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Call for applications: Klaus Liebscher Economic Research Scholarship

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.

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
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- 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

Please e-mail applications to scholarship@oenb.at by October 1, 2019.

Applicants will be notified of the jury’s decision by mid-November. The following round of applications will close on October 1, 2020.

Recent economic developments and outlook

Developments in selected CESEE countries

Softening economic activity in late 2018 as international headwinds increase^{1, 2, 3}

Weakening international environment has heterogenous impact across CESEE

1 Regional overview

Following a broad-based upswing in cyclical growth that lasted nearly two years, global economic expansion decelerated in the second half of 2018. Economic activity softened amid growing trade tensions and tariff hikes between the United States and China, declining business confidence, tightening financial conditions and higher policy uncertainty across many economies. This environment contributed to a slowdown in global industrial production and a sharp reduction in world trade dynamics. At the beginning of 2019, world trade growth declined to the lowest level since 2009.

Euro area growth slowed more strongly than expected as a combination of factors weighed on economic activity across countries, including weakening consumer and business sentiment, disruptions in the German car industry after the introduction of new emission standards, uncertainty about the sustainability of fiscal policies and elevated sovereign spreads in Italy as well as street protests weighing on production in France. Most likely, growing concerns about a no-deal Brexit also weighed on investment spending in the euro area.

Given CESEE's strong integration in the world economy, these international headwinds had an impact on the region. The individual CESEE countries have been affected to different extents, however.

Turkey slides into recession

The economic slowdown was by far the most pronounced in Turkey. A combination of factors including deteriorating international relations with the U.S.A., worries about the future direction of economic policy, and financial and macroeconomic imbalances that had been building up over the past years triggered economic turbulences in mid-2018. The tightening of monetary policy intended to reduce these imbalances, in turn, led to a massive slowdown in economic activity in the second half of 2018 and sent the Turkish economy into recession for the first time since the global financial crisis. The decline in GDP growth was driven by private consumption and investments that suffered from souring economic sentiment and a sharp reduction of credit growth as financing conditions tightened. Employment contracted at end-2018, with especially strong decreases being observed in the (previously booming) construction sector. The unemployment rate rose to 13.5% in December 2018 – the highest level since 2009 and by far the highest rate in CESEE.

Net exports, on the other hand, contributed positively to growth in Turkey as exports accelerated and imports decelerated against the backdrop of weak domestic

¹ Compiled by Josef Schreiner with input from Katharina Allinger, Stephan Barisitz, Markus Eller, Mariya Hake, Mathias Lahnsteiner, Thomas Reiningger, Tomáš Slačík and Zoltan Walko.

² Cutoff date: April 4, 2019. This report focuses primarily on data releases and developments from October 2018 up to the cutoff date and covers Slovakia, Slovenia, Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania, Turkey and Russia. The countries are ranked according to their level of EU integration (euro area countries, EU Member States, EU candidate countries and non-EU countries). For statistical information on selected economic indicators for CESEE countries not covered in this report (Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, Serbia and Ukraine), see the statistical annex in this issue.

³ All growth rates in the text refer to year-on-year changes unless otherwise stated.

Table 1

Real GDP growth

	2017	2018	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018
<i>Period-on-period change in %, seasonally and working day adjusted</i>								
Slovakia	3.2	4.1	0.9	1.2	1.0	1.1	1.0	0.8
Slovenia	4.9	4.5	0.9	2.2	0.6	0.9	1.3	0.8
Bulgaria	3.8	3.1	0.9	0.7	0.9	0.8	0.7	0.8
Croatia	2.9	2.6	0.7	0.4	0.7	1.0	0.6	0.1
Czech Republic	4.4	2.9	0.6	0.6	0.6	0.5	0.7	0.8
Hungary	4.1	4.9	0.9	1.4	1.3	1.0	1.4	1.0
Poland	4.8	5.1	1.1	1.4	1.5	1.0	1.6	0.5
Romania	7.0	4.1	2.0	0.7	0.2	1.4	1.7	0.7
Turkey	7.4	2.6	1.2	1.8	2.0	0.9	-1.1	-2.4
Russia	1.6	2.3	0.4	0.1	0.7	0.6	0.7	0.8
Euro area	2.4	1.8	0.7	0.7	0.4	0.4	0.1	0.2

Source: Eurostat, national statistical offices.

demand and a sharp depreciation of the Turkish lira. The Turkish currency lost some 25% against the euro in the course of 2018 but has been trading at a largely stable rate since mid-October 2018.

Another country that lagged behind was Russia. At 2.3% in 2018 (see table 1), GDP expanded at a notably slower pace than in other countries of the region. For many years now, Russia has been plagued with a weak growth potential that reflects the Russian economy's bias toward commodity exports and a lack of major structural reforms. Nevertheless, quarterly growth picked up somewhat in the second half of 2018 and lifted GDP growth to 2.3% for 2018 as a whole – the highest level in six years. The stronger growth momentum can be traced mainly to a substantial expansion of net exports against the background of higher oil prices and a weaker Russian ruble. The external value of the Russian currency suffered from elevated uncertainty triggered by waves of U.S. sanctions and threats thereof. Growth of domestic demand decelerated owing to stagnating real incomes and tight fiscal and monetary stances as well as international sanctions that have been taking a toll on foreign investment.

After an unexpectedly strong third quarter of 2018, economic momentum weakened in the CESEE EU Member States at the end of 2018. At an average rate of 0.8% in the fourth quarter of 2018 (quarter on quarter), regional growth declined to its lowest level in three years. This suggests that this group of countries has passed its cyclical peak. Several other pieces of evidence support this assessment. Most importantly, activity indicators (e.g. industrial production, construction output, retail sales) and sentiment indicators (e.g. the Economic Sentiment Indicator of the European Commission) weakened throughout 2018 and partly reached multiannual lows in early 2019. Furthermore, the purchasing managers' indices (PMI) that are available for the Czech Republic and Poland declined to a level of below 50 points (the threshold indicating an expansion) in late 2018 and remained below this threshold also in the first three months of 2019. The last prolonged period of such weak PMI readings dates back to early 2013.

Despite these recent developments, however, it must be noted that economic dynamics in general remained remarkably strong. High GDP readings over the first

Russian growth remains comparatively weak

Economic activity softens in CESEE EU Member States in late 2018

Strong domestic demand against the backdrop of tight labor markets

three quarters of 2018 pushed annual average growth in the CESEE EU Member States to 4.3% for the full year 2018. This represents the strongest expansion since 2006.

Output growth rested mostly upon domestic demand (see chart 1). Private consumption – which was responsible for the largest contributions to GDP growth in five of the eight CESEE EU Member States in the second half of 2018 – continued to benefit from benign labor market conditions and swift wage growth.

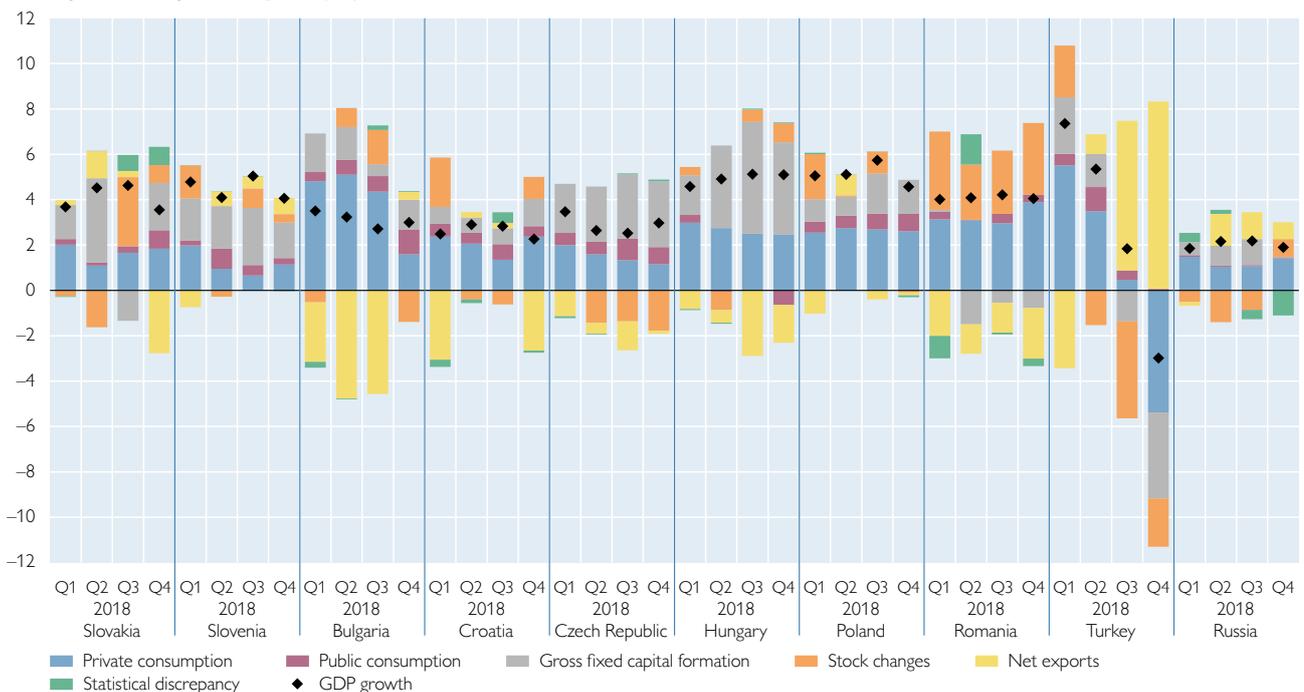
Labor markets were in full swing, with important labor market indicators at (or close to) historical heights. Unemployment rates have been falling consistently in recent years, from an average level of around 10% in early 2013 to 3.7% in February 2019. This represents the lowest reading since the start of transition. Positive labor market developments are also substantiated by several other indicators: Unemployment declined among the most vulnerable age cohorts, namely young persons (aged under 25) and older persons (aged 50+). The downward trend in long-term unemployment continued and was broadly based. Furthermore, employment kept expanding throughout the region, contributing to a convergence of employment rates toward euro area levels. By the fourth quarter of 2018, the employment rates of five CESEE EU Member States had already exceeded the euro area average.

The reverse side of these positive labor market trends were increasing labor market shortages. According to a survey by the European Commission, labor is perceived as a strongly limiting factor for production in the CESEE EU Member States: In the fourth quarter of 2018, some 44% of respondent employers in the region struggled to find labor. For Hungary, the respective figures went up to close to 90%.

Chart 1

GDP growth and its main components

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



Source: Eurostat, national statistical offices.

The survey, however, reported slightly better outcomes for the first quarter of 2019 (42%), which might indicate that labor markets are finally starting to cool off somewhat. Labor shortages were possibly mitigated by immigration from the Western Balkans and Ukraine (e.g. in Poland), some re-migration of CESEE citizens from Western European countries, investment in labor-saving technologies as well as higher geographic mobility within the CESEE EU Member States.

Wage statistics also hint toward some easing of labor market strains. After a long period of increases, nominal wage growth softened in the second half of 2018. With an average plus of more than 10% year on year in the second half of 2018, wages nevertheless continued to rise at a rate close to historical peaks.

Dynamic labor markets and higher wages positively impacted on sentiment and prompted consumers to take out credit. Consumer confidence was the only component of the European Commission's Economic Sentiment Indicator that actually improved over the reporting period.

Gross fixed capital formation remained vivid in the second half of 2018, declining only marginally from the record highs seen in early 2018. Private investment continued to be fueled by high capacity utilization rates, full order books and improved credit market conditions amid low real interest rates and ample liquidity. Several countries also reported strong FDI inflows. Industrial sentiment was dented somewhat by external developments but remained solid in the longer run. Investment in construction and public investments increased strongly throughout most of the region, reflecting the importance of EU (co)financed investment projects as the 2014–2020 programming period is nearing its end.

The external sector was the part of the economy where the slowdown was most visible. Strong external headwinds caused export growth to moderate throughout CESEE EU Member States, especially when compared to 2017 dynamics. Given the region's strong integration into international production networks and the comparatively high import content of domestic export production, import growth moderated in tandem. Dynamic domestic demand, however, kept import growth rates (6.9% in the second half of 2018) above export growth rates (4.7% in the second half of 2018) on average. This translated into an (increasingly) negative contribution of net exports to GDP growth. Only in Slovenia did the external sector cause growth to lift somewhat in the second half of 2018.

Export dynamics could have been even worse given the CESEE EU Members States' strong integration with the European – and especially the German – automotive sector. Between 20% to 30% of all exports from the Czech Republic, Hungary, Slovenia and Slovakia were related to exports of cars and/or car parts and accessories in 2017. A substantial share of these exports went to other EU countries, especially to Germany.

German car manufactures experienced delays in ensuring the environmental compliance of new passenger cars and reduced their car production significantly in the second half of 2018 (by some 7% year on year). So far, however, the CESEE region has remained rather resilient to this shock: While most countries reported lower growth rates in car production in the second half of 2018, output growth of the automotive sector remained positive in all countries but the Czech Republic. Hungary even recorded an acceleration of production growth since autumn 2018. Most likely, this resilience is an effect of the exact brands and car models produced per country and region. There is a risk, however, that the slowdown in the German

Dynamic investment growth

External sector growth contributions weaken as international environment deteriorates

Signs of a turnaround in ULC developments

car industry may also reflect longer-lasting factors such as uncertainty about partial driving bans for diesel cars and the rapid technological change that may have a longer-lasting impact on demand.

The erosion of international price competitiveness also seems to have lost some speed. For many quarters, unit labor cost (ULC) growth in manufacturing (measured in euro) was stronger, by some margin, in the CESEE EU Member States than in the euro area. In the review period, however, the difference in ULC dynamics moderated substantially. In fact, Slovenia, Slovakia and Hungary managed to (moderately) improve their competitive position vis-à-vis the euro area. Weak productivity readings that pushed up ULC growth in the euro area were the most important explanation for this turnaround. In the CESEE EU Member States, ULC developments were still burdened with high (though somewhat moderating) labor cost increases, while currency depreciation vis-à-vis the euro bolstered price competitiveness somewhat. The Hungarian forint lost some 4.5% vis-à-vis the euro in the second half of 2018 (year on year). The Polish zloty and the Romanian leu softened by some 1.5%.

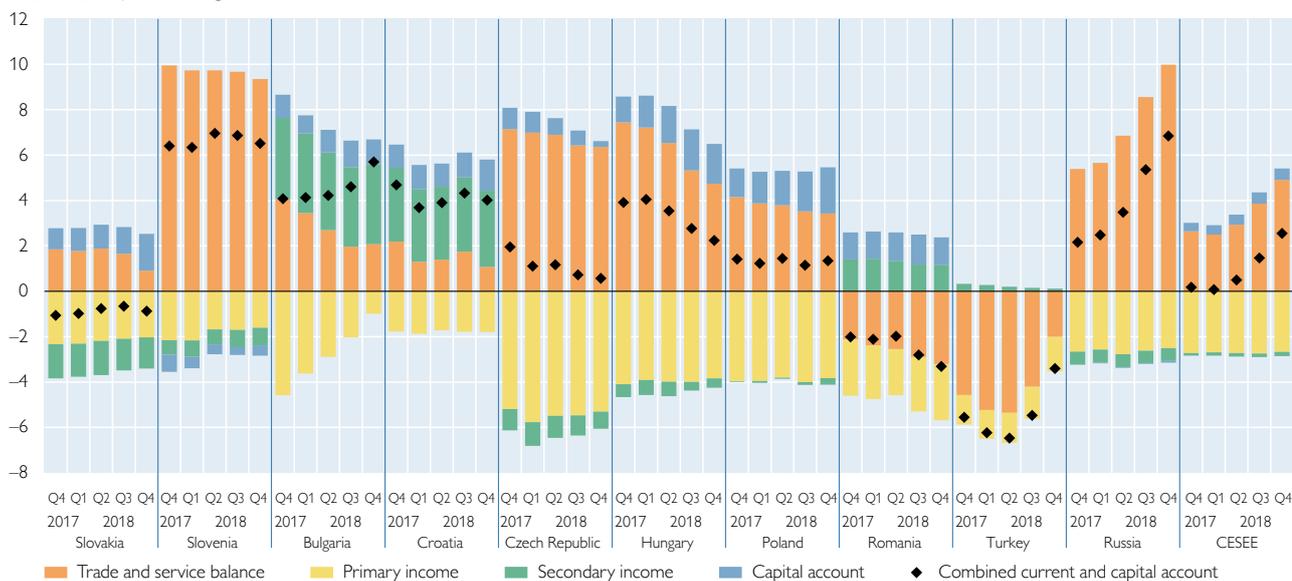
Russia and Turkey reported ULC growth substantially below euro area figures when measured in euro. In both cases, this was strongly related to currency depreciation. Measured in local currency, the competitive position of the Russian economy remained largely unchanged. Turkey continued to report labor cost increases in the double digits, while productivity plummeted amid the general economic recession.

In addition to ULC trends, survey data also hint toward some recovery of international competitiveness. The European Commission regularly polls firms on their competitive positions in markets inside and outside the EU. The most recent survey wave for the first quarter of 2019 indicated that firms in the region see their

Chart 2

Combined current and capital account balance

% of GDP, four-quarter moving sum



Source: Eurostat, IMF, national central banks.

competitive position strengthening in both areas. An especially positive momentum was reported for EU markets.

The deteriorating international environment also impinged on CESEE EU Member States' external balances (see chart 2). Most countries reported a decline in their combined current and capital account surpluses, or increases in their deficits, during the review period. These developments were mostly related to weakening trade balances, while the other components of the current account remained broadly unchanged. In Romania, higher deficits in goods and services and in primary income pushed the combined current and capital account balance to -3.4% of GDP in 2018. This has been the highest deficit since 2012, and it is also by far the highest deficit across CESEE EU Member States.

External headwinds also impact current account positions

Notable current account improvements were reported for Russia and Turkey. In both countries, currency depreciation boosted the goods and services balances. Russia's trade balance was further bolstered by terms-of-trade effects relating to a higher average oil price in the reporting period. Turkey's external balances were also supported by depressed domestic demand, which weighed heavily on imports.

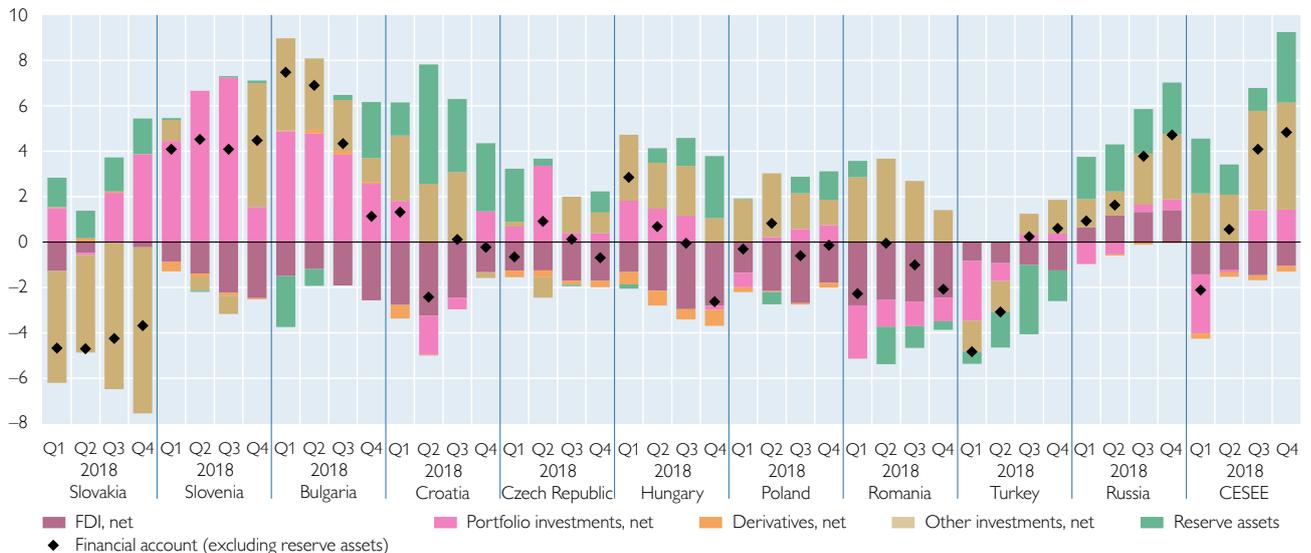
The aggregate financial account balance (i.e. the difference between the net acquisition of assets and the net incurrence of liabilities, excluding reserves) of the ten CESEE countries as a whole increased from 0.6% of GDP in the second quarter of 2018 to 4.8% of GDP in the fourth quarter of 2018 (four-quarter moving sums; see chart 3). This implies that capital outflows accelerated in the review period. The development was driven by two countries in particular: Russia and Turkey. In Russia, outflows were related to international sanctions against the country that led to a further cutback of banks' foreign liabilities and to outflows of foreign direct investment. Turkey reported a notable acceleration of net portfolio and net

Capital outflows accelerate in Russia and Turkey

Chart 3

Financial account balance

% of GDP, four-quarter moving sum

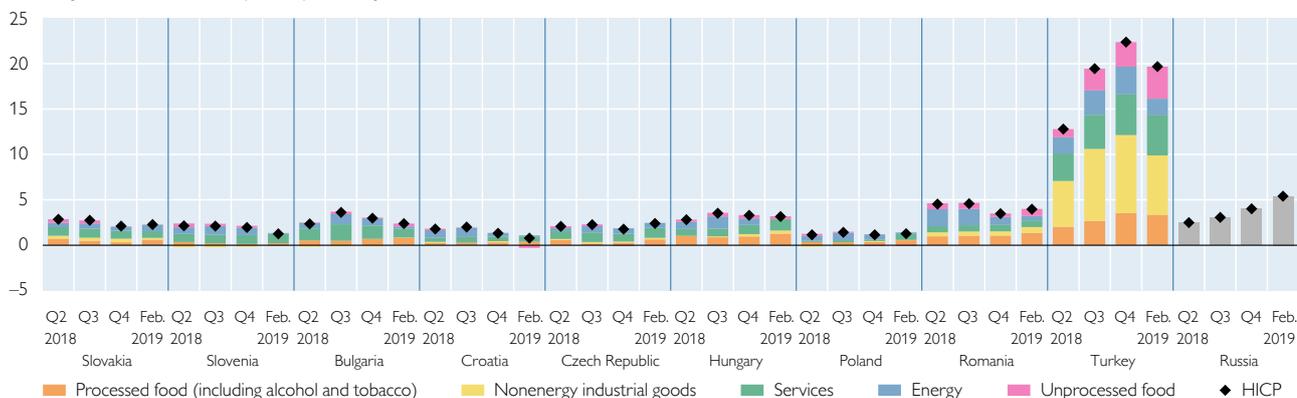


Source: National central banks.

Note: Positive values indicate a net outflow of capital, negative values indicate a net inflow of capital (vice versa for reserves).

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.

other investment outflows against the background of the economic turbulence the country has experienced especially since mid-2018. The deterioration was driven by both a higher acquisition of assets abroad and a lower incurrence of liabilities from abroad.

In most of the other CESEE countries, financial accounts balances improved somewhat, most notably in Hungary and Bulgaria. Net FDI was generally robust, and often strengthening, across the region.

Pickup in inflation, especially in the first months of 2019

In the review period, Russia and Turkey reported the highest inflation rates among the CESEE countries (see chart 4). In Russia, inflation doubled from a historical low in mid-2018, reaching 5.4% in February 2019. Higher price growth was related to currency depreciation and increases in indexed housing and communal tariffs. Price growth accelerated further after the VAT rate was raised in January 2019.

In Turkey, the weakening of the Turkish lira pushed annual price rises to above 25% in October 2018. Since then, inflation retreated to 19.7% on the back of weak demand conditions and a more stable development of the Turkish lira.

With the economy in full swing, inflation was rather contained, on average, throughout the second half of 2018 in the CESEE EU Member States. Inflation rates mostly hovered at around 2.5%, with some downward trend toward end-2018. Movements of the inflation rate were primarily related to volatile energy prices, so that core inflation remained largely stable at an average of around 1.5%. Since January 2019, however, inflationary pressures have increased. Headline inflation climbed from an average 1.7% in December 2018 to 2.2% in February 2019. More importantly, core inflation also picked up to reach 2.2% in February 2019. This represents the first notable increase since mid-2017 and also the highest reading of core inflation since December 2012.

This development possibly reflects domestic price pressures that have been building up over the past two years but have not (yet) materialized in measured inflation: tight labor markets and strong wage growth pushing up aggregate ULC growth, record-high capacity utilization and a positive output gap.

The Czech central bank (CNB) adhered to its policy of gradual monetary tightening during the review period and hiked its policy rate by 25 basis points to 1.75% in November 2018 (see chart 5). Since then, however, monetary policy has remained on hold. Despite an unexpectedly strong increase in headline and core inflation in the first months of 2019 (to 2.4% and 2.3% in February 2019, respectively), the CNB expects price growth to return to its target of 2% (± 1 percentage point) and to remain very close to this level over the monetary policy horizon.

Further monetary tightening in many CESEE countries

Headline inflation in Hungary repeatedly rose to levels above target (3% ± 1 percentage point) in the review period. A clear upward trend could also be observed in core inflation. Against this backdrop, the Hungarian central bank (MNB) raised its overnight deposit rate by 10 basis points to -0.05% in March 2019, while leaving other rates (including the main policy rate) unchanged. Furthermore, it reduced the average amount of liquidity provisions by HUF 100 billion to HUF 300–500 billion, starting in the second quarter of 2019.

In Romania, the inflation target currently stands at 2.5% (± 1 percentage point), and the inflation rate in February came in clearly above this threshold (HICP: 4%, CPI: 3.8%). However, the Romanian central bank (NBR) kept its policy rate steady at 2.5% throughout the review period. In its April 2019 monetary policy meeting, the NBR acknowledged that inflation had exceeded its expectations in the first two months of 2019 and that it was likely to remain above the upper limit of the inflation target over the short-time horizon. The NBR also stated that it would maintain a strict control over money market liquidity.

In Poland, headline and core inflation remained moderate and below the lower bound of the Polish central bank's (NBP) inflation target (2.5% ± 1 percentage point). However, inflation and core inflation started to pick up in February 2019 despite the freeze on electricity prices effective since January 1, 2019.

After pronounced hikes in June and September 2018 to combat currency depreciation and support price stability, the Turkish central bank (CBRT) refrained from making further adjustments to its policy rates in the review period. In late March 2019, however, the CBRT increased its average cost of funding from 24% to 25.5%, possibly in response to renewed currency depreciation and a drop in foreign exchange reserves. It also decided to suspend its one-week repo auctions for an undetermined period of time and thereby limited domestic Turkish lira liquidity.

The Russian central bank (CBR) raised its policy rate in two steps by a total of 50 basis points in the second half of 2018 to preempt the impact of the January 2019 VAT increase on inflation and to manage the risk of a potential currency shock from further U.S. sanctions.

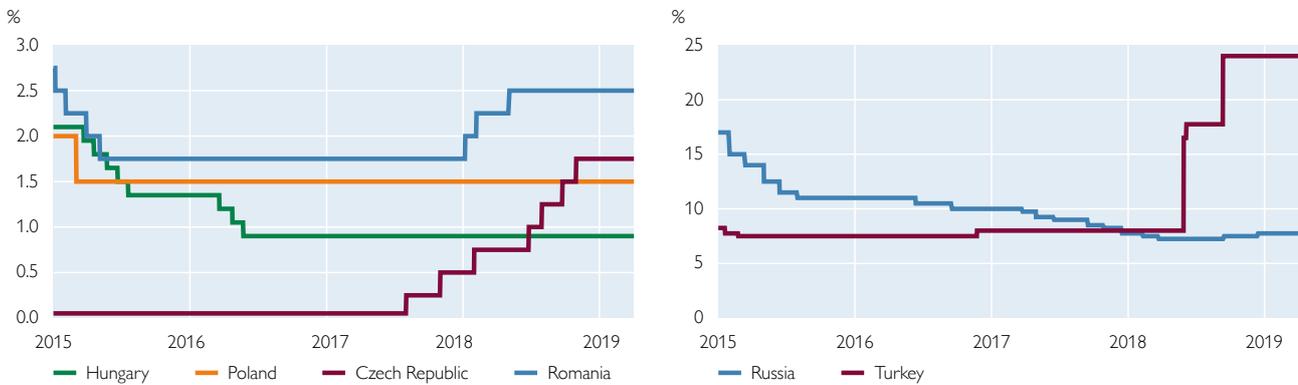
Growth of domestic credit to the private sector (nominal lending to the nonbank private sector adjusted for exchange rate changes) was solid and broadly in line with fundamentals across most of CESEE. Credit growth accelerated moderately in most countries (see chart 6), reflecting generally favorable economic conditions in an environment of low interest rates and heightened competition among banks.

Modest acceleration of credit growth in most countries

The strongest credit expansion was reported for Hungary and Russia. In Hungary, lending was supported by various central bank measures. At the beginning of 2019, for example, the MNB introduced its “Funding for Growth Scheme Fix,” targeted at long-term lending to SMEs at fixed interest rates. In both countries, however, credit growth was especially dynamic in the household sector. Within this segment, housing loans have grown particularly briskly.

Chart 5

Policy rate developments in CESEE



Source: Macrobond.

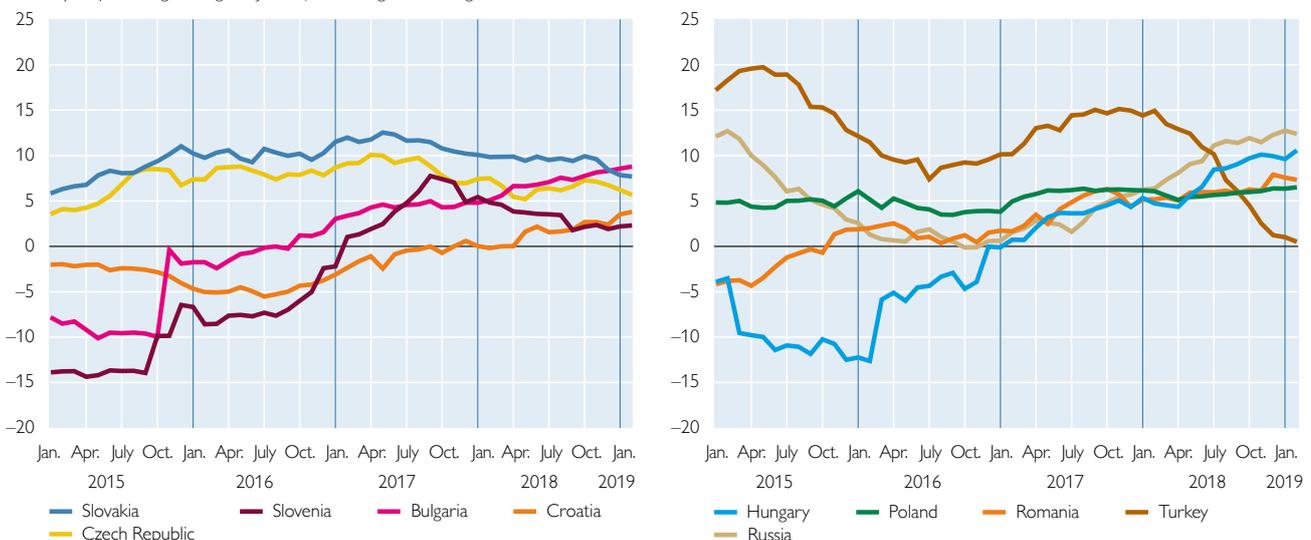
Notable rise in housing prices and housing loans...

Also in other countries of the region, credit growth reflected to some extent a notable increase in housing loans, which went hand in hand with rising real estate prices. In the third quarter of 2018, housing prices rose by some 7.5% on average year on year (with growth rates ranging between 3.2% in Russia and 15.1% in Slovenia). While this represents some moderation compared to early 2018, housing prices continued to grow at a substantially stronger pace in CESEE than in the EU on average. These dynamics were related to strong housing demand against the backdrop of high wage growth, healthy consumer sentiment as well as favorable expectations concerning future income and general economic conditions. At the same time, regulatory requirements and a lack of skilled labor in the construction sector prevented supply from keeping track with demand.

Chart 6

Growth of credit to the private sector

Year-on-year percentage change, adjusted for exchange rate changes



Source: National central banks.

Several CESEE countries had introduced macroprudential measures and/or issued recommendations to put a brake on the expansion of housing loans in the past and further tightened standards in the review period. Instruments include debt service-to-income ratios (e.g. in the Czech Republic, Hungary, Romania, Slovakia and Slovenia), higher risk weights (e.g. in Poland and Slovenia), loan-to-value ratios (e.g. in the Czech Republic and Slovakia) as well as loan-to-income ratios (e.g. in the Czech Republic and Slovakia). So far, these measures have contributed to a notable slowdown in mortgage loan growth especially in the Czech Republic and Slovakia (where such regulations have also been in force longest).

... led to further regulatory action

In the Czech Republic and Slovakia, credit growth has declined, from levels of 10% year on year and above to around 6% and 8%, respectively, in February 2019. Apart from slower housing loan growth, the imposition and subsequent increase of countercyclical capital buffers has contributed to this moderation. In the Czech Republic, the buffer currently stands at 1.25% and is to be raised to 1.5% in July 2019 and 1.75% in January 2020. In Slovakia, the buffer will be raised to 1.5% in August 2019 from its current level of 1.25%.

Slovenia reported the strongest deceleration of credit dynamics among the CESEE EU Member States, with growth rates coming down from close to 8% in late 2017 to 2.3% in February 2019. The reduction was driven by credits to nonfinancial corporations. Lower demand for loans primarily resulted from a change in corporate financing methods, an area where other instruments (namely internal resources, equity financing and trade credits) have gained importance.

In Turkey, credit growth practically came to a standstill in the review period despite support by the government's subsidized loan scheme. Tightening global financial conditions, increasing risks and adverse exchange rate developments contributed to tightening loan supply, while weakening domestic demand and a pronounced rise in interest rates impinged on loan demand.

Credit growth in Turkey comes to a standstill

Country-level bank lending surveys conducted by national central banks suggest some decrease in loan demand especially from households in late 2018 and early 2019 (e.g. in the Czech Republic and Romania). This might reflect slowing general economic dynamics. Lending conditions also appear to have tightened somewhat according to several country-level bank lending surveys, especially in the area of housing and consumer loans (e.g. in the Czech Republic, Romania and Poland).

Lending surveys indicate some moderation in credit market dynamics in early 2019 while the overall momentum remains strong

In contrast to that, the most recent CESEE Bank Lending Survey by the European Investment Bank (EIB) indicates persistently strong momentum in the region's credit market. According to the EIB, credit demand improved across the board in the second half of 2018. This marked the eleventh semester of favorable developments. All factors affecting demand made positive contributions. Notably, investment accounted for a good part of the strengthening in demand, while debt and corporate restructuring were almost irrelevant. Access to funding also continued to improve in CESEE, supported by easy access to domestic sources (mainly retail and corporate deposits).

Higher demand was paired with only marginally easing supply conditions in the second half of 2018, however. While this represents the third timid easing over the past two years, the gap between credit demand and credit supply that had been perceived for several quarters persisted. On balance, this would imply an improvement of the loan quality associated with most of new lending compared with previous credit cycles. Across the client spectrum, credit standards eased

Fiscal deficits persist in several CESEE EU Member States although economy is in full swing

again for SME lending and consumer credit, while they tightened for mortgages. Changes in local regulations and groups' NPLs were perceived as key factors adversely affecting supply conditions.

Russia reported a significant improvement in its general government figures as the budget deficit of -1.5% of GDP in 2017 turned into a surplus of 2.9% of GDP in 2018 (see chart 7). These dynamics were related to swelling revenues from higher oil prices combined with more efficient VAT collection and sustained prudence in spending.

