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Stability and Security.

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Call for applications: Visiting Research Program

The Oesterreichische Nationalbank (OeNB) invites applications from external researchers (EU or Swiss nationals) for participation in a Visiting Research Program established by the OeNB's Economic Analysis and Research Department. The purpose of this program is to enhance cooperation with (preferably postdoc) members of academic and research institutions who work in the fields of macroeconomics, international economics or financial economics and/or whose research has a regional focus on Central, Eastern and Southeastern Europe.

The OeNB offers a stimulating and professional research environment in close proximity to the policymaking process. Visiting researchers are expected to collaborate with the OeNB's research staff on a prespecified topic and to participate actively in the department's internal seminars and other research activities. They will, as a rule, have access to the department's computer resources, and they will also be provided with accommodation on demand. Their research output may be published in one of the department's publication outlets or as an OeNB Working Paper. Research visits should ideally last between three and six months, but timing is flexible.

Applications (in English) should include

- a curriculum vitae,
- a research proposal that motivates and clearly describes the envisaged research project,
- an indication of the period envisaged for the research visit, and
- information on previous scientific work.

Applications for 2019 should be e-mailed to *eva.gehringer-wasserbauer@oenb.at* by November 1, 2018.

Applicants will be notified of the jury's decision by mid-December. The following round of applications will close on May 1, 2019.

Recent economic developments and outlook

Developments in selected CESEE countries

Strongest economic upswing since 2008 amid booming domestic demand[1, 2, 3]

1 Regional overview

Robust economic expansion is broad based …

Economic conditions in CESEE remained favorable in the second half of 2017 so that the region experienced one of the strongest economic upswings since 2008. This was especially true for the CESEE EU Member States, where the current economic momentum was strong and broad based. Positive contributions from private consumption were increasingly supplemented by strengthening investments. Domestic demand stayed strong given dynamic private consumption growth based on good sentiment, higher wages, private sector releveraging and tightening labor markets. Firms are approaching the limits of their production capacity and were increasingly prepared to spend on capital formation given favorable financing conditions. Public investment and construction continued to be supported by inflows of EU funds. External demand benefited from the synchronized upswing of the big engines of the global economy – the U.S.A., China and the euro area. Based on rising global investment and trade, the world economy in 2017 recorded its fastest expansion since 2011. Within the euro area, growth was again vivid in Germany, the central anchor for many of the CESEE economies. Via their integration into global value chains, CESEE countries benefited not only directly from strong international demand for final goods but also from increasing demand for inputs into international production chains. Outside the EU, stellar growth rates were also reported for Turkey, reflecting a combination of government stimulus and exceptionally strong external demand. Russia continued its recovery from recession. At 1.5% in 2017, output growth remained moderate by regional standards, however, reflecting structural weaknesses and a low growth potential.

… and growth does in general not appear to be excessive

The strong expansion of economic activity amid tightening labor markets and rising wage pressures has not led to a substantial increase in inflation rates. Price developments were well within targets, with the notable exceptions of Romania and Turkey. This may suggest that growth is not (yet) excessive in most CESEE countries. This conclusion is also supported by sustainable, though modest credit market developments: Credit growth is robust but not especially strong by historical standards. In general, banking sector lending today is more prudent than a decade ago (locally refinanced, mostly in local currency and subject to tighter supervision to prevent the buildup of bubbles) and the cleanup of crisis legacies (e.g. nonperforming loan exposures and foreign currency loan portfolios) has made substantial progress. At the same time, the strong increase in property prices especially in the CESEE EU Member States warrants careful monitoring.

[1] *Compiled by Josef Schreiner with input from Katharina Allinger, Stephan Barisitz, Markus Eller, Mariya Hake, Thomas Reininger, Tomáš Slačík and Zoltan Walko.*

[2] *Cutoff date: April 6, 2018. This report focuses primarily on data releases and developments from October 2017 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, FYR Macedonia, Montenegro, 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.*

Furthermore, cyclically adjusted budget deficits have widened in many countries in a period of booming economic activity. A more prudent fiscal stance might be called for also against the backdrop of medium-term budgetary objectives.

