study has been specifically concerned with modeling nonresponse. In particular, nonresponse is modeled as attrition from the pre-pandemic longitudinal survey. This approach inter alia allows calculating inverse probability weights, which, as Thomas Crossley illustrated, outperform basic calibration weights when estimating, e.g., income poverty. Weighting, however, can only address the selection of (pre-pandemic) observables; it does not deal with differential nonresponse related to contemporaneous shocks. The latter was addressed with randomized incentives, for which Crossley shared preview results. He then presented results on how UK household finances have been affected by the pandemic: Large income losses were more common at the lower end of the permanent income distribution and increased in the top half, thus exacerbating pre-existing inequalities. Yet, above the 30th percentile of the permanent income distribution, wealth gains outnumbered wealth losses. Moreover, self-reported financial satisfaction did not worsen during the first year of the pandemic, and the marginal propensity to consume has

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[2] *The presentations and the workshop program are available at https://www.oenb.at/en/Calendar/2021/2021-10-12-east-jour-fixe.html.*

[3] *See https://www.understandingsociety.ac.uk/.*

remained remarkably flat across the income distribution. Debt repayment is a priority for those who were hit harder by the pandemic, while the fraction of those who would save more increases with affluence. Crossley concluded by stressing the advantages of building on an existing panel study for a high-frequency survey. He also emphasized the value of taking frequent measurements during a crisis, as the initial shock will often differ from the longer-term impact.

Financial vulnerabilities: international comparison

Session 1, chaired by *Peter Lindner* (OeNB), kicked off with a presentation of the Austrian Corona Panel project by *Fabian Kalleitner* (University of Vienna). The Austrian Corona Panel project is an ongoing survey tracking individuals and their economic risks in Austria during the pandemic. Early in the pandemic, the perception of economic risks was found to be especially high, showing some correlation with the actual COVID-19 incidence figures. Home office not only varied considerably across industries but also showed higher variance across time in industries with higher shares of people working from home. Kalleitner especially stressed the importance of keeping up the survey work to better understand home office phenomena, as register data do not usually cover such information. Next, *Zsoka Koczan* (European Bank for Reconstruction and Development) asked "Not all in this together? Early estimates of the unequal effects of Covid-19." She compared advanced and emerging economies with regard to the economic effects of the pandemic. Labor market effects have been much more severe in emerging markets. Two important explanations are the share of jobs that can be done at home as well as the size of the fiscal stimulus used to mitigate the crisis. Also, the likelihood of a job loss decreased at a faster rate with income in advanced economies than in emerging markets. Generally, job losses have been more widespread among the young and women during the pandemic than during the global financial crisis. *Alfonso Rosolio* (Banca d'Italia) rounded off the picture with a simulation of the potential crisis effects across Europe using data from the Household Finance and Consumption Survey (HFCS). He combined income and liquid wealth in a single measure for the ability to absorb an income shock. The results show substantial increases in the share of poor households in the COVID-19 scenario. Austrian households were found to be at the lower end with regard to both existing and pandemic-related vulnerabilities. Rosolio also stressed the importance of taking into account rigidity with regard to consumption. Given the same income stream and household size, the share of income that is committed, e.g., for debt service or housing rents makes a big difference. In concluding he stressed that the HFCS had proven to be an extremely relevant policy tool that needed to be consolidated and expanded further.

Financial vulnerabilities: focus on CESEE

Session 2, chaired by *Peter Backé* (OeNB), started with evidence from the OeNB Euro Survey on household savings presented by *Melanie Koch* (OeNB). According to data from the 2019 survey wave, less than half of the population is in a position to save, which is equivalent on average to one-third of all households across the ten countries covered in the sample. Thus, large parts of the population appear to be rather vulnerable to income shocks. At the same time, those who are able to save can save considerable amounts. The decision to save is influenced by expectations on the future economic situation, income, education and financial literacy while