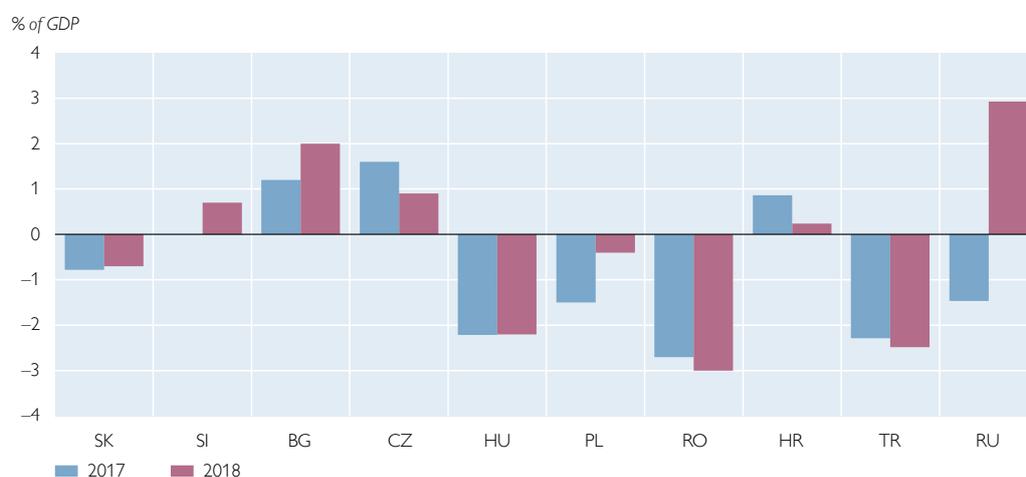
The fiscal stance in Turkey remained expansionary in 2018 although some fiscal measures were discontinued as from September 2018 due to high and rising inflation among other factors. On the back of temporary tax reductions, continued minimum wage subsidies, employment incentives schemes and the Credit Guarantee Fund loan support, the general government budget surpassed the budgetary target of -1.9% of GDP (as set in the New Economic Program of September 2018) to reach a deficit of -2.5% of GDP in 2018.

Although the economy is in full swing, the fiscal stance was mostly expansionary also in the CESEE EU Member States. While four countries of the group reported (partly minor) headline budget surpluses (ranging between 0.2% of GDP in Croatia and 2% of GDP in Bulgaria), cyclically adjusted budget figures were less favorable: Only Bulgaria and the Czech Republic were able to report a (moderate) surplus in their cyclically adjusted budget figures, while deficits were widening in the other countries.

Cyclically adjusted and headline deficits were highest in Hungary and Romania. Both countries are subject to a significant deviation procedure and were urged to take action to correct the deviation from the adjustment path toward their medium-term budgetary objective (MTO) to avoid the opening of an excessive deficit procedure. For both countries, the Council of the European Union concluded, in December 2018, that no effective action had been taken in response to the recommendations issued in June 2018. In order to correct for the cumulated deviation, an additional effort of 0.25% of GDP in Hungary and 0.2% of GDP in Romania was required to bring the countries back to an appropriate adjustment path toward the MTO.

Chart 7

General government balances



Source: Eurostat, European Commission, wiiv.

Box 1

Ukraine: official financing resumed to support foreign reserves in election year 2019

GDP growth accelerated to 3.3% in 2018 and continued to be driven by domestic demand. Private consumption grew briskly, benefiting from increasing real wages and pensions as well as from remittances and the growth of loans to households. Growth of gross fixed capital formation decelerated slightly but remained dynamic. Yet, the export performance was rather weak as real exports declined by 0.8% in 2018. Transportation bottlenecks related to the conflict in the Sea of Azov and repairs at several large metallurgical enterprises were among the special factors that put a drag on exports. Moreover, external price competitiveness suffered from ULC increases. The negative contribution of net exports declined, however, as import growth decelerated markedly in connection with lower gas purchases. At the same time, the current account deficit widened to 3.5% of GDP in 2018, mainly driven by an increase of the already sizeable trade deficit. Gas transit fee income, and hence the surplus in the services balance, might decline markedly as soon as pipelines bypassing Ukraine start to operate (around 2020). Income balances that counterbalance a large part of the trade deficit have been supported by inflows of income generated by Ukrainians working abroad, particularly in Poland.

After moving up toward the end of 2018, annual headline CPI inflation resumed its downward trend by falling to 8.8% in February 2019. At the same time, core inflation declined to 7.8%. After a hike in September 2018 to 18%, the National Bank of Ukraine (NBU) left its key policy rate unchanged. In March 2019, the NBU pointed out that the tight monetary conditions continued to be an important prerequisite for gradually reducing inflation to the 5% target in 2020, but also signaled the possibility of rate cuts under certain conditions in the future.

Ahead of the 2019 election year (presidential elections in spring and parliamentary elections scheduled for October), the IMF Executive Board had approved a 14-month Stand-By Arrangement (SBA) for Ukraine in December 2018, under which USD 3.9 billion are planned to be disbursed. The approval enabled the immediate disbursement of about USD 1.4 billion. The SBA succeeds an arrangement under the Extended Fund Facility (EFF) that would have expired in March 2019. Only about half of the total volume of USD 17.5 billion was disbursed under the EFF, as the reform drive lost momentum after initial successes. To get the new SBA started, Ukraine had to carry out several prior actions (including passing an IMF-compliant budget for 2019 with an envisaged deficit of 2.3% of GDP after 1.9% of GDP in 2018 and hiking household gas prices). Reaching an agreement with the IMF also made financing from other official sources available: from the EU under the fourth macro-financial assistance (MFA) program (EUR 0.5 billion out of EUR 1 billion have already been disbursed) and from the World Bank in the form of a policy-based guarantee (which has already been used to attract loans in the amount of about EUR 880 million). It is worth noting that international creditors regard the decision by the Constitutional Court of Ukraine to eliminate the illicit enrichment offense for public officials from the criminal code as a serious setback in the fight against corruption. Draft laws aiming to resolve this issue have not met with the expectations of international creditors so far. Moreover, the recent government decision to ban gas price hikes will also complicate the conclusion of the first IMF review scheduled for May 2019.

In recent months, official financing flows pushed up official foreign currency reserves to a five-year high of USD 20.8 billion at end-2018. Since then foreign reserves declined to USD 20.2 billion at end-February, due to spending on repaying and servicing public and publicly guaranteed debt in foreign currency. A larger decline was prevented through foreign currency purchases of the NBU (given favorable foreign currency market conditions) and the placement of domestic foreign currency bonds. As of March 1, 2019, official foreign reserves covered 3.3 months of future imports. Scheduled public external debt service from the second until the fourth quarter of 2019 amount to USD 4.5 billion.

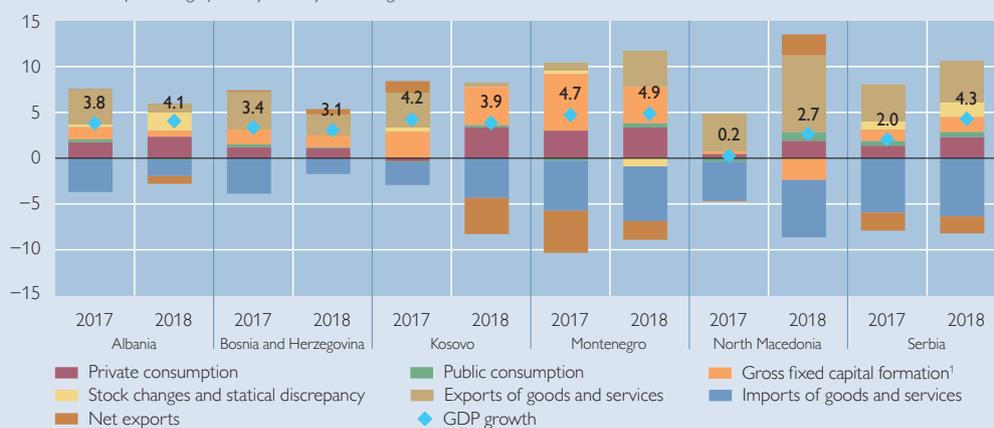
Western Balkans⁴: strong domestic demand fuels economic growth

In the Western Balkans, real GDP growth accelerated strongly to 3.5% in 2018 (GDP weighted) compared to 2.6% in 2017. The favorable outcome primarily reflected North Macedonia's and Serbia's economic recovery from weak growth in 2017. In North Macedonia, the ending of the political stalemate revived economic activity; Serbia suffered from exceptionally low energy production in 2017. Only in Bosnia and Herzegovina did GDP growth ease slightly in 2018 compared to the previous year. After having stalled in 2017, income convergence gathered speed as average economic growth in the region was 1.6 percentage points higher than the EU average.

Chart 1

GDP growth gained momentum in most Western Balkan countries in 2018

Contributions in percentage points; year-on-year GDP growth in %



Source: Eurostat, wiiv, national statistical offices.

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

Private consumption growth accelerated in most Western Balkan countries on the back of a pronounced rise in real disposable income across the region. The drivers of higher spending capacity are many: remittances increased in all countries (particularly in Serbia and Montenegro), private and public wages grew strongly (in Albania, North Macedonia and Serbia), labor markets showed some positive trends and social benefits were lifted (e.g. in Kosovo and Serbia).

Turning to public consumption, we see stronger spending particularly in North Macedonia but also in Montenegro, Serbia and Kosovo. In North Macedonia, public consumption became a relevant growth pillar in 2018 to make up for two years of negative growth of public consumption.

Gross fixed capital formation has been supportive for economic growth in all Western Balkan countries, except for North Macedonia. In terms of investment activity Montenegro is still the frontrunner mainly due to its large highway project. Investment growth surpassed 20% year on year in each of the first three quarters of 2018 but remained flat in the last quarter. In North Macedonia, by contrast, gross capital formation declined in full-year 2018 but recovered in the final quarter of 2018 on the back of a revival of the construction sector.

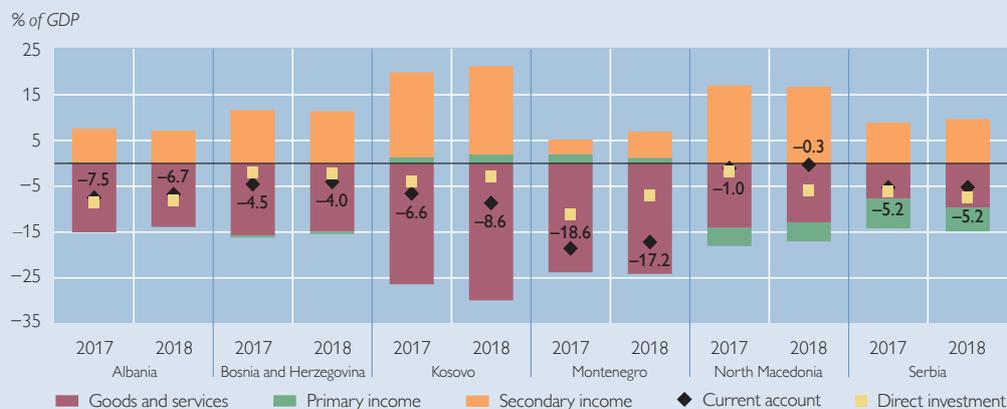
Export performance shows a rather mixed picture. In 2018, export growth was particularly strong in North Macedonia (due to rising export capacities and a steady reorientation of exports toward more sophisticated products) and Montenegro (mainly driven by energy, given

⁴ The Western Balkans comprise the EU candidate countries Albania, Montenegro, North Macedonia and Serbia as well as the potential candidate countries Bosnia and Herzegovina, and Kosovo. 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.

favorable weather conditions for generating hydropower energy). Albania reported rather low export growth particularly in the second half of 2018 despite strong energy production and a strong tourist season. As a result of overall robust domestic demand, import growth of consumer and investment-linked goods gained speed in most Western Balkan countries. In Albania, however, import growth decelerated strongly, mainly because the large infrastructure project TAP (Trans Adriatic Pipeline) was phased out. In Bosnia and Herzegovina, the slowdown in import demand was obviously related to a generally weak economic momentum. In 2018, the contribution of net exports to growth was positive in North Macedonia and in Bosnia and Herzegovina; in Albania and Kosovo, it moved into negative territory. In Montenegro, the contribution of net exports registered some improvements but remained negative. Likewise, net exports continued to drag on GDP growth in Serbia.

Chart 2

External imbalances slightly narrowed in some Western Balkan countries



Source: IMF, national central banks, World Bank.

Note: Primary income refers to factor income, e.g. from loans and investments. Secondary income refers to transfer payments. A positive (negative) value in the category of direct investments indicates that the net acquisition of assets is higher (lower) than net incurrence of liabilities.

External deficits in 2018 narrowed (or at least remained more or less unchanged) in most Western Balkan countries. North Macedonia managed to almost close the gap mainly due to a lower trade balance deficit. In Kosovo and Montenegro, the already large trade deficits widened even further because of strong import growth. Substantial inflow of remittances and FDI largely financed external shortfalls. However, a gap remained between stable capital inflows in the form of FDI and the current account deficit in Bosnia and Herzegovina, Montenegro and Kosovo.

In 2018, unemployment rates (according to labor force survey data) ranged from 12.8% in Albania to almost 30% in Kosovo. The countries managed to bring down their unemployment rates only marginally compared to 2017. Employment rates also improved only slightly. Albania reported the highest employment rate in the region (almost 60%) in 2018. Kosovo featured the lowest employment rate (28%) and, strikingly, the rate even declined by 1 percentage point compared with the 2017 rate.

Overall, inflation remained at moderate levels in 2018 (see statistical annex for 2018 data) but recent data for early 2019 showed a rather mixed picture. In North Macedonia, annual inflation decelerated slightly to about 1% in January and motivated the central bank to lower its key policy rate further by 0.25 percentage points to 2.25% in mid-March. In March 2019, inflation accelerated to 1.4% year on year. In Bosnia and Herzegovina and in Montenegro, inflation slowed down in early 2019 as well, after having accelerated in 2018 from 2017 levels. In Kosovo, interestingly, annual inflation started to accelerate at end-2018 and amounted to 3.2% in February 2019. Increasing inflation is largely related to high trade tariffs on Serbian as well as on Bosnian and Herzegovinian imports levied by the Kosovan authorities that raised

prices of imported goods or made it necessary to substitute these goods by possibly more expensive goods (particularly food products). Serbia also registered higher annual inflation in February 2019 (+2.4%) compared to the annual average for 2018, so inflation was within the lower half of the inflation target range ($3\% \pm 1.5\%$). In Albania, the second inflation-targeting country besides Serbia, the significant appreciation trend of the currency against the euro in 2018 halted but the strong domestic currency still held inflation down at around 2% in 2018 and early 2019; inflation decelerated to 1.1% in March 2019, which is well below the inflation target of 3% set by the Bank of Albania.

The Western Balkan countries have progressed in bringing down their NPL ratios (see statistical annex for the latest data). This cleanup of banks' balance sheets is also reflected in robust growth of lending to the private sector (in particular to households). The annual growth of credit to households was particularly high in North Macedonia (exchange rate adjusted), Montenegro and Kosovo, whereas corporate lending lagged behind lending to households in most countries, particularly in Albania. The growth of credit to households is also driven – among other factors – by low interest rates and improved income prospects. On the supply side, credit supply conditions have been softened moderately in some countries.⁵ Serbia introduced macroprudential measures to support more prudential consumer lending (effective since January 1, 2019). Overall, the banking systems in the Western Balkan countries remain sound and well capitalized, with selected pockets of risks that differ across countries but are mostly related to currency substitution, NPLs (except Kosovo), unsecured consumer lending and profitability issues of smaller banks.

Most Western Balkan countries reported fiscal shortfalls in 2018. Fiscal deficits were highest in Montenegro and North Macedonia (close to 3% of GDP), followed by Albania (2%) and Kosovo (0.6%). In Kosovo, the fiscal situation deteriorated most strongly compared to 2017 (when the country still reported a fiscal surplus), in particular due to increasing social benefits. Government debt increased in most Western Balkan countries, above all in Montenegro (by more than 5 percentage points to 70% of GDP) due to high capital spending. By contrast, Bosnia and Herzegovina reduced its debt level by more than 4 percentage points (to below 32% of GDP) and Serbia by 7 percentage points to 53%. In Serbia, fiscal consolidation measures were implemented in line with targets set by the IMF.

With respect to EU accession, the candidate countries Montenegro and Serbia are most advanced in the accession process. Albania and North Macedonia have lately taken important steps to clear the way to start accession negotiations in the near future. These steps include judiciary reforms in the case of Albania and solving the name dispute with Greece in the case of North Macedonia. With respect to Bosnia and Herzegovina, the opinion of the European Commission on its readiness to grant the country the status of an EU candidate country is expected for this year. Currently, Bosnia and Herzegovina as well as Serbia have programs with the IMF and there are not many news compared to our last reporting. The IMF program (Extended Fund Facility) with Bosnia and Herzegovina is still off track due to lacking fiscal policy reforms, among other issues. Serbia currently uses the IMF's Policy Coordination Instrument (PCI). The recent report of the IMF mission (February 2019) concluded that the reform program is well on track and the PCI targets are being met.

Spotlight: What does the OeNB Euro Survey tell us about accelerating non-housing related lending to households in the Western Balkans?

Lending to the private sector, in particular lending to the household sector, has strengthened recently in the Western Balkan countries. In 2018, annual retail lending growth came to close to, or even above, 10% in Kosovo, Montenegro, North Macedonia and Serbia. Albania as well as Bosnia and Herzegovina registered lower but still strong annual household credit growth. Lately, lending to households for non-housing purposes has become a key driver of credit dynamics in some countries, in particular in Montenegro and Serbia. Loans for non-housing pur-

⁵ For more information, see European Investment Bank. 2018. CESEE Bank Lending Survey. H2-2018. Details on credit demand and supply conditions are available for Albania, Bosnia and Herzegovina, Kosovo and Serbia.

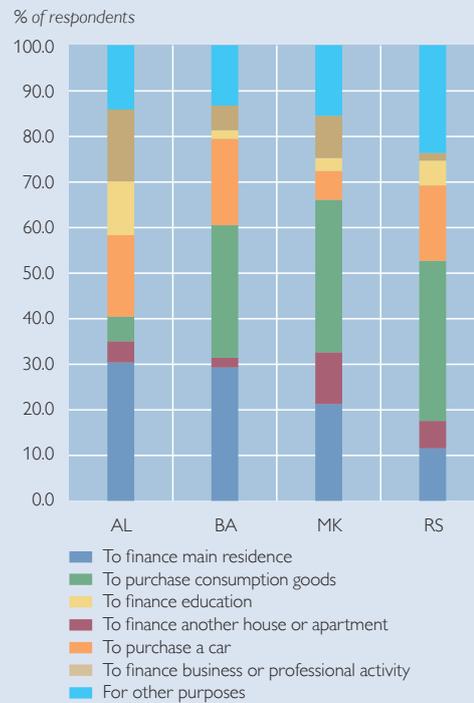
poses often have long maturities, are uncollateralized and their value is frequently quite substantial, e.g. when the loan is used for purchasing a car. In view of related risks to financial stability, some central banks have already intensified the monitoring of this loan category or – as in the case of Serbia⁶ – have taken action to curb consumer lending.

So what can the OeNB Euro Survey⁷ tell us about accelerating non-housing related lending in the Western Balkans?

For the non-EU countries covered by the OeNB Euro Survey⁸, we find that the purpose for which respondents take out a loan – i.e. their most important loan – differs strongly across countries: Albanian respondents reported a comparatively lower share of loans that are dedicated to consumption than respondents from the other Western Balkan countries. This outcome is also reflected in loan stock data provided by national central banks: In Albania, housing loans account for the largest share (60%) in total household loans while in the other three Western Balkan countries, their share in total loans to households is much lower (about 40% in Serbia, 30% in North Macedonia and 20% in Bosnia and Herzegovina). In North Macedonia, only a small share of households reported that they used their loan for financing the purchase of a car. In Serbia, noticeably, a large share of loans to households is dedicated to consumption and other purposes, which are not specified in detail, whereas housing loans are only of minor importance.

In a forward-looking question, respondents were asked whether they planned to take out a loan within the next year. Results of the latest survey wave of 2018 show that the share of respondents who intend to take out a loan has increased in Albania, North Macedonia and especially strongly in Bosnia and Herzegovina when compared with earlier survey waves. While this share dropped slightly in Serbia compared with figures of the 2017 survey wave, it still remained highest in a regional comparison (more than 10%). Generally, the main motives for taking out a loan are predominantly related to the low interest rate environment and the overall favorable macroeconomic environment, which also features considerable real wage growth in most Western Balkan countries.

Chart 3
Purpose of households' largest, most important loan



Source: OeNB Euro Survey, fall wave 2018.

Note: Weighted percentages; excluding respondents who answered "Don't know" or who refused to answer.

⁶ See press release of the National Bank of Serbia (NBS) of December 28, 2018, NBS Adopts Regulations to Promote Sustainable Household Lending Practices. www.nbs.rs/internet/english/scripts/showContent.html?id=13706&konverzija=no

⁷ The OeNB Euro Survey collects information from private individuals about their euro cash holdings, saving behavior and debt position and looks into respondents' economic opinions, expectations and experiences. The survey, which covers six EU Member States, three EU candidate countries (Albania, North Macedonia and Serbia) and the potential candidate country Bosnia and Herzegovina, has been conducted annually since fall 2007. In each country, face-to-face interviews are carried out with about 1,000 randomly selected individuals aged 14 and above. The sample is representative with respect to age, gender and regional distribution; see www.oenb.at/en/Monetary-Policy/Surveys/OeNB-Euro-Survey.html for details.

⁸ The OeNB Euro Survey does not cover Kosovo and Montenegro.

Chart 4

Households' intentions to take out a loan within the next year

% of respondents planning to take out a loan



Source: OeNB Euro Survey.

Note: Weighted percentages; excluding respondents who answered "Don't know" or who refused to answer.

Respondents were also asked about the purpose of the loans they planned to take out. In answering this question, they had several options to choose from. The most relevant answer categories turned out to be "plan to take out a housing loan," "plan to take out a consumption loan" and "plan to take out a loan for purchasing a car."

In the four Western Balkan countries covered by the OeNB Euro Survey, plans for housing loans are most widespread. In Albania, the share of respondents who said they wanted to take out a housing loan increased again in the 2018 wave after having dropped in the previous two waves. In Bosnia and Herzegovina, we see a similar pattern. In the remaining countries, this share has decreased recently. As mentioned before, the share of housing loans in total loans to household is still comparatively small in most Western Balkan countries (also compared with other CESEE countries), which might indicate the potential for catching up with their regional peers in terms of housing lending.

Generally, we observe a high – and increasing – share of respondents who plan to take a loan for non-housing purposes, namely for consumption and car purchase. This outcome generally corresponds to the growth rates of loans to households in the region. Both in Bosnia

Chart 5

Households' intentions to take out a housing loan (mortgage)

% of respondents planning to take out a loan



Source: OeNB Euro Survey.

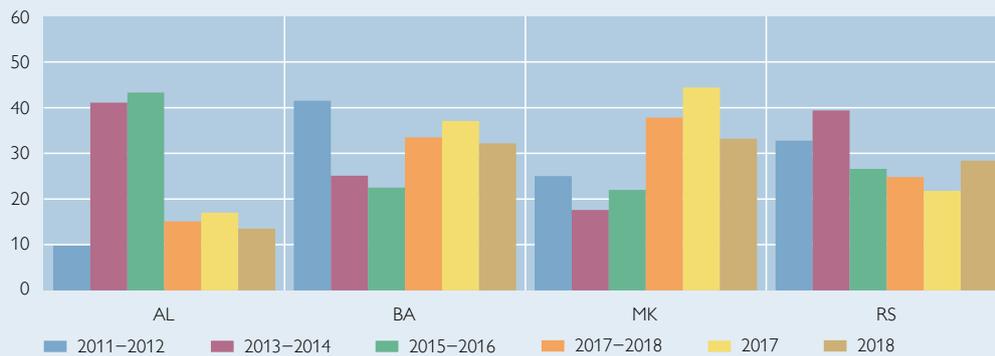
Note: Weighted percentages; excluding respondents who answered "Don't know" or who refused to answer.

and Herzegovina and in North Macedonia, the share of respondents who planned to use a loan for consumption went up strongly in 2017 compared with earlier OeNB Euro Survey waves and moderated somewhat in the 2018 wave. In Serbia, figures went up in 2018, and in Albania, by contrast, the share of respondents who plan to take out a consumption loan dropped significantly in 2017 and 2018 compared with earlier waves.

Chart 6

Households' intentions to take out a consumption loan

% of respondents planning to take out a loan



Source: OeNB Euro Survey.

Note: Weighted percentages; excluding respondents who answered "Don't know" or who refused to answer.

Moreover, the share of respondents that said they intended to buy a loan-financed car has gone up. Both in Bosnia and Herzegovina and in Serbia, the respective figures have increased strongly in 2018. In North Macedonia, the share of respondents who planned to apply for a car loan was high in 2017 and 2018; in Albania, it went up only in 2017 and moderated again thereafter.

Chart 7

Households' intentions to take out a loan for purchasing a car

% of respondents planning to take out a loan



Source: OeNB Euro Survey.

Note: Weighted percentages; excluding respondents who answered "Don't know" or who refused to answer.

Overall, OeNB Euro Survey data provide some evidence that non-housing related lending to households has become more prominent in most Western Balkan countries and – in light of financial stability risks arising from excessive consumer lending – should be monitored more closely by national authorities. Good knowledge about recent trends in credit growth in this segment is a prerequisite for implementing adequate and timely macroprudential measures to prevent financial sector vulnerabilities arising from this loan category.

The automotive industry in CESEE, its linkages with Germany and challenges ahead

The European, and particularly the German, automobile industry is facing significant cyclical and structural challenges. The automotive sector is a major sector, both in terms of output and employment, in several CESEE countries as well as in Germany. CESEE and German automobile industries are closely intertwined, hence challenges in one of the countries will feed through integrated production networks, thus affecting all countries directly and indirectly. Against this background, this box will deal with the following three questions in greater depth: (1) Which role does the automobile industry play in the CESEE region? (2) To what extent is the industry entangled with Germany, the biggest European economy and leading car producer? (3) Which recent developments have there been in the automotive sector, which future risks and challenges are in store for the sector and how might these impact the CESEE region?

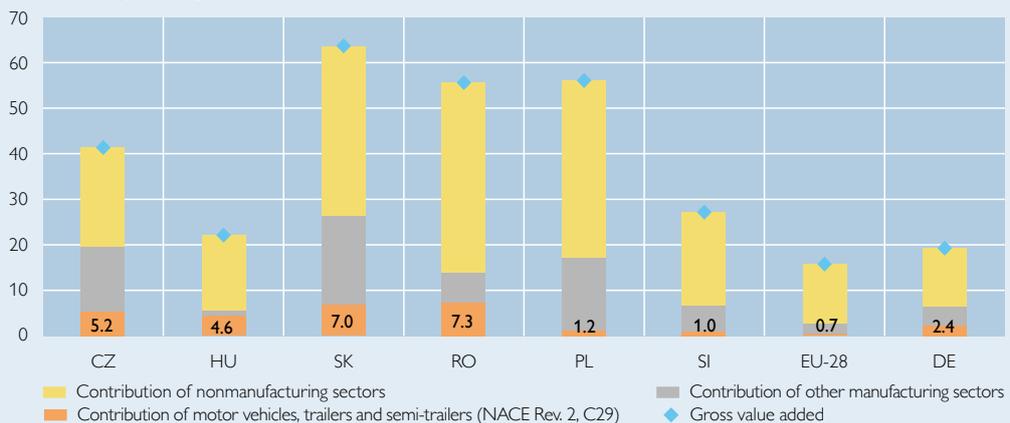
Automobile industry is key in the Czech Republic, Slovakia, Hungary and Romania

The CESEE economy is not all about the automobile industry but cars do play a crucial role in some CESEE countries. In the Czech Republic, Hungary and Slovakia – as in Germany – the production of motor vehicles and (semi-)trailers is the number one manufacturing segment, generating about one-fifth of gross value added (GVA) in the manufacturing sector. In Romania, the automotive industry ranks second, surpassed only by the production of food, beverages and tobacco products. In Poland and Slovenia, it is less dominant but still relatively important, in other CESEE countries it does not play a significant role. As a result, the car industry is an important driver of economic growth in some CESEE countries. Between 2004 and 2017, the industry contributed more than one-fifth to the cumulative real GVA expansion in Hungary, roughly 13% in the Czech Republic and Romania, and 11% in Slovakia (chart 1).

Chart 1

Contribution of “Manufacture of motor vehicles, trailers and semi-trailers” to GVA growth, 2004–2017

Cumulative real growth of gross value added, 2004–2017, %



Source: Eurostat.

This compares to about 12% in Germany and 4% in the EU on average. In contrast, in Slovenia and Poland, only small shares of real cumulative GVA growth in the period under review were ascribable to the automotive sector (less than 4% and roughly 2%, respectively). In the six above-mentioned CESEE countries⁹ car production totaled more than 4.2 million

⁹ Czech Republic, Hungary, Poland, Romania, Slovakia, Slovenia.

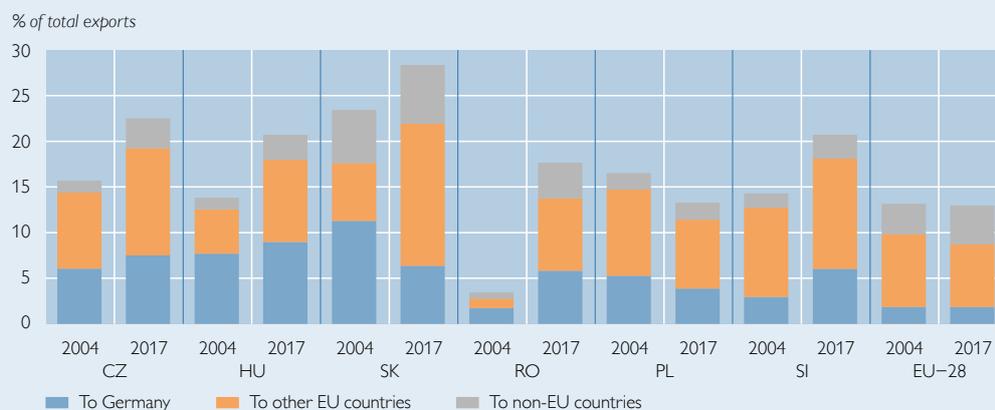
units last year. This is about 80% of the number produced in Germany and slightly less than one-quarter of all cars produced in the EU. However, car production in the reviewed CESEE countries is not only impressive in terms of total units but even more so in terms of cars produced per capita. In this respect, Slovakia ranks first, the Czech Republic second and Slovenia third in the world. In total, the industry directly employs more than 850,000 persons in the six examined CESEE countries. This almost matches the 880,000 employees in Germany so that employment in the automotive sector ranges between 1.3% of total employment in Slovenia and 3.7% in the Czech Republic. However, it has to be borne in mind that the quoted figures underestimate the importance of the automobile industry since both the number of employees as well as the contribution to growth indirectly linked to the sector are significantly higher due to deep integration in European supply chains¹⁰.

Automotive industry in CESEE is strongly intertwined with Germany, but bilateral integration is weakening relative to other countries

Nearly 30% of Slovakia's and 25% of the Czech Republic's exports are related to the production of motor vehicles. In Poland, the most diversified among the examined economies, car-related exports amount to slightly less than 15%. While Germany is still the single-most important export partner for the automotive industry of our CESEE country group, it loses out relative to other foreign markets. Germany's share as an export market has been falling despite rising exports of the automotive industry relative to total exports (chart 2).

Chart 2

Exports: share of motor vehicle-related products



Hence, in 2004, an average 40% of the six CESEE countries' exports related to the production of motor vehicles – and even every other related product produced in Hungary, Romania and Slovakia – ended up in Germany. In contrast, less than one-third of automotive industry exports manufactured in the six examined countries went to Germany in 2017. Between 2004 and 2017, Germany's share in the automotive export market dropped for all examined CESEE countries but Slovenia. In 2017, it did not exceed 50% in any of these countries (the highest share was 43% in Hungary) and recorded the biggest drop in Slovakia from nearly 50% in 2004 to about 22%. A similar picture arises on the import side. Obviously,

¹⁰ E.g. the Czech Automotive Industry Association estimates that apart from about 150,000 people directly employed in the automotive industry there are a further 400,000 jobs indirectly linked to the sector. As a result, when the supply chain linkages are taken into account, the share of the automotive sector's contribution to GDP rises from about 6% to 9% (ING, 2019).

products related to the production of motor vehicles make up a significantly lower share in total imports than is the case with exports (maximum: 12% in Slovakia). Yet, just about one-third of all these imported goods originated in Germany in 2017, a noticeable drop compared to more than 40% in 2004. A look at the integration of the automotive industry in global value chains provides a more holistic view. It corroborates the previous outcome. While the automobile industry in the reviewed CESEE countries has become more integrated in global value chains, its integration with Germany has stagnated or even declined (charts 3a and 3b).¹¹

Chart 3a

Global value chain integration index (NACE Rev. 2 C29)



Source: wiiw.

Chart 3b

Index of value chain integration vis-à-vis Germany (NACE Rev. 2 C29)



Source: wiiw.

¹¹ We would like to thank Robert Stehrer, The Vienna Institute for International Economic Studies (wiiw), for providing us with these figures based on the most recent vintage of the World Input-Output Database (WIOD).

European and especially German automobile industry is facing several cyclical and structural challenges and risks

Recently, the European, and particularly the German, automobile industry has been confronted with several cyclical and structural factors that have impaired the industry's performance. The production of passenger cars dropped by about 2% year on year in 2018 in the EU on average, even though the picture was mixed across countries. German vehicle production fell by more than 9% year on year. This was primarily the result of weakened domestic demand and delivery delays caused by the introduction of new emissions standards (WLTP – Worldwide Harmonised Light Vehicle Test Procedure). A factor specific to Germany was the ban of older diesel engine cars in cities, which added to the long-term downward trend in demand for diesel cars. Some external factors such as the trade war between the U.S. and China and the slowdown of the Chinese economy have also left a mark on foreign demand for European, and particularly for German, cars. However, this impact has been relatively small so far.

Looking ahead, the European and German automotive industries face several risks and challenges. Major external risks are Brexit, a further cooldown of the Chinese economy or global trade wars. According to some estimates, Brexit could knock off some 30% of German car sales in the U.K. (ING, 2019). China is an increasingly crucial market for German car producers. Almost every fourth car sold in China originates in Germany and more than one-third of the production of the three biggest German car producers goes to China. The potential introduction of U.S. import tariffs on European cars would certainly also harm the industry, although the impact would be relatively limited. According to estimates by the ifo Institute (Felbermayr and Steininger, 2019) import tariffs of 25% would reduce GDP by about 0.15% in Germany, by less than 0.2% in Hungary and by about 0.1% in the Czech Republic. For most other European countries, the impact would be negligible. The wiiw (Stehrer, 2018) has estimated that in the EU more than 600,000 jobs, corresponding to 0.3% of total employment, depend on car imports to the U.S. Most of them are located in Germany (300,000). In CESEE, there are roughly 40,000 of such jobs in Poland, 25,000 in the Czech Republic and Hungary and 12,000 in Slovakia. The extent to which these jobs would be at risk depends very much on the elasticity of U.S. car imports vis-à-vis the price hikes, the exporting firms' pricing strategies as well as other countries' (e.g. China's) reactions.

However, the most important risk and challenge looming ahead for the automotive industry seems to lie in stricter CO₂ emission regulations at the EU level. While these will most certainly imply major structural changes in all countries with significant automobile industries and entail massive investments and most likely smaller margins and profits for automotive firms, the long-term effect of these shake-ups is uncertain at this stage.