Challenges mainly relate to political developments

The generally favorable picture was blurred mainly by political risks that might affect the region's economies in the short to medium term. The U.S. sanctions recently imposed on Russia e.g. have already led to a marked weakening of the Russian ruble in international markets. Recent events are keeping relations tense between Russia and the West. Furthermore, the announcement of the U.S. administration to impose tariffs on steel and aluminum introduced a further element of uncertainty to the prevailing world trade order. Ongoing disputes with the European Commission and European partners could impact the CESEE countries' standing in the upcoming negotiations for the 2021–2027 EU budget. Those negotiations will be dominated by Brexit, and the size and composition of the EU budget will possibly be altered. Moreover, EU funds could be made conditional on adherence to the rule of law and common European values.

Economic activity reaches strongest level in six years

Having averaged 3.7% annual GDP growth in 2017, aggregate economic activity in CESEE was at its strongest level for six years, and all countries in the region posted positive growth rates for the first time in almost a decade. Growth was especially strong in Romania and Turkey at 7% and 7.4%, respectively, while below-average growth rates were reported only for Croatia and Russia (see table 1).

Quarterly dynamics for the second half of 2017 indicate a continuing strong momentum, with quarter-on-quarter growth rates accelerating especially in Hungary, Slovenia and Turkey. Some deceleration was observed in the Czech Republic and Romania, albeit after an exceptionally strong first half of 2017. Furthermore, growth continued to be moderate by regional standards in Croatia.

Tightening labor market conditions fuel wage growth and private consumption

Private consumption remained the single most important pillar of growth throughout most of the CESEE region, benefiting from good sentiment, rising stocks of household credit, swift wage growth and improving labor market conditions (see chart 1).

In fact, labor markets are becoming increasingly tight in many countries, especially in the CESEE EU Member States. Unemployment rates have been falling

Table 1

Real GDP growth

	2016	2017	Q3 16	Q4 16	Q1 17	Q2 17	Q3 17	Q4 17
	Period-on-period change in %, seasonally and working-day adjusted							
Slovakia	3.3	3.4	0.7	0.9	0.8	1.0	0.8	0.9
Slovenia	3.1	5.0	1.5	1.0	1.4	1.4	1.2	2.0
Bulgaria	3.9	3.6	0.8	1.1	0.9	1.0	0.9	0.7
Croatia	3.2	2.8	1.2	0.9	0.6	0.8	0.7	0.1
Czech Republic	2.6	4.3	0.2	0.4	1.5	2.4	0.7	0.8
Hungary	2.2	4.0	0.6	0.7	1.5	1.0	1.0	1.3
Poland	2.9	4.6	0.2	1.9	1.3	0.8	1.3	0.9
Romania	4.8	7.0	0.1	2.1	2.0	1.7	2.4	0.5
Turkey	3.2	7.4	–0.2	3.8	1.4	2.1	1.2	1.8
Russia	–1.0	1.5	0.0	–0.5	..	..	..	..
Euro area	1.8	2.4	0.4	0.6	0.6	0.7	0.7	0.7

Source: Eurostat, national statistical offices.

consistently in recent years, from an average level of around 10% in early 2013 to below 5% in January 2018. 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 (below 25 years) and older persons (above 50 years). The trend in long-term unemployment was positive as well and broad based. Furthermore, employment expanded throughout the region, with annual employment growth exceeding 5% in Bulgaria, Slovenia and Turkey. This contributed to a convergence of employment rates to euro area levels. Bulgaria, the Czech Republic, Hungary and Slovenia in fact already reported higher employment rates than the euro area countries on average.

The flip side of strong labor market developments were increasing labor market shortages. According to a survey by the European Commission, labor is increasingly perceived as a limiting factor for production: In early 2018, some 40% of respondents struggled to find workers. While the potential for immigration from the Western Balkans and Ukraine should be significant and is already alleviating some pressures on labor markets (e.g. in Poland), it is unlikely that immigration can fully offset the lack of workers given an overall restrictive immigration stance of most CESEE governments. Furthermore, geographical mobility in CESEE remains limited, with people's propensity to emigrate often being higher than their willingness to commute.

Against this backdrop, nominal wages rose powerfully in the review period, increasing by around 8% year on year, on average, in the second half of 2017. Several countries even reported double-digit increases, with Romania leading the ranks. Slowly rising inflation rates somewhat cut into purchasing power throughout the region. Nevertheless, real wages rose by some 6% year on year on average in the second half of 2017.