the amount of savings is affected by inflation expectations. Survey results from the fall of 2020 suggest that past experience becomes a stronger determinant of saving behavior in times of crisis. The results further suggest that some people seem to have lost all their savings in the pandemic. Next, *Merike Kukk* (Eesti Pank) presented results from an intermediate survey conducted in summer 2020 (instead of the regular HFCS survey scheduled for 2020 that was postponed to summer 2021). Similar to other countries, great heterogeneity was observed across households also in Estonia: while some were forced into savings due to lack of consumption possibilities, others had to stop saving altogether, and the number of households with permanent financial problems increased. Differences were observed across sectors of employment and types of loans (consumption versus mortgage loans) for indebted households even though the situation on loan markets remained stable. Compared to the global financial crisis more than a decade ago, the current pandemic had rather different effects on households, and currently new challenges are arising from high energy prices and inflation. Adding the Slovak perspective, *Andrej Cupák* (Národná banka Slovenska) shared results from a survey of indebted households at the three largest Slovak banks, covering about two-thirds of the retail loan portfolio. To begin with, he noted that household debt is particularly high in Slovakia. Among households with loan deferrals, changes in income emerge as an important determinant, as well as prior vulnerability (measured by a higher debt service to income ratio) and age: younger people are more likely to have deferred loans. In contrast, university education is negatively related. Cupák concluded that financial buffers are generally low in Slovakia and that the pandemic-related moratoria effectively supported households in mitigating the impact of the pandemic, providing a case for the importance of timely and well calibrated measures. During the survey period, the situation of most households normalized and many changed their financial behavior, building up financial buffers or moving into safer sectors. Moving on to the case of Poland, *Pjotr Bańbuła* (Narodowy Bank Polski) confirmed the differential impact of the pandemic by sector, drawing on evidence from a Polish household budget survey, which found that people tended to spend less and draw down savings. Even though household indebtedness deteriorated more strongly than in normal years, the marginal distribution of indebted households did not change substantially. The share of people moving from poor to good conditions and vice versa was roughly equal in 2019 and 2020. In general, his conclusions painted a rather reassuring picture, as unemployment remained generally low in Poland thanks to government support, incomes continued to rise except for the bottom-income households and (over)indebted households benefited from lowered interest rates. *Maja Ilievska* (National Bank of the Republic of North Macedonia) rounded off the workshop by highlighting the role of policy support. She listed the wide array of monetary, regulatory, supervisory and other government measures that mitigated the effects of the pandemic for households. Households' financial assets continued to grow in 2020 in her country, even though at a slower pace than before. She also noted a higher propensity to save in foreign currency, a typical feature of crisis times in euroized economies. In particular, moratoria have been a helpful tool to smoothen the impact of the crisis, yet she also stressed the need to carefully monitor the quality of the loan portfolio and to recognize possible deterioration therein in a timely manner.

26th Global Economy Lecture

Partha Dasgupta on "Viewing the future from the population-consumption-environment nexus"

Compiled by Andreas Breitenfellner and Maria Silgoner[1]

On November 3, 2021, the Oesterreichische Nationalbank (OeNB) and The Vienna Institute for International Economic Studies (wiiw) hosted the 26th Global Economy Lecture[2], which was delivered by *Partha Dasgupta*, Emeritus Professor of Economics at the University of Cambridge. Professor Dasgupta has published 25 books and over 300 articles in the fields of development and environmental economics. He recently completed "The Economics of Biodiversity: The Dasgupta Review," an independent global report on the economics of biodiversity commissioned in 2019 by the UK Treasury, which investigates the links between population growth, consumption and the environment.

In his introductory remarks, OeNB Governor *Robert Holzmann* discussed to what extent central banks – and more broadly macroeconomic policies – can effectively contribute to maintaining biodiversity. The Eurosystem is committed to considering the impact of climate change in its monetary policy framework, supervisory activities and reserve portfolios. In terms of preserving biodiversity, the responsibility for carrying out appropriate structural reforms lies with government authorities, according to the OeNB governor. This notwithstanding, central bankers have started to analyze the potential economic and financial impacts of biodiversity loss. Moreover, both financial markets and their regulation may play a key role in

<div style="text-align:right">Chart 1</div>

Global real GDP per capita, 1750–2019

Real GDP per capita, PPP (2011 prices), thousands

Source: The Dasgupta Review (p. 103).