To conclude, the automotive industry is a key manufacturing segment in some CESEE countries. It is closely intertwined with Germany, one of the world's leading car-producing economies. Germany is still by far the most important export and import partner for the CESEE automotive industry, even though its importance relative to other countries is stagnating or even declining. The recent slowdown in the automotive sector has been driven by several factors, many of them cyclical or one-off, so that a cyclical recovery is possible in the short run. Yet, in the medium to long run, the industry in its current form is facing big structural challenges and downside risks. Due to a particularly large exposure to Germany, any cyclical and/or structural shocks in the German economy are likely to have contagious harmful effects in the CESEE region.

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2 Slovakia: economic growth remains solid

Strong domestic demand drives GDP growth

Driven mainly by private consumption and gross capital formation, Slovakia's economy continued growing at a solid pace (around 4%), also in the second half of 2018. In the year as a whole, economic expansion thus accelerated almost by an entire percentage point to 4.1% compared to 2017. In the third quarter of 2018, the economy grew at the fastest rate in year-on-year terms since the end of 2015 but slowed down noticeably in the last three months of the year when the increasingly positive impact of domestic demand was more than offset by a significantly negative contribution of net exports.

The individual components of domestic demand saw a rather heterogeneous development in the second half of 2018. Private consumption growth picked up again, echoing households' rising disposable income. The latter, in turn, mirrored the ongoing positive trend in the labor market as well as moderating inflation. Public consumption growth was stimulated by municipal elections and still relatively strong wage growth in the public sector, among other factors. Fixed capital formation showed an uneven picture in the six months to December 2018. After it dropped in the third quarter as a result of weaker private investment in the car industry and a base effect, its growth recovered again in the last three months of the year. Regarding private investment, positive contributions came from renewed investment in, inter alia, car manufacturing and residential buildings. Public investment benefited from a higher absorption of EU funds. GDP growth in the second half of 2018 was also strongly affected by increases in inventories of materials and products. This can be largely ascribed to suppliers in the car industry who piled up their stocks due to weaker exports.

Looking at the external sector, we find that exports continued to be driven particularly by the car industry, although the positive effect of the launch of new car models gradually dwindled. However, the strong increase in imports toward end-2018 outpaced export growth significantly. As a result, the contribution of net exports to GDP growth was dragged into negative territory not only in the last quarter of 2018 but also in the year as a whole. In a similar vein, the goods trade balance soured in the second half of 2018. As the deficit of the primary account also widened, the current account deficit tripled between the first and the second half of 2018.

The falling trend of the general government deficit witnessed in the last decade continued in 2018 buttressed by the favorable macroeconomic situation and positive developments in the labor market. As a result, the general government debt came down to 48.9% of GDP at the end of 2018.

Labor market figures reflect robust but gradually decelerating economic growth

On the one hand, employment continued to rise and unemployment rates kept falling to new record levels. As a result, wage growth remained robust. On the other hand, however, employment and wage dynamics started to lose momentum toward the end of last year. In light of the slowing economy and weaker foreign demand, employers have become more cautious about hiring new employees, as also the declining number of vacancies suggests. After inflation followed an upward trend until August 2018, it moderated in the remainder of the year particularly as a result of a slowdown in food price hikes. At the beginning of 2019, CPI inflation steadily accelerated to 2.7% in March, fueled mainly by noncore food and energy prices.

Table 2

Main economic indicators: Slovakia

	2016	2017	2018	Q3 17	Q4 17	Q1 18	Q2 18	Q3 18	Q4 18
<i>Year-on-year change of the period total in %</i>									
GDP at constant prices	3.1	3.2	4.1	3.0	3.7	3.7	4.5	4.6	3.6
Private consumption	2.9	3.5	3.0	4.0	3.4	3.5	2.0	3.1	3.4
Public consumption	1.6	1.7	1.9	1.5	1.2	1.2	0.7	1.6	3.8
Gross fixed capital formation	-9.4	3.4	6.8	14.9	2.2	8.1	18.5	-5.7	9.0
Exports of goods and services	5.5	5.9	4.8	5.6	6.3	1.3	7.6	5.6	4.7
Imports of goods and services	3.4	5.3	5.3	6.9	4.1	1.1	6.6	5.4	7.8
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	1.1	2.5	4.0	3.9	1.4	3.5	3.3	3.6	5.6
Net exports of goods and services	2.0	0.7	-0.3	-0.9	2.2	0.2	1.2	0.3	-2.8
Exports of goods and services	5.1	5.5	4.7	4.8	6.1	1.3	7.3	5.0	4.7
Imports of goods and services	-3.1	-4.8	-5.0	-5.7	-3.8	-1.1	-6.1	-4.7	-7.5
<i>Year-on-year change of the period average in %</i>									
Unit labor costs in the whole economy (nominal, per person)	1.3	4.2	3.4	5.4	3.4	3.9	3.2	2.6	3.7
Unit labor costs in manufacturing (nominal, per hour)	2.5	6.2	4.3	6.6	5.5	8.5	4.6	2.3	2.4
Labor productivity in manufacturing (real, per hour)	1.5	0.8	4.7	0.5	1.0	0.5	4.9	7.2	6.3
Labor costs in manufacturing (nominal, per hour)	4.0	7.1	9.3	7.1	6.6	9.1	9.7	9.7	8.9
Producer price index (PPI) in industry	-3.9	2.5	2.4	2.3	1.9	0.9	1.6	3.6	3.6
Consumer price index (here: HICP)	-0.5	1.4	2.5	1.6	2.0	2.4	2.9	2.7	2.1
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15–64 years)	9.7	8.2	6.6	8.0	7.8	7.2	6.7	6.4	6.1
Employment rate (%, 15–64 years)	64.9	66.2	67.6	66.4	66.4	67.1	67.1	67.9	68.2
Key interest rate per annum (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Nominal year-on-year change in the period-end stock in %</i>									
Loans to the domestic nonbank private sector ¹	10.3	10.2	8.4	11.5	10.2	9.9	9.9	9.4	8.4
of which: loans to households	13.4	11.8	11.3	12.3	11.8	12.4	12.3	12.0	11.3
loans to nonbank corporations	5.4	7.6	3.4	10.0	7.6	5.6	5.9	5.0	3.4
%									
Share of foreign currency loans in total loans to the nonbank private sector	0.4	0.2	0.2	0.4	0.2	0.2	0.2	0.2	0.2
Return on assets (banking sector)	1.1	0.8	0.8	0.9	0.8	0.9	0.9	0.9	0.8
Tier 1 capital ratio (banking sector)	16.2	16.6	16.5	16.5	16.6	16.4	16.3	16.7	16.5
NPL ratio (banking sector)	4.3	3.6	3.0	4.0	3.6	3.5	3.4	3.4	3.0
<i>% of GDP</i>									
General government revenues	39.2	39.4	39.9	..	..	..	..	..	..
General government expenditures	41.5	40.2	40.6	..	..	..	..	..	..
General government balance	-2.2	-0.8	-0.7	..	..	..	..	..	..
Primary balance	-0.7	0.6	0.6	..	..	..	..	..	..
Gross public debt	51.8	50.9	48.9	..	..	..	..	..	..
<i>% of GDP</i>									
Debt of nonfinancial corporations (nonconsolidated)	55.6	59.6	54.0	..	..	..	..	..	..
Debt of households and NPISHs ² (nonconsolidated)	38.2	40.8	42.2	..	..	..	..	..	..
<i>% of GDP (based on EUR), period total</i>									
Goods balance	2.0	0.8	0.1	-0.8	1.0	1.2	2.0	-1.3	-1.5
Services balance	0.6	1.0	0.9	1.6	0.6	0.8	1.1	1.3	0.2
Primary income	-3.1	-2.3	-2.0	-2.5	-2.8	-1.3	-2.0	-2.2	-2.5
Secondary income	-1.7	-1.5	-1.4	-1.3	-0.8	-1.4	-2.4	-0.9	-0.8
Current account balance	-2.2	-2.0	-2.5	-3.1	-2.0	-0.7	-1.4	-3.1	-4.6
Capital account balance	2.0	0.9	1.6	0.4	1.5	0.4	1.9	0.9	3.2
Foreign direct investment (net) ³	-0.8	-2.0	-0.2	-3.1	0.0	-1.2	2.3	-1.3	-0.7
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	92.2	111.0	113.3	97.6	111.0	108.1	109.6	109.7	113.3
Gross official reserves (excluding gold)	2.0	2.3	3.8	2.1	2.3	2.8	3.2	3.5	3.8
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	0.3	0.3	0.5	0.3	0.3	0.4	0.4	0.4	0.5
<i>EUR million, period total</i>									
GDP at current prices	81,226	84,851	90,202	22,233	22,156	20,425	22,653	23,799	23,325

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiw, 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: healthy economic growth benefits budget in 2018

GDP continued to grow strongly in the second half of 2018

GDP grew by 4.5% year on year during the second half of 2018, maintaining the momentum seen in the first half. Growth relied heavily on domestic demand, but net real exports contributed around half a percentage point to the overall growth rate. Investment grew particularly strongly, reflecting lively activity in nonhousing construction and machinery and equipment. Investment activity benefited from strong albeit somewhat moderated economic sentiment, high capacity utilization, shortages of skilled labor and good corporate profitability. Household consumption growth slowed markedly in line with a modest deterioration in consumer confidence, weakening employment and wage growth, and despite persistently strong growth in household credit. Export growth slowed somewhat from the first to the second half of 2018, but as import growth decelerated even more strongly, the contribution of net real exports improved over the year.

Improved budget surplus in 2018, but fiscal loosening planned for 2019

The general government budget recorded a surplus of 0.7% of GDP in 2018, thanks to favorable macroeconomic conditions and lower interest expenditure. The public debt ratio fell to 70.1% of GDP. The 2019 budget projects a decline in the headline surplus to 0.6% of GDP. At the same time, the structural budget deficit is expected to widen from 0.4% of GDP in 2018 to 1.1% in 2019, i.e. further away from the country's medium-term objective (MTO, i.e. a surplus of 0.25% of GDP). The widening of the deficit is the result of a further relaxation of temporary crisis-related restrictive measures, a rise in public sector wages and increases in pension expenditure. Overall, the EU Commission has assessed Slovenia's 2019 budgetary plans as being at risk of a significant deviation from the recommended adjustment path to the MTO. Therefore, the authorities have been requested to take the necessary measures to ensure that the 2019 budget becomes compliant with the Stability and Growth Pact.

With respect to long-term fiscal sustainability, the government has drafted new bills to reform the healthcare and long-term care systems, but these bills – according to the EU Commission – have not specified new measures to ensure long-term sustainability. Neither have concrete measures been taken to ensure the sustainability of the pension system.

Subdued inflation and credit growth

Inflation stabilized at slightly above 2% until November 2018, before falling quickly to reach 1.2% to 1.3% by early 2019. Inflation developments were mainly driven by prices for unprocessed food and energy, while core inflation was stable at around 1% before accelerating to 1.4% to 1.5% in January and February 2019. The latest pickup in core inflation was primarily driven by industrial goods and services.

The government sold a 65% stake in the country's largest bank, Nova Ljubljanska Banka. A U.S. financial fund and the EBRD became the biggest institutional shareholders of the bank. To comply with EU regulations, the government is planning the sale of a further 10% stake (plus 1 share) by end-2019. The process of privatizing the third-largest bank, Abanka, is also on track for the mid-2019 deadline.

Banking sector profitability improved modestly in 2018, owing mainly to improved net noninterest income, but net interest income and operating costs were also slightly more favorable than in 2017. The release of provisions once again improved profitability and reflected the ongoing reduction in nonperforming exposures. Notwithstanding the favorable developments in 2018, the only modest growth of credit to the domestic private sector highlights the need for banks to find new sources of income and ways to further reduce operating costs.

Table 3

Main economic indicators: Slovenia

	2016	2017	2018	Q3 17	Q4 17	Q1 18	Q2 18	Q3 18	Q4 18
<i>Year-on-year change of the period total in %</i>									
GDP at constant prices	3.1	4.9	4.5	4.2	6.3	4.8	4.1	5.0	4.1
Private consumption	3.9	1.9	2.2	1.6	3.1	3.9	1.9	1.3	2.1
Public consumption	2.7	0.5	2.6	-0.2	1.3	1.2	4.9	2.6	1.5
Gross fixed capital formation	-3.7	10.7	10.6	7.4	12.0	10.1	10.3	13.8	8.3
Exports of goods and services	6.4	10.7	7.2	12.1	12.7	8.0	8.6	5.4	6.8
Imports of goods and services	6.6	10.3	7.7	10.9	11.8	10.2	8.9	5.5	6.6
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	2.6	3.6	4.2	2.3	4.7	5.5	3.4	4.5	3.4
Net exports of goods and services	0.5	1.3	0.3	2.0	1.5	-0.7	0.6	0.5	0.7
Exports of goods and services	5.0	8.4	6.0	9.3	9.9	6.7	7.0	4.5	5.7
Imports of goods and services	-4.5	-7.0	-5.7	-7.3	-8.4	-7.5	-6.3	-4.0	-5.0
<i>Year-on-year change of the period average in %</i>									
Unit labor costs in the whole economy (nominal, per person)	1.8	1.2	2.5	1.9	1.2	2.4	3.5	1.1	2.8
Unit labor costs in manufacturing (nominal, per hour)	-5.3	-1.7	-1.1	-0.3	-5.3	-1.1	-3.8	-2.7	3.2
Labor productivity in manufacturing (real, per hour)	9.0	8.8	5.0	10.1	11.7	8.8	7.0	4.1	0.6
Labor costs in manufacturing (nominal, per hour)	3.3	7.0	3.8	9.8	5.7	7.6	2.9	1.3	3.8
Producer price index (PPI) in industry	-1.4	2.2	2.1	2.3	2.4	2.2	2.1	2.4	1.6
Consumer price index (here: HICP)	-0.2	1.6	1.9	1.3	1.5	1.5	2.1	2.1	2.0
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15–64 years)	8.1	6.7	5.2	6.4	5.9	6.0	5.3	5.1	4.4
Employment rate (%, 15–64 years)	65.9	69.3	71.1	70.4	70.3	69.7	71.1	71.9	71.8
Key interest rate per annum (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Nominal year-on-year change in the period-end stock in %</i>									
Loans to the domestic nonbank private sector ¹	-2.4	4.9	1.9	7.8	4.9	4.6	3.6	1.8	1.9
of which: loans to households	3.3	6.8	6.4	7.3	6.8	6.5	6.5	5.6	6.4
loans to nonbank corporations	-7.0	3.1	-2.2	8.2	3.1	2.9	0.9	-1.7	-2.2
<i>%</i>									
Share of foreign currency loans in total loans to the nonbank private sector	3.2	2.4	2.0	2.5	2.4	2.2	2.2	1.7	2.0
Return on assets (banking sector)	0.9	1.1	1.3	1.2	1.1	1.4	1.5	1.3	1.3
Tier 1 capital ratio (banking sector)	20.2	19.4	19.4	19.7	19.4	19.8	20.2	19.4	19.4
NPL ratio (banking sector)	5.5	3.7	2.3	4.7	3.7	3.2	2.9	2.7	2.3
<i>% of GDP</i>									
General government revenues	43.4	43.2	43.1	..	..	..	..	..	..
General government expenditures	45.3	43.2	42.4	..	..	..	..	..	..
General government balance	-1.9	0.0	0.7	..	..	..	..	..	..
Primary balance	1.1	2.5	2.7	..	..	..	..	..	..
Gross public debt	78.7	74.1	70.1	..	..	..	..	..	..
<i>% of GDP</i>									
Debt of nonfinancial corporations (nonconsolidated)	60.9	55.4	51.3	..	..	..	..	..	..
Debt of households and NPISHs ² (nonconsolidated)	27.4	27.1	26.9	..	..	..	..	..	..
<i>% of GDP (based on EUR), period total</i>									
Goods balance	3.8	3.6	2.5	4.4	2.7	3.1	3.7	3.1	0.2
Services balance	5.6	6.3	6.8	7.3	5.6	5.8	6.4	8.2	6.9
Primary income	-3.0	-2.2	-1.6	-2.0	-2.0	-1.3	-1.4	-2.0	-1.7
Secondary income	-0.9	-0.6	-0.8	-0.6	-0.4	-1.2	-0.6	-1.0	-0.4
Current account balance	5.5	7.2	7.0	9.1	5.9	6.4	8.1	8.3	5.0
Capital account balance	-0.8	-0.8	-0.5	-0.5	-0.5	-0.4	-0.3	-0.2	-1.0
Foreign direct investment (net) ³	-2.1	-1.0	-2.5	-0.9	-1.9	-1.4	-1.3	-4.2	-2.8
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	111.0	101.9	92.5	103.3	101.9	99.5	97.8	94.1	92.5
Gross official reserves (excluding gold)	1.5	1.5	1.5	1.6	1.5	1.4	1.4	1.5	1.5
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2
<i>EUR million, period total</i>									
GDP at current prices	40,357	43,000	45,948	10,995	11,201	10,595	11,689	11,835	11,829

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: fewer exports and slowing domestic demand curb growth

Exports shrank in 2018, on an annual basis, for the first time since 2009

Bulgarian exports suffered considerably in the third quarter of 2018, on the back of decelerating economic activity in its major trading partners, and shrank on an annual basis. Domestic demand remained robust but also lost some pace compared to the first half of 2018. Against this background, GDP growth decelerated to 2.9% in the second half of 2018. A production-side view reveals that economic growth is mainly and increasingly driven by the services sector (particularly real estate and financial sectors), while the contributions of agriculture and industry are modest.

The considerable deceleration of private consumption in the fourth quarter went hand in hand with deteriorating consumer confidence and weakening real wage growth – the latter declining to about 4% on an annual basis in the fourth quarter of 2018 (compared to nearly 10% a year before). At the same time, lending to the domestic nonbank private sector – especially to households – accelerated in the review period. This prompted the Bulgarian National Bank to announce a gradual tightening of lender-based macroprudential policies.

Despite still positive wage growth, the annual HICP inflation rate has come down from the peak of 3.7% in August 2018 to 2.4% in February 2019. Alleviating price pressure was mostly due to abating service and energy price hikes, reflecting the decline in international oil prices. Processed food prices, on the other hand, have gained some additional momentum. It should also be noted that in the past 12 months, HICP inflation in Bulgaria was about 2 percentage points higher than in the three EU countries with the lowest inflation rates.

While unemployment rates have reached post-communist lows, employment rates improved only slightly throughout the year. Labor market shortages and mismatches, as also indicated by a far stronger growth of job vacancies compared to that of occupied jobs, are probably limiting production and investment. Despite still favorable capacity utilization and lending dynamics, gross fixed capital formation lost some steam in the second half of 2018. On the other hand, Bulgaria registered a comparatively strong inflow of FDI in the review period.

In line with the government's priorities of strengthening education, health and public wages, public consumption gained more momentum in the second half of the year, but, at the same time, the general government budget balance recorded a surplus in 2018 for the third consecutive year – on the back of still robust tax collection.

Measures to simultaneously join ERM II and the banking union are underway

Following Bulgaria's July 2018 application for close cooperation with the ECB in the context of the SSM, the ECB started a comprehensive assessment of the Bulgarian banking sector in November 2018 which will focus on the country's six largest banks. The results of the related asset quality review and stress tests are expected to be published in July 2019 and would be followed by the implementation of identified follow-up measures (if any). The preparation of legislative amendments to pave the way for banking union participation has been accompanied by policy measures in other areas, in line with the Action Plan approved by the Bulgarian government in August 2018. In early April 2019, the planned measures related to macroprudential and nonbanking supervision had already been implemented, while there was still some way to go in building stronger insolvency and anti-money-laundering frameworks and in reforming the governance of state-owned enterprises. The implementation of these commitments is monitored by the ECB and the European Commission in their respective areas of competence.

Table 4

Main economic indicators: Bulgaria

	2016	2017	2018	Q3 17	Q4 17	Q1 18	Q2 18	Q3 18	Q4 18
<i>Year-on-year change of the period total in %</i>									
GDP at constant prices	3.9	3.8	3.1	4.3	3.4	3.5	3.2	2.7	3.0
Private consumption	3.6	4.5	6.4	4.3	4.9	7.1	8.6	8.1	2.5
Public consumption	2.2	3.7	4.7	3.0	3.9	2.4	4.0	5.2	6.8
Gross fixed capital formation	-6.6	3.2	6.5	0.5	5.6	10.9	7.0	3.0	6.7
Exports of goods and services	8.1	5.8	-0.8	7.0	3.9	1.1	-2.3	-3.2	2.2
Imports of goods and services	4.5	7.5	3.7	5.9	8.6	4.6	4.9	3.8	1.6
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	1.6	4.6	5.9	3.0	6.0	6.3	8.0	6.9	2.8
Net exports of goods and services	2.3	-0.8	-2.8	1.5	-2.6	-2.6	-4.8	-4.6	0.3
Exports of goods and services	5.2	3.7	-0.5	4.9	2.2	0.8	-1.6	-2.3	1.3
Imports of goods and services	-2.9	-4.5	-2.3	-3.3	-4.8	-3.4	-3.2	-2.2	-0.9
<i>Year-on-year change of the period average in %</i>									
Unit labor costs in the whole economy (nominal, per person)	2.5	8.1	2.4	10.2	10.9	3.3	2.3	1.4	2.4
Unit labor costs in manufacturing (nominal, per hour)	6.5	1.0	7.0	2.2	2.1	6.8	8.7	5.9	6.5
Labor productivity in manufacturing (real, per hour)	2.9	11.1	2.6	10.5	11.5	3.4	1.6	4.4	1.0
Labor costs in manufacturing (nominal, per hour)	9.5	12.2	9.7	12.9	13.8	10.4	10.5	10.6	7.6
Producer price index (PPI) in industry	-3.1	4.9	4.0	5.2	5.1	3.1	5.1	4.1	3.5
Consumer price index (here: HICP)	-1.3	1.2	2.6	0.9	1.7	1.6	2.4	3.6	3.0
EUR per 1 BGN, + = BGN appreciation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15–64 years)	7.7	6.3	5.3	5.9	5.7	5.8	5.5	5.0	4.7
Employment rate (%, 15–64 years)	63.4	66.9	67.7	68.5	67.5	66.5	67.9	68.8	67.7
Key interest rate per annum (%) ¹	..	..	..	..	..	..	..	..	..
BGN per 1 EUR	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
<i>Nominal year-on-year change in the period-end stock in %</i>									
Loans to the domestic nonbank private sector ²	1.6	4.8	8.3	5.0	4.8	5.6	6.8	7.3	8.3
of which: loans to households	2.0	6.1	11.2	6.0	6.1	6.4	9.2	9.7	11.2
loans to nonbank corporations	1.3	4.1	6.7	4.4	4.1	5.1	5.4	5.9	6.7
%									
Share of foreign currency loans in total loans to the nonbank private sector	44.4	37.9	34.9	39.7	37.9	37.0	36.3	35.6	34.9
Return on assets (banking sector)	1.4	1.2	1.7	1.2	1.2	1.1	1.6	1.6	1.7
Tier 1 capital ratio (banking sector)	20.9	20.9	19.4	21.0	20.9	19.8	19.7	19.0	19.4
NPL ratio (banking sector)	9.0	6.9	5.1	8.1	6.9	6.6	6.6	6.1	5.1
%									
<i>% of GDP</i>									
General government revenues	35.2	36.2	36.8	..	..	..	..	..	..
General government expenditures	35.1	35.0	34.8	..	..	..	..	..	..
General government balance	0.1	1.2	2.0	..	..	..	..	..	..
Primary balance	1.0	2.0	2.7	..	..	..	..	..	..
Gross public debt	29.6	25.6	22.6	..	..	..	..	..	..
<i>% of GDP</i>									
Debt of nonfinancial corporations (nonconsolidated)	91.4	86.3	81.7	..	..	..	..	..	..
Debt of households and NPISHs ³ (nonconsolidated)	23.2	22.9	23.4	..	..	..	..	..	..
<i>% of GDP (based on EUR), period total</i>									
Goods balance	-2.1	-1.5	-4.1	1.6	-4.0	-5.6	-5.2	-1.7	-4.4
Services balance	6.4	5.5	6.2	13.0	1.6	2.7	5.5	12.8	2.7
Primary income	-5.0	-4.6	-1.0	-3.9	-4.1	-1.7	-1.5	-0.8	-0.3
Secondary income	3.3	3.6	3.5	4.3	2.0	4.6	3.1	4.5	2.2
Current account balance	2.6	3.1	4.6	15.0	-4.5	0.1	1.9	14.8	0.2
Capital account balance	2.2	1.0	1.1	1.0	1.3	0.0	1.4	1.6	1.0
Foreign direct investment (net) ⁴	-1.3	-3.9	-2.6	-1.7	-8.4	0.6	-0.3	-3.4	-6.1
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	79.3	72.4	66.7	73.6	72.4	71.3	70.8	69.8	66.7
Gross official reserves (excluding gold)	46.7	43.1	42.8	45.6	43.1	40.5	41.6	42.7	42.8
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	9.4	8.2	8.2	8.8	8.2	7.7	7.9	8.1	8.2
<i>EUR million, period total</i>									
GDP at current prices	48,129	51,663	55,182	14,072	14,441	11,240	13,451	15,248	15,243

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiw, 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: mild growth slowdown, but lower imbalances

Mildly lower growth due to weak external demand, investments have picked up

GDP growth in Croatia decelerated in the second half of 2018 and reached 2.6% for the full year. Private consumption grew by 3.5% in 2018, benefiting from positive labor market developments and accelerated credit growth. Investment growth accelerated in the second half of the year and reached 4.1% in 2018. EU fund absorption is a key factor supporting investments but it remained low compared to levels seen in CESEE peer countries. The manufacturing sector contracted in 2018, but construction rebounded and reported the highest growth rate since 2008.

The performance of net exports remained weak in the second half of 2018, leading to a substantial increase in their negative contribution to growth compared to 2017. Export growth decelerated sharply in 2018 compared to previous years, largely due to a contraction of exports of chemicals, machinery and transport equipment to non-EU countries. The current account surplus stood at 2.6% of GDP in 2018 compared to 3.7% of GDP a year earlier. After years of double-digit growth rates in the tourism sector, the expansion moderated in 2018 – most likely due to a recovery of tourist arrivals in nearby competitor countries.

Unfavorable developments in the shipbuilding sector, but only limited risks

In 2018, Uljanik Group – one of Croatia's largest shipbuilding companies with roughly 4,200 employees – reported severe financial difficulties. According to the Finance Minister, between 2010 and 2018, the government had provided state guarantees of roughly HRK 7.5 billion (2% of GDP) for the company. In 2018, it made related payments of HRK 2.4 billion and stated that further payments would follow in 2019. It is not yet clear how the situation of Uljanik Group will be resolved.

Imbalances no longer “excessive” – upgrade to investment grade

The general budget balance showed a surplus of 0.2% of GDP in 2018 – well above the targeted deficit of 0.5% of GDP. The extraordinary payments related to Uljanik Group were offset by higher than expected revenues from VAT tax, contributions, excises and income tax. The gross public debt level continued to decline to 73.5% of GDP in 2018 from 77.5% at end-2017. Over the same period, Croatia's external debt declined from 82.1% to 75.4% of GDP. Positive developments are expected to continue, especially since the Croatian government is planning to send a letter of intent to join the exchange rate mechanism II before mid-2019. In early 2019, the European Commission reclassified Croatia as facing “imbalances” instead of “excessive imbalances” within the framework of its European Semester, and Standard & Poor's upgraded Croatia's sovereign rating to investment grade.

HNB continues expansionary stance as inflation remains low

HICP inflation peaked at around 2.2% in July 2018 but decelerated toward 1% in December 2018, largely due to energy price developments. Core inflation averaged around 1.1% throughout 2018. Surplus kuna liquidity in the banking sector increased to HRK 29.2 billion in 2018. Throughout 2018, Hrvatska narodna banka (HNB) purchased EUR 1.8 billion from the banking sector to counteract appreciation pressures on the kuna, leading to increases in gross international reserves to EUR 18.5 billion in January 2019 (roughly 9 months of imports). Banking sector claims on nonfinancial enterprises continued to contract in 2018, but at a slower pace. Growth of lending to households picked up. In February 2019, the HNB started to tighten lending standards for nonhousing consumer loans, which had been growing at a particularly rapid pace. The return on assets of the Croatian banking system was 1.2% in 2018 and capitalization remained among the highest in the region. The nonperforming loan ratio decreased to 9.8% in 2018.

Table 5

Main economic indicators: Croatia

	2016	2017	2018	Q3 17	Q4 17	Q1 18	Q2 18	Q3 18	Q4 18
<i>Year-on-year change of the period total in %</i>									
GDP at constant prices	3.5	2.9	2.6	3.4	2.2	2.5	2.9	2.8	2.3
Private consumption	3.5	3.6	3.5	3.7	3.4	3.9	3.6	2.7	3.9
Public consumption	0.7	2.7	2.9	3.1	3.4	2.8	2.5	3.9	2.3
Gross fixed capital formation	6.5	3.8	4.1	3.7	1.9	3.6	3.1	3.7	6.1
Exports of goods and services	5.6	6.4	2.8	5.6	3.8	-0.5	5.6	3.7	1.3
Imports of goods and services	6.2	8.1	5.5	8.3	6.8	5.5	4.7	5.1	6.6
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	3.7	3.5	3.8	3.4	3.7	5.9	2.8	2.1	5.0
Net exports of goods and services	-0.1	-0.6	-1.2	0.1	-1.5	-3.1	0.2	0.2	-2.7
Exports of goods and services	2.7	3.1	1.5	3.7	1.7	-0.2	2.6	2.5	0.6
Imports of goods and services	-2.8	-3.7	-2.7	-3.6	-3.1	-2.9	-2.3	-2.3	-3.2
<i>Year-on-year change of the period average in %</i>									
Unit labor costs in the whole economy (nominal, per person)	..	..	..	..	..	..	..	..	..
Unit labor costs in manufacturing (nominal, per hour)	-3.1	2.1	7.6	0.9	2.0	4.0	10.9	9.1	6.9
Labor productivity in manufacturing (real, per hour)	7.0	3.5	2.2	4.7	2.3	2.5	3.7	1.5	1.1
Labor costs in manufacturing (nominal, per hour)	4.2	5.5	10.1	5.7	4.3	6.5	15.1	10.8	8.1
Producer price index (PPI) in industry	-4.3	2.0	2.2	1.8	2.2	1.1	2.5	3.8	1.6
Consumer price index (here: CPI)	-0.6	1.3	1.6	1.4	1.5	1.1	1.8	2.0	1.3
EUR per 1 HRK, + = HRK appreciation	1.1	0.9	0.6	0.9	-0.1	0.4	0.4	0.1	1.5
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15–64 years)	13.3	11.3	8.6	9.1	11.0	10.5	7.7	7.4	8.7
Employment rate (%, 15–64 years)	56.9	58.9	60.7	61.0	59.6	59.0	61.1	61.9	60.6
Key interest rate per annum (%)	..	..	..	..	..	..	..	..	..
HRK per 1 EUR	7.5	7.5	7.4	7.4	7.5	7.4	7.4	7.4	7.4
<i>Nominal year-on-year change in the period-end stock in %</i>									
Loans to the domestic nonbank private sector ¹	-3.7	0.6	2.4	-0.0	0.6	0.0	2.2	1.8	2.4
of which: loans to households	-4.6	2.2	4.7	0.7	2.2	2.3	4.0	4.3	4.7
loans to nonbank corporations	-2.6	-1.6	-0.8	-0.9	-1.6	-3.0	-0.3	-1.4	-0.8
%									
Share of foreign currency loans in total loans to the nonbank private sector	60.1	56.9	54.7	57.7	56.9	56.1	55.5	55.5	54.7
Return on assets (banking sector)	1.3	0.9	1.2	0.7	0.9	1.4	1.5	1.5	1.2
Tier 1 capital ratio (banking sector)	21.3	22.3	21.8	21.3	22.3	21.6	21.4	21.1	21.8
NPL ratio (banking sector)	13.8	11.3	9.8	12.5	11.3	11.4	11.2	10.3	9.8
<i>% of GDP</i>									
General government revenues	46.0	45.8	45.1	..	..	..	..	..	..
General government expenditures	46.9	45.0	44.9	..	..	..	..	..	..
General government balance	-0.9	0.9	0.2	..	..	..	..	..	..
Primary balance	2.1	3.5	2.7	..	..	..	..	..	..
Gross public debt	80.2	77.5	73.5	..	..	..	..	..	..
<i>% of GDP</i>									
Debt of nonfinancial corporations (nonconsolidated)	96.3	94.9	88.9	..	..	..	..	..	..
Debt of households and NPISHs ² (nonconsolidated)	35.0	34.2	34.1	..	..	..	..	..	..
<i>% of GDP (based on EUR), period total</i>									
Goods balance	-15.8	-16.8	-18.0	-15.8	-14.3	-20.9	-18.3	-15.9	-17.5
Services balance	18.7	19.0	19.1	43.2	5.3	2.8	18.8	43.4	6.3
Primary income	-3.2	-1.8	-1.8	-2.2	0.3	-2.4	-2.5	-2.4	0.2
Secondary income	2.9	3.2	3.4	2.6	3.9	3.0	3.5	2.8	4.2
Current account balance	2.6	3.7	2.6	27.8	-4.9	-17.5	1.5	27.9	-6.8
Capital account balance	1.4	1.0	1.4	0.7	0.9	1.0	1.4	1.0	2.1
Foreign direct investment (net) ³	-4.2	-2.4	-1.3	-2.4	-3.7	-3.7	-3.3	0.3	0.9
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	89.3	82.1	75.4	81.9	82.1	82.3	80.5	76.8	75.4
Gross official reserves (excluding gold)	29.0	32.1	33.9	30.8	32.1	33.3	33.3	32.7	33.9
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	7.6	7.8	8.0	7.6	7.8	8.1	8.0	7.8	8.0
<i>EUR million, period total</i>									
GDP at current prices	46,656	48,999	51,473	13,746	12,107	11,297	13,004	14,414	12,758

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiw, 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 Czech Republic: economic boom is gradually losing steam

Economic growth has moderated toward its potential

After 2017 had seen the second-strongest GDP expansion in a decade, real economic growth gradually lost steam during 2018. It thus averaged around 3% in the second half of 2018, similar to the growth dynamics observed in the first half of the year. As a result, the previously positive output gap has been largely closed according to estimates by the Czech National Bank (CNB). As external demand remains relatively weak, the negative contribution of net exports to GDP growth stayed roughly unchanged in the second half of 2018. The main driver of the economic expansion in that period was still domestic demand even though it lost some momentum. Household consumption continued to grow at a solid but declining pace, being kept afloat by strong yet plateaued growth in disposable income. Despite a recent slight decline, consumer confidence remains solid by long-term standards. Real public consumption growth halved in the second half of 2018 on the back of fast growth in public wages. The single most important demand side component contributing to economic growth was fixed investment, which continued to edge up. This was largely thanks to strengthening growth in public investment on the back of a higher drawdown of EU funds. In addition, private fixed capital formation benefited from still strong domestic demand as well as firms' determination to counteract the short labor supply by investing in automation. While demand for housing has been dampened by tighter lending conditions, growth in household investment remained relatively strong.

The current account balance turned negative in the second half of 2018. This was brought about particularly by a lower surplus of the trade and services balance on the one hand and a strong outflow of dividends in the primary income balance on the other. The fiscal surplus recorded in 2017 moderated somewhat as the rising wage and investment bill of the government was not fully offset by increased revenues thanks to buoyant economic growth. As a result of strong GDP dynamics, gross public debt declined by some 2 percentage points to 32.7% of GDP in 2018.