Dynamic labor markets and higher wages positively impacted on sentiment. Consumer confidence as reflected by the Economic Sentiment Indicator of the European Commission reached a historic high in March 2018, some 25 points above the readings of early 2013. At the same time, demand for consumer credit rose noticeably, providing a further impulse for private consumption.

Higher investment demand as capacities approach their limits and EU fund absorption rises

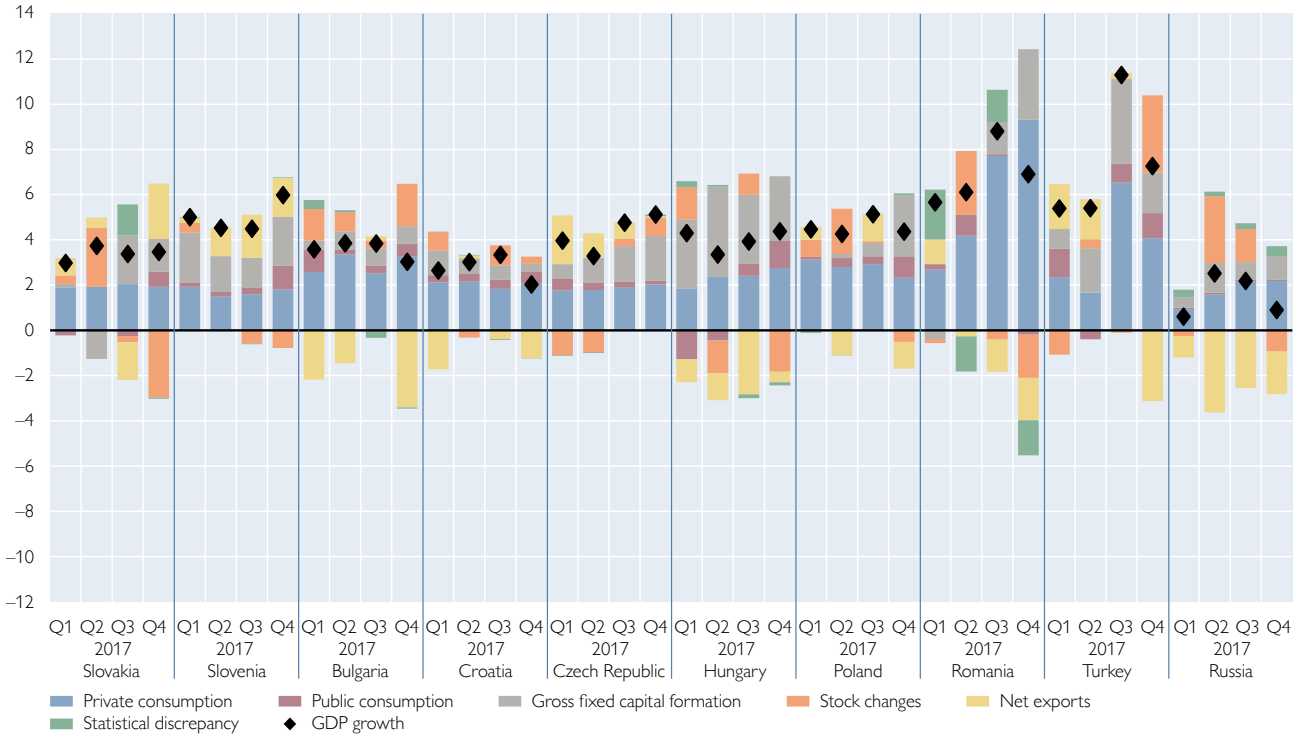
After a slack in 2016, gross fixed capital formation started to gain speed throughout 2017 (see chart 1): Capacities approaching their limits, full order books, strong industrial confidence and improved credit market conditions amid low interest rates started the rebound in private investment. Investment in construction and public investment picked up, too, being strongly supported by stepped-up utilization of EU funds in many countries as the 2014–2020 programming period unfolds. In the EU Member States, this lifted annual investment growth to an average of 10% year on year in the fourth quarter of 2017.

Capital formation was also vivid in Turkey, where investment growth was strongly supported by the government's Credit Guarantee Fund (CGF) and mainly driven by construction activity (+12% year on year), while machinery and equipment investment also began to recover after having contracted in previous quarters. In Russia, investment growth failed to reach the exceptionally high levels of the other CESEE countries but remained by and large robust as construction was supported by large infrastructure projects.