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pricing in nature. Governor Holzmann emphasized the need to accelerate the demographic transition toward population stabilization – particularly in sub-Saharan Africa – to secure economic well-being while reducing pressures on nature.

Professor Dasgupta started out by asking how we can account for nature in economic science and policy. So far, economic studies have focused exclusively on produced capital and human capital. Yet, it is a profound error to bypass nature – our home and most precious resource. Chart 1, taken from "The Dasgupta Review," identifies the post-World War II period as a takeoff point when global GDP started to increase sharply. Global real GDP per capita has quintupled since 1950. At around the same time, population growth started to shoot up as well, given longer life expectancy, while fertility rates only began to go down later on.

Such figures would suggest that we live in the best of all times. What they do hide, though, is that we have accumulated produced and human capital by exploiting and dismantling the ecosystem. While produced capital has doubled since 1992, natural capital, defined as renewable and nonrenewable natural resources, has been shrinking at an alarming rate. The COVID-19 pandemic is just the visible tip of the iceberg of damage humankind has inflicted on nature.

Professor Dasgupta emphasized the gap between what we demand of nature and what nature is able to supply on a sustainable basis. Currently we are faced with a widening of the imbalance between the ecological footprint – determined crucially by GDP growth y – and the regeneration rate of the biosphere $G(S)$, as indicated by figure 1. As a result of this, we are continuously drawing down natural capital S.

The left-hand side of the inequality crucially depends on the factor α, an index of efficiency. If α goes up, e.g. because of a move to clean energy, the left-hand side declines. Since services of nature are complementary, the reduction of one factor of nature (such as fossil fuels) may have similar impacts on other factors.

Professor Dasgupta put special emphasis on the factor N on the left-hand side of the inequality, which stands for population growth. While the fertility transition has been broadly completed in most regions around the world, UN projections show that the population in sub-Saharan Africa might double until the middle of the century. Since the region's GDP is small (less than 5% of global GDP), population dynamics are currently not on the political agenda. However, the region may matter more in the future as the countries exploit nature in an attempt to improve living standards. As long as the exploitation of nature is not priced in, the export of primary products represents a transfer of wealth from poor to rich countries. To slow down population growth, Professor Dasgupta saw scope for changing social norms and culture. He stressed the importance of em-powering women, especially through education. While referring to several

Figure 1

Impact inequality
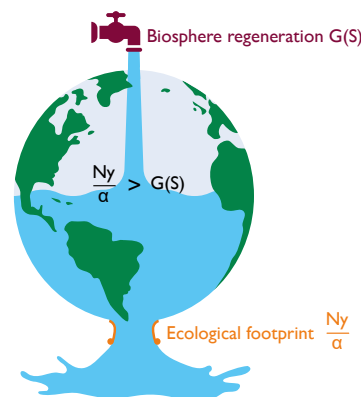
Source: The Dasgupta Review (p. 118).

success stories, he, at the same time, also dampened expectations, pointing to the high costs and challenges associated with educational attainments.

The discussion following the Global Economy Lecture revolved inter alia around the limits to material (per capita) growth and the crucial role of adequately pricing the services of nature. Aspects of biodiversity will only become an integral part of our lives if we start to feel the price of dismantling the ecosystem. Therefore, Dasgupta envisages new international institutions that may create markets for many services of nature, including sea transport. Moreover, he suggested assisting poor countries in coping with climate change and allowing them to improve living standards without drawing on natural resources. By managing risks appropriately within their own portfolios, central banks can have considerable signaling power for financial markets and thus have a material impact on halting the degradation of natural resources. Professor Dasgupta concluded by underlining the uncertainty about future developments and how little we know about how humankind will adapt to new circumstances.

Statistical annex

Statistical annex

This section provides tables detailing selected economic indicators for Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, Serbia and Ukraine, i.e. CESEE countries not covered in the "Recent economic developments and outlook" section.