Labor market still tight but the peak of the cycle looks near

While the labor market situation remains tight with historically high employment levels and the lowest unemployment rate in the EU, the currently tight labor market might be approaching the tipping point of its cycle. Overall, employment growth has started to slow down and has even turned negative in some sectors. Nonetheless, the record-high number of vacancies in combination with an all-time low number of unemployed persons has resulted in significant real wage hikes (5% in 2018 year on year). Strong consumer demand and wage dynamics have only partially been transmitted to core and headline inflation. Despite the tense labor market, the increase in core inflation has been relatively moderate and it has been counteracted by falling inflation of food and fuel prices. As a result, consumer price inflation kept on hovering around the CNB's target (2% \pm 1 percentage points) in the second half of 2018. Most recently, headline inflation ticked up to 2.4% in February thanks to both core and noncore factors. However, the CNB expects headline inflation to return to the target level of 2% soon, after the temporary increase in early 2019, and stay on target over the monetary policy horizon (about 12–18 months ahead). Against this background, the pace of monetary policy tightening has slowed down. The most recent hike of the key policy rate by 25 basis points (to 1.75%) took place on November 1, 2018.

Table 6

Main economic indicators: Czech Republic

	2016	2017	2018	Q3 17	Q4 17	Q1 18	Q2 18	Q3 18	Q4 18
<i>Year-on-year change of the period total in %</i>									
GDP at constant prices	2.5	4.4	2.9	5.0	5.0	3.5	2.6	2.5	3.0
Private consumption	3.6	4.3	3.2	4.4	4.4	4.1	3.4	2.8	2.4
Public consumption	2.7	1.3	3.7	0.6	0.9	2.8	3.0	5.2	3.6
Gross fixed capital formation	-3.1	3.7	10.5	5.0	5.0	9.3	10.3	11.3	10.9
Exports of goods and services	4.3	6.7	4.5	6.7	7.8	4.0	4.2	4.1	5.7
Imports of goods and services	2.8	5.9	6.0	6.4	8.1	6.0	5.4	6.4	6.3
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	1.0	3.3	3.6	4.3	4.6	4.7	3.1	3.7	3.1
Net exports of goods and services	1.4	1.1	-0.7	0.7	0.3	-1.1	-0.5	-1.3	-0.1
Exports of goods and services	3.5	5.3	3.6	5.0	6.2	3.4	3.4	3.1	4.5
Imports of goods and services	-2.1	-4.3	-4.3	-4.3	-5.9	-4.5	-3.8	-4.4	-4.7
<i>Year-on-year change of the period average in %</i>									
Unit labor costs in the whole economy (nominal, per person)	3.1	3.5	6.2	3.1	3.3	6.5	6.9	6.7	4.9
Unit labor costs in manufacturing (nominal, per hour)	2.6	0.6	5.2	2.1	0.0	4.0	6.9	4.8	5.0
Labor productivity in manufacturing (real, per hour)	2.1	6.5	3.4	5.3	6.3	4.3	2.9	2.9	3.4
Labor costs in manufacturing (nominal, per hour)	4.9	7.0	8.7	7.5	6.3	8.5	10.0	7.9	8.5
Producer price index (PPI) in industry	-3.2	0.8	0.7	0.1	-0.9	-2.4	-0.2	2.2	3.2
Consumer price index (here: HICP)	0.6	2.4	2.0	2.4	2.5	1.7	2.1	2.3	1.8
EUR per 1 CZK, + = CZK appreciation	0.9	2.7	2.7	3.6	5.4	6.4	3.7	1.4	-0.8
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15–64 years)	4.0	2.9	2.3	2.8	2.4	2.4	2.2	2.4	2.1
Employment rate (%, 15–64 years)	72.0	73.6	74.8	74.1	74.3	74.2	74.7	75.0	75.4
Key interest rate per annum (%)	0.1	0.2	1.1	0.2	0.4	0.7	0.8	1.2	1.7
CZK per 1 EUR	27.0	26.3	25.6	26.1	25.6	25.4	25.6	25.7	25.9
<i>Nominal year-on-year change in the period-end stock in %</i>									
Loans to the domestic nonbank private sector ¹	7.8	6.9	6.8	8.8	6.9	6.7	6.3	6.6	6.8
of which: loans to households	7.2	7.5	7.5	7.7	7.5	7.6	7.5	7.6	7.5
loans to nonbank corporations	8.5	6.2	5.8	10.1	6.2	5.6	4.9	5.4	5.8
<i>%</i>									
Share of foreign currency loans in total loans to the nonbank private sector	13.0	13.3	14.1	15.2	13.3	14.5	14.8	15.3	14.1
Return on assets (banking sector)	1.3	1.1	1.1	1.2	1.1	1.0	1.2	1.1	1.1
Tier 1 capital ratio (banking sector)	17.9	18.7	19.1	18.0	18.7	18.1	18.3	18.3	19.1
NPL ratio (banking sector)	4.6	3.7	3.1	3.8	3.7	3.4	3.3	3.2	3.1
<i>% of GDP</i>									
General government revenues	40.2	40.5	41.7	..	..	..	..	..	..
General government expenditures	39.5	38.9	40.8	..	..	..	..	..	..
General government balance	0.7	1.6	0.9	..	..	..	..	..	..
Primary balance	1.6	2.3	1.7	..	..	..	..	..	..
Gross public debt	36.8	34.7	32.7	..	..	..	..	..	..
<i>% of GDP</i>									
Debt of nonfinancial corporations (nonconsolidated)	58.5	58.1	57.0	..	..	..	..	..	..
Debt of households and NPISHs ² (nonconsolidated)	31.2	32.6	32.2	..	..	..	..	..	..
<i>% of GDP (based on EUR), period total</i>									
Goods balance	5.2	4.7	4.1	3.3	2.8	6.6	5.1	2.3	2.6
Services balance	2.3	2.4	2.3	2.4	2.2	2.6	2.7	1.7	2.1
Primary income	-5.3	-5.2	-5.3	-7.3	-4.8	-3.3	-6.4	-7.1	-4.2
Secondary income	-0.6	-0.9	-0.8	-1.1	-0.2	-1.7	-1.0	-0.8	0.3
Current account balance	1.6	1.0	0.3	-2.7	-0.1	4.2	0.4	-3.9	0.8
Capital account balance	1.1	0.9	0.3	0.6	2.2	0.1	-0.1	0.3	0.7
Foreign direct investment (net) ³	-3.9	-2.7	-1.7	-0.9	-2.6	0.6	-2.0	-2.8	-2.5
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	73.4	89.1	81.9	92.5	89.1	85.6	82.6	82.5	81.9
Gross official reserves (excluding gold)	45.9	64.1	60.0	66.7	64.1	61.4	61.2	60.1	60.0
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	7.7	10.7	10.0	11.0	10.7	10.3	10.4	10.1	10.0
<i>EUR million, period total</i>									
GDP at current prices	176,368	192,000	206,778	49,438	52,008	48,268	51,904	52,398	54,207

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiw, 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: turning cycles

GDP growth in the second half of 2018 highest since 2004

GDP grew by 5.1% in the second half of 2018, the highest growth rate recorded since 2004. Domestic demand remained the driving factor and accelerated sharply compared to the first half of 2018. Investments expanded by close to 20% during the second half of 2018 on the back of strong construction activity and EU fund disbursement. In addition, high capacity utilization, robust economic sentiment and the acceleration of corporate credit growth were supportive as well. Private consumption growth slowed modestly but was still expanding at around 5%, reflecting similar trends in consumer confidence and real wage growth and underpinned by accelerated credit growth and still rising employment. The contribution of net real exports became more strongly negative than during the first half of 2018 as export growth slowed amid a simultaneous acceleration of imports.

2018 budget deficit smaller than predicted, but measures to reduce structural budget deficits required

In November 2018, the EU Council concluded that Hungary had not taken effective action in response to its Recommendation of mid-2018 in the framework of the Significant Deviation Procedure. Therefore, the Council reiterated its recommendation for the needed structural adjustment of 1% of GDP for 2019 and gave Hungary time until mid-April 2019 to report on planned measures.

The 2018 budget deficit amounted to 2.2% of GDP and was thus lower than previously planned and estimated (2.4% of GDP). Public debt decreased to 70.8% of GDP, its lowest level in a decade. For 2019, the government plans a budget deficit of 1.8% of GDP. It remains to be seen whether the government is ready to implement the additional measures required by the EU Council. Instead, it will likely proceed with its economic policy priorities, such as the new “Family Protection Plan,” announced in mid-February 2019. In late February, the government also presented a set of measures to enhance Hungary’s competitiveness (Programme for a more competitive Hungary). According to the EU Commission’s assessment, Hungary made limited progress in addressing the country-specific recommendations issued by the EU Council to Hungary in 2018, which covered some of the areas targeted by the competitiveness strategy.

MNB tightened policy in March 2019

The period between September 2018 and February 2019 was characterized by volatile inflation developments, with annual changes in the HICP temporarily climbing to 3.9%, i.e. well above the mid-point target of the central bank (3% \pm 1 percentage point). Responding to the volatility in headline inflation, the Hungarian central bank (MNB), in its communication, gradually put more emphasis on its own measure of core inflation, which excludes indirect tax effects and which also gradually increased from the beginning of 2018 to reach 3.2% by February 2019. In March 2019, MNB therefore hiked its overnight deposit rate by 10 basis points to –0.5% and decided to modestly reduce the volume of its HUF liquidity-providing FX swaps. At the same time, it announced the start of a new corporate bond purchase program from mid-2019 onward, complementing its “Funding for Growth Scheme Fix,” which had been launched at the beginning of 2019 (to raise the share of long-term fixed-interest loans in total lending to small and medium-sized enterprises (SMEs). The two programs should bolster lending to businesses further, which had already sharply accelerated during the second half of 2018. Growth of credit to the household sector also picked up notably, mainly on the back of housing loans. Considering the further expansion of state housing subsidies, housing loans can be expected to grow dynamically in 2019 as well.

Table 7

Main economic indicators: Hungary

	2016	2017	2018	Q3 17	Q4 17	Q1 18	Q2 18	Q3 18	Q4 18
<i>Year-on-year change of the period total in %</i>									
GDP at constant prices	2.3	4.1	4.9	4.1	4.5	4.6	4.9	5.1	5.1
Private consumption	4.0	4.8	5.4	5.0	5.6	5.8	5.5	5.3	5.0
Public consumption	0.7	1.3	-0.5	2.8	6.4	1.6	-0.2	-0.1	-3.1
Gross fixed capital formation	-11.7	18.2	16.5	18.8	11.6	10.5	15.6	20.0	17.2
Exports of goods and services	5.1	4.7	4.7	3.1	5.4	4.0	7.1	2.3	5.6
Imports of goods and services	3.9	7.7	7.1	7.8	7.0	5.3	8.5	6.2	8.2
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	0.9	6.1	6.5	7.4	5.3	5.4	5.5	8.0	6.7
Net exports of goods and services	1.4	-1.9	-1.5	-3.3	-0.8	-0.8	-0.6	-2.9	-1.7
Exports of goods and services	4.5	4.2	4.2	2.7	4.5	3.8	6.3	2.0	4.7
Imports of goods and services	-3.1	-6.2	-5.7	-6.0	-5.4	-4.6	-6.9	-4.9	-6.3
<i>Year-on-year change of the period average in %</i>									
Unit labor costs in the whole economy (nominal, per person)	5.3	4.0	6.8	4.5	3.9	10.2	6.5	5.7	4.8
Unit labor costs in manufacturing (nominal, per hour)	8.6	5.8	7.6	7.5	5.5	7.9	6.7	8.4	7.3
Labor productivity in manufacturing (real, per hour)	-2.7	2.4	1.6	1.0	2.2	1.5	2.0	0.8	2.0
Labor costs in manufacturing (nominal, per hour)	5.6	8.3	9.2	8.6	7.8	9.5	8.8	9.3	9.4
Producer price index (PPI) in industry	-1.7	3.3	5.6	2.6	4.3	3.6	5.3	7.9	5.5
Consumer price index (here: HICP)	0.4	2.4	2.9	2.5	2.3	2.0	2.8	3.5	3.3
EUR per 1 HUF, + = HUF appreciation	-0.5	0.7	-3.0	1.5	-0.7	-0.6	-2.3	-5.4	-3.5
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15–64 years)	5.2	4.2	3.8	4.1	3.8	3.9	3.6	3.9	3.6
Employment rate (%, 15–64 years)	66.5	68.2	69.3	68.7	68.8	68.7	69.3	69.5	69.5
Key interest rate per annum (%)	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
HUF per 1 EUR	311.5	309.3	318.8	306.5	311.7	311.1	317.1	324.1	323.0
<i>Nominal year-on-year change in the period-end stock in %</i>									
Loans to the domestic nonbank private sector ¹	-0.0	4.3	9.9	4.1	4.3	4.5	6.6	9.1	9.9
of which: loans to households	-2.8	1.3	5.8	1.6	1.3	-0.1	2.1	3.2	5.8
loans to nonbank corporations	2.3	6.8	13.1	6.3	6.8	8.3	10.1	13.7	13.1
<i>%</i>									
Share of foreign currency loans in total loans to the nonbank private sector	22.4	23.5	24.0	23.1	23.5	23.5	24.7	24.1	24.0
Return on assets (banking sector)	1.3	1.8	1.4	1.8	1.8	1.7	1.6	1.5	1.4
Tier 1 capital ratio (banking sector)	19.2	21.1	17.8	19.6	21.1	20.2	19.3	19.2	17.8
NPL ratio (banking sector)	5.6	3.7	2.2	4.1	3.7	3.1	2.8	2.6	2.2
<i>% of GDP</i>									
General government revenues	45.1	44.7	44.2	..	..	..	..	..	..
General government expenditures	46.8	46.9	46.5	..	..	..	..	..	..
General government balance	-1.6	-2.2	-2.2	..	..	..	..	..	..
Primary balance	1.5	0.6	0.2	..	..	..	..	..	..
Gross public debt	76.0	73.4	70.8	..	..	..	..	..	..
<i>% of GDP</i>									
Debt of nonfinancial corporations (nonconsolidated)	71.8	67.3	66.5	..	..	..	..	..	..
Debt of households and NPISHs ² (nonconsolidated)	20.4	18.7	17.8	..	..	..	..	..	..
<i>% of GDP (based on EUR), period total</i>									
Goods balance	4.0	1.5	-1.1	0.6	0.7	0.8	0.5	-3.8	-1.4
Services balance	5.9	5.9	5.8	7.0	4.7	5.5	6.5	6.7	4.6
Primary income	-2.5	-4.1	-3.8	-3.7	-3.9	-3.3	-5.0	-3.8	-3.3
Secondary income	-1.3	-0.6	-0.4	-0.9	-0.8	-0.8	-0.2	0.2	-0.9
Current account balance	6.2	2.8	0.5	3.0	0.7	2.2	1.8	-0.7	-1.0
Capital account balance	-0.0	1.1	1.8	0.5	1.4	2.4	2.4	1.2	1.2
Foreign direct investment (net) ³	-2.0	-1.5	-2.8	-3.0	-3.5	-1.2	-0.7	-6.1	-3.0
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	97.3	85.2	80.6	89.5	85.2	83.1	82.7	81.4	80.6
Gross official reserves (excluding gold)	21.4	18.8	19.9	18.3	18.8	18.2	18.6	18.2	19.9
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	3.2	2.8	2.9	2.7	2.8	2.7	2.8	2.7	2.9
<i>EUR million, period total</i>									
GDP at current prices	113,933	124,023	131,821	32,069	34,262	29,496	32,665	33,471	36,189

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiw, 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: fiscal policy in the focus ahead of elections in fall

Signs that growth has remained strong in early 2019

GDP growth accelerated to 5.1% in 2018, with quarter-on-quarter growth at 1.6% in the third quarter before falling to only 0.5% in the final quarter. Total final demand growth decelerated as the higher contribution of domestic demand only partially offset the smaller contribution of export growth. Accelerating import growth in the second half of 2018 pushed the external sector's growth contribution into slightly negative territory in the full year 2018. Accordingly, the current account balance slipped into deficit in 2018. This resulted from the deterioration of the goods balance. Strong EU-fund utilization contributed to an increase in the capital account surplus to 2.0% of GDP. Net FDI inflows rose to 1.8% of GDP. Fixed investment growth accelerated in the second half of 2018, while the contribution of the inventory buildup decreased markedly. Business investment was still supported by strong demand, high capacity utilization rates, a stable liquidity position and low real lending rates, while growth of unit labor costs in the manufacturing sector accelerated and profitability marginally declined after mid-year 2018 and industrial confidence continued to erode slightly up to early 2019. However, after a slowdown toward the end of 2018, industrial production rose strongly in early 2019. Housing investment, as indicated by the number of dwellings under construction, accelerated further, benefiting from income and financing conditions. Private consumption growth in line with GDP growth was supported by unabated real wage and employment growth, higher real pensions growth and strong consumer confidence, which recovered in early 2019 after a temporary weakening in late 2018.

Stable external price competitiveness and increasing core inflation in the second half of 2018

In the second half of 2018, given rising ULC growth in the euro area, the manufacturing ULC growth differential shrank markedly, which together with modest nominal depreciation of the zloty in euro terms led to a halt of real appreciation. In February, annual headline inflation stood at 1.3% (HICP) and 1.2% (national CPI), while core inflation stood at 1.5% (HICP excluding energy and unprocessed food) and 1.0% (CPI excluding energy and all food). Both core figures show an increase that accelerated in early 2019. The Polish Monetary Policy Council (MPC), pursuing an inflation target of 2.5% (CPI), has kept its policy rate steady at 1.5% since March 2015. On April 3, 2019, it assessed that inflation will stay close to the target in the monetary policy transmission horizon and that the current level of interest rates is conducive to keeping the economy on a sustainable growth path.

No fiscal consolidation but a stimulus package ahead of parliamentary elections in autumn

The gross general government deficit amounted to 0.4% of GDP in 2018. For 2019, the European Commission forecasts 0.9% of GDP, as a result of higher revenues outpacing the rise of expenditures on the back of higher public investment. By contrast, the structural deficit is forecast at 2.0% of GDP in 2019. This implies a structural primary deficit of 0.5% of GDP and a persistent deviation from the medium-term objective of a structural deficit of 1% of GDP, even though in June 2018, the Council had recommended that the Polish government take action to ensure a structural adjustment of 0.6% of GDP by 2019. General government gross debt is expected to reach 48.3% of GDP at end-2019 according to the European Commission, after 50.6% of GDP at end-2017. At the end of February 2019, the ruling party announced a fiscal stimulus package to the tune of about 1% of GDP in 2019 and 1.5% in 2020, which will be difficult to reconcile with the national expenditure rule. Parliamentary elections will be held before mid-November 2019.

Table 8

Main economic indicators: Poland

	2016	2017	2018	Q3 17	Q4 17	Q1 18	Q2 18	Q3 18	Q4 18
<i>Year-on-year change of the period total in %</i>									
GDP at constant prices	3.1	4.8	5.1	5.4	4.6	5.1	5.1	5.7	4.6
Private consumption	3.9	4.9	4.5	4.8	5.0	3.9	4.6	4.4	5.2
Public consumption	1.9	3.5	3.6	3.7	4.5	2.8	3.1	4.1	4.1
Gross fixed capital formation	-8.2	3.9	7.3	4.0	6.3	8.4	5.1	10.3	6.1
Exports of goods and services	8.8	9.5	6.2	10.4	10.1	3.4	7.9	5.5	7.9
Imports of goods and services	7.6	10.0	7.0	8.4	12.0	5.7	6.7	6.7	8.9
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	2.2	4.7	5.3	4.1	5.0	6.1	4.2	6.1	4.7
Net exports of goods and services	0.8	0.1	-0.1	1.3	-0.4	-1.0	0.9	-0.4	-0.1
Exports of goods and services	4.4	4.9	3.4	5.5	4.9	2.0	4.4	3.0	4.0
Imports of goods and services	-3.5	-4.8	-3.5	-4.2	-5.3	-3.0	-3.5	-3.4	-4.1
<i>Year-on-year change of the period average in %</i>									
Unit labor costs in the whole economy (nominal, per person)	2.5	2.5	1.2	2.4	3.5	0.0	2.2	0.6	2.0
Unit labor costs in manufacturing (nominal, per hour)	3.5	2.7	4.8	2.3	2.6	4.6	3.7	4.4	6.5
Labor productivity in manufacturing (real, per hour)	0.6	3.5	3.1	4.2	4.1	3.4	4.4	2.7	1.9
Labor costs in manufacturing (nominal, per hour)	4.1	6.4	8.1	6.6	6.8	8.2	8.3	7.2	8.6
Producer price index (PPI) in industry	-0.3	2.7	2.1	2.6	1.6	0.1	2.4	3.1	2.7
Consumer price index (here: HICP)	-0.2	1.6	1.2	1.5	1.8	1.0	1.1	1.4	1.1
EUR per 1 PLN, + = PLN appreciation	-4.1	2.5	-0.1	1.9	3.5	3.4	-1.0	-1.1	-1.6
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15-64 years)	6.3	5.0	3.9	4.8	4.5	4.2	3.6	3.9	3.9
Employment rate (%, 15-64 years)	64.5	66.1	67.4	66.5	66.4	66.6	67.7	68.0	67.3
Key interest rate per annum (%)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
PLN per 1 EUR	4.4	4.3	4.3	4.3	4.2	4.2	4.3	4.3	4.3
<i>Nominal year-on-year change in the period-end stock in %</i>									
Loans to the domestic nonbank private sector ¹	3.9	6.2	6.4	6.1	6.2	5.6	5.5	5.9	6.4
of which: loans to households	4.0	4.8	5.7	4.5	4.8	5.1	5.2	5.4	5.7
loans to nonbank corporations	3.8	8.7	7.6	9.1	8.7	6.3	6.0	6.9	7.6
<i>%</i>									
Share of foreign currency loans in total loans to the nonbank private sector	25.8	21.3	20.8	22.6	21.3	21.2	21.5	20.9	20.8
Return on assets (banking sector)	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Tier 1 capital ratio (banking sector)	16.1	17.2	17.2	17.2	17.2	17.0	17.0	17.3	17.2
NPL ratio (banking sector)	7.1	6.8	6.8	6.9	6.8	7.7	7.0	7.0	6.8
<i>% of GDP</i>									
General government revenues	38.9	39.7	41.2	..	..	..	..	..	..
General government expenditures	41.1	41.2	41.5	..	..	..	..	..	..
General government balance	-2.2	-1.5	-0.4	..	..	..	..	..	..
Primary balance	-0.5	0.1	1.1	..	..	..	..	..	..
Gross public debt	54.2	50.6	48.9	..	..	..	..	..	..
<i>% of GDP</i>									
Debt of nonfinancial corporations (nonconsolidated)	49.1	47.2	45.0	..	..	..	..	..	..
Debt of households and NPISHs ² (nonconsolidated)	36.2	35.6	34.8	..	..	..	..	..	..
<i>% of GDP (based on EUR), period total</i>									
Goods balance	0.7	0.3	-1.0	0.5	-0.4	-1.3	-0.5	-1.1	-1.2
Services balance	3.3	3.8	4.5	3.9	3.6	4.7	4.9	4.3	4.1
Primary income	-4.2	-4.0	-3.8	-4.3	-4.3	-2.7	-3.9	-5.0	-3.7
Secondary income	-0.3	-0.0	-0.3	-0.1	0.2	-0.2	-0.1	-0.4	-0.4
Current account balance	-0.5	0.2	-0.7	0.0	-0.9	0.5	0.3	-2.2	-1.3
Capital account balance	1.0	1.3	2.0	0.9	2.5	1.2	1.3	1.9	3.5
Foreign direct investment (net) ³	-0.9	-1.2	-1.8	-2.1	-2.0	-3.0	-1.6	-4.2	1.2
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	75.3	68.2	63.2	69.2	68.2	67.2	64.6	64.6	63.2
Gross official reserves (excluding gold)	24.5	19.5	19.7	20.0	19.5	19.5	18.6	19.0	19.7
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	6.1	4.7	4.6	4.8	4.7	4.7	4.4	4.5	4.6
<i>EUR million, period total</i>									
GDP at current prices	426,485	467,465	496,429	115,456	132,703	116,411	118,965	122,072	138,981

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiw, 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: external imbalances widen, spotlight on fiscal measures

Robust private consumption, weak export performance

In the second half of 2018, GDP grew at a similar rate as in the first half, bringing the full-year figure to 4.1%. Private consumption growth remained robust, supported by increasing household income and consumer lending. The unemployment rate declined further amid tightening labor market conditions. Moreover, Romania's outstanding agricultural output lifted private consumption through consumption of household-produced agri-foodstuffs and purchases on the agri-food market. Also, changes in inventories delivered a considerable growth contribution. Gross fixed investments recorded a decline in year-on-year terms but started to expand in seasonally adjusted quarter-on-quarter terms in mid-2018 thanks to equipment purchases by companies. Export growth weakened considerably in the second half of 2018. Changes in automobile emissions testing at the EU level, effective as of September 1, 2018, negatively affected exports of motor parts. In addition, ULCs in the manufacturing sector have been rising for some time and their increase accelerated again from mid-2018. Import growth decelerated but clearly surpassed export growth in the second half of 2018.

Current account deficit widens markedly

The current account deficit increased by 2.5 percentage points to 4.9% of GDP in the second half of 2018. Real export and import dynamics were reflected in a worsening trade balance for goods and services. At the same time, surpluses in the income balance fell. After broadly stable net FDI inflows (at about 2.5% of GDP in recent years) had more than covered the shortfall in the combined current and capital account balance in 2017, the coverage ratio (net FDI as a share of the combined current and capital account balance) stood at about 70% in 2018.

Significant deviation procedure ongoing, budget deficit at 3%, ad hoc fiscal measures taken

Within the framework of the significant deviation procedure, the EU Council concluded, in November 2018, that Romania had not taken effective action in response to its recommendation issued in June. It stated, that in addition to the structural adjustment need of 0.8% of GDP as proposed in June, structural efforts in the amount of 0.2% of GDP will be required in 2019. Romania was asked to report on action taken by mid-April 2019.

The budget deficit reached the 3% of GDP limit in 2018. Amid a challenging fiscal situation, the government introduced various fiscal measures through an emergency ordinance at end-2018, including additional taxes for banks, telecom and energy companies. The initial version of the tax on banks' financial assets was met with strong national and international criticism, in particular due to its hasty introduction, the linkage to interbank market rates and the scale of the tax burden. In response, the tax was amended at end-March 2019: the linkage to interbank market rates was dropped and the tax burden was lowered so that banks with a market share above 1% will now be required to pay 0.4% of their financial assets, while banks with a market share below 1% will have to pay 0.2% of their financial assets. Some items (such as government bonds) are now deductible from the tax base, while lending increases and interest margin decreases can lower the tax.

Inflation moves up again in early 2019

CPI inflation increased from 3.3% at end-2018 to 3.8% in February and exceeded the upper bound of Banca Națională a României's target band of $2.5\% \pm 1$ percentage point. Core inflation rose to 2.7% in February, reflecting inter alia demand-pull and wage cost-push inflationary pressures as well as the weakening of the leu. In early April 2019, the central bank left its key policy rate unchanged at 2.5% and stated that it will maintain strict control over money market liquidity.

Table 9

Main economic indicators: Romania

	2016	2017	2018	Q3 17	Q4 17	Q1 18	Q2 18	Q3 18	Q4 18
<i>Year-on-year change of the period total in %</i>									
GDP at constant prices	4.8	7.0	4.1	8.8	6.8	4.0	4.1	4.2	4.1
Private consumption	8.2	10.0	5.2	13.4	11.8	5.9	5.1	4.4	5.6
Public consumption	3.2	1.9	3.8	7.9	1.1	2.1	-1.8	4.0	7.3
Gross fixed capital formation	-0.0	3.3	-3.1	5.2	8.7	1.4	-4.9	-3.9	-3.3
Exports of goods and services	16.8	8.9	4.7	8.2	8.2	7.9	7.1	2.3	1.1
Imports of goods and services	16.5	11.2	8.6	11.7	11.7	11.7	9.3	6.7	7.3
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	5.1	7.6	5.9	8.6	9.2	7.0	4.0	5.6	7.0
Net exports of goods and services	-0.3	-0.7	-1.8	-1.2	-1.2	-2.0	-1.3	-1.3	-2.5
Exports of goods and services	6.6	4.1	1.9	3.7	3.3	3.7	2.9	1.3	0.7
Imports of goods and services	-6.9	-4.8	-3.8	-5.0	-4.6	-5.7	-4.2	-2.6	-3.3
<i>Year-on-year change of the period average in %</i>									
Unit labor costs in the whole economy (nominal, per person)	8.6	8.2	13.6	5.3	9.4	17.3	14.2	14.5	7.4
Unit labor costs in manufacturing (nominal, per hour)	8.4	5.6	4.9	5.2	2.0	5.5	2.5	4.9	6.6
Labor productivity in manufacturing (real, per hour)	1.2	8.3	5.5	7.8	10.4	5.3	7.8	5.4	3.5
Labor costs in manufacturing (nominal, per hour)	9.7	14.3	10.6	13.5	12.6	11.1	10.4	10.5	10.3
Producer price index (PPI) in industry	-1.8	3.5	5.0	3.6	3.7	3.9	5.2	5.8	5.2
Consumer price index (here: HICP)	-1.1	1.1	4.1	1.0	2.4	3.7	4.5	4.6	3.5
EUR per 1 RON, + = RON appreciation	-1.0	-1.7	-1.8	-2.6	-2.4	-2.9	-2.2	-1.4	-0.9
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15–64 years)	6.1	5.1	4.3	4.9	4.9	4.8	4.3	4.0	4.2
Employment rate (%, 15–64 years)	61.6	63.9	64.8	65.3	63.4	63.1	65.5	66.2	64.5
Key interest rate per annum (%)	1.8	1.8	2.4	1.8	1.8	2.1	2.4	2.5	2.5
RON per 1 EUR	4.5	4.6	4.7	4.6	4.6	4.7	4.7	4.6	4.7
<i>Nominal year-on-year change in the period-end stock in %</i>									
Loans to the domestic nonbank private sector ¹	1.5	4.4	7.9	6.1	4.4	5.4	6.0	5.8	7.9
of which: loans to households	4.5	7.1	9.1	6.5	7.1	8.8	9.3	9.0	9.1
loans to nonbank corporations	-2.4	2.5	6.6	5.6	2.5	1.7	2.5	2.4	6.6
%									
Share of foreign currency loans in total loans to the nonbank private sector	43.3	37.2	34.0	38.6	37.2	36.4	35.0	34.6	34.0
Return on assets (banking sector)	1.1	1.3	1.6	1.4	1.3	1.6	1.7	1.8	1.6
Tier 1 capital ratio (banking sector)	17.6	18.0	17.6	17.2	18.0	17.9	17.6	17.8	17.6
NPL ratio (banking sector)	9.6	6.4	5.0	8.0	6.4	6.2	5.7	5.6	5.0
<i>% of GDP</i>									
General government revenues	31.8	30.9	32.0	..	..	..	..	..	..
General government expenditures	34.5	33.6	35.0	..	..	..	..	..	..
General government balance	-2.7	-2.7	-3.0	..	..	..	..	..	..
Primary balance	-1.2	-1.4	-1.8	..	..	..	..	..	..
Gross public debt	37.3	35.2	35.0	..	..	..	..	..	..
<i>% of GDP</i>									
Debt of nonfinancial corporations (nonconsolidated)	39.8	35.1	33.0	..	..	..	..	..	..
Debt of households and NPISHs ² (nonconsolidated)	16.5	15.9	15.9	..	..	..	..	..	..
<i>% of GDP (based on EUR), period total</i>									
Goods balance	-5.5	-6.5	-7.3	-5.8	-7.0	-7.0	-7.3	-6.5	-8.3
Services balance	4.5	4.4	4.0	4.2	3.5	4.9	4.3	3.6	3.5
Primary income	-2.6	-2.5	-2.5	-2.5	-0.1	-1.5	-4.2	-3.7	-0.5
Secondary income	1.5	1.4	1.1	1.5	1.4	0.9	1.5	0.9	1.2
Current account balance	-2.1	-3.2	-4.7	-2.6	-2.1	-2.7	-5.7	-5.7	-4.2
Capital account balance	2.5	1.2	1.2	0.6	2.4	0.7	1.0	0.9	2.0
Foreign direct investment (net) ³	-2.6	-2.6	-2.4	-4.1	-1.9	-3.9	-0.5	-4.2	-1.3
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	54.6	51.9	48.7	51.8	51.9	51.1	50.0	48.9	48.7
Gross official reserves (excluding gold)	20.1	17.9	16.4	18.3	17.9	18.3	16.5	15.9	16.4
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	5.7	4.9	4.4	5.1	4.9	5.0	4.4	4.3	4.4
<i>EUR million, period total</i>									
GDP at current prices	170,382	187,282	202,077	51,764	56,000	38,659	46,557	56,607	60,254

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiw, 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: economy slides into recession, macrofinancial risks high

GDP growth slowed down markedly in the second half of 2018

The Turkish economy slid into recession in the second half of 2018. All domestic demand components contributed to the slowdown. Gross fixed capital formation growth sharply reversed its sign on an annual basis and declined strongly by 8.8%, mainly because a number of public investment projects were discontinued. At the same time, private consumption contracted by 4.1% due to a marked slowdown of consumer credit along with elevated unemployment at 12.5% in the fourth quarter of 2018. Unlike in the first quarter of 2018, net exports became supportive of economic growth. Due to the continuous depreciation of the Turkish lira (TRL), the recovery of the tourism sector and robust external demand (despite continued jitters about the U.S.A), real exports shot up by 12.1%. In contrast to 2017 and in line with waning investment activity, real depreciation and lower private consumption, real imports contracted by 20.6%.

External imbalances narrowed sizeably in 2018

The current account balance turned positive in the second half of 2018 (0.9% of GDP), narrowing the full-year deficit to 3.5% of GDP, driven by both an increased services surplus and a shrinking trade deficit. On the financing side, net FDI inflows modestly increased to 1.8% of GDP. The economy – traditionally highly reliant on more volatile capital inflows – experienced net outflows in the second and third quarters of 2018. Gross external debt soared in 2018 coming to 58.9% of GDP as of end-2018. Gross external financing needs remained among the highest in emerging markets and came close to 25% of GDP in 2018. Debt rollover needs for 2019 are substantial and the ratio of short-term debt to foreign exchange reserves came close to an alarming 300% in the fourth quarter of 2018, with the nonfinancial corporate sector accounting for the lion's share.

Central bank has not increased policy rate since September 2018

Following a peak of 25% in October 2018, headline inflation came slightly down to 20.3% in December 2018 – clearly above the monetary policy target of 5% – and further down to 19.7% in February 2019. Previously, inflation had shot up mainly due to the large TRL depreciation, higher prices of core goods (mainly food products) and some expansionary fiscal measures. The TRL's depreciation trend accelerated in the second half of 2018, peaking in mid-August, but after that the TRL made up for some of the losses. In the second half of 2018, the TRL lost some 13% and 15% vis-à-vis the euro and the U.S. dollar, respectively. In January 2019, the Central Bank of the Republic of Turkey (CBRT) revised its inflation forecast upward to 14.6% and 8.2% for 2019 and 2020, respectively. Although CBRT has refrained from increasing the one-week repo rate since September 2018 (24%), the central bank's borrowing has been mostly made at the upper bound of the late liquidity window (27%), implying an increase in the effective costs of bank funding.

Financial conditions more restrictive in the second half of 2018

In line with the slowdown of the economy, annual growth of credit to the non-financial private sector slowed down considerably and stood at 1.2% year on year in exchange rate-adjusted terms in December 2018. Credit risk vis-à-vis the private sector remains contained but started to increase in the second half of 2018, and in December 2018, the share of nonperforming loans in total loans increased to the highest level (4.1%) since 2011. In spite of the surge in TRL loans since 2017 due to the loan guarantees through the Credit Guarantee Fund, the exchange rate risk of the nonfinancial corporate sector remains a major risk for financial stability, and the corporate sector's foreign currency debt reached almost 30% of GDP in the fourth quarter of 2018.