Chart 1

GDP growth and its main components

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



Source: Eurostat, national statistical offices.

Against the backdrop of strong external demand, export growth accelerated throughout most of the CESEE economies and reached a regional average of 7.4% year on year in the second half of 2017 (up from 6.9% in the first half). Booming domestic demand, however, led to an even bigger increase in imports (to an average 14.1% in the second half, up from 11.1% in the first half of 2017). This translated into an increasingly negative growth contribution of net exports in many countries. In Romania and Turkey, the external sector depressed GDP growth by as much as 1.5 percentage points in the review period. However, the external sector weighed on growth also in Bulgaria, Hungary and Russia.

Growth contribution of exports diminishes on the back of higher import demand

Export dynamics might have been even stronger if unit labor costs (ULC) in manufacturing (measured in euro) had not deteriorated further in the review period. Productivity figures were rather strong in most countries, reflecting increasingly tight labor markets that prevented labor input growth from keeping pace with manufacturing output growth. Some labor saving investments might have pushed up productivity too. Productivity advances, however, were not strong enough to offset cost increases: Labor cost growth in manufacturing was in the high single or even double digits in the second half of 2017 in most countries. Furthermore, currency appreciation affected price competitiveness especially in the Czech Republic, Poland and – to a lesser extent – in Russia. As a result, ULC growth in most CESEE countries outpaced ULC growth in the euro area.

Price competitiveness suffers from pronounced growth in labor costs …

Turkey was the only country to report a large decline in unit labor costs, as currency depreciation was strong enough to improve the country's competitive

position even in the face of double-digit labor cost rises. Among the CESEE EU Member States, only Slovenia managed to cut its ULC in the review period, keeping labor cost growth below the levels observed for other regional peers, especially in the fourth quarter of 2017. At the same time, Slovenia reported the strongest increase in productivity of all countries of the region.

… but overall competitiveness seems to be largely intact

Despite recent rises in ULC, the international competitiveness of most CESEE countries remained largely sound. According to a survey by the European Commission, CESEE EU Member States reported improvements in their competitive positions both in markets inside and outside the EU throughout 2017, thus increasing their world market shares – as did Russia and Turkey. This suggests that CESEE countries managed to improve nonprice competitiveness and/or their position in global value chains.

Current account positions on average stable despite some pressure on trade balances

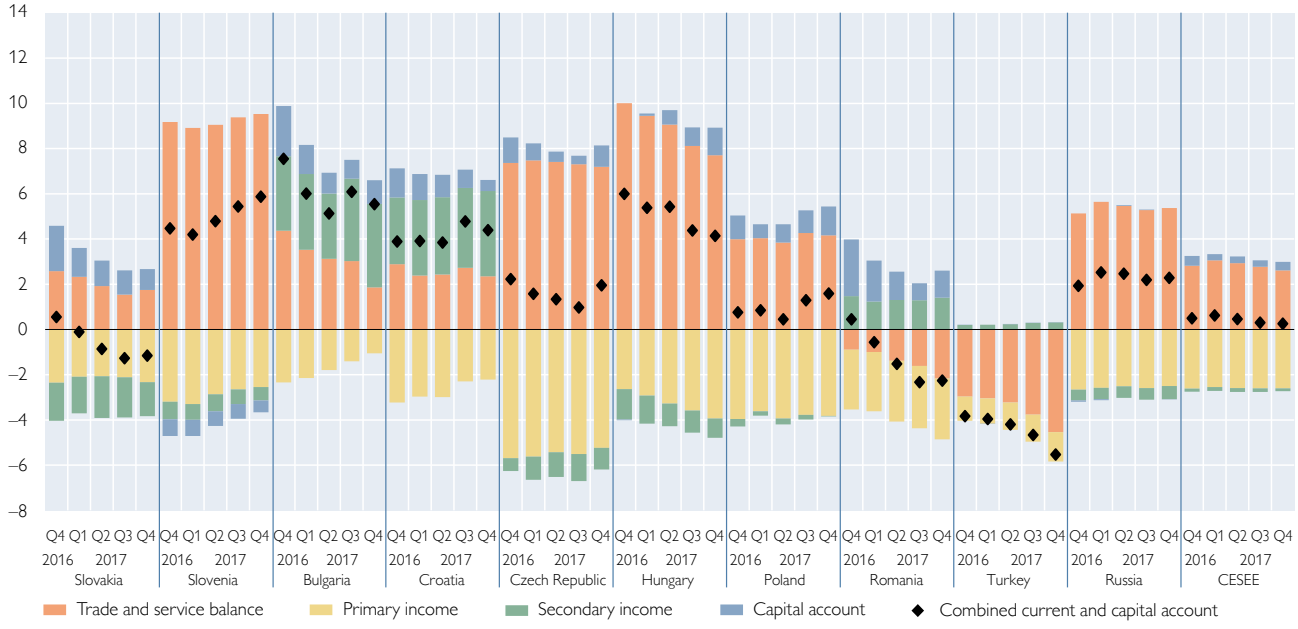
Rising import demand had some impact on external balances. The trade balance weighed on the combined current and capital account especially in Hungary and Turkey, where external balances deteriorated by around 1.5 percentage points of GDP between the second and the fourth quarters of 2017 (four-quarter moving sums; see chart 2). The current account deficit also widened notably in Romania as the trade deficit rose. For the region as a whole, however, the combined current and capital account balance remained rather stable at 0.3% of GDP at end-2017 (after 0.5% of GDP in mid-2017).