Table 1

Output, unemployment and prices

	2018	2019	2020	Q1 20	Q2 20	Q3 20	Q4 20	Q1 21	Q2 21
Gross domestic product	*Annual real change in %*								
Albania	4.1	2.2	−3.3	−2.8	−11.3	−3.5	2.4	5.5	17.9
Bosnia and Herzegovina[1]	3.7	2.8	−4.3	3.3	−8.0	−5.0	−2.6	2.5	11.6
Kosovo	3.8	4.2	−3.9	1.5	−9.1	−7.3	1.8	4.2	16.3
Montenegro	5.1	4.1	−15.2	2.5	−20.5	−27.1	−7.8	−6.5	19.0
North Macedonia	2.9	3.2	−4.5	0.9	−14.9	−3.3	−0.7	−1.9	13.1
Serbia	4.5	4.2	−1.0	5.2	−6.3	−1.4	−1.0	1.8	13.7
Ukraine	3.4	3.2	−4.0	−1.2	−11.2	−3.5	−0.5	−2.2	5.7
Industrial production	*Annual real change in %*								
Albania	18.7	−1.1	−6.3	−1.6	−22.6	−3.1	3.2	22.9	51.5
Bosnia and Herzegovina[2]	1.6	−5.3	−6.4	−4.0	−14.0	−7.0	−0.5	7.2	19.6
Kosovo	2.4	4.7	10.1	4.9	16.5	7.7	9.2	0.8	6.2
Montenegro	22.4	−6.3	−1.0	17.9	−21.7	−4.7	−7.9	9.3	−5.2
North Macedonia	5.4	3.7	−9.6	−3.7	−25.0	−7.5	−2.3	−6.1	22.3
Serbia	1.3	0.3	0.4	4.2	−7.7	3.4	1.7	3.8	14.7
Ukraine	3.0	−0.5	−4.5	−4.3	−10.8	−3.5	0.4	−2.0	6.5
Average gross wages – total economy	*Annual change in %*								
Albania	3.1	3.8	2.7	3.3	2.9	1.8	2.8	5.2	4.7
Bosnia and Herzegovina	3.1	4.3	4.0	4.7	3.6	3.9	3.7	3.5	4.3
Kosovo	5.1	5.3	2.3	..	..	..	..	..	..
Montenegro	0.1	0.8	1.3	2.2	1.2	1.1	0.8	0.3	1.5
North Macedonia	5.8	5.1	8.3	11.4	5.7	9.1	7.3	4.0	8.7
Serbia	4.0	10.5	9.5	10.4	8.7	9.5	9.3	7.1	9.6
Ukraine	24.8	18.5	10.4	14.3	4.0	9.5	13.9	16.6	27.1
Unemployment rate[3]	%								
Albania	12.8	12.8	12.0	11.9	12.5	12.1	12.3	12.6	12.1
Bosnia and Herzegovina	18.9	18.9	16.4	..	..	..	..	..	..
Kosovo	29.5	29.5	25.7	25.0	27.2	24.6	27.0	25.8	..
Montenegro	15.5	15.5	15.4	16.6	15.7	19.6	21.5	19.6	17.3
North Macedonia	21.0	21.0	17.5	16.4	16.9	16.7	16.3	16.1	16.0
Serbia	13.3	13.3	10.9	10.2	7.7	9.5	10.5	13.2	11.4
Ukraine	9.1	9.1	8.6	8.9	10.3	9.9	10.5	10.9	9.7
Consumer price index	*Period average, annual change in %*								
Albania	2.0	1.4	1.6	1.6	1.9	1.4	1.6	0.9	1.8
Bosnia and Herzegovina	1.4	0.6	−1.1	0.4	−1.6	−1.4	−1.6	−1.2	1.4
Kosovo	1.1	2.7	0.2	1.1	0.2	−0.3	−0.1	0.6	2.0
Montenegro	2.6	0.4	−0.3	0.8	−0.7	−0.3	−0.8	0.0	2.3
North Macedonia	1.5	0.8	1.2	0.6	0.5	1.5	2.2	2.0	2.8
Serbia	2.0	1.9	1.6	1.8	1.0	1.9	1.6	1.4	3.2
Ukraine	11.0	7.9	2.7	2.6	2.1	2.4	3.8	7.4	9.1

Source: Eurostat, Macrobond, national statistical offices, wiiw.