Table 10

Main economic indicators: Turkey

	2016	2017	2018	Q3 17	Q4 17	Q1 18	Q2 18	Q3 18	Q4 18
<i>Year-on-year change of the period total in %</i>									
GDP at constant prices	3.2	7.4	2.6	11.5	7.3	7.4	5.3	1.8	-3.0
Private consumption	3.7	6.1	1.1	10.3	6.3	8.9	5.8	0.8	-8.9
Public consumption	9.5	5.0	3.6	7.6	5.9	3.5	7.8	3.4	0.5
Gross fixed capital formation	2.2	7.8	-1.7	12.8	6.6	8.8	4.8	-4.7	-12.9
Exports of goods and services	-1.9	11.9	7.5	17.7	9.2	0.7	4.1	13.6	10.6
Imports of goods and services	3.7	10.3	-7.9	15.0	22.8	15.4	0.1	-16.8	-24.4
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	4.1	6.7	0.7	10.7	6.7	8.5	6.0	-0.5	-9.1
Net exports of goods and services	-1.3	0.1	3.5	0.3	-3.2	-3.4	0.9	6.6	8.3
Exports of goods and services	-0.4	2.5	1.6	3.5	1.8	0.2	0.9	2.8	2.1
Imports of goods and services	-0.9	-2.4	1.9	-3.2	-5.0	-3.6	-0.0	3.8	6.1
<i>Year-on-year change of the period average in %</i>									
Unit labor costs in the whole economy (nominal, per person)	..	..	..	..	..	..	..	..	..
Unit labor costs in manufacturing (nominal, per hour)	15.8	4.0	18.0	0.7	4.0	11.6	15.1	18.5	28.0
Labor productivity in manufacturing (real, per hour)	4.4	6.2	1.8	8.1	6.5	6.0	3.0	2.0	-3.1
Gross wages in manufacturing (nominal, per hour)	21.0	10.4	20.5	8.8	10.8	18.2	18.5	20.9	24.1
Producer price index (PPI) in industry	4.3	15.8	27.0	16.0	16.7	13.4	20.1	34.5	39.0
Consumer price index (here: HICP)	7.7	11.1	16.3	10.6	12.2	10.3	12.8	19.4	22.4
EUR per 1 TRY, + = TRY appreciation	-9.6	-18.9	-27.7	-19.8	-20.9	-16.1	-24.5	-37.5	-28.6
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15–64 years)	11.1	11.1	11.1	10.7	10.4	10.8	9.8	11.3	12.5
Employment rate (%, 15–64 years)	50.7	51.6	52.0	52.6	51.9	51.1	52.7	53.0	51.1
Key interest rate per annum (%)	7.5	8.0	15.5	8.0	8.0	8.0	11.2	18.9	24.0
TRY per 1 EUR	3.3	4.1	5.7	4.1	4.5	4.7	5.2	6.6	6.3
<i>Nominal year-on-year change in the period-end stock in %</i>									
Loans to the domestic nonbank private sector	15.8	20.8	12.4	23.2	20.8	19.7	21.7	27.6	12.4
of which: loans to households	9.6	16.3	3.2	17.6	16.3	14.8	14.1	9.2	3.2
loans to nonbank corporations	18.2	22.3	15.5	25.3	22.3	21.4	24.3	33.9	15.5
<i>%</i>									
Share of foreign currency loans in total loans to the nonbank private sector	35.8	32.9	38.5	32.4	32.9	33.4	35.2	41.0	38.5
Return on assets (banking sector)	1.5	1.6	1.5	1.7	1.6	1.7	1.7	1.5	1.5
Tier 1 capital ratio (banking sector)	12.7	13.6	13.4	13.9	13.6	13.5	13.1	13.9	13.4
NPL ratio (banking sector)	3.4	3.1	4.1	3.2	3.1	3.0	3.2	3.4	4.1
<i>% of GDP</i>									
General government revenues	..	..	..	..	..	..	..	..	..
General government expenditures	..	..	..	..	..	..	..	..	..
General government balance	-2.3	-2.3	-2.5	..	..	..	..	..	..
Primary balance	0.1	0.3	0.3	..	..	..	..	..	..
Gross public debt	29.4	28.3	31.2	..	..	..	..	..	..
<i>% of GDP</i>									
Debt of nonfinancial corporations (nonconsolidated)	..	..	..	..	..	..	..	..	..
Debt of households and NPISHs ¹ (nonconsolidated)	..	..	..	..	..	..	..	..	..
<i>% of GDP (based on EUR), period total</i>									
Goods balance	-4.7	-6.9	-5.3	-7.8	-7.7	-8.3	-8.1	-4.1	-0.4
Services balance	1.8	2.3	3.2	4.2	1.9	1.5	2.6	6.0	3.0
Primary income	-1.1	-1.3	-1.5	-1.0	-1.4	-1.1	-1.8	-1.3	-1.8
Secondary income	0.2	0.3	0.1	0.3	0.4	0.1	-0.0	0.1	0.3
Current account balance	-3.8	-5.6	-3.5	-4.2	-6.9	-7.9	-7.4	0.8	1.1
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	-1.3	-1.0	-1.2	-1.2	-1.1	-0.6	-1.0	-1.5	-2.0
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	50.3	51.2	58.9	50.5	51.2	50.8	53.2	55.0	58.9
Gross official reserves (excluding gold)	11.2	9.3	9.8	10.1	9.3	9.1	8.8	8.4	9.8
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	5.4	3.8	3.8	4.4	3.8	3.7	3.5	3.2	3.8
<i>EUR million, period total</i>									
GDP at current prices	778,812	751,693	652,581	201,532	198,788	168,160	169,610	154,002	160,808

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiw, 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: robust macroeconomic data in an uncertain environment

Rising oil price and weaker ruble help Russia recover

Helped by a rise of the oil price combined with a weaker ruble, Russia's modest economic recovery has picked up some speed lately. Based on revised Rosstat figures, GDP growth accelerated from 0.3% in 2016 to 1.6% in 2017 and 2.3% in 2018. While growth in domestic demand decelerated in 2018 owing to stagnating real incomes and tight fiscal and monetary stances, net exports expanded substantially on the back of terms of trade gains. Both, private consumption dynamics and gross fixed investment growth slowed down. The volume of exports expanded by 5.5% in 2018, while the growth of imports slowed sharply to 2.7%. On the production side of GDP, resource extraction, construction and automobile production led the recovery, while agricultural production stagnated. The unemployment rate (ILO definition, seasonally adjusted) declined to 4.8% (annual average in 2018), a post-Soviet record low.

New Western sanctions have affected FDI

Notwithstanding a substantial rise in the price of Urals grade crude in 2018 (by 32%, annual average), the Russian ruble's external value declined considerably (by 7% against the U.S. dollar and 11% against the euro). This was due to (still persisting) economic uncertainty triggered by waves of U.S. sanctions or threats thereof. Some punitive measures were imposed in April 2018 (extraterritorial restrictions against a number of Russian businessmen and companies) and August 2018 (additional trade-related constraints); some further sanctions may or may not be enacted in the spring of 2019 (possibly targeting sovereign debt, Russian banks and energy projects). U.S. and EU sanctions have primarily affected foreign investment and are estimated to have cut Russian GDP growth by 0.5 to 0.75 percentage points annually on average since the outbreak of the Ukraine conflict in 2014.

Ruble depreciation and recent tariff increases have pushed up inflation to above 5%

The ruble's depreciation and increases in indexed housing and communal tariffs as well as in VAT in January 2019 caused CPI inflation to more than double from 2.6% at end-July 2018 to 5.4% at end-February 2019. In a preemptive step, the Russian central bank (CBR) had slightly raised the already relatively high key interest rate by 25 basis points in September 2018 and again in December by the same amount to 7.75%.

But record twin surpluses, modest external debt and high international reserves strengthen the economy's resilience

Swelling revenues from rising oil prices combined with improved tax administration and sustained prudence in spending pushed the general budget surplus to 2.9% of GDP in 2018 (2017: deficit of 1.5%). The oil price-triggered expansion of exports (valued in U.S. dollars) coupled with the weakening of the Russian ruble were the main factors driving up Russia's current account surplus, which reached a record 6.9% of GDP in 2018. In late 2018, the country even recorded a trade surplus net of oil exports (a first for Russia). However, net private capital outflows also rose sharply to 4.1% of GDP (reflecting net FDI outflows and banks' further cutting their foreign liabilities). Russia's total external debt shrank further to EUR 396 billion or 28.3% of GDP at end-2018, which is now lower than the country's expanding international reserves (including gold, end-2018: EUR 409 billion or 29.2% of GDP). Notwithstanding Russia's modest economic growth and its still relatively high, if easing, NPL ratio (18% at end-2018), lending has been regaining momentum; however, this revival is partly driven by unsecured consumer credit and thus gives rise to concern.

Table 11

Main economic indicators: Russia

	2016	2017	2018	Q3 17	Q4 17	Q1 18	Q2 18	Q3 18	Q4 18
<i>Year-on-year change of the period total in %</i>									
GDP at constant prices	0.3	1.6	2.3	2.3	0.3	1.9	2.2	2.2	2.7
Private consumption	-1.9	3.3	2.3	4.4	4.0	2.7	1.9	2.0	2.6
Public consumption	1.5	2.5	0.3	2.5	2.5	0.3	0.3	0.3	0.3
Gross fixed capital formation	1.0	5.2	2.9	5.0	0.5	3.5	4.2	5.5	0.2
Exports of goods and services	3.2	5.0	5.5	4.5	5.2	7.2	7.8	4.8	2.6
Imports of goods and services	-3.6	17.4	2.7	17.1	14.9	10.0	2.8	0.1	-0.3
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	-1.1	3.6	1.5	4.4	2.1	1.6	0.6	1.4	2.3
Net exports of goods and services	1.6	-2.3	0.8	-2.6	-1.7	-0.2	1.4	1.2	0.7
Exports of goods and services	0.8	1.3	1.5	1.1	1.3	2.0	2.1	1.2	0.7
Imports of goods and services	0.8	-3.6	-0.6	-3.7	-3.1	-2.2	-0.7	-0.0	0.1
<i>Year-on-year change of the period average in %</i>									
Unit labor costs in the whole economy (nominal, per person)	..	..	..	..	..	..	..	..	..
Unit labor costs in industry (nominal, per hour)	4.3	17.7	2.3	14.4	18.9	2.7	0.9	2.6	3.3
Labor productivity in industry (real, per hour)	4.7	7.5	4.2	7.9	6.0	5.1	4.5	4.2	3.0
Average gross earnings in industry (nominal, per person)	9.1	26.7	6.6	23.4	26.3	7.9	5.4	7.0	6.3
Producer price index (PPI) in industry	4.3	7.8	12.0	4.5	8.0	5.0	12.0	15.9	15.1
Consumer price index (here: CPI)	7.1	3.6	3.0	3.3	2.6	2.3	2.5	3.1	4.0
EUR per 1 RUB, + = RUB appreciation	-8.4	12.6	-11.0	4.1	-1.2	-10.6	-14.9	-9.3	-9.4
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15–64 years)	5.5	5.2	4.8	5.0	5.1	5.1	4.8	4.6	4.8
Employment rate (%, 15–64 years)	..	..	..	..	..	..	..	..	..
Key interest rate per annum (%)	10.6	9.1	7.4	8.9	8.2	7.6	7.3	7.3	7.5
RUB per 1 EUR	74.2	65.9	74.1	69.3	68.8	69.9	74.0	76.3	75.9
<i>Nominal year-on-year change in the period-end stock in %</i>									
Loans to the domestic nonbank private sector ¹	0.6	5.7	12.3	4.2	5.7	7.3	9.4	11.4	12.3
of which: loans to households	1.6	12.7	22.2	8.8	12.7	15.5	18.8	21.4	22.2
loans to nonbank corporations	0.2	3.1	8.3	2.5	3.1	4.3	5.8	7.5	8.3
<i>%</i>									
Share of foreign currency loans in total loans to the nonbank private sector	18.9	14.7	13.6	16.5	14.7	14.5	14.7	14.4	13.6
Return on assets (banking sector)	1.2	1.0	1.5	1.1	1.0	1.7	1.5	1.7	1.5
Tier 1 capital ratio (banking sector)	9.2	8.5	8.9	8.6	8.5	9.9	9.0	9.5	8.9
NPL ratio (banking sector)	18.9	19.1	18.0	18.8	19.1	19.4	19.2	18.7	18.0
<i>% of GDP</i>									
General government revenues	32.8	33.7	35.5	..	..	..	..	..	..
General government expenditures	36.4	35.2	32.6	..	..	..	..	..	..
General government balance	-3.7	-1.5	2.9	..	..	..	..	..	..
Primary balance	..	..	..	..	..	..	..	..	..
Gross public debt	12.9	12.6	12.1	..	..	..	..	..	..
<i>% of GDP</i>									
Debt of nonfinancial corporations (nonconsolidated)	..	..	..	..	..	..	..	..	..
Debt of households and NPISHs ² (nonconsolidated)	..	..	..	..	..	..	..	..	..
<i>% of GDP (based on EUR), period total</i>									
Goods balance	7.0	7.4	11.8	5.1	8.0	11.2	11.3	11.6	12.9
Services balance	-1.8	-2.0	-1.8	-2.4	-1.9	-1.7	-1.9	-2.1	-1.6
Primary income	-2.7	-2.7	-2.5	-2.8	-2.4	-1.3	-4.6	-2.2	-2.0
Secondary income	-0.5	-0.6	-0.6	-0.7	-0.6	-0.7	-0.4	-0.6	-0.6
Current account balance	1.9	2.2	6.9	-0.8	3.1	7.6	4.5	6.6	8.7
Capital account balance	-0.1	-0.0	-0.1	-0.0	0.0	-0.1	-0.1	-0.0	-0.1
Foreign direct investment (net) ³	-0.8	0.5	1.4	0.4	2.2	1.4	0.6	1.0	2.4
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	41.5	31.1	28.3	32.7	31.1	30.7	30.7	29.4	28.3
Gross official reserves (excluding gold)	25.7	21.3	23.8	21.6	21.3	22.1	23.7	23.8	23.8
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	15.0	12.4	13.7	12.7	12.4	12.7	13.4	13.6	13.7
<i>EUR million, period total</i>									
GDP at current prices	1,171,677	1,396,089	1,399,910	343,601	373,249	320,790	335,393	355,474	388,253

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiw, 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

CESEE-6 economic growth loses speed but remains robust, Russia returns to lower economic growth^{1,2}

Following solid GDP growth of above 4% in 2018, economic expansion in the CESEE-6 countries³ is predicted to slow down to 3.6% in 2019 and further to 3.3% in 2020 and 3.1% in 2021. Hungary and Poland will be the growth leaders over the projection horizon but – as in all other CESEE-6 countries – economic growth will lose steam toward the end of the forecast period. Generally, domestic demand will become weaker (but remain robust), which is strongly linked to bottlenecks in the labor market and a lower inflow of EU funds in some cases. In 2019 and 2020, export growth will gain speed compared to 2018, in line with our assumptions on euro area import growth, while CESEE-6 import growth will stay more or less unchanged. The growth differential vis-à-vis the euro area is expected to amount to 2.5 percentage points in 2019 (the same as in 2018) and to moderate to 1.6 percentage points by 2021. Current risks to economic growth are tilted downward and remain elevated.

For Russia⁴ we expect economic growth to slow down to 1.4% in 2019 and to pick up somewhat thereafter. Tax measures and slightly higher inflation are dampening household consumption. So far, there have been no signs of recovery in private investment activity, while the launch of major government investments in infrastructure projects in 2020 and 2021 should somewhat boost the pace of economic

Table 1

OeNB-BOFIT GDP projections for 2019 to 2021 compared with the IMF forecast

	Eurostat/ Rosstat	OeNB-BOFIT projections April 2019			IMF WEO forecast April 2019		
		2019	2020	2021	2019	2020	2021
Year-on-year growth in %							
CESEE-6	4.4	3.6	3.3	3.1	3.4	3.0	2.7
Bulgaria	3.3	3.3	3.3	3.1	3.3	3.0	2.8
Croatia	2.6	2.5	2.7	2.6	2.6	2.5	2.4
Czech Republic	2.9	2.8	2.6	2.7	2.9	2.7	2.5
Hungary	5.0	3.7	3.2	3.4	3.6	2.7	2.4
Poland	5.1	4.2	3.9	3.3	3.8	3.1	2.8
Romania	4.2	3.0	2.8	2.8	3.1	3.0	3.0
Russia	2.3	1.4	1.7	1.6	1.6	1.7	1.7

Source: OeNB-BOFIT April 2019 projections, IMF World Economic Outlook (WEO) of April 2019, Eurostat, Rosstat.

Note: 2018 figures are seasonally adjusted data.

¹ Cutoff date for data underlying this outlook: March 25, 2019. The projections for the CESEE-6 countries were prepared by the OeNB, those for Russia were prepared by the Bank of Finland in cooperation with the OeNB. All projections are based on the assumptions of the March 2019 ECB staff Macroeconomic Projection Exercise (MPE) for the euro area. The MPE forecasts real annual GDP growth in the euro area of 1% in 2019, 1.6% in 2020 and 1.5% in 2021 and import growth of 3.7% in 2019, 4.1% in 2020 and 3.5% in 2021.

² Compiled by Antje Hildebrandt, with input from Katharina Allinger, Stephan Barisitz, Markus Eller, Martin Feldkircher, Thomas Reininger, Tomáš Slačik and Zoltan Walko.

³ CESEE-6: Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania.

⁴ The oil price assumption used by the Bank of Finland corresponds to Urals futures price quotes (USD/barrel), with March 6, 2019, as our baseline. We expect Urals oil to remain fairly close to its current price level (of above USD 60 per barrel) and to slightly level off over the three-year forecast period.

expansion, particularly in 2020. Moreover, net exports will continue to be an important growth driver in 2019. Overall risks appear to be, by and large, balanced.

1 OeNB CESEE-6 forecast: weaker domestic demand across the region

Following solid GDP growth of 4.4% in 2018, economic expansion in the CESEE-6 countries is predicted to slow down to 3.6% in 2019 and further to 3.3% in 2021 and 3.1% in 2021. Domestic demand is expected to moderate somewhat in all CESEE-6 countries. The growth contribution of net exports, by contrast, will improve in line with more or less unchanged average import growth and the assumption of stronger external demand in the euro area.

We assume that the overall accommodative monetary policy stance will continue in 2019 and 2020. Despite a recent slight pickup of inflation in some CESEE-6 countries, a no-change policy is the most likely scenario in most but not all countries. The central bank of Hungary recently tightened its monetary policy by raising the deposit facility rate. In light of (still) favorable financing conditions in all CESEE-6 countries, lending activity has been growing very strongly, in particular lending to the household sector. Noticeably, in Croatia, the growth of lending to the corporate sector eventually turned slightly positive in January 2019 after a prolonged period of negative growth figures.

For one group of CESEE-6 countries – Bulgaria, the Czech Republic and Poland – we expect a looser fiscal policy stance in 2019 compared to 2018. In the Czech Republic, higher public expenses are, inter alia, linked to an exceptionally high increase of pensions, while in Poland, upcoming parliamentary elections in autumn 2019 are expected to push up public spending. Following years of fiscal surpluses, Bulgaria has decided to move to a more expansionary fiscal policy and is expected to record a fiscal deficit in 2019. Consolidation needs in Croatia, Hungary and Romania, by contrast, require more restrictive fiscal measures to bring the budget deficit in line with EU rules. For Hungary, we expect a more expansionary fiscal track only toward the end of our projection horizon, given that parliamentary and presidential elections are upcoming in 2022.

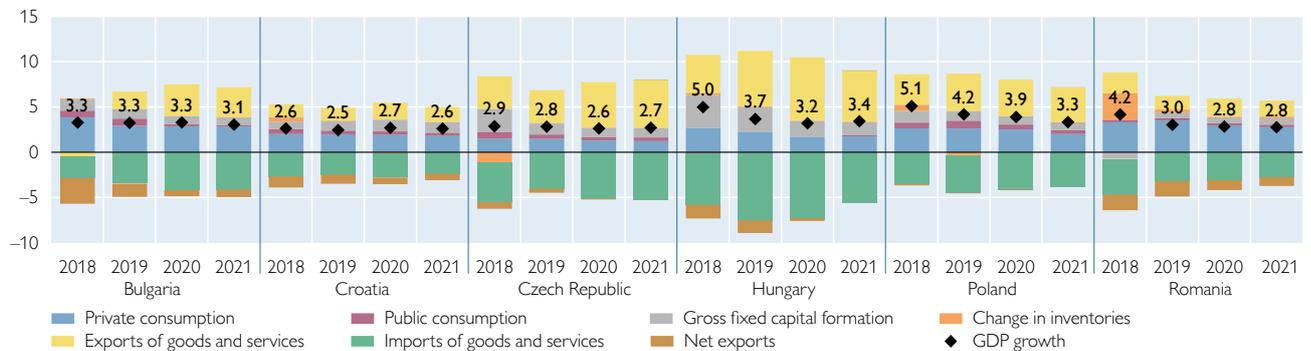
Monetary policy expected to be overall accommodative

Fiscal policy in the CESEE-6 region shows a more diverse pattern

Chart 1

CESEE-6: GDP growth and contributions from 2019 to 2021

GDP contributions in percentage points, year-on-year GDP growth in %



Source: Eurostat, OeNB.

Note: Realized data for 2018, projections for 2019 to 2021.

Some moderation of private consumption growth expected

In this environment, we expect private consumption growth to remain strong but to moderate continuously over the projection horizon in all CESEE-6 countries. Generally, consumer mood remains optimistic. Real wages still have room to increase but to a lesser extent than in previous years, and job creation will reach its limits, particularly in the Czech Republic and Hungary, as the labor stock is close to being exhausted. Additionally, inflation has been lowering real disposable income in some countries. Currently, Hungary and Romania have the highest inflation rates (3.2% and 4%, respectively, in February 2019). On the other hand, private consumption has been supported by buoyant credit growth (in particular of consumer loans) across the region.

Public consumption growth shows a less uniform pattern

For several CESEE-6 countries, we expect a moderation in public consumption in 2019 compared to 2018, which reflects consolidation efforts (Croatia, Hungary) or a somewhat less expansionary stance (Czech Republic). In Bulgaria and Poland, public consumption growth is expected to accelerate strongly in 2019, driven by the public sector wage increases in the former and upcoming elections in the latter country. In 2020 and 2021, the growth rates of public consumption will moderate in all CESEE-6 countries, except in Hungary, according to our projections.

Investment activity will slow down over the projection horizon

Despite slowing down, gross fixed capital formation will remain strong, largely due to inflows of EU funds, high capacity utilization rates and capital-to-labor substitution needs in light of mounting labor shortages. However, a lower use of EU funds (e.g. strong frontloading in Hungary), less favorable growth prospects for the main trading partners and, eventually, some base effects will hamper gross fixed capital formation growth over the projection horizon. Croatia's investment activity, by contrast, is expected to benefit from a higher absorption of EU funds. From 2021 onward, the EU's new multiannual financial framework for 2021–2027 will be in place, and we expect much lower inflows of EU funds in the final year of our forecast period.

Export growth will gain speed in 2019 and 2020

In 2019 and 2020, export growth will gain speed in line with our assumption on euro area import growth. Only in the Czech Republic and in Romania will export growth weaken compared to 2018; the reasons for the decline are country-specific: capacity constraints and rising unit labor costs in the former case, weak export performance seen at the end of 2018 in the latter. As euro area import growth will soften in 2021, we forecast a similar pattern for most CESEE-6 countries.

In most of the CESEE-6 countries import growth will slow down in 2019 compared to 2018. Exceptions are Poland and Hungary, where import growth will only moderate from 2020 onward. Overall, the growth contribution of net exports will improve in all countries over the projection horizon (or stay more or less unchanged as in Poland).

CESEE-6: downside risks intensify

The risks to the CESEE-6 economic outlook stem both from external and internal developments and are tilted downward. The modalities of Brexit are still unknown, global politics have caused a high level of uncertainty, and the economic downturn of the euro area has set in more strongly than expected some months ago.

As in our forecast of autumn 2018, we still consider an intensification of trade conflicts between the U.S.A. and its main trading partners as an acute downside risk to our outlook. Several CESEE-6 countries are small, open economies, and trade tensions between large trading countries would adversely spill over to the CESEE-6.

Apart from protectionist measures, unforeseeable events affecting primarily the automobile sector – such as new emission standards or a potential inability to keep up with new technologies – could become severely harmful to the growth projections for most CESEE-6 countries. Additionally, the possibility of adverse weather conditions (e.g. droughts) poses a downside tail risk to growth in particular in countries with a large agricultural sector, such as Poland and Romania.

At the EU level, the unresolved issues related to Brexit remain an important downside risk. Negative implications of Brexit could affect the CESEE-6 through the trade channel, financial stability implications and the EU budget. In addition, regardless of the future situation of the U.K., structural changes in the next EU budget are likely to have adverse consequences for the CESEE-6 countries, especially for those that heavily rely on flows of funds from the EU (such as Hungary and Poland).

As always, the economic performance of the euro area represents a major source of external risk. The outlook for the euro area, and, importantly, also for Germany, has clouded over since our last forecast. Another downside risk emanating from the euro area relates to the fiscal outlook in Italy.

Our CESEE-6 forecast is also subject to downward risks stemming from the region itself. Most prominently, the phenomenon of severer than expected labor shortages across all CESEE-6 countries and all sectors and its implications for price competitiveness represent an important factor in our risk assessment. Additionally, rising inflationary pressure associated with higher wages and strong demand could drag down real disposable income. In this context, stronger than anticipated monetary tightening due to elevated inflationary pressure is considered as a downward risk to our forecast.

Apart from economic risks, we consider political developments in some CESEE-6 countries as a downside risk to our projections. Tensions with the EU over compliance with EU laws could result in sanctions by the EU against some CESEE-6 EU Member States (for example in the form of lower flow of EU funds). Additionally, the political environment in some CESEE-6 countries could be harmful to overall confidence among foreign investors.

In terms of upside risks, a higher absorption of EU funds than currently assumed could boost investment activity more strongly than expected. Furthermore, an upward revision of euro area growth would push up CESEE-6 growth beyond current expectations. Finally, a constructive Brexit solution would lower economic uncertainty to a large extent.

2 Projections for Bulgaria, Croatia, the Czech Republic, Hungary, Poland and Romania

Annual real GDP growth in 2018 turned out slightly weaker in Bulgaria than we had expected in our autumn 2018 forecast. The main reason for this is a stronger than expected slowdown in exports, as Bulgaria's most important trading partners (Germany, Italy and Turkey) all have experienced a stronger economic slowdown than foreseen. Over the forecasting horizon, we expect the economy to move side-ward, anticipating GDP growth rates of slightly more than 3% per year.

A recovery of exports this year has already been backed by the favorable trend reversal seen in the last quarter of 2018 and by a projected acceleration of euro area

Bulgaria: steady economic growth supported by recovery in exports

imports. At the same time, a potentially prolonged recession in Turkey could put a drag on export growth in 2019. In view of the economic acceleration projected for the euro area in 2020, we thus expect exports to be stronger in 2020 than in 2019, before moderating again somewhat in 2021. Bulgarian imports should follow a similar path, but import growth rates will remain contained because of moderating domestic demand. On balance, the negative growth contribution of net exports is expected to shrink over the forecasting horizon.

Domestic demand components are expected to lose some steam compared to 2018. One notable exception is public consumption. After a small general government balance surplus in 2018, the medium-term budgetary forecast of the government, which was updated and fed into the adopted State Budget Law in October 2018, foresees a small deficit in 2019 (–0.5% of GDP) and surpluses of 0.5% and 0.6% of GDP in 2020 and 2021, respectively. The slight fiscal expansion in 2019 is being driven mainly by a strong annual increase in (EU co-financed and national) capital expenditure, subsidies, staff costs and social assistance benefits, reflecting the government’s priority of implementing investment projects and increasing public sector wages (by 10% in 2019).

Private consumption could benefit from expansionary fiscal policies in 2019. However, it is rather unlikely that it will be possible to keep up the outstanding growth rates seen in 2018, given that the last quarter of 2018 already brought a marked deceleration amid deteriorating consumer sentiment, increased income inequality and curbed real wage growth. Slower wage growth could also alleviate inflationary pressure; the Bulgarian National Bank (in its February 2019 forecast) projects a moderation of the annual HICP inflation rate to just above 2% until the end of 2020.

Investment growth is also expected to lose some momentum compared to 2018, because of a high base level and increasing skill shortages in the labor market, among other reasons. Bank lending to the private sector might possibly be constrained in the wake of the comprehensive assessment of the six largest Bulgarian banks in the first half of 2019 and pending gradual macroprudential tightening (with the activation of the countercyclical capital buffer, set at 0.5% as from October 2019 and 1% as from April 2020). On the other hand, investment should remain robust in 2019 and 2020 thanks to still low interest rates, considerable EU funding and confidence-feeding effects caused by Bulgaria’s efforts to join ERM II and the banking union.

For Croatia, we expect the weakness in external demand that kept GDP growth below our expectations for the full year of 2018 to persist in 2019. We have therefore lowered our GDP forecast for 2019 to 2.5% year on year. With a better outlook for growth and trade in the euro area and accelerated EU fund absorption in 2020, we see growth temporarily returning to 2.7%, before starting to decline toward levels more consistent with potential growth in 2021.

Private consumption will remain the main growth driver in 2019, helped by several government measures effective from January 1, 2019, e.g. favorable changes in income tax brackets, lower VAT rates on a set of additional products and an increase of the minimum wage, as well as favorable labor market developments. Government measures will likely continue to support private consumption over the next years as a reduction in the VAT rate by 1 percentage point is already planned for 2020. The unemployment rate should continue its decline, and wages

Croatia: external demand lower, investment growth picks up

are expected to rise. Overall, we project a moderate decline in private consumption growth to 3.1% in 2021.

Overall, we expect the government to maintain the prudent fiscal stance it has shown over the past years, in particular in light of the plans announced by the Croatian authorities to join ERM II in 2020. Fiscal prudence and reducing the economy's external debt have paid off: the European Commission recently reclassified Croatia as facing “imbalances” instead of “excessive imbalances” and Standard and Poor's upgraded Croatia's sovereign rating to investment grade in March 2019.

Gross fixed capital formation growth accelerated in 2018 at rates beyond our previous forecast. Accordingly, we have revised the current forecast upward for the entire period, projecting an accelerated pace of EU fund absorption and positive effects from the resolution of the Agrokor crisis. Investment growth is expected to peak in 2020, at around 6%.

The negative contribution of net exports doubled in 2018 compared to 2017, largely due to a disappointing export performance. Domestic developments, in particular related to the shipbuilding sector, will lead to a renewed acceleration of export growth in 2019 and 2020, which is also in line with our assumption for euro area import growth. However, the recovery of export growth will be gradual given that the situation of Uljanik, a large shipbuilding company, will take time to be resolved. We expect import growth to outpace export growth in the entire forecast period, yielding a substantial negative contribution to growth from net exports over the entire forecast horizon.

The expansion of the Czech economy continued in 2018 and will ease slightly over the forecasting horizon to below 3%. Strong domestic demand on the back of fairly robust private consumption and investment will offset the drag coming from net exports, before the contribution of net external demand will become neutral in the medium term.

Private consumption is projected to expand at a rather rapid, though slowing pace, mirroring rises in wages and other components of households' disposable income. In particular, the historically unprecedented hike in pensions in January (about 7% increase of the average monthly pension) is likely to provide an extraordinary boost to private consumption as pensioners typically have a higher propensity to consume.

Fast growth in employee compensation as well as rising social transfers and other nonwage expenses will continue to spur government consumption. However, its expansion is projected to lose momentum in real terms as the growth of the deflator will outpace the increase in nominal expenditures.

Private investment activity is expected to benefit from still relatively solid external demand and a tight labor market, which incentivizes firms to improve labor efficiency by investing into automation and labor-saving technologies. Improving the drawdown of EU funds will continue to benefit public gross fixed capital formation. However, these positive forces will be counteracted to some extent by a (possibly faster than expected) tightening of monetary policy, weaker external demand and some base effects. As a result, investment in 2019 is projected to grow at less than half the pace seen last year, and it is likely to moderate further thereafter.

A more pronounced expansion in exports will be held back, particularly in the short term, by slower growth in foreign demand and a tight labor market because

Czech Republic: economic expansion moderates in line with labor market constraints and monetary policy tightening

labor shortages will increasingly constrain production capacities. On the other hand, strong increases in wages coupled with slowing growth in foreign prices will worsen the Czech terms of trade. Sustained robust growth in domestic demand, later reinforced by strengthening export growth, will give rise to a comparably vigorous expansion of imports. Against this background, net exports will again make a negative contribution to GDP growth this year before their impact on economic expansion will become zero toward the end of the projection horizon.

The projection has been revised somewhat downward, particularly due to a weaker contribution of net exports to GDP growth. This reflects noticeable downward revisions of external demand and a deterioration in domestic producers' price competitiveness. Moreover, the now weaker projection for foreign demand in the euro area is likely to have a bigger negative impact on gross fixed capital formation. Last but not least, the koruna has not appreciated to the extent assumed by the markets and the Czech National Bank. Against this background, the central bank has signaled that a faster tightening of its monetary policy stance is rather likely. This, in turn, will slow down the expansion in private consumption and investment to a larger extent than previously assumed.

Hungary: further
fiscal boost to slow
the slowdown

The Hungarian economy grew by 5% in 2018, a rate clearly above that anticipated in our last forecast (4.3%). Private consumption and investments grew faster than we had anticipated; thus the contribution of domestic demand surprised on the upside. Export growth, by contrast, was lower than predicted in our forecast, leading to a worse than expected growth contribution of net real exports. Due to stronger than expected credit growth and new information on additional economic policy measures, and despite labor shortages, we now expect GDP to grow more strongly, i.e. by 3.7% in 2019 and 3.2% in 2020, before temporarily edging up to 3.4% in 2021.

Concerning new economic policy measures, the government's "Family Protection Plan," which is expected to be implemented from mid-2019, will likely have a positive impact on economic growth already from the second half of 2019 onward. Private consumption is set to benefit most from these financial support measures for families, but should also be supported by consumer confidence, which will remain strong despite some weakening since mid-2018, and high wage growth. Shortages of skilled labor and the prospect of cuts in employers' social security contribution tax rate if real wage growth exceeds certain thresholds will keep wage growth elevated but mostly aligned with productivity growth. By contrast, employment gains should slow as labor reserves are getting exhausted. The modest acceleration in 2021 is due to some elements of the Family Protection Plan which will not become effective until then as well as measures ahead of crucial parliamentary elections in spring 2022.

Some elements of the Family Protection Plan will be support investment activity, as will the central bank's new "Funding for Growth Scheme Fix." As a result, we expect investment activity to remain an important pillar of growth but to slow down over the forecast horizon.

On the one hand, capacity utilization increased further in the second half of 2018 and remained close to record highs at the beginning of 2019, while the tight labor market has benefited capital-for-labor substitution. Economic sentiment remains elevated despite a minor weakening in the second half of 2018. The growth of credit to the corporate sector picked up substantially in the second half of 2018

and should continue to be supported by favorable lending conditions in the short term. Housing construction is expected to benefit from the further extension of housing subsidies under the Family Protection Plan (on top of an extension which took effect in December 2018).

On the other hand, lending conditions are expected to become less supportive of growth over the medium-term, while the disbursement of EU funds should slow already in 2019 and more markedly in 2020 and 2021. The extension of the reduced VAT rate on new housing until 2023 (for projects with a building permit issued already in November 2018) should limit previously expected positive anticipatory effects in 2019 but should lift activity in the medium term, compared to previous assumptions.