In fact, the external accounts improved somewhat in many countries (Bulgaria, the Czech Republic, Croatia, Poland and Slovenia). These developments were mainly driven by higher surpluses in the capital account (related to EU fund inflows) as well as improving primary income balances. In the case of Slovenia, the goods and services balance delivered the most important positive contribution, probably related to strengthening competitiveness.

Chart 2

Combined current and capital account balance

% of GDP, four-quarter moving sum



Source: Eurostat, IMF, national central banks.

Somewhat more moderate capital flows to the CESEE region

The aggregate financial account deficit (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 decreased somewhat, from –5.7% of GDP in the second quarter to –4.9% of GDP in the fourth quarter of 2017 (four-quarter moving sums; see chart 3). In other words, the amount of capital raised by CESEE countries from international sources dropped by 0.8% of GDP on balance. This development was driven mainly by foreign direct investments. At the same time, the deficit in portfolio investments increased somewhat and other investments declined from a surplus to a balanced position.

On a country level, the Czech Republic stands out with a notable decrease of its deficit in portfolio and other investments. These positions had in part been built up prior to the abolition of the exchange rate floor of the Czech koruna in April 2017, partly for speculative reasons. More notable movements of the financial account were also reported for Poland and Bulgaria, where the financial account balance increased on the back of portfolio and other investments. Croatia and Turkey reported higher deficits as the balance on portfolio investments declined.

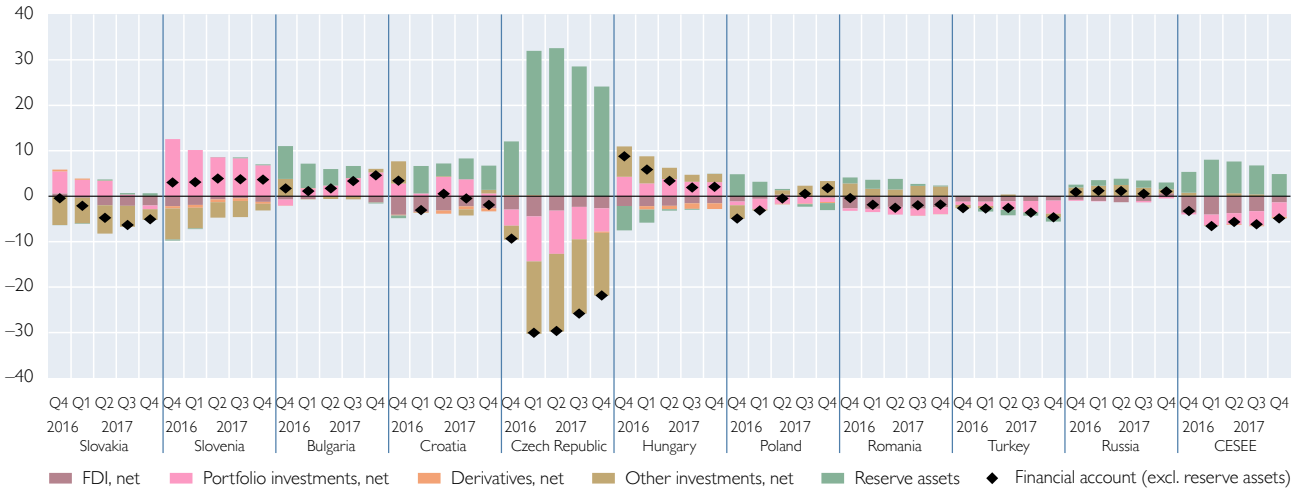
No notable inflationary pressure despite strong domestic economic momentum