[1] *Expenditure-side data.*
[2] *Value added in the national accounts.*
[3] *Labor force survey.*

Table 2

External accounts

	2018	2019	2020	Q1 20	Q2 20	Q3 20	Q4 20	Q1 21	Q2 21
Trade balance	*% of GDP*								
Albania	−22.4	−23.0	−23.0	−21.3	−21.1	−23.7	−24.9	−23.1	−21.8
Bosnia and Herzegovina	−22.5	−22.6	−18.6	−19.1	−17.7	−18.5	−18.2	−15.9	−19.7
Kosovo	−40.7	−40.1	−37.8	−38.8	−33.9	−37.2	−41.0	−44.0	−44.5
Montenegro	−43.9	−41.7	−39.1	−46.4	−44.9	−34.2	−34.4	−36.8	−44.1
North Macedonia	−16.2	−17.6	−16.8	−20.9	−15.1	−14.5	−16.6	−19.2	−20.1
Serbia	−11.9	−12.2	−11.2	−14.4	−9.3	−10.2	−11.1	−8.6	−12.5
Ukraine	−9.8	−9.2	−4.2	−5.1	−1.7	−5.0	−5.2	−5.3	−0.7
Current plus capital account balance	*% of GDP*								
Albania	−5.9	−7.4	−7.8	−6.8	−11.3	−4.6	−8.3	−6.5	−5.0
Bosnia and Herzegovina	−2.4	−2.2	−2.3	−2.1	−3.3	−3.4	−2.3	−1.5	−3.9
Kosovo	−7.7	−5.8	−6.8	−4.6	−8.6	−5.3	−8.4	−9.3	−14.9
Montenegro	−17.0	−15.0	−26.0	−35.1	−35.7	−18.0	−19.8	−18.5	−21.9
North Macedonia	0.0	−3.2	−3.4	−6.0	−3.8	−1.9	−2.3	−2.2	−4.2
Serbia	−4.9	−7.1	−4.3	−8.9	−2.9	−4.1	−1.7	0.9	−5.1
Ukraine	−4.9	−2.6	4.1	6.0	6.1	1.3	1.4	−2.4	0.5
Foreign direct investment[1]	*% of GDP*								
Albania	−8.0	−7.6	−6.9	−7.2	−7.4	−6.7	−6.2	−6.7	−5.7
Bosnia and Herzegovina	−3.0	−2.0	−1.9	−2.8	−2.7	−1.9	0.4	−3.9	−4.5
Kosovo	−3.4	−2.7	−4.2	−6.4	−3.7	−3.3	−3.6	−5.7	−4.6
Montenegro	−6.9	−6.2	−11.2	−14.6	−13.9	−7.1	−10.6	−9.6	−10.8
North Macedonia	−5.6	−3.2	−1.9	−5.2	0.3	0.3	−2.8	0.5	−7.3
Serbia	−7.4	−7.7	−6.2	−7.2	−5.7	−2.4	−9.5	−7.3	−5.7
Ukraine	−3.4	−3.4	0.6	4.6	−3.8	0.2	−0.6	−4.0	−3.2
Gross external debt	*End of period, % of GDP*								
Albania	65.1	60.4	65.8	59.8	67.8	67.9	65.5	66.8	62.6
Bosnia and Herzegovina	66.0	63.4	65.4	62.3	64.6	63.5	65.0	63.5	59.7
Kosovo	30.3	30.7	37.2	31.2	32.9	35.2	37.2	36.5	37.3
Montenegro	164.7	167.9	224.1	..	..	..	..	..	..
North Macedonia	73.0	72.7	80.2	73.6	81.0	84.5	79.3	90.8	90.1
Serbia	83.0	82.7	86.4	82.5	86.9	86.3	86.4	89.1	85.4
Ukraine	90.1	78.1	75.8	76.4	77.1	75.6	75.8	78.3	75.5
Reserve assets excluding gold	*Period average, annual change in %*								
Albania	26.0	23.7	29.3	23.3	30.6	30.7	29.1	29.6	27.0
Bosnia and Herzegovina	34.1	34.8	40.0	34.4	36.6	37.8	39.7	38.9	40.0
Kosovo[2]	11.4	12.2	13.2	11.9	13.0	13.0	13.2	11.9	13.1
Montenegro	22.5	26.6	41.0	18.6	25.2	24.4	41.0	33.4	30.9
North Macedonia	24.4	26.4	28.0	23.9	30.4	29.1	28.0	33.5	32.9
Serbia	24.5	26.2	25.2	24.9	26.7	24.5	25.2	26.8	25.2
Ukraine	15.6	15.4	16.6	15.0	17.1	15.5	16.6	16.3	16.2