We expect a temporary acceleration of public consumption during the first half of 2019 ahead of the elections to the European Parliament (May 2019) and municipal elections (autumn 2019), but the need to comply with EU budget rules should lead to some correction thereafter. We expect public spending to increase again in 2021, ahead of the 2022 parliamentary elections.

Export growth should roughly follow demand developments in major export markets and hence accelerate in 2019 and – to a smaller extent – in 2020, before slowing down toward the end of the forecast horizon. The excess of import growth over export growth should gradually contract as the expansion of domestic demand decelerates. We therefore expect the negative contribution of net real exports to have gradually disappeared by 2021.

Annual GDP growth in Poland will moderate to 4.2% year on year in 2019 compared to growth of above 5% in 2018, with growth drivers shifting from domestic demand toward exports. In 2020, economic growth will continue to decelerate moderately (to 3.9%), reflecting a continued weakening of domestic demand.

Public consumption growth will increase considerably in 2019, an election year, as public sector wages will rise after years of freezes and the government is planning to introduce subsidies for local bus transport. For 2020, we expect some post-election fiscal tightening at the beginning of the year. Private consumption growth will remain nearly stable in 2019 and 2020. On the one hand, the fading growth impact of earlier significant measures (increase of child benefits, higher tax rate thresholds, official minimum wage rate hikes), the lowering of the retirement age and higher consumer price inflation will exert a dampening effect. On the other hand, private consumption growth will be stimulated by the increase of public sector wages, several measures adopted by the government that become effective in 2019 (widening of family benefits to include higher income segments, an additional one-off pension payment and the exemption of young people under 26 from income tax as well as an increase in tax-deductible expenses) and low interest rates.

Overall, we expect gross fixed capital formation growth to decline in 2019 and 2020, as the rise in public investments is forecast to decelerate markedly due to a weaker inflow of EU funds, while residential investment will not rise more strongly than hitherto despite strong household income growth and low interest rates. Business fixed investment will continue to benefit from robust domestic and stronger foreign demand growth, high capacity utilization and a favorable financing situation with respect to both own funds (profitability, accumulated deposits) and external funds (low interest rates, and, in particular for publicly owned companies, EU

Poland: lower investment growth will dampen GDP growth in 2019 and 2020

funds). Increasingly relevant shortages on the labor market will probably have an ambiguous effect: they are likely to prevent complementary investment in the short term and to enhance labor-substituting investment in the medium to long term.

Export growth in 2019 and 2020 will reflect, on the one hand, an expected acceleration of euro area import demand, in particular from Germany. On the other hand, the forecast decline of import demand from the world outside the euro area in 2019 as well as the anticipated rise of manufacturing unit labor costs, which is expected to outpace the rise of unit labor costs in its main trading partners, will hold back export growth.

Against this background, import growth will accelerate to about 8% in 2019 and 2020, which will be roughly in line with export growth, as weaker domestic demand growth is assumed to largely offset the effects of the relatively strong rise in unit labor costs. Hence, the contribution of net exports to GDP growth will be close to zero in both years.

We expect economic growth in Romania to decelerate further, to 3.0% in 2019 and to 2.8% in the following two years. Although we have revised our forecast somewhat downward, we still see downside risks to our projection. These include a stronger than anticipated negative impact of recent policy measures (sectoral taxes which might still be amended) and the unpredictability of future economic policies, which reduces investor confidence and the availability of financing. More specifically, the provision of credit will very likely be curtailed markedly due to a tax on banks' assets. Depending on the final design of this tax, this will affect investments and consumption. Moreover, after changes in inventories delivered a strong contribution to overall GDP growth in 2018, a negative impact on overall growth cannot be excluded in the coming years.

Economic policy has remained supportive of private consumption: At the beginning of the year, the minimum wage was raised by 10%. Furthermore, a minimum wage (higher than the general minimum wage) for employees with higher education and one-year work experience was introduced. Moreover, pensions will be hiked up in September 2019, and public wages are set to rise as laid down in the unified wage law enacted in 2018. On top of these policy measures, private sector wages are under pressure from tight labor market conditions. Hence, we expect private consumption to remain the key growth driver. Retail sales data for January 2019 confirmed the ongoing expansion of private consumption. The growth of public consumption will probably continue in 2019 and 2020, when presidential and parliamentary elections will be held, despite limited scope given a budget deficit of slightly below 3% in 2018 and despite EU recommendations under the significant deviation procedure to correct a deviation from the medium-term objective.

As regards gross fixed capital formation, we expect the positive trend in quarter-on-quarter growth rates recorded since mid-2018 to continue, resulting in a moderate investment recovery. Further investments in the automotive industry are on the table, and the absorption of EU structural and investment funds may improve and provide some support to investment activity. In the construction sector, favorable developments might be seen in the nonresidential segment, as some projects are in the pipeline (for example office buildings, commercial and logistics facilities).

After a weakening export performance in the course of 2018, we expect 2019 export growth to come in below the figures seen in the last few years. Yet, the launch of new car models produced in Romania should support a moderate export

Romania: economy slows, but private consumption remains up

revival. In line with our external assumptions, export growth is expected to pick up somewhat in 2020. We expect import growth to surpass export growth, but to decelerate over the forecast horizon as domestic demand will gradually slow down. Hence, the negative growth contribution of net exports will diminish.

3 Russia: modest growth continues

In Russia, economic growth accelerated to 2.3% in 2018 on the back of rising oil prices coupled with a depreciation of the ruble.

Lower economic growth is expected to return in 2019, though.⁵ The hike in value-added taxes (from 18% to 20% in January 2019) and a mild pickup in the inflation rate are dampening growth in household consumption. Moreover, there are still no signs of a real recovery in private fixed investments, which implies that net exports will remain an important growth driver in 2019. The launch of major government investments in infrastructure projects in 2020 and 2021 should slightly boost the pace of economic expansion, particularly in 2020. However, we expect Russia's economic growth to settle at around 1.5% (which corresponds to the potential growth rate) annually thereafter.

Continued low public sector wage growth, an expected leveling-off of the household borrowing spree (given some prudential tightening measures of the Central Bank of Russia), and the impact of the 2 percentage point VAT hike are likely to dampen private consumption growth, particularly in the current year. After that, some modest consumption recovery should set in. Given our oil price assumption, the general government budget should deliver sizeable surpluses throughout the forecast period because of the current fiscal rule (surplus revenues must be transferred to the National Welfare Fund if the Urals oil price exceeds USD 41 per barrel) and provided that expenditures will drop on account of the gradual increase of the retirement age.

Recent figures on construction activity suggest that projected fixed investment data may have to be adjusted upward. Russia's current major projects (Power of Siberia pipeline to China, Nord Stream II and Turkish Stream) as well as the giant natural gas liquefaction plants and shipping terminal on the Yamal Peninsula, West Siberia (Yamal LNG, a Belt & Road project strongly supported by China) could provide a boost to 2019 investment expansion. Meanwhile, major government-sponsored new national priority projects for 2019 to 2024 (incorporating the new goals set by the Russian president) are likely to get started and impact capital formation only in 2020 and 2021. Notwithstanding state-directed measures, the overall business environment will continue to suffer from a range of uncertainties and structural shortcomings specific to the Russian economy.

It is unlikely that the vibrant export expansion seen in the last two years will continue. While there will be strong growth in liquefied natural gas (LNG) exports and probably also in pipeline gas exports next year, growth can be expected to essentially plateau out thereafter. With respect to oil production and exports, observers assess it as unlikely that Russia has any significant additional available

⁵ Besides the oil price assumption, we assume for this forecast that the authorities will continue to pursue their current economic policies geared to safeguarding macroeconomic stability and strengthening economic independence. Economic independence implies favoring domestic products and services over imports, including import substitution policies. Additionally, we assume that there will be no major shifts in EU-Russia and U.S.A.-Russia relations; current sanctions and countersanctions regimes are expected to remain in place.

Risks to the Russian
forecast are overall
balanced

capacity at the moment. Given weak increases of domestic demand, we expect import growth to continue to slow down slightly. The trend in import volumes will also depend on import prices, which, in turn, will be influenced by the ruble's exchange rate. While the effect of net exports on GDP growth during the forecast period should be positive, its impact will likely become marginal toward the end of the period.

Due to the floating exchange rate and adherence to its fiscal rule, Russia's economic performance has become less dependent on oil price movements. However, major changes in the oil price remain hugely important because of their impact on the ruble exchange rate, financial markets, inflation, costs of investment funding and net exports. Western sanctions had negative economic effects, particularly on Russian financial markets. Over our forecast period, the U.S.A. could launch a renewed series of sanctions, and the EU might consider a new wave of restrictive measures. Yet, the impact of such measures would likely be weakened by a consequent devaluation of the exchange rate, which would, in turn, boost the oil price in ruble and, eventually, budget revenues and cut Russia's import growth further.

While our assumptions about fixed investment growth are quite cautious, it cannot be ruled out that some of Russia's major pipeline and infrastructure projects may provide a larger than expected boost to overall capital formation in 2019 and the coming years. The largest source of uncertainty relates to net exports. While a further surge in volumes of the country's biggest export commodities is unlikely, the opening up of new energy routes to China and rapid growth in the export of certain metal industry goods could hold positive surprises in store.

Studies

Nonperforming loans in CESEE – a brief update on their definitions and recent developments

Stephan Barisitz¹

This study is a brief update of a previous contribution (2013) on national definitions of nonperforming loans (NPLs) in ten relatively large economies in Central, Eastern and Southeastern Europe (CESEE), i.e. Bulgaria, Croatia, Czechia, Hungary, Poland, Romania, Russia, Serbia, Slovakia and Ukraine. Against the background of the recent emergence (2013/2015) of internationally harmonized standards of the European Banking Authority (EBA), the present study explores how these national definitions have evolved in the past five years (2013–2018) and whether there has been a tendency toward definitional convergence. We find that some convergence toward EBA/international NPL standards has definitely taken place in recent years. All CESEE EU Member States covered in this study have adopted or confirmed their use of the EBA NPL definition (“90 days+” and/or “unlikeliness to pay”) or of a corresponding stipulation. Serbia and Ukraine have also further approached internationally accepted standards, while Russia’s definition seems to remain somewhat less strict. In any case, none of the countries observed have moved away from international standards. That said, more specific issues related to e.g. the treatment of restructured loans and collateral apparently still give rise to some differences. All observed countries – apart from Russia and Ukraine – boast declining NPL ratios in 2013–2018.

JEL classification: G12, G21, G33

Keywords: bank lending, CESEE, credit quality, credit risk, financial soundness indicators, nonperforming loans, NPL standards

This study is a brief update of a previous contribution on national definitions of nonperforming loans (NPLs) in ten Central, Eastern and Southeastern European (CESEE) countries (Barisitz, 2013b). It also builds on a presentation the author gave at the 81st East Jour Fixe of the Oesterreichische Nationalbank (Barisitz, 2017). NPLs are of particular interest in the CESEE region due to the fact that NPL ratios are on average substantially higher than in Western Europe. Against the background of the recent emergence of internationally harmonized standards of the European Banking Authority, this study explores how national NPL definitions have evolved in the past five years and whether there has been a tendency toward definitional convergence. Readers are also brought up to date on the actual comparative development of NPL ratios in ten relatively large CESEE countries.² The structure of this paper is straightforward: In section 1, traditional components of CESEE NPL definitions are recalled, section 2 presents EBA standards as a new benchmark for NPL definitions (since 2015), sections 3 and 4 go into more detail with

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² Specifically, these comprise the largest four (in terms of population) in Central Europe (Poland, Czechia, Hungary and Slovakia), the largest four in Southeastern Europe (Romania, Bulgaria, Serbia and Croatia) and the largest two in Eastern Europe (Russia and Ukraine).

respect to how specific definitional aspects of NPLs are treated in different CESEE countries. Based on these findings, a tentative assessment of definitional comparability is made (section 5), which shows that CESEE NPL definitions have recently converged, at least partly, toward EBA/international NPL standards. Section 6 wraps up the study with a comparative empirical snapshot of NPL ratios in 2013–2018, which have been on the decline in most observed countries.

1 Elements of NPL definitions in CESEE

Hitherto, data on NPLs have often been of limited use because it is difficult to compare them across countries (Barisitz, 2013a, pp. 28–29; Bholat et al., 2016, pp. 22–23).

The basic quantitative NPL criterion recommended by the IMF in its compilation guide on Financial Soundness Indicators (IMF, 2006) is: “principal or interest 90 days or more overdue” (or “90 days+”). Focusing on European countries, we find another frequently used qualitative NPL yardstick: “existence of well-defined weakness of loan or borrower as assessed by the lending bank” (“well-defined weakness” or “unlikeliness to pay”). A third possible definitional method for capturing NPLs that is often encountered in CESEE countries, emerging markets and/or economies with relatively high NPL levels, is using a selection of credit quality categories (ECB, 2017, pp. 8–9). Typically, the trio “substandard – doubtful – loss” (within the five-range asset classification system proposed by the Institute of International Finance: standard – watch – substandard – doubtful – loss) is applied (Barisitz, 2013b, p. 68). However, the three mentioned categories in many cases essentially comprise elements which more or less correspond to the first two criteria above.

In recent years, we have witnessed a welcome tendency toward more strongly harmonized NPL definitions in a number of CESEE countries, essentially on the basis of standards established by the European Banking Authority (see section 2).

2 EBA standards as benchmark for NPL definitions

Spurred by the establishment of the Single Supervisory Mechanism in 2014, the European Banking Authority (EBA) was at the forefront of the endeavor to facilitate comparability and enhance policy relevance of NPL data, as D’Hulster emphasizes (2018, p. 1). In 2013, the EBA published Implementing Technical Standards on supervisory reporting on forbearance and nonperforming exposures under Article 99 (4) of the EU Capital Requirements Regulation (No. 575/2013). The corresponding Commission Implementing Regulation (European Commission, 2015), which entered into force in July 2015, provides for the following definition (comprising what one could call formal definitional criteria or “primary elements” of NPLs):

Nonperforming exposures are “those that satisfy any of the following criteria:

- material exposures which are more than 90 days past due;
- the debtor is assessed as unlikely to pay its credit obligations in full without realisation of collateral, regardless of the existence of any past due amount or of the number of days past due.” (p. 605). (The latter corresponds to the above-mentioned well-defined weakness.)

This definition is consistent with the Basel Committee on Banking Supervision’s definition of default and with the Institute for International Finance’s credit quality classification (see also Barisitz, 2013a, p. 31).

EBA standards also cover some “secondary elements” which are non-defining in a strict sense but have a non-negligible, and in some cases, even appreciable, impact on the content of NPLs (European Banking Authority, 2013, pp. 13–14; European Commission, 2015, pp. 605–607):

- When forbearance measures (e.g. the restructuring of a loan) are extended to nonperforming exposures, the exposures may be considered to have ceased being nonperforming only when – among other conditions – one year has passed since the forbearance measures were granted. In other words: Restructured loans are classified as NPLs (more precisely, as “nonperforming forborne”) at least for a one-year probation or cure period – also to avoid, as far as possible, any concealment of evergreening activities – before they may be reclassified as “performing forborne” (D’Hulster, 2018, pp. 3, 6).³
- NPLs will be categorized without taking into account the existence of any collateral or guarantee.
- NPLs will be categorized based on their full outstanding amount (not net of provisions, collateral, the performing amount or other items).
- When a debtor accounts for on-balance sheet exposures that are past due by more than 90 days and their gross carrying amount represents 20 % of the amount of all on-balance sheet exposures to this debtor, then all on- and off-balance sheet exposures to this debtor shall be considered nonperforming. Put differently: This corresponds to a downgrade requirement for multiple loans to a single borrower if at least 20 % of these (the so-called pulling factor) are classified as impaired.⁴

A number of CESEE countries have either already adopted or approached EBA standards for their nonperforming loan definitions.

3 Validity of primary elements of NPL definitions in CESEE

Table 1 below indicates to what degree the NPL definitions used in the ten observed countries correspond to the two above-explained primary elements (“90 days+” and/or “well-defined weakness”) of nonperforming loans in accordance with the EBA Implementing Technical Standards or similar principles. As sources of information we use IMF Financial Soundness Indicators (FSIs) Country Metadata Questionnaires (2007–2009), IMF FSIs Country Metadata: Additional Relevant Information (IMF, 2018b), as well as various national regulatory guidelines, annual reports, reviews and other publications.

The table shows that NPL definitions correspond to the EBA benchmark in all countries except for Russia, which has a slightly weaker definition. All EU member

³ Forbearance measures may have an important material impact on NPL ratios, notably in countries with weak credit quality.

⁴ It may be interesting to relate this EBA standard to the risk management principles of the so-called NPL customer view versus the NPL product view (D’Hulster, 2014, pp. 6, 25). The NPL customer view or debtor approach is that, in case of multiple loans to the same borrower, if one of these loans turns nonperforming, the entire loan portfolio of the bank to this borrower will be downgraded to nonperforming. If one applies the NPL product view or transaction approach, on the other hand, multiple loans to the same borrower are each treated separately, and therefore, if a loan turns nonperforming, this is not seen to have an implication for the bank’s other loans to this borrower. Thus, the EBA technical standard on multiple loans actually amounts to a hybrid of NPL customer and product view.

Table 1

Primary elements of NPL definitions and EBA benchmarks

CESEE		BG	HR	CZ	HU	PL	RO	RU	RS	SK	UA	EBA (benchmark)
Primary elements	90 days +	✓	✓	✓	✓	✓	✓	✓x	✓	✓	✓	✓
	Well-defined weakness	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Source: IMF FSIs and related metadata as well as other sources (see immediately above), author's compilation.

Note: Information retrieved and checked in December 2018. Assessment of country-specific regulations against benchmark:
✓ corresponds to benchmark, ✓x slightly weaker than benchmark, x weaker than benchmark.

countries adopted the EBA benchmark under the EU Capital Requirements Regulation of 2015. Why is Russia's NPL definition considered slightly weaker than the benchmark? While the Russian NPL definition follows the underlying logic of the two criteria, the Central Bank of Russia (CBR) uses a matrix comparing varying combinations of the two criteria that does not clearly spell out a debt-servicing deadline indicating when a loan becomes delinquent. Therefore, in case of doubt, the CBR's NPL regulations may, on balance, be presumed to be somewhat less strict than the common definition.⁵

4 Treatment of “secondary elements” (vis-à-vis EBA benchmark) in CESEE

Table 2 deals with the secondary elements of NPL comparability (as enumerated in section 2) and how they are treated with respect to the EBA benchmark. We use the same sources of information referred to in the first paragraph of section 3. It should be noted that information on these relatively specific secondary elements is not always easy to come by. While the author has screened all sources of information mentioned above, these sources themselves may not always be fully comprehensive or up-to-date in every respect.

Focusing on some interesting details: In Russia, replacement loans are not classified as NPLs unless the debtor's financial conditions are weak and there are (renewed) overdue payments. Likewise, restructured loans are not downgraded for one year⁶ in Croatia, the Czech Republic, Hungary, Poland, Serbia and Slovakia. In Croatia, possible impairment losses are determined by estimating future cash flows, in Hungary and Poland restructured loans may be upgraded after a positive quarterly review, in Czechia they may be reclassified according to the related risk after six months. In Serbia, restructured receivables are not regarded as being in default if a new repayment schedule is observed with a delay of no more than one month. In Slovakia, restructured loans have to be classified according to the loss expected from these loans.

⁵ In contrast to IMF FSI data for Russia, which consider NPLs to comprise only loans in the credit quality categories “problem” (problemny) and “loss” (beznadezhny), we feel that those in the category “doubtful” (somnitelny) should also be included under NPLs in the interest of comparability with NPL data of other CESEE countries. We are in favor of including doubtful loans in the case of Russia because they i.a. comprise loans characterized by “weak financial conditions of the debtor” or “weak quality of debt service” (not further specified). Doubtful loans in Russia also require a minimum provisioning level of 21%, which corresponds to a level that typically (in the observed CESEE countries) flags a threshold of NPLs (without being a defining element of the latter) (IMF, 2007–2009; Barisitz 2013b, p. 65; IMF, 2018b).

⁶ A downgrade for one year would correspond to EBA standards (see section 2).

Table 2

Secondary elements and EBA benchmarks

CESEE	BG	HR	CZ	HU	PL	RO	RU	RS	SK	UA	EBA (benchmark)
Secondary elements											
Treatment of restructured loans	✓	✓x	✓x	x	x	✓	x	✓x	✓x	✓	✓
Consideration of collateral	✓	✓x	x	x	x	✓x	✓	x	✓	x	✓
Share of loan recorded as nonperforming	✓	x	✓	✓	✓	✓	✓	✓	✓	✓	✓
Multiple loans	✓	x	✓	✓	✓	✓	✓	✓	✓	✓	✓

Source: IMF FSIs and related metadata as well as other sources (see section 3), author's compilation.

Note: Information retrieved and checked in December 2018. Assessment of country-specific regulations against benchmark:
✓ corresponds to benchmark, ✓x slightly weaker than benchmark, x weaker than benchmark.

In most CESEE countries, collateral apparently continues to weigh on loan classification: For example, in Croatia, collateral may have an impact if debtors start to settle their obligations irregularly and banks take appropriate and effective legal action to collect their claims. In Czechia, collateral is considered if a receivable is supported in full by a high-quality security. In Hungary, collateral, including liquidity and enforceability of claims, is taken into consideration in determining whether an exposure is impaired. In Poland, highest-quality securities, i.e. cash, government and central bank securities, may be considered. In Romania, under certain conditions, guarantees or collateral securing the principal of loans may be taken into account (up to 25%) as a credit risk-mitigating factor. In Serbia and Ukraine, classification of receivables may also be based on assessment of collateral quality.

As regards the share of a loan recorded as nonperforming: In Croatia specific provisions are deducted from the full value of the loan. Looking at multiple loans to one debtor: In Croatia, the amount of loss is calculated for each claim that is individually significant. Exceptionally, all claims to a single debtor against whom bankruptcy proceedings have been initiated may be measured on a group basis.

5 Tentative assessment of definitional comparability: some CESEE convergence toward EBA/international NPL standards

Aggregating primary and secondary elements – while keeping in mind the greater weight of the former as definitional criteria – we arrive at a tentative assessment of the comparability of CESEE NPL definitions (in an extensive interpretation).

One can infer that all observed countries' NPL definitions are (largely) comparable, except perhaps for Russia's and Croatia's definitions, which are both (somewhat) downward biased, implying that the latter would need to be (slightly) corrected upward in order for NPL ratios in these countries to be effectively comparable with other countries' ratios. As mentioned above, looking at Russia, the bias is on the side of primary elements, as one of the two benchmarks is not fully met in Russia. With respect to Croatia, an elevated number of secondary elements do not (fully) correspond to the benchmarks.

Table 3

Tentative aggregation of primary and secondary elements											
CESEE	BG	HR	CZ	HU	PL	RO	RU	RS	SK	UA	EBA (benchmark)
Taking EBA standards as a yardstick, official NPL definitions appear...											
...(largely) comparable	✓		✓	✓	✓	✓		✓	✓	✓	✓
...(somewhat) downward biased		✓					✓				

Source: IMF FSIs and related metadata as well as other sources (see section 3), author's compilation.

Nonetheless, overall, a degree of convergence toward EBA/international NPL standards has definitely taken place in recent years. All EU member countries have adopted or confirmed their use of the EBA NPL definition (“90 days+” and/or “well-defined weakness”) or a similar stipulation. Serbia enacted a new NPL definition largely complying with EBA standards in 2016; and Ukraine approached internationally accepted standards in 2017. While secondary elements as stipulated by the EBA do not appear to be uniformly applied (yet), none of the observed countries seem to have moved away from these standards.

6 Empirical snapshot of recent NPL developments in CESEE (2013–2018)

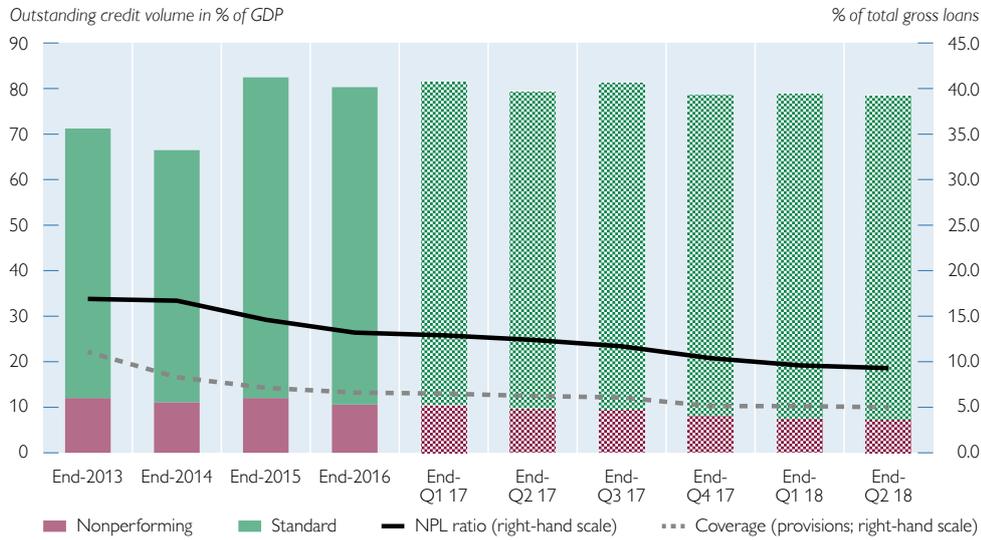
The ten charts below (which are based on IMF Financial Soundness Indicators) cover the period from end-2013 to mid-2018 for each of the ten countries under review. The charts combine overall credit volumes (deposit takers’ total gross loans), including their nonperforming parts, measured on the left vertical axis as a percentage of GDP, and NPL ratios as well as provisions, plotted on the right vertical axis as a percentage of total gross loans. However, as a note of caution, one should point out that changes in national NPL definitions do not necessarily immediately impact the measured statistical time series. At least we do not have evidence of that in all instances.⁷ Like in the previous studies (Barisitz, 2013a and 2013b), the charts below are an attempt to choose national time series (as far as different series are available) that show the greatest possible degree of comparability.⁸

⁷ Ukraine is an example of a country where we do have such evidence. The Ukrainian NPL definition was substantially tightened in early 2017, and this promptly had an impact on the time series as of end-March of that year.

⁸ Finally, some possible remaining technical differences as to the precise content of the national NPL time series compared here could be due to various reasons, including different consolidation concepts and/or reporting populations, counterparties or instruments.

Chart 1

Bulgaria: credit quality



Source: National central bank, IMF Financial Soundness Indicators, Eurostat.

Chart 2

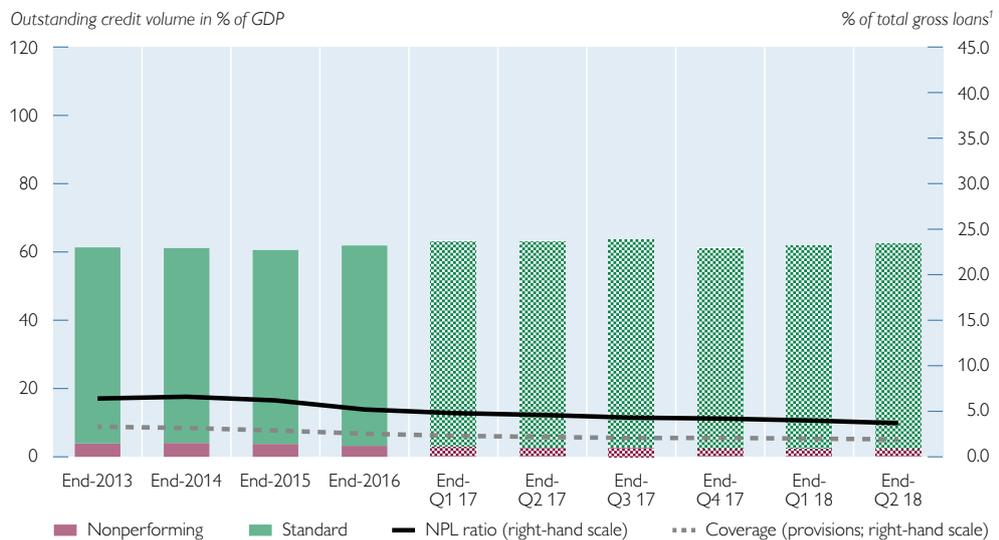
Croatia: credit quality



Source: National central bank, IMF Financial Soundness Indicators, Eurostat.

Chart 3

Czechia: credit quality

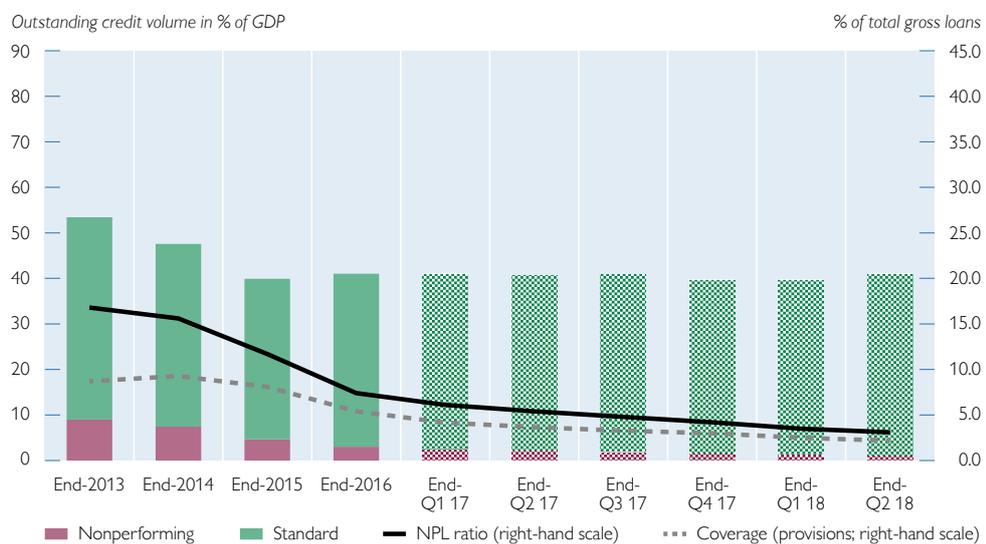


Source: National central bank, IMF Financial Soundness Indicators, Eurostat.

¹ Total gross loans (data series) updated by Česká národní banka in April 2019.

Chart 4

Hungary: credit quality



Source: National central bank, IMF Financial Soundness Indicators, Eurostat.

Chart 5

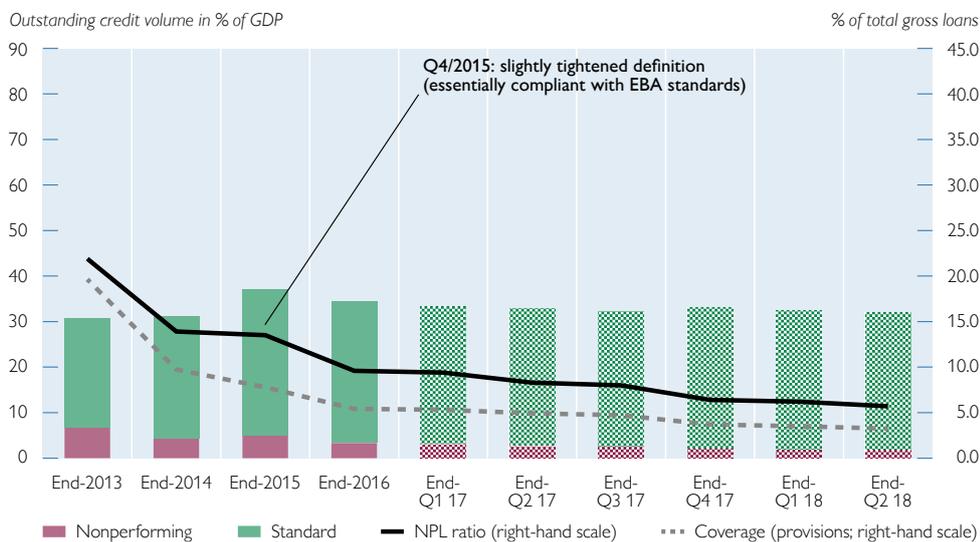
Poland: credit quality



Source: National central bank, IMF Financial Soundness Indicators, Eurostat.

Chart 6

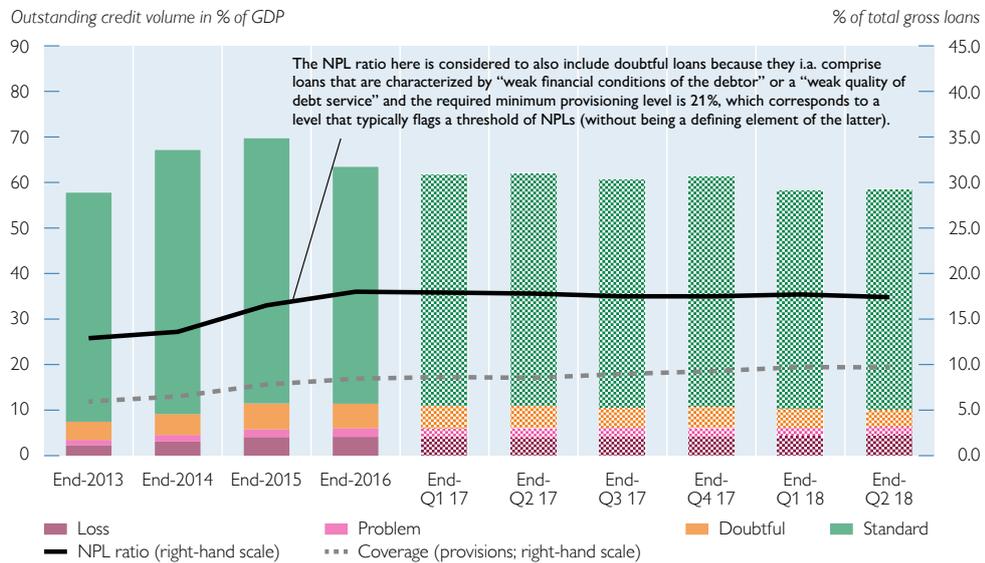
Romania: credit quality



Source: National central bank, IMF Financial Soundness Indicators, Eurostat.

Chart 7

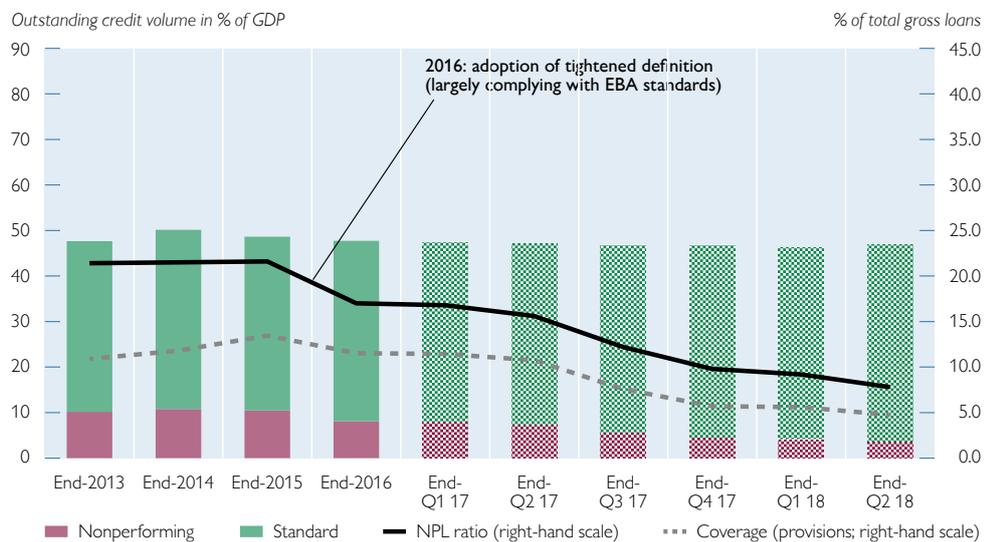
Russia: credit quality



Source: National central bank, IMF Financial Soundness Indicators.