Source: National central banks, national statistical offices, wiiw.

[1] + = net accumulation of assets larger than net accumulation of liabilities (net outflow of capital).
  − = net accumulation of assets smaller than net accumulation of liabilities (net inflow of capital).
[2] Reserve assets (including gold).

Table 3

Banking sector indicators

	2018	2019	2020	Q1 20	Q2 20	Q3 20	Q4 20	Q1 21	Q2 21
Bank loans to the domestic nonbank private sector	*End of period, annual change in %*								
Albania[1]	−0.3	6.9	5.9	6.2	4.9	4.0	5.9	5.7	7.5
Bosnia and Herzegovina[1]	5.7	6.7	−2.5	3.6	0.4	−0.5	−2.5	−0.4	1.9
Kosovo	10.9	10.0	7.1	9.2	6.4	6.4	7.1	7.7	12.2
Montenegro	9.6	6.8	3.0	5.6	7.1	7.3	3.0	1.5	2.2
North Macedonia[1]	6.4	5.2	4.3	4.6	5.7	7.1	4.3	6.1	5.7
Serbia[1]	8.4	8.1	10.9	9.6	12.4	14.0	10.9	10.4	8.1
Ukraine[1]	6.5	−3.6	−10.5	−2.4	−3.9	−7.8	−10.5	−9.4	−3.4
Share of foreign currency loans[2]	*End of period, %*								
Albania	50.4	48.8	48.3	50.6	49.4	48.0	48.3	47.9	47.7
Bosnia and Herzegovina	59.0	52.6	52.2	52.1	52.2	52.0	52.2	51.2	49.8
Kosovo	−1.0	−1.0	−1.0	..	..	..	..	..	..
Montenegro[3]	5.7	3.1	0.0	2.7	2.9	2.8	2.9	3.7	3.1
North Macedonia	40.4	41.5	41.5	41.4	41.3	41.4	41.5	41.6	41.3
Serbia[4]	66.3	66.1	62.1	66.1	64.8	62.8	62.1	61.7	60.8
Ukraine	42.9	37.0	37.1	39.8	39.0	38.2	37.1	35.5	32.1
NPL ratio	*%*								
Albania	11.1	8.4	8.1	8.2	8.1	8.3	8.1	8.0	7.1
Bosnia and Herzegovina	8.8	7.4	6.1	6.6	6.7	6.6	6.1	6.0	5.7
Kosovo	2.7	2.0	2.7	2.5	2.6	2.7	2.7	2.7	2.5
Montenegro	6.7	4.7	5.5	5.1	5.3	5.6	5.5	5.5	5.7
North Macedonia	4.8	3.8	3.2	4.0	4.4	3.4	3.2	3.3	3.6
Serbia	5.7	4.1	3.7	4.0	3.7	3.4	3.7	3.9	3.6
Ukraine	52.9	48.4	41.0	48.9	48.5	45.6	41.0	39.9	37.2
Tier 1 capital ratio	*%*								
Albania	17.0	17.1	17.2	17.9	17.0	17.5	17.2	17.0	16.9
Bosnia and Herzegovina	16.5	17.5	18.1	16.7	17.3	17.3	18.1	17.9	18.2
Kosovo[5]	17.0	15.9	16.5	15.1	16.7	16.9	16.5	17.1	17.3
Montenegro[5]	15.6	17.7	18.5	17.4	19.6	19.3	18.5	19.3	19.2
North Macedonia	15.0	14.8	15.3	15.0	15.5	15.5	15.3	15.4	15.9
Serbia	21.1	22.4	21.6	21.9	21.8	21.5	21.6	21.4	21.1
Ukraine	10.5	13.5	15.7	13.0	15.8	16.1	15.7	16.2	16.1

Source: National central banks.

[1] *Foreign currency component at constant exchange rates.*
[2] *In total loans to the nonbank private sector. As far as available, including loans indexed to foreign currencies.*
[3] *Share in total loans to all sectors.*
[4] *Including securities.*
[5] *Overall capital adequacy ratio.*

Table 4

Monetary and fiscal policy indicators

	2018	2019	2020	Q1 20	Q2 20	Q3 20	Q4 20	Q1 21	Q2 21
Key interest rate	*End of period, %*								
Albania (one-week repo rate)	1.0	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Bosnia and Herzegovina[1]	..	..	..	..	..	..	..	..	..
Kosovo[1]	..	..	..	..	..	..	..	..	..
Montenegro[1]	..	..	..	..	..	..	..	..	..
North Macedonia (28/35-day central bank bills)	2.5	2.3	1.5	2.0	1.5	1.5	1.5	1.3	1.3
Serbia (one-week repo rate)	3.0	2.3	1.0	1.8	1.3	1.3	1.0	1.0	1.0
Ukraine (discount rate)	18.0	13.5	6.0	10.0	6.0	6.0	6.0	6.5	7.5
Three-month interbank rate	*Period average, %*								
Albania	1.8	1.4	1.5	1.5	1.5	1.4	1.4	1.5	1.4
Bosnia and Herzegovina	..	..	..	..	..	..	..	..	..
Kosovo	..	..	..	..	..	..	..	..	..
Montenegro	..	..	..	..	..	..	..	..	..
North Macedonia	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.3
Serbia	3.0	2.5	1.2	1.6	1.2	1.0	1.0	0.9	0.9
Ukraine	13.7	14.8	10.0	12.6	11.0	8.4	8.1	7.7	7.0
Exchange rate	*Period average, national currency per EUR*								
Albania	127.6	123.0	123.8	122.8	124.5	123.9	123.8	123.5	123.0
Bosnia and Herzegovina	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Kosovo	..	..	..	..	..	..	..	..	..
Montenegro	..	..	..	..	..	..	..	..	..
North Macedonia	61.5	61.5	61.7	61.6	61.7	61.7	61.7	61.7	61.6
Serbia	118.3	117.9	117.6	117.6	117.6	117.6	117.6	117.6	117.6
Ukraine	32.1	28.9	30.8	27.6	29.6	32.3	33.7	33.7	33.2

	2018	2019	2020	2018	2019	2020
	General government balance			General government debt		
	End of period, % of GDP					
Albania	−1.6	−2.0	−6.3	64.9	63.9	78.8
Bosnia and Herzegovina	2.2	1.9	−4.0	34.2	32.8	38.5
Kosovo	0.4	1.0	−2.0	16.3	16.9	21.9
Montenegro	−3.9	−1.9	−8.8	70.0	76.5	87.3
North Macedonia	−1.8	−2.0	−8.7	40.4	40.7	51.7
Serbia	0.6	−0.2	−8.9	54.4	52.9	61.5
Ukraine	−1.9	−2.2	−5.3	60.9	50.2	60.8

Source: European Commission (Ameco), Macrobond, national central banks, wiiw.

[1] No policy rate available (unilateral euroization or currency board).

Conventions used

.. = data not available.

Discrepancies may arise from rounding.