Chart 8

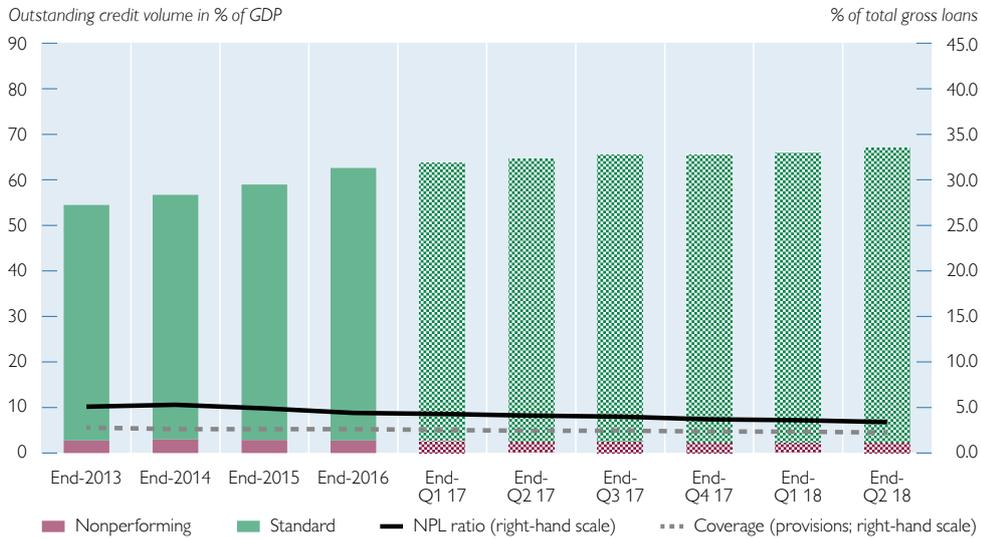
Serbia: credit quality



Source: National central bank, IMF Financial Soundness Indicators.

Chart 9

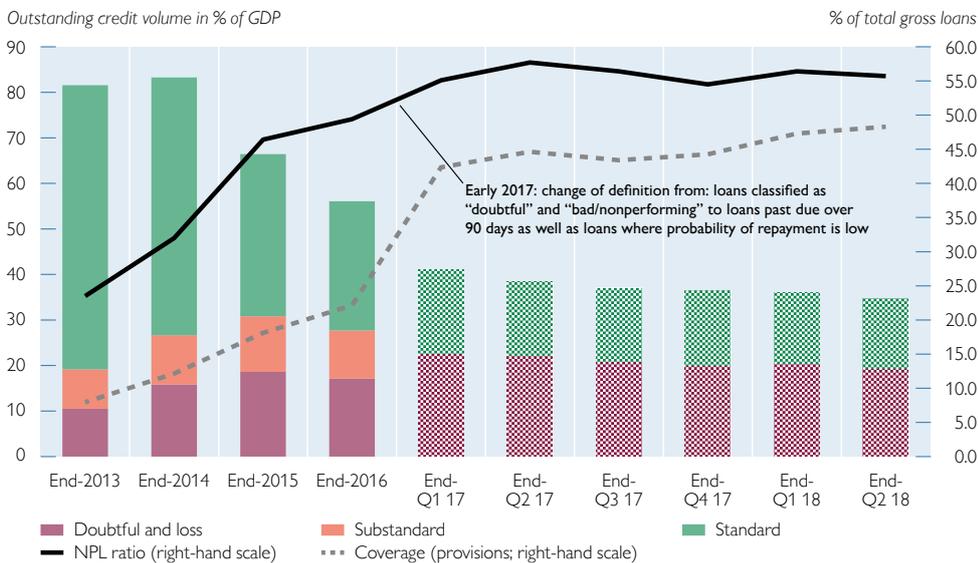
Slovakia: credit quality



Source: National central bank, IMF Financial Soundness Indicators, Eurostat.

Chart 10

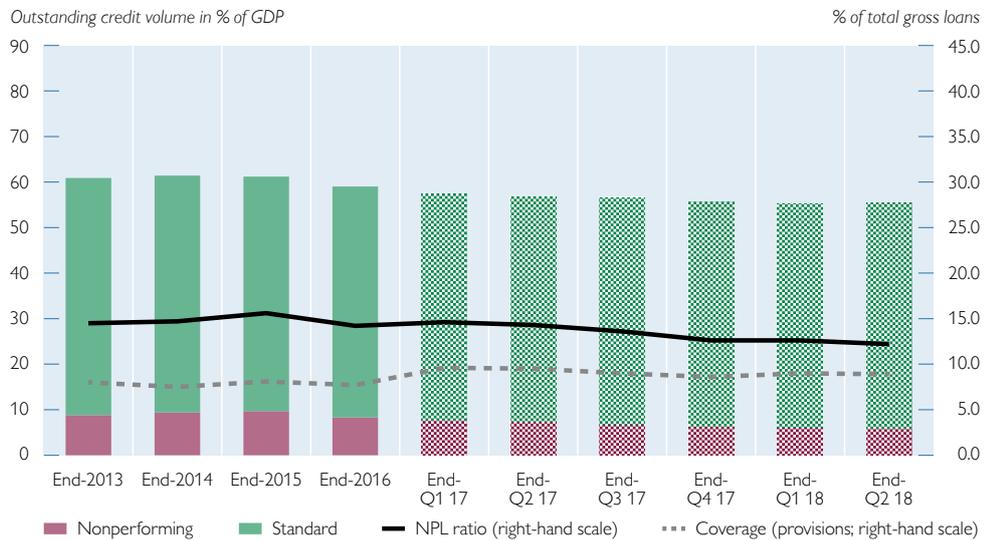
Ukraine: credit quality



Source: National central bank, IMF Financial Soundness Indicators.

Chart 11

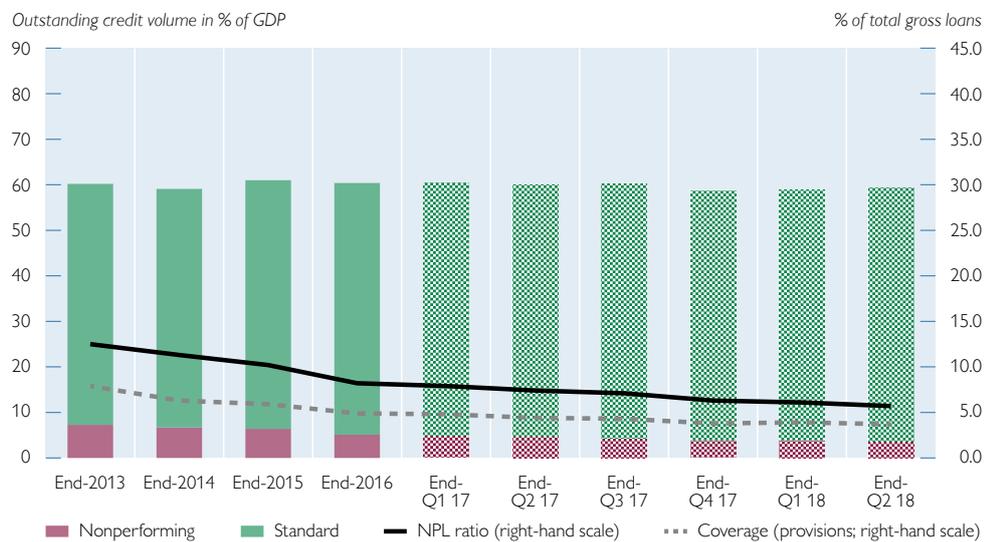
Regional average (unweighted): credit quality



Source: National central banks, IMF Financial Soundness Indicators, Eurostat.

Chart 12

CESEE EU regional average (unweighted): credit quality



Source: National central banks, IMF Financial Soundness Indicators, Eurostat.

All examined countries – apart from Russia and Ukraine – have witnessed partly substantial declines of their NPL ratios in the five years under review. Still, the regional average (unweighted; see chart 11) remains in the very low double digits or, more specifically, at 12 % in mid-2018 (without Russia and Ukraine: only 6.0 %!). If we take the regional EU average (without Serbia, Russia and Ukraine, unweighted; see chart 12), we have an impressive decline of the average NPL ratio from 12.5 % at end-2013 to 5.7 % in mid-2018. In the Visegrád Four, bad loans have shrunk to levels of 2 % to 4 %, which is comparable to levels in western Europe. While the post-crisis economic recovery in CESEE plays an important role, stricter write-off policies and improved NPL resolution have also contributed to favorable developments. Sales of bad loans to asset management companies or hedge funds have gained momentum in a number of economies recently (Cloutier and Schwaiger, 2018, pp. 2–3, 17). These latter shares of NPL stocks disappear from the banking system, but of course not (immediately) from the economy.

Bulgaria and Croatia still record NPL ratios of around 10 %, while Russia's and Ukraine's stocks of bad loans are not only high or very high, but have even substantially increased. Ukraine remains in a class of its own, featuring more NPLs than performing loans.⁹ In both cases, the worsening of indicators is linked to a legacy of high or very high levels of connected lending, to recessions in both countries in 2014–2015 (triggered by geopolitical crisis and sanctions (since 2014), and in the case of Russia, by the oil price slump), and to the strengthening of regulatory stances in recent years. Overall, the average coverage ratio (provisions/NPLs) has been steadily increasing in the observed countries from above 50 % to above 70 %.

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⁹ *At the same time, Ukrainian banks have successfully built up provisions since 2017, which somewhat reduces macrofinancial concerns.*

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Household loans in CESEE from a new perspective: the role of income distribution

Mariya Hake, Philipp Poyntner¹

This paper constitutes a first attempt to shed light on the role of income distribution in household debt, macrofinancial stability and financial market access in Central, Eastern and South-eastern Europe (CESEE). This issue has not been adequately addressed so far. Using data from the OeNB Euro Survey for the period from 2009 to 2017, we explore the question whether interpersonal comparisons affect a household's probability of having a loan. We use multilevel probit modeling to take into account the hierarchical structure of the data. Our 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. We show this impact for almost all components of household debt, but evidence is strongest for mortgage and car loans. Interpersonal comparisons turn out to be a weaker predictor of a household's propensity to have a loan in CESEE countries with a more equal income distribution.

JEL classification: G0, D1, D3

Keywords: household loans, relative income, income distribution, multilevel models, CESEE

The global financial crisis (GFC) that started in 2008/2009 has increasingly drawn attention to the importance of, and the threats arising from, household sector debt for macroeconomic stability and GDP growth (IMF, 2017). Prior to the GFC, the accumulation of debt in the household sector was mainly thought of as an intrinsic part of the economic convergence process of the Central, Eastern and Southeastern European (CESEE) countries. With the benefit of hindsight, a consensus has emerged that credit growth was on an excessive path before the GFC, although CESEE credit levels still remained well below levels observed in advanced economies. The onset of the GFC in 2008/2009 also started a trend toward lower and partly negative credit growth rates in some CESEE countries (Comunale et al., 2018), while the level of household debt decreased somewhat in most CESEE countries. Given robust demand but also the favorable liquidity situation in the banking sector, household lending in the CESEE countries started to increase again in the past years; however, this development varied across individual countries (see Riedl, 2019, for an overview of recent household credit developments in CESEE).

However, the still relatively low levels of household debt in CESEE (the unweighted CESEE² average stood at 26% of GDP in 2017) do not necessarily imply lower risks to macrofinancial stability. In fact, recent evidence (IMF, 2017; Voinea et al., 2016) has shown that household debt levels of above 30% of GDP could threaten macrofinancial stability and increase the likelihood of a financial crisis.

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² In this study, the country aggregate CESEE includes the same countries as the OeNB Euro Survey: EU Member States (Bulgaria, Croatia, the Czech Republic, Hungary, Poland and Romania) and (potential) EU candidate countries (Albania, Bosnia and Herzegovina, North Macedonia and Serbia).

Against this background, it is of crucial importance to understand the drivers of household credit in CESEE better.

So far, hardly any studies have explored the link between income distribution and household debt in CESEE. Descriptive evidence suggests that distributional effects might be in place in the CESEE region which might be relevant for household debt as rising gross household disposable income between 2009 and 2017 went hand in hand with a declining household savings rate and increasing household debt in most of the CESEE countries. The interaction between income inequality and household indebtedness is relevant for policymakers with respect to both financial stability and financial inclusion. While it might be desirable from a financial stability perspective that, *ceteris paribus*, households at the bottom of the income distribution would hold less debt against the background of higher default rates, this would somewhat contradict a financial inclusion view. Therefore, our results may contribute to both strands of the debate as our survey data provide information on the likelihood of having a loan but not on the amount of this loan.

The relevance of income inequality for household debt can be analyzed from both a supply- and a demand-side perspective.³ From a demand-side perspective, a mechanism through which income distribution could affect household borrowing is provided by the relative income theory of consumption (Veblen, 1899; Duesenberry, 1949). Accordingly, an individual's utility function depends on the ratio of his or her consumption or income to a weighted average of the consumption or incomes of other persons (i.e. a reference group); more frequent interaction with relatively more affluent individuals would drive up a person's spending when income inequality increases ("keeping up with the Joneses" effect). In addition, a habit formation effect would prompt an increase in consumer spending, and thus borrowing, when individuals try to avoid cutting down on the level of consumption already attained. From a supply-side perspective, banks use income distribution data next to information on a household's income to assess borrowers' creditworthiness, especially in countries with low credit register coverage⁴ (as is the case in some of the CESEE countries in our sample). Coibion et al. (2014) refer to this finding as the "signaling channel" and show that as banks cannot observe to a sufficient extent a borrower's ability to meet debt obligations, they consider the observed respondent's income together with income inequality. However, with OeNB Euro Survey data at hand, our aim is not to clearly distinguish between supply and demand effects of income inequality but to focus on an "equilibrium" transaction, i.e. on whether a respondent has a loan or not, and on the loan's purpose. As shown by Bazillier and Hericourt (2017), the two channels are usually activated simultaneously, and the prevailing net effect could be either of the two. In addition, we believe that differentiating the effects of income inequality on household debt by respondents' position in the country's income distribution

³ According to the most recent results from bank lending surveys (e.g. European Investment Bank, 2018), the importance of demand factors such as housing market prospects and consumer confidence prevailed in CESEE in the past years. On the other hand, while supply-side factors had gained importance in the aftermath of the watershed year of 2008, their role declined in recent years in line with the introduction of regulatory and resolution measures.

⁴ According to the World Bank's Doing Business survey, in economies where credit registers cover a larger share of the adult population, more adults have a credit card, borrow from a bank or other financial institution, and formal private sector lending is higher (World Bank, 2016).

would allow for a disaggregated view and hint at a prevalence of either supply or demand factors without, however, excluding the impact of one or the other.

Going further, an extensive body of literature has turned attention to exploring the hypothesis that individuals derive utility from status, which in turn depends on what others believe about people's income (Ireland, 1994; Charles et al., 2009). Although income is not observable, visible consumption is. Therefore, the level of individuals' conspicuous consumption (i.e. consumption that displays social status) can be expected to depend on the income distribution of the entire sample of individuals under observation. Against this background, some goods and loans, respectively, would be driven by conspicuous motives. Therefore, the impact of the income distribution on the likelihood of having a loan and on the loan's purpose (consumption, car, mortgage and loans for other purposes) will enable us to make inferences about the existence and magnitude of such motives.

On the empirical front, papers only recently started to account for the distribution of income as a driver of household debt, focusing mainly on the OECD countries and the U.S.A. in particular. For instance, Kumhof et al. (2015) show that in the U.S.A., the surge in the income share of the top deciles could largely explain the buildup of leverage among households at the bottom of the income distribution. Building on the central assumption that income shocks are of a permanent nature (and that a change in income distribution is therefore understood as a permanent shock), the authors present a model that shows that higher leverage and financial crises are the endogenous result of a growing income share of high-income households. Coibion et al. (2014) show that in the United States in the period from 2001 to 2012, low-income households in high-inequality regions accumulated less debt relative to income than their counterparts in regions with lower income inequality. For Italy, Loschiavo (2016) shows that richer households living in regions with higher income inequality are more likely to be indebted than similarly rich households residing in regions with low income inequality (and vice versa for poorer households).

So far, the CESEE countries have hardly received attention in the literature in this respect. A wide range of papers on CESEE household debt developments based on survey data (and often on OeNB Euro Survey data) have focused on determinants of foreign currency loans by accounting for the level of household income only (e.g. Fidrmuc et al, 2013; Beckmann et al., 2012). André (2016) is one of the few papers to offer a discussion on the role of income distribution in CESEE, pointing out that debt is unevenly distributed among households, which makes low-income households with debt service-to-income (DSTI) ratios of more than 40% particularly exposed to income and unemployment shocks. Most recently, Riedl (2019), using OeNB Euro Survey data, has explored in greater detail the role of income in household debt. Focusing on DSTI ratios in the CESEE countries of our sample, her paper found that households' DSTI ratios are negatively correlated to median income and that they are higher for the lower-income group of households but that the differences are not statistically significant.

To our knowledge, this paper is the first to relate income distribution at the country level to the likelihood of CESEE households having a loan. We enter uncharted waters as we relate the aspect of relative reference income (i.e. income relative to that of other households above an individual household's income position in the same country) to the likelihood of holding debt and test whether – and if so,

which – households strive to lift their relative consumption standards and take out loans. In addition, we take a more granular approach and focus on different loans according to their purpose. Finally, we apply a methodological framework that accounts for the different levels of data included (i.e. individual or household, country) and the possible correlations among them.

This paper is structured as follows: Section 1 explains the construction of the income distribution measure based on OeNB Euro Survey data, introduces the dependent variable and presents some descriptive evidence. Section 2 explains the empirical methodology before the results are discussed in sections 3 and 4. Section 5 concludes.

1 Income, income inequality and household debt in CESEE

This paper is based on data compiled in the OeNB Euro Survey, which is a household survey performed in ten CESEE countries.⁵ In each country and per each survey wave, the target population comprises around 1,000 respondents that are representative of the respective country's population aged 14+. Respondents are selected via a multi-stage stratified random sampling procedure. For the nine-year observation period analyzed in this paper (2009 to 2017), this corresponds to a total number of individual observations of about 110,000. While we have two levels of data (i.e. individuals or households, countries), the data structure is cross-sectional at the individual (i.e. household) level and a panel at the country level.

Building on Belabed and Hake (2018), one major contribution of this paper is the use of newly computed annual income inequality (i.e. distribution) measures that are comparable over time (i.e. for 2009 to 2017) and across the ten CESEE countries. The income distributional measures are based on the OeNB Euro Survey question, "What is the total monthly income of the household after taxes?" Between 2009 and 2016, survey respondents were asked to place their income in one of 20 categories, which were defined in a way that a maximum of 10% of respondents fall into each category. Subsequently, the ranges of categories were harmonized across the different countries and over the years, amounts were transformed into euro and into purchasing power units (to capture exchange rate and inflation differences) to ensure cross-country comparability. We then took the average of each income category to compute the equivalized household income.⁶ In the 2017 survey wave, respondents were asked to report the amount of their household income (or at least the approximate). Finally, we must note that the income data derived from the OeNB Euro Survey refer to net household income

⁵ The OeNB Euro Survey focuses on the degree of euroization in CESEE and thus comprises only EU countries that do not have the euro as their legal tender (Bulgaria, Croatia, the Czech Republic, Hungary, Poland and Romania) as well as four non-EU countries (Albania, Bosnia and Herzegovina, North Macedonia, and Serbia). For more information, see www.oenb.at/en/Monetary-Policy/Surveys/OeNB-Euro-Survey.html.

⁶ As individual respondents were asked about the income of their household, we applied OECD standards to calculate weighted household incomes to account for household structure (i.e. a weight of 1.0 was assigned to the first adult; 0.5 to the second and each subsequent person aged 14+; 0.3 to each child aged under 14).

and not to households' disposable income⁷ as the corresponding question referred to households' income after taxes without explicitly mentioning social transfers.⁸

1.1 Measures of income distribution based on OeNB Euro Survey data

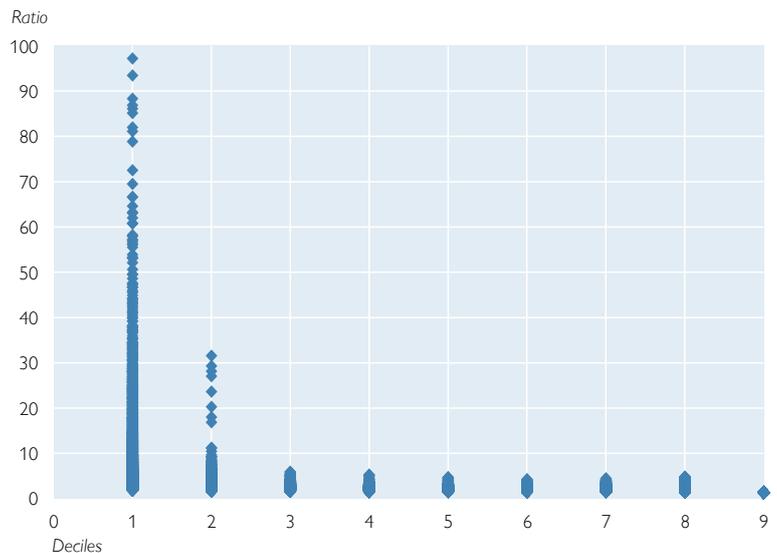
The most widely-used measure of income and wealth inequality is the Gini coefficient, which varies between 0 (fully equal) and 1 (completely unequal). However, this measure of income inequality comes at a cost: It does not provide enough information about which part of the distribution drives the aggregate outcome. For instance, an increase in the Gini coefficient per se does not reveal whether it was driven by a decrease in income shares at the bottom of the distribution or by an increase in income shares at the top of the distribution. Furthermore, different distributions may yield the same Gini coefficient, so it is impossible to judge which distribution to prefer. Finally, due to its construction, the Gini coefficient is particularly sensitive to changes in the middle of the distribution and less so to changes near its tails.

Against this background, we follow Drechsel-Grau and Schmid (2014) instead and opt for using households' relative reference income ratio, which is defined as the ratio between the mean income of all households in the income deciles above a household's own income decile relative to the respective household's own income. The higher this ratio, the lower the share of the household's own income in the country distribution and the higher income inequality at the country level. We consider this measure particularly fitting to our analysis as interpersonal comparisons tend to be directed "upward"⁹ (Ferrer-i-Carbonell, 2005). In addition, it combines both the impact of income and its distribution, thus alleviating omitted variable bias problems.

Chart 1 shows the distribution of households' reference income as compared with the respective country's income distribution. Intuitively speaking, respondents in the lowest income

Chart 1

Reference income ratio according to income deciles per country



Source: Authors' estimates based on OeNB Euro Survey data for the period from 2009 to 2017.

Note: Ratios represent averages for the observation period.

⁷ Eurostat defines a household's disposable income as the equivalized disposable income i.e. the total income of a household (including social benefits) after tax and other deductions.

⁸ The exclusion of transfers from our income variable would cause a bias in our estimations only if social transfers and our relative income variable defined below were correlated. However, this is unlikely to be the case for transfers provided by the public sector as these are independent of the income levels of other households. For private social transfers, such as remittances to the household from family members, there might be a correlation – but only if the remittance sender resides in the same country and is in a higher income decile. Given that most remittances come from family members abroad, we are confident that the bias is small or negligible.

⁹ A number of both theoretical and empirical contributions, including the relative income hypothesis by Duesenberry (1949), confirm that income status comparisons are directed "upward," i.e. refer to individuals at the higher end of the income distribution above a household's own income.

deciles (first and second) have the highest ratio (up to 98), implying that the income of a household in the first decile could be up to 98 times lower than the average income in all deciles above the first decile. For the whole sample, the median of the reference income ratio for all deciles is 2.3, while 99% of all observations are below 15.¹⁰ The correlation between the reference income measure and the country Gini coefficient is 0.28, which indicates that roughly one-third of the change in income inequality was attributable to the households below the top of the distribution.

1.2 Evidence on household debt derived from OeNB Euro Survey data

The OeNB Euro Survey provides information on whether households in our CESEE sample have a loan. Moreover, it also contains information on the loan's purpose (i.e. consumer loan, mortgage loan, car loan or loan for other purposes)¹¹. Therefore, we construct a dummy variable that is 1 if a household has a loan (and, in a subsequent step, if it belongs to a certain category) and 0 otherwise, which is our dependent variable. Chart 2 compares the share of individuals with loans immediately after the outbreak of the GFC in CESEE in 2009 with those in 2017. All countries in the sample except Albania and North Macedonia have seen a decline in the share of respondents with loans. This finding matches the information derived from macroeconomic data in most of the CESEE countries. In fact, according to recent Eurostat data, the relation of household sector loans to GDP has increased only in the Czech Republic, Poland and Serbia, hinting at a higher average amount of loans per person. According to the OeNB Euro Survey data, in the period from 2009 to 2017 respondents with consumption loans accounted, on average, for the largest share in total respondents: 21% of respondents in CESEE, on average, had a consumption loan, while 19% of respondents had a mortgage loan and 11% had a car loan.

Chart 2

Share of respondents having a loan



Source: OeNB Euro Survey, authors' calculations.

¹⁰ Please note that, by definition, there is no reference income ratio for the tenth decile of the income distribution.

¹¹ The loan question in the survey is asked in the following way, "Do you, either personally or together with your partner, currently have any loans that you are still paying off?" If respondents have a loan, they are asked to specify the purpose of the loan as follows: "to finance a house or apartment," "for consumption goods (furniture, travelling, household appliances, etc.)," "to finance a car" or "for other purposes."

1.3 Descriptive evidence of trends in income distribution and household loans in CESEE

Conventional distributional measures such as the Gini coefficient could be less sensitive to changes in the income distribution at the very bottom or at the very top (Salverda et al., 2009). Against this background, the relative income measure would, on the one hand, overcome the weaknesses of the Gini coefficient (see section 1.1) and, on the other hand – as it is available on the individual level – also put households' income position into a country or regional perspective.

Chart 3 compares the average relative household income ratios at the country level in 2009 and in 2017. In the majority of the CESEE countries surveyed, the relative income ratio increased, i.e. distributions of net household income became more unequal (as shown by a position above the 45 degree line) over time. By contrast, average household incomes in Hungary, Bosnia and Herzegovina, and Serbia were more equally distributed in 2017 than in 2009. In 2017, income inequality continued to be lowest in the Czech Republic, Hungary and Poland – a finding confirmed by widely-used data sources (e.g. Eurostat) based on the Gini coefficient income inequality measure. Of the countries in our sample, the most unequal average household income distribution was found in some of the Western Balkan countries (i.e. Bosnia and Herzegovina, North Macedonia, and Serbia) and Romania. Overall, a comparison with other income inequality measures is possible to a limited extent only as our measure is based on net income while Eurostat, for instance, uses disposable income. In addition, not all of the countries of our sample and not the entire time range are covered by alternative data sources. However, a comparison, to the extent possible, yields similar results.

2 Empirical strategy

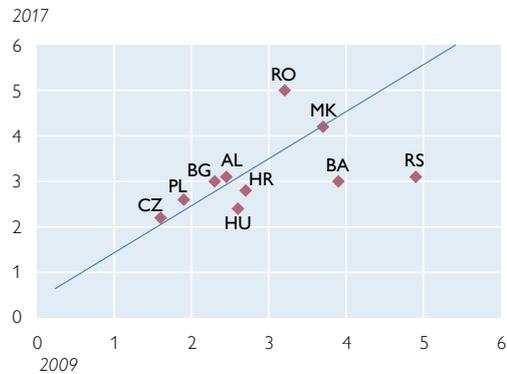
The present study includes individual but also country-level characteristics (i.e. two hierarchical levels of data), all of which are potentially correlated with the probability of a household in CESEE having a loan or having a certain type of loan. We consider it key for our analysis to account for these different data layers as households within the same region or country tend to be more similar and inter-related than households in different regions or countries. Disregarding this interdependency would violate the “no autocorrelation” assumption, which in turn would result in a downward-biased estimator and induce spurious “significant” coefficients of the included variables (Rabe-Hesketh and Skrondal, 2012).

2.1 Multilevel models

We apply multilevel probit models, which account for the nested structure of the data. A large set of possible covariates can influence the probability of having a loan, many of which are covered by the OeNB Euro Survey. As there are two levels

Chart 3

Correlation between relative income ratios in 2009 and 2017



Source: OeNB Euro Survey, authors' calculations.

of nested data clusters in our dataset, we allocate all explanatory variables to one of the following categories: the income distribution measure, sociodemographic characteristics, individual sentiments and characteristics (e.g. availability of savings, property), and country-level economic factors (see table A1 in the annex). In addition, we assume random effects at the higher levels of clusters.¹² The suitability of using the multilevel approach for our data and research question has been confirmed by Bryan et al. (2013), who claim that standard multilevel estimators are consistent only when both the number and size of the clusters are large, with the minimum number of groups (i.e. countries in our setting) being at least 10.

2.2 Empirical specification

For the observation period from 2009 to 2017, an individual's probability of having a loan (or a certain type of a loan) is given by

$$\Pr(\text{loan}_{ikt}) = \beta_0 + \sum_{k=1}^K \text{Rel income}_{ikt} * \text{decile}_{ikt} \beta_k^{RI} + \sum_{k=1}^K X_{ikt}^S \beta_k^S + \sum_{m=1}^M X_{kt}^C \beta_{kt}^C + \omega_{ikt}$$

where $k=1, \dots, 10$ represents clusters at the level of two (i.e. countries), and $i=1, \dots, 110.000$ representing level one (individual observations) and $t=2009, \dots, 2017$. loan_{ijkt} is a binary variable that takes a value of 1 if an individual has a loan and, respectively, if an individual has a loan of a certain category in year t . It must be noted that OeNB Euro Survey data about the purpose of loans are available only for the period from 2010 to 2014. We test the effect of income inequality in a first specification by including the level of reference income (*Rel income*) for each individual, and in the following specifications by including interaction terms with the individual's position in the country income distribution in every year. We opted for calculating the reference income at the country level, as the regional within variance of the income distribution happens to be low in most regions surveyed.^{13, 14}

Besides considering the important link between income inequality and the likelihood of a household having a loan, we included other variables the empirical literature has found to be correlated with household debt. In line with similar studies (e.g. Crook (2006), Beer and Schürz (2007)) and based on the availability of data from the OeNB Euro Survey, we also test for the impact of relevant socio-demographics on borrowing behavior (X_{ikt}^S). In particular, we include the level of a household's income to control for the descriptive finding that more affluent individuals are more likely to have a loan. The relevance of income for taking up a loan has been widely recognized in the literature although the direction of impact has been found to be less clear-cut. Higher income tends to enable people to self-finance their needs without resorting to borrowing. This suggests a lower demand

¹² Random effects are composed of "between variance" (i.e. variance between regions in a country and individuals in a region) and "within variance" (i.e. variance within the observations in one and the same cluster, i.e. country) parts.

¹³ Several regions in Bosnia and Herzegovina and in North Macedonia are an exception in this context.

¹⁴ Here, our household reference group comprises households in the same country. However, if the reference group is considered at the regional level instead of the country level, the point estimation results remain virtually unchanged but standard errors increase slightly. This could suggest that a household reference group is better captured at the country level than at the regional level. One possible explanation for this phenomenon could be that due to modern communication technologies, people are better connected across distances and, therefore, the reference population may go beyond households' immediate vicinity.

for lending in high-income households. When it comes to consumer credit, however, the level of income is less relevant than an expected change in income (which itself also depends on income distribution). In some of the CESEE countries in our sample (e.g. Bosnia and Herzegovina, Serbia), the consumer loan segment still accounts for the major share of household loans (Riedl, 2019).

In addition, a higher probability of having a loan could be expected for individuals that are young and establishing a household (Fidrmuc et al., 2013). On the other hand, the great uncertainty of very young households concerning their future income may lead to lower demand and/or supply of mortgages in this segment. Also, the occupational status (e.g. employed, student, retired, etc.) of a household allows us to draw conclusions about their income security, as does the number of children in the household (Albacete and Lindner, 2013). Moreover, households' higher wealth might imply less need for borrowing. However, certain undertakings, such as the purchase of real estate, require borrowers to contribute their own funds, which may result in an increase in the demand for lending among wealthier households. As the OeNB Euro Survey provides information on household wealth only for the period from 2010 to 2014, we included information on household wealth (e.g. their own car and/or house) only as a robustness check. Similar to Fidrmuc et al. (2013), who have shown that sentiments about current and future developments correlate with the likelihood of having a foreign currency loan, we also included sentiments about the financial situation of the household, the economic situation of the country as well as trust in both domestic and foreign-owned banks as control variables. In line with the life-cycle hypothesis, we also controlled for the availability of savings to respondents. Finally, X_{kt}^c accounts for country-level macroeconomic developments (e.g. GDP per capita, unemployment rate, financial development index).

A constant and a full set of yearly dummies, denoted in the equation by a time-specific constant π_t , is included in all specifications. The time dummies control for all factors that are common for all individuals in all countries in a specific year. ω_{ikt} is a random error term; in contrast to a level regression, it consists of two error terms: one at the individual level (i.e. for the i -th respondent within the k -th country) and one at the country level. Separating variance groups in this manner defines a measure to test the suitability of multilevel modeling, namely the intra-class variance coefficient (ICC or ρ). The higher this coefficient (i.e. in any case significantly different from zero), the more suitable is the application of multilevel modeling, i.e. the more important it is to take into account the effects of factors on a higher level.

3 Results

3.1 Probability of having a loan

Table 1 shows the multilevel probit estimations of households' probability of having a loan in dependence of different group variables. Column 1 shows the results of testing for the effects of the sociodemographic characteristics of the surveyed individuals and the income distribution measure. In this case, the coefficient of the relative income ratio expresses the average effect of income inequality. Columns 2 and 3 show the results of testing for possibly different effects with respect to households' position in the income distribution. The results confirm the insights from the literature (i.e. Loschiavo, 2016) and the descriptive analysis: the higher the

relative income ratio, i.e. the more unequally household income is distributed in a country, the less likely it would be for a respondent to have a loan. However, the results presented in column 2 show that the effect of the relative income ratio changes depending on the individual's position in the country (or regional) distribution. Accordingly, respondents with an income above the median of the country's income distribution are more likely to have a loan. As we control, at the same time, for the level of households' income, the interaction terms express only the impact of the income distribution. Interestingly, the opposite is found for the first and second deciles: Higher reference income is associated with a significant decrease in the likelihood of having a loan. As we can only draw conclusions about an "equilibrium" transaction, a possible inference from these results is in line with the "habit formation" motive of the relative income hypothesis: Individuals above the median of the country's income distribution are more likely to take out a loan as income inequality increases as they try to maintain their own relative consumption levels or to keep up with the richer reference group. At the same time, the negative effect observed for the first two deciles hints at the "signaling" function of the income distribution (e.g. Coibion et al., 2014) as banks increasingly use additional information besides borrowers' income when macroeconomic uncertainty is elevated, and become more restrictive in their loan supply. It should be stressed at this point that the interpretations put forward for the coefficients' signs are not the only possible explanations for these effects. However, keeping in mind the findings of the literature on these topics, we are confident that the suggested mechanisms offer a plausible explanation for the correlation between income distribution and a household's probability of having a loan. Moreover, in CESEE, respondents' likelihood of having a loan first increases with age, peaks when middle-aged, and then declines, i.e. older respondents are less likely to be indebted. Women or respondents having children are more likely to be indebted. The level of education and the occupational status have the intuitively expected effect on indebtedness.

In addition, in column 3 of table 1 we include respondents' sentiments with respect to various current and future developments, their trust in the banking system as covered in the OeNB Euro Survey as well as macroeconomic developments, which have been found to be related with indebtedness. Expectations of a good future economic situation of a country and a better financial position of the respective household correlate positively with a household's likelihood of having a loan, which is most likely due to expected future income inflows. In line with Fidrmuc et al. (2013), we show that higher trust in the banking system on average increases households' access to finance. At the country level, household indebtedness goes hand in hand with the level of GDP per capita and the improvement of the country's ranking in the financial development index. On the other hand, the unemployment rate proves to be insignificant, probably because it is already captured by the effect of income distribution.

In line with Coibion et al. (2014), in columns 4 and 5 we test whether income inequality has a threshold effect, i.e. we distinguish between CESEE regions where income is very unequally distributed and CESEE regions with a rather homogeneous income distribution. For this purpose, we split the sample into regions with a relative income ratio above the median of 2.3, and below. While we can confirm the baseline results of column 1 for the more unequal regions (column 4), the "upward-looking" comparison does not seem to play a role at all in the more equal

regions (column 5). Interestingly, from column 5 we see that in regions with less income inequality, respondents in the first and second income deciles are less likely to be indebted. This finding contradicts Coibion et al. (2014), who find such a result for U.S. households in high-inequality regions and explained it with supply effects that are prevalent when income inequality increases. In our case, this result might be due to CESEE households' relatively good financial position and the less pronounced country disparities, which reduce the "upward" comparison of low-income households. The existence of savings¹⁵ increases the likelihood of a household having a loan. Finally, we test whether wealthier individuals (i.e. those having a house in which they live, or a car) are more likely to have a loan (column 6). Generally, our estimations show that debt participation increases with wealth but only as measured by car ownership. Real estate ownership has only a marginal effect, presumably due to the overall high home ownership rates in CESEE (Hegedus et al., 2013).

As mentioned in section 2, the suitability of the multilevel approach is measured by the intraclass coefficient (ICC). An ICC of zero would indicate that the respondents (i.e. observations) within a given group (e.g. country or region) do not differ from the respondents (i.e. observations) within other groups. In such a case, multilevel analysis would be redundant. An ICC that varies between 6.2% and 7.5%, as shown in our results, confirms the importance of accounting for correlation among all levels of OeNB Euro Survey data.

¹⁵ The OeNB Euro Survey does not include information on the amount of households' savings.

Table 1

Country reference income and the probability of households having a loan (country deciles)

	1	2	3	4	5	6
Variables	Rel income level	Interaction of rel income with income decile	Sentiments	Regions with higher income inequality	Regions with lower income inequality	Wealth
Rel income	-0.012*** (0.004)					
1 st decile country*Rel income		-0.007* (0.004)	-0.011* (0.006)	-0.005 (0.005)	-0.028*** (0.005)	-0.006 (0.006)
2 nd decile country*Rel income		-0.010 (0.008)	-0.024* (0.013)	-0.005 (0.013)	-0.035** (0.015)	-0.010 (0.008)
3 rd decile country*Rel income		0.010 (0.014)	-0.006 (0.015)	0.013 (0.016)	-0.013* (0.020)	0.010 (0.014)
4 th decile country*Rel income		0.017 (0.013)	-0.002 (0.011)	0.020 (0.013)	-0.012 (0.022)	0.017 (0.013)
5 th decile country*Rel income		0.031** (0.015)	0.007 (0.017)	0.033 (0.021)	0.002 (0.029)	0.049** (0.015)
6 th decile country*Rel income		0.045*** (0.011)	0.035*** (0.012)	0.056*** (0.009)	0.025 (0.020)	0.058*** (0.011)
7 th decile country*Rel income		0.051*** (0.015)	0.036** (0.015)	0.069*** (0.016)	0.015 (0.020)	0.051*** (0.015)
8 th decile country*Rel income		0.065*** (0.017)	0.048** (0.019)	0.081*** (0.015)	0.025 (0.027)	0.070*** (0.017)
9 th decile country*Rel income		0.064*** (0.019)	0.048** (0.019)	0.078*** (0.017)	0.023 (0.017)	0.066*** (0.019)
Female	0.025* (0.013)	0.025* (0.013)	0.028** (0.014)	0.038*** (0.015)	0.025 (0.021)	0.016 (0.019)
Age	0.101*** (0.007)	0.101*** (0.007)	0.101*** (0.007)	0.109*** (0.007)	0.095*** (0.009)	0.093*** (0.009)
Age squared	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)
Children	0.267*** (0.032)	0.274*** (0.032)	0.270*** (0.031)	0.287*** (0.045)	0.266*** (0.033)	0.266*** (0.031)
Head of household	0.011 (0.024)	0.015 (0.023)	0.011 (0.026)	0.010 (0.024)	0.021 (0.032)	0.015 (0.030)
Secondary education	0.207*** (0.023)	0.187*** (0.021)	0.181*** (0.017)	0.210*** (0.022)	0.163*** (0.028)	0.187*** (0.017)
High education	0.308*** (0.057)	0.271*** (0.053)	0.249*** (0.052)	0.293*** (0.082)	0.226*** (0.046)	0.264*** (0.049)
Unemployed	-0.305*** (0.063)	-0.276*** (0.062)	-0.266*** (0.061)	-0.340*** (0.056)	-0.204*** (0.071)	-0.292*** (0.063)
Self-employed	0.030 (0.052)	0.026 (0.051)	0.020 (0.042)	-0.072 (0.072)	0.073*** (0.028)	0.014 (0.040)
Student	-0.717*** (0.114)	-0.705*** (0.115)	-0.704*** (0.113)	-0.706*** (0.094)	-0.714*** (0.158)	-0.716*** (0.102)
Retired	-0.104*** (0.029)	-0.090*** (0.028)	-0.083*** (0.027)	-0.090*** (0.032)	-0.126*** (0.040)	-0.099*** (0.026)
Savings	0.548*** (0.039)	0.541*** (0.040)	0.543*** (0.040)	0.572*** (0.051)	0.508*** (0.054)	0.483*** (0.041)
Income	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)

Source: Authors' estimations.

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is binary and takes the value of 1 if an individual has a loan. "Decile country" denotes the respective income decile in a country's income distribution. All specifications include a full set of annual dummies. The intraclass correlation coefficient "region" denotes the variation explained by the variables at the regional level. The intraclass correlation coefficient "country" denotes the variation explained by the variables at the country level. Robust standard errors are given in parentheses. Variables are defined in the annex.

Table 1 continued

Country reference income and the probability of households having a loan (country deciles)

	1	2	3	4	5	6
Variables	Rel income level	Interaction of rel income with income decile	Sentiments	Regions with higher income inequality	Regions with lower income inequality	Wealth
Has a house						0.038 ¹ (0.049)
Has a car						0.1543 (0.034)
Future economic situation better			0.025 (0.017)	0.023 (0.037)	0.045*** (0.017)	0.036* (0.020)
Current economic situation better			-0.114*** (0.018)	-0.099*** (0.019)	-0.129*** (0.019)	-0.114*** (0.016)
Future financial situation better			0.044** (0.021)	0.072** (0.030)	0.023 (0.023)	0.038** (0.018)
Trust in banks			0.061*** (0.019)	0.108*** (0.023)	0.051*** (0.018)	0.070*** (0.018)
GDP per capita			0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)
Unemployment rate			0.003 (0.007)	0.003 (0.007)	0.003 (0.007)	0.003 (0.007)
Financial development index			1.531*** (0.287)			1.412* (0.752)
Intraclass correlation coefficient "region"	0.044*	0.045*	0.041*	0.023*	0.051	0.041*
Intraclass correlation coefficient "country"	0.019***	0.018***	0.019***	0.038***	0.024***	0.024***
Number of observations	98,771	98,771	75,481	32,730	41,912	40,734

Source: Authors' estimations.

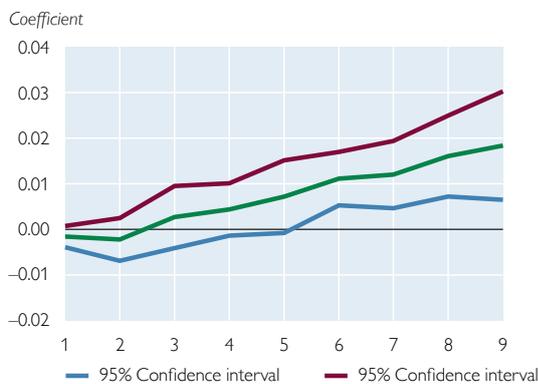
Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is binary and takes the value of 1 if an individual has a loan. "Decile country" denotes the respective income decile in a country's income distribution. All specifications include a full set of annual dummies. The intraclass correlation coefficient "region" denotes the variation explained by the variables at the regional level. The intraclass correlation coefficient "country" denotes the variation explained by the variables at the country level. Robust standard errors are given in parentheses. Variables are defined in the annex.

3.2 Marginal effects

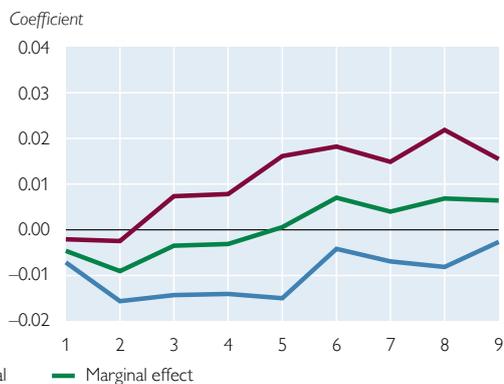
While the coefficients listed in table 1 only express qualitative effects, i.e. the sign of the coefficient, chart 4 shows the average marginal effects, which makes it possible to draw conclusions on the size of the effects the income distribution has on households' likelihood of having a loan. We opted for showing the marginal effects for the whole sample on the one hand, and for low income inequality regions only on the other hand, as there are discernible differences in the latter case. For instance, the average marginal effect of respondents' income ratio in the ninth income decile is 0.017 (see chart 4, left-hand panel), which means that an increase of the relative income ratio in this decile by 1 unit (i.e. for instance, from 2 to 3) would increase the likelihood of a household in this decile having a loan by 1.7 percentage points. Considering that the share of indebted households in the upper deciles is higher than in the rest of the income distribution (see section 2), the overall effect of the relative income ratio on household indebtedness would be non-negligible. For CESEE regions with lower income inequality (i.e. with a relative income ratio lower than 2.3), the effects in the first two deciles remain significant and negative, while for the remainder of the income distribution, they are insignificant.

Average marginal effect of relative income ratio per country

All CESEE countries



Lower inequality CESEE countries



Source: Authors' estimates.

4 Heterogeneity of effects: loans according to purpose

For the period from 2010 to 2014, the OeNB Euro Survey gathered information also on the purpose of households' loans, splitting the general category of loans into mortgage, consumer, car and other loans.

In CESEE, the share of homeowners without a mortgage is very high, as after the fall of the iron curtain tenants in most CESEE countries were offered to buy the homes they lived in at a low price (Hegedus et al., 2013). Moreover, in these countries, the share of homeowner households has been shown to vary least with households' income position, thereby reflecting people's higher preference for buying a home, which is above that observed in other EU countries. At the same time, the increased availability of housing and the low interest rate environment in recent years have supported the rise of the share of mortgage loans in total loans. Therefore, given favorable credit supply conditions, higher income inequality might result in higher demand for mortgage-financed housing.

Indeed, in line with these CESEE-specific features, the results presented in column 1 of table 2 show that the effects are sizeably stronger for mortgage loans than for all loans (see table 1) and extend to households from the third decile onward as well. Similar effects are shown for car loans (column 3), presumably reflecting the perception of a car as a "status good" (i.e. conspicuous consumption). Interestingly, the relative income comparison seems to be valid for consumer loans only for the most affluent households in our sample. Finally, the category of "other loans" shows no significant effects mainly because this category would consider loan types (e.g. cash loans, loans for education, etc.) for which a relative comparison would not play much of a role.

Table 2

Country reference income and the probability of households having different loans for different purposes

Variables	1 Mortgage loans	2 Consumption loans	3 Car loans	4 Loans for other purposes
1 st decile country*Rel income	0.004 (0.005)	-0.004 (0.005)	-0.001 (0.008)	-0.003 (0.009)
2 nd decile country*Rel income	-0.006 (0.014)	-0.008 (0.020)	0.001 (0.018)	-0.016 (0.019)
3 rd decile country*Rel income	0.044*** (0.016)	-0.008 (0.011)	0.020 (0.033)	0.007 (0.024)
4 th decile country*Rel income	0.036* (0.021)	0.023* (0.013)	0.033 (0.032)	-0.037 (0.035)
5 th decile country*Rel income	0.031 (0.023)	0.030** (0.013)	0.059** (0.027)	-0.013 (0.036)
6 th decile country*Rel income	0.085*** (0.020)	0.048** (0.021)	0.055* (0.029)	-0.004 (0.032)
7 th decile country*Rel income	0.074*** (0.020)	0.046** (0.021)	0.064*** (0.016)	-0.027 (0.032)
8 th decile country*Rel income	0.079*** (0.027)	0.064** (0.016)	0.095*** (0.020)	-0.015 (0.033)
9 th decile country*Rel income	0.110*** (0.033)	0.077** (0.031)	0.115*** (0.034)	-0.009 (0.040)
Female	0.026 (0.035)	0.079*** (0.025)	-0.105*** (0.027)	0.036* (0.020)
Age	0.077*** (0.014)	0.077*** (0.005)	0.064*** (0.008)	0.077*** (0.011)
Age squared	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)
Children	0.334*** (0.063)	0.134*** (0.037)	0.198*** (0.032)	0.099*** (0.027)
Head of household	0.030 (0.035)	0.035 (0.023)	-0.046 (0.033)	0.002 (0.020)
Secondary education	0.127*** (0.027)	0.133*** (0.044)	0.156*** (0.051)	0.108*** (0.026)
High education	0.287*** (0.054)	0.066 (0.064)	0.240*** (0.082)	0.085* (0.048)
Unemployed	-0.128** (0.057)	-0.227*** (0.067)	-0.211*** (0.055) *	-0.103** (0.042)
Self-employed	-0.006 (0.059)	-0.150*** (0.030)	0.043 (0.060)	0.268*** (0.053)
Student	-0.593*** (0.117)	-0.621*** (0.123)	-0.608*** (0.143)	-0.220*** (0.064)
Retired	-0.053 (0.068)	-0.001 (0.066)	-0.130*** (0.047)	0.098* (0.054)
Savings	0.414*** (0.064)	0.434** (0.048)	0.397*** (0.046)	0.327*** (0.041)
Income	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)

Source: Authors' estimations.

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is binary and takes a value of 1 if an individual has a mortgage/consumer/car loan or loans for other purposes. "Decile country" denotes the respective income decile in a country's income distribution. All specifications include a full set of annual dummies. The intraclass correlation coefficient "region" denotes the variation explained by the variables at the regional level. The intraclass correlation coefficient "country" denotes the variation explained by the variables at the country level. Robust standard errors are given in parentheses. Variables are defined in the annex.

Table 2 continued

Country reference income and the probability of households having different loans for different purposes

Variables	1 Mortgage loans	2 Consumption loans	3 Car loans	4 Loans for other purposes
Future economic situation better	0.006 (0.022)	0.019 (0.021)	-0.004 (0.023)	-0.001 (0.026)
Current economic situation better	0.001 (0.028)	-0.182*** (0.036)	-0.010 (0.044)	-0.123*** (0.031)
Future financial situation better	0.024 (0.028)	0.025 (0.026)	0.063*** (0.016)	0.083*** (0.021)
Trust in banks	0.073** (0.032)	-0.000 (0.026)	0.044 (0.029)	0.004 (0.029)
GDP per capita	-0.000* (0.000)	-0.000 (0.000)	0.000** (0.000)	-0.000* (0.000)
Unemployment rate	0.007 (0.009)	0.003 (0.009)	0.014** (0.007)	0.006 (0.008)
Financial development index	2.352*** (0.507)	0.529 (0.516)	1.072*** (0.264)	0.955* (0.504)
Intraclass correlation coefficient "region"	0.044*	0.045*	0.041*	0.021*
Intraclass correlation coefficient "country"	0.019***	0.018***	0.019***	0.023***
Number of observations	47,819	47,819	47,819	47,819

Source: Authors' estimations.

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is binary and takes a value of 1 if an individual has a mortgage/consumer/car loan or loans for other purposes. "Decile country" denotes the respective income decile in a country's income distribution. All specifications include a full set of annual dummies. The intraclass correlation coefficient "region" denotes the variation explained by the variables at the regional level. The intraclass correlation coefficient "country" denotes the variation explained by the variables at the country level. Robust standard errors are given in parentheses. Variables are defined in the annex.

5 Summary and conclusions

This study is a first-step analysis of the link between the level of household income inequality in CESEE and the probability of CESEE households having a loan. For this purpose, we use unique household survey data from the OeNB Euro Survey for the period from 2009 to 2017 and compute income inequality measures that are comparable across countries and over time – a first-time endeavor for some of the CESEE countries of our sample. We then address the question whether inter-personal comparisons affect households' probability of having a loan. We apply multilevel modeling to account for the hierarchical structure of the data and the possible correlation between data from the same level.

Our results support the notion that a household's relative income position along with its absolute income matters for the incidence of having a loan, and that this is valid mainly for households above the median. In addition, a key result of our study is that income inequality could be seen as both a supply-side and a demand-side driver of household debt in CESEE. The former effect (i.e. influence through the signaling channel) is present among low-income cohorts of households. On the other hand, "upward" comparisons tend to play a role for the probability of more affluent household cohorts having a loan. The effects of income distribution on the likelihood of having a loan are nonnegligible. For instance, the average effect on respondents in the ninth income decile is 0.017, which means that an increase of

respondents' relative income by 1 unit (i.e. for instance, from 2 to 3) would raise their likelihood of having a loan by 1.7 percentage points. Taking a more granular approach, in regions with lower income inequality we find no impact of income inequality on households' probability of having a loan in any deciles except the first three, where the effect is negative. By contrast, when income inequality increases in regions where income inequality levels are already high (i.e. above the median), the probability of having a loan of more affluent cohorts edges up. Our results also prove that income distribution in the CESEE countries matters for almost all components of household debt but that effects are strongest for mortgage and car loans.

There are several takeaways for policymakers from our analysis. First, the fact that income distribution has an effect on the likelihood of CESEE households having a loan highlights the implications of fiscal measures for financial stability. Second, a more unequal income distribution limits access to finance for low-income households, which runs counter policies intended to increase financial inclusion in CESEE. Of course, this should be regarded against the background of risks to financial stability, and even more so as our results apply to households' probability of having a loan and not to the amount of the loan. Finally, our analysis should be seen as an initial step toward shedding more light on the interaction between income distribution and household debt in CESEE. Future research will expand the framework at hand and turn attention to the impact of income distribution on foreign-currency household debt, given its relevance for the CESEE region. Moreover, more attention should be drawn to distinguishing between supply and demand effects (e.g. by looking also into households' intentions to take out a loan).

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Annex

Variables used in the multilevel probit estimations

Table A1

List of variables used in the multilevel probit estimations

Variable	Description
Dependent variable	
Loan	Dummy variable that takes a value of 1 if a respondent has a loan; respondents answering "don't know" or "no answer" are excluded from the analysis
Mortgage/consumer/car/other	Dummy variables that take a value of 1 if a respondent has one of these loan categories; respondents answering "don't know" or "no answer" are excluded from the analysis
Income variable	
Rel income	The ratio of the average income of all i. e. in a country who are above an individual's income decile to the specific individual's income. No value can be defined for the highest income decile
Sociodemographic factors	
Age (and age squared)	Age of respondent in years (i.e. respondents aged 14+)
Secondary education	Dummy variable that takes a value of 1 if respondent has medium education (i.e. lower and upper secondary, post-secondary but nontertiary)
High education	Dummy variable that takes a value of 1 if respondent has high education (i.e. first and second stage of tertiary)
Female	Dummy variable that takes a value of 1 if respondent is female
Children	Dummy variable that takes a value of 1 if respondent has children
Head of household	Dummy variable that takes a value of 1 if respondent is head of household
Unemployed	Dummy variable that takes a value of 1 if respondent is unemployed
Self-employed	Dummy variable that takes a value of 1 if respondent is self-employed
Student	Dummy variable that takes a value of 1 if respondent is student
Retired	Dummy variable that takes a value of 1 if respondent is retired
Has a house	Dummy variable that takes a value of 1 if respondent has a house he or she lives in
Has a car	Dummy variable that takes a value of 1 if respondent has a car
Savings	Dummy variable that takes a value of 1 if respondent has a deposit
Income	Household equivalence income in euro and PPP
Sentiments	
Current economic situation better	Dummy variable that takes a value of 1 if respondent states to (strongly) agree to "Currently the economic situation of my country is very good"
Future economic situation better	Dummy variable that takes a value of 1 if respondent states to (strongly) agree to "Over the next five years, the economic situation of my country will improve"
Future financial situation better	Dummy variable that takes a value of 1 if respondent states to (strongly) agree to "Over the next 12 months, I expect the financial situation of my household to get better"
Trust in banks	Dummy variable that takes a value of 1 if respondents state they "completely trust" or "somewhat trust" domestically- and/or foreign-owned banks
Country-level variables	
GDP per capita	GDP per capita, PPP (constant 2011 prices); source: World Bank
Unemployment rate	The share of the labor force that is without work but available for and seeking employment; source: International Labour Organization
Financial development index	Composite index varying between 0 and 1 and consisting of nine subindices covering financial access, depth and efficiency; source: IMF

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

	2016	2017	2018	Q3 17	Q4 17	Q1 18	Q2 18	Q3 18	Q4 18
Gross domestic product	<i>Annual real change in %</i>								
Albania	3.3	3.8	4.1	3.5	3.6	4.3	4.2	4.7	3.1
Bosnia and Herzegovina ¹	3.4	3.4	3.1	4.1	2.8	3.2	3.4	2.7	3.0
Kosovo	4.1	3.7	3.9	4.4	3.2	3.5	4.7	3.4	3.8
Montenegro	2.9	4.7	4.9	5.4	4.7	4.5	4.9	5.0	4.8
North Macedonia	2.8	0.2	2.7	0.1	1.6	0.9	3.0	3.0	3.7
Serbia	3.3	2.0	4.3	2.2	2.5	4.9	4.9	4.1	3.4
Ukraine	2.4	2.5	3.3	2.3	2.2	3.3	3.8	2.8	3.5
Industrial production	<i>Annual real change in %</i>								
Albania	-18.0	-0.6	18.5	-6.3	-4.1	21.5	28.8	18.0	5.4
Bosnia and Herzegovina ²	4.4	3.1	1.6	5.5	2.7	5.0	1.4	0.8	-0.4
Kosovo	1.8	0.6	0.2	5.6	0.2	0.4	0.0	-2.7	3.6
Montenegro	-2.9	-4.2	22.4	-1.3	2.6	39.1	24.0	11.9	17.6
North Macedonia	3.4	0.2	5.4	-2.4	0.9	5.2	4.9	5.1	6.4
Serbia	5.2	3.9	1.4	7.2	3.7	6.5	2.5	-1.3	-1.3
Ukraine	2.8	0.4	1.6	0.4	0.8	2.9	3.2	1.2	-0.4
Average gross wages – total economy	<i>Annual change in %</i>								
Albania	-12.0	-0.6	18.5	4.1	2.4	4.2	2.5	2.4	3.4
Bosnia and Herzegovina	0.9	3.1	1.6	1.6	1.5	2.1	2.8	3.5	4.2
Kosovo	5.8	0.6	0.2	..	..	..	..	..	..
Montenegro	3.5	-4.2	22.4	1.1	1.3	-0.1	0.0	0.3	0.1
North Macedonia	2.0	0.2	5.4	2.9	3.1	4.7	6.2	5.5	6.6
Serbia	3.8	3.9	1.4	3.9	3.0	8.4	2.3	2.7	-1.1
Ukraine	23.3	0.4	1.6	36.8	37.2	26.1	26.3	24.7	22.5
Unemployment rate³	%								
Albania	15.6	14.1	12.8	14.0	13.6	13.0	12.9	12.7	12.7
Bosnia and Herzegovina	25.8	21.1	18.9	..	..	..	..	..	..
Kosovo	27.5	30.5	29.5	30.2	30.6	26.5	29.4	30.7	31.4
Montenegro	18.0	16.4	15.5	15.1	17.4	16.5	14.7	14.4	16.4
North Macedonia	24.0	22.6	21.0	22.3	22.1	21.9	21.4	21.0	19.6
Serbia	15.9	14.1	13.3	13.5	15.3	15.5	12.5	11.8	13.4
Ukraine	9.7	9.9	9.1	9.1	10.5	10.0	8.6	8.4	9.4
Consumer price index	<i>Period average, annual change in %</i>								
Albania	1.3	2.0	2.0	1.7	1.8	1.9	2.2	2.2	1.8
Bosnia and Herzegovina	-1.6	0.8	1.4	0.6	0.7	0.8	1.4	1.8	1.7
Kosovo	0.3	1.5	1.1	1.7	0.7	0.0	0.7	1.4	2.2
Montenegro	-0.3	2.4	2.6	2.7	2.2	2.7	3.2	2.7	1.8
North Macedonia	-0.2	1.4	1.5	1.5	2.1	1.7	1.5	1.5	1.2
Serbia	1.1	3.1	2.0	3.0	2.9	1.6	1.8	2.4	2.0
Ukraine	14.9	14.4	11.0	16.2	13.9	13.8	11.6	8.9	9.7

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

¹ Expenditure-side data.

² Value added in the national accounts.

³ Labor force survey.

Table 2

External accounts

	2016	2017	2018	Q3 17	Q4 17	Q1 18	Q2 18	Q3 18	Q4 18
Trade balance	% of GDP								
Albania	-24.3	-24.4	-22.5	-26.0	-26.0	-21.8	-20.3	-23.0	-24.7
Bosnia and Herzegovina	-22.7	-22.7	-22.2	-22.4	-23.3	-20.8	-22.3	-23.1	-22.4
Kosovo	-37.7	-39.2	-41.8	-37.0	-40.9	-41.2	-43.5	-41.2	-41.4
Montenegro	-41.9	-43.2	-44.4	-34.2	-46.2	-46.4	-52.3	-36.9	-45.3
North Macedonia	-18.8	-17.9	-16.2	-15.5	-18.6	-19.3	-15.5	-14.1	-16.1
Serbia	-8.5	-10.2	-12.3	-8.2	-12.6	-11.7	-10.9	-11.2	-15.0
Ukraine	-7.5	-8.6	-9.7	-9.0	-9.9	-8.1	-7.3	-12.4	-10.0
Current plus capital account balance	% of GDP								
Albania	-7.0	-6.4	-5.9	-3.9	-8.8	-5.5	-4.6	-3.9	-9.6
Bosnia and Herzegovina	-3.5	-3.6	-3.1	-2.5	-3.9	-4.3	-2.1	-2.4	-3.8
Kosovo	-7.7	-6.8	-8.8	13.1	-14.1	-12.7	-16.1	6.3	-14.7
Montenegro	-18.1	-18.6	-17.2	17.8	-38.2	-36.2	-28.8	13.1	-32.3
North Macedonia	-2.7	-0.8	-0.2	7.4	-2.2	-6.0	0.9	7.0	-3.5
Serbia	-3.0	-5.2	-5.2	-3.8	-6.9	-7.4	-3.4	-5.1	-5.2
Ukraine	-1.4	-2.1	-3.5	-3.7	-2.8	-2.0	-0.3	-7.8	-2.7
Foreign direct investment¹	% of GDP								
Albania	-8.7	-8.6	-8.0	-11.7	-7.3	-10.4	-6.6	-8.3	-7.2
Bosnia and Herzegovina	-1.6	-2.0	-2.2	-1.6	-1.5	-3.2	-1.7	-2.6	-1.3
Kosovo	-2.9	-4.0	-2.9	-2.9	-3.6	-1.7	-2.3	-4.0	-3.2
Montenegro	-9.4	-11.0	-7.1	-6.4	-15.0	-6.0	-9.4	-4.2	-9.5
North Macedonia	-3.3	-1.8	-5.8	2.4	-6.2	-9.8	-2.8	0.1	-10.7
Serbia	-5.2	-6.2	-7.5	-6.7	-5.9	-7.4	-6.4	-5.4	-10.4
Ukraine	-3.5	-2.3	-1.8	-1.6	-1.3	-1.8	-2.1	-1.2	-2.2
Gross external debt	End of period, % of GDP								
Albania	73.5	68.7	65.5	68.8	68.7	67.2	67.0	64.7	65.4
Bosnia and Herzegovina	69.6	66.2	..	..	..	..	..	..	..
Kosovo	33.2	33.3	30.8	33.1	33.3	31.6	32.1	32.4	30.8
Montenegro	..	..	..	..	..	..	..	..	..
North Macedonia	74.7	73.6	73.7	77.1	73.6	81.4	81.5	79.8	73.7
Serbia	91.7	85.8	84.7	88.4	85.8	77.8	77.5	77.0	84.7
Ukraine	126.4	97.3	90.2	101.8	97.3	94.0	95.2	92.8	90.2
Reserve assets excluding gold	Period average, annual change in %								
Albania	27.0	25.4	26.2	24.3	25.4	23.6	24.0	24.6	26.2
Bosnia and Herzegovina	30.0	31.8	33.6	31.1	31.8	32.5	32.7	33.8	33.6
Kosovo ²	10.0	10.9	11.8	12.8	10.9	11.2	10.9	14.0	11.8
Montenegro	19.7	20.4	23.4	18.2	20.4	17.5	22.5	23.9	23.4
North Macedonia	24.5	20.9	24.4	20.5	20.9	23.1	23.3	23.6	24.4
Serbia	26.0	23.7	24.6	26.0	23.7	23.8	25.2	24.9	24.6
Ukraine	16.4	15.0	15.6	15.4	15.0	14.0	14.2	12.8	15.6

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

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

	2016	2017	2018	Q3 17	Q4 17	Q1 18	Q2 18	Q3 18	Q4 18
Bank loans to the domestic nonbank private sector	<i>End of period, annual change in %</i>								
Albania ¹	0.4	3.6	-0.2	3.5	3.6	4.7	1.6	-0.7	-0.2
Bosnia and Herzegovina ¹	3.4	7.5	5.7	7.5	7.5	7.3	7.1	6.5	5.7
Kosovo	10.4	11.5	10.9	10.2	11.5	10.4	11.3	11.4	10.9
Montenegro	5.7	7.5	9.6	6.5	7.5	7.1	8.4	10.2	9.6
North Macedonia ¹	-0.1	7.4	6.4	5.3	7.4	8.1	7.7	7.6	6.4
Serbia ¹	1.0	7.9	8.4	4.9	7.9	8.6	7.8	6.4	8.4
Ukraine ¹	-4.0	-0.6	6.5	-2.6	-0.6	7.1	6.7	9.8	6.5
Share of foreign currency loans²	<i>End of period, %</i>								
Albania	53.4	51.1	50.4	51.6	51.1	50.7	50.7	50.7	50.4
Bosnia and Herzegovina	64.5	62.9	59.0	62.9	62.9	62.4	61.9	61.0	59.0
Kosovo	..	..	..	..	..	..	..	..	..
Montenegro ³	6.3	5.1	..	5.4	5.1	6.3	6.3	5.6	..
North Macedonia	43.9	41.7	40.4	42.6	41.7	41.9	41.8	41.8	40.4
Serbia ⁴	67.9	66.2	66.3	66.9	66.2	66.8	67.0	66.5	66.3
Ukraine	49.5	43.9	42.9	44.1	43.9	43.4	42.9	44.1	42.9
NPL ratio	<i>%</i>								
Albania	18.3	13.2	11.1	14.8	13.2	13.4	13.3	12.9	11.1
Bosnia and Herzegovina	10.1	8.6	..	9.2	8.6	8.5	8.2	8.2	..
Kosovo	4.9	3.1	2.7	3.6	3.1	2.9	2.8	2.8	2.7
Montenegro	10.3	7.3	6.9	7.4	7.3	7.3	7.0	6.7	6.9
North Macedonia	5.5	5.1	4.8	5.5	5.1	4.4	4.5	4.5	4.8
Serbia	15.6	10.1	..	12.0	10.1	9.7	8.8	7.5	..
Ukraine	30.5	54.5	52.9	56.4	54.5	56.5	55.7	54.3	52.9
Tier 1 capital ratio	<i>%</i>								
Albania	13.8	15.1	17.0	14.8	15.1	15.6	16.6	16.9	17.0
Bosnia and Herzegovina	15.0	14.8	16.5	14.9	14.8	14.4	14.6	14.6	16.5
Kosovo ⁵	17.9	18.0	17.0	17.8	18.0	18.3	17.4	16.1	17.0
Montenegro ⁵	16.1	16.4	..	16.8	16.4	16.2	17.2	16.5	..
North Macedonia	13.9	14.2	15.0	14.6	14.2	14.8	15.1	14.9	15.0
Serbia	20.0	21.6	..	21.5	21.6	21.8	22.1	21.9	..
Ukraine	9.0	12.1	10.5	11.5	12.1	12.0	11.2	10.3	10.5

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

	2016	2017	2018	Q3 17	Q4 17	Q1 18	Q2 18	Q3 18	Q4 18
Key interest rate	<i>End of period, %</i>								
Albania (one-week repo rate)	1.3	1.3	1.0	1.3	1.3	1.3	1.0	1.0	1.0
Bosnia and Herzegovina ¹	..	..	..	..	..	..	..	..	..
Kosovo ¹	..	..	..	..	..	..	..	..	..
Montenegro ¹	..	..	..	..	..	..	..	..	..
North Macedonia (28/35-day central bank bills)	3.8	3.3	2.5	3.3	3.3	3.0	3.0	2.8	2.5
Serbia (one-week repo rate)	4.0	3.5	3.0	3.8	3.5	3.3	3.0	3.0	3.0
Ukraine (discount rate)	14.0	14.5	18.0	12.5	14.5	17.0	17.0	18.0	18.0
Three-month interbank rate	<i>Period average, %</i>								
Albania	1.3	1.3	1.0	1.3	1.3	1.3	1.0	1.0	1.0
Bosnia and Herzegovina	..	..	..	..	..	..	..	..	..
Kosovo	..	..	..	..	..	..	..	..	..
Montenegro	..	..	..	..	..	..	..	..	..
North Macedonia	3.8	3.3	2.5	3.3	3.3	3.0	3.0	2.8	2.5
Serbia	4.0	3.5	3.0	3.8	3.5	3.3	3.0	3.0	3.0
Ukraine	14.0	14.5	18.0	12.5	14.5	17.0	17.0	18.0	18.0
Exchange rate	<i>Period average, national currency per EUR</i>								
Albania	137.4	134.2	127.6	132.9	133.5	132.5	127.4	126.0	124.4
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	61.6	61.6	61.5	61.6	61.5	61.6	61.5	61.5	61.5
Serbia	123.1	121.4	118.3	119.8	119.1	118.4	118.2	118.1	118.4
Ukraine	28.3	30.0	32.1	30.4	31.7	33.5	31.3	31.8	31.9
	2016	2017	2018	2016	2017	2018			
	General government balance			General government debt					
	<i>End of period, % of GDP</i>								
Albania	-1.8	-2.0	-2.0	68.6	67.9	69.9			
Bosnia and Herzegovina	1.2	2.6	2.8	40.4	36.1	31.6			
Kosovo	0.2	1.4	-0.6	14.0	15.9	17.2			
Montenegro	-2.8	-3.1	-2.7	64.4	64.9	70.0			
North Macedonia	-2.7	-2.7	-2.8	39.6	39.3	42.2			
Serbia	-1.2	1.1	0.4	68.6	60.1	53.0			
Ukraine	-2.3	-1.4	-1.9	80.9	71.8	60.9			

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

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

Conventions used

.. = data not available.

Discrepancies may arise from rounding.