The overall strong domestic momentum – encompassing dynamic economic growth, tightening labor markets and rising wages (especially in the CESEE EU Member States) – was not reflected in rising inflationary pressure in the review period. After a trough in mid-2016, inflation accelerated slowly in late 2016 and early 2017, before stabilizing at around 2% throughout most of the CESEE region. In fact, price pressures moderated in several countries in early 2018 (see chart 4). In Russia, the sluggish economic recovery and the oil price-related appreciation of the Russian ruble drove inflation down to 2.2% in February 2018 – which is a historically low level and notably below the inflation target of the Russian central bank. Lower inflation was also reported for Poland and the Czech Republic, where appreciating currencies and some disinflation in services also led to an undershooting of the respective inflation targets in February 2018.

Chart 3

Financial account balance

% of GDP, four-quarter moving sum

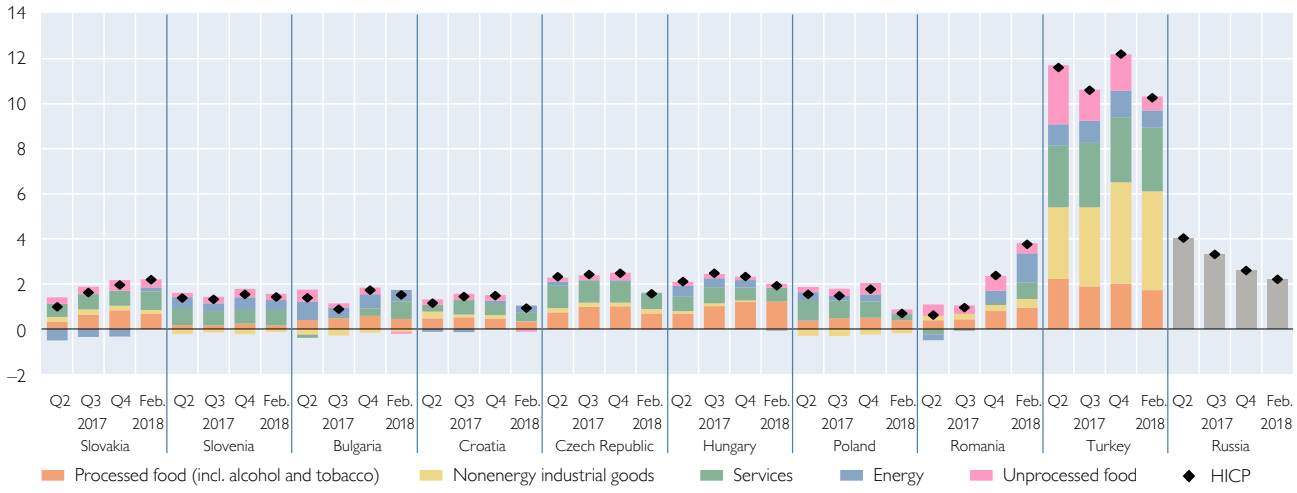


Source: National central banks.

Chart 4

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.

Inflation continued to rise especially in Romania, on the back of rising contributions by all HICP components plus a base effect after adjustments to indirect taxes in 2017. At 3.8% in February 2018, Romania reported the highest inflation rate among the CESEE EU Member States. In the region, inflation was higher only in Turkey, where strong domestic demand and currency depreciation kept price rises above 10% throughout the review period and thus well above the inflation target.

Some countries have started to tighten monetary policy

The Czech Republic was the first country among the CESEE EU Member States to end the period of monetary accommodation that started in late 2012. After a first hike in August 2017, two further hikes in November 2017 and February 2018 lifted the policy rate of the Czech central bank (CNB) to 0.75% (see chart 5). Despite a fall of inflation in February 2018, the CNB projects inflation to be above target for the rest of 2018 before returning to target in early 2019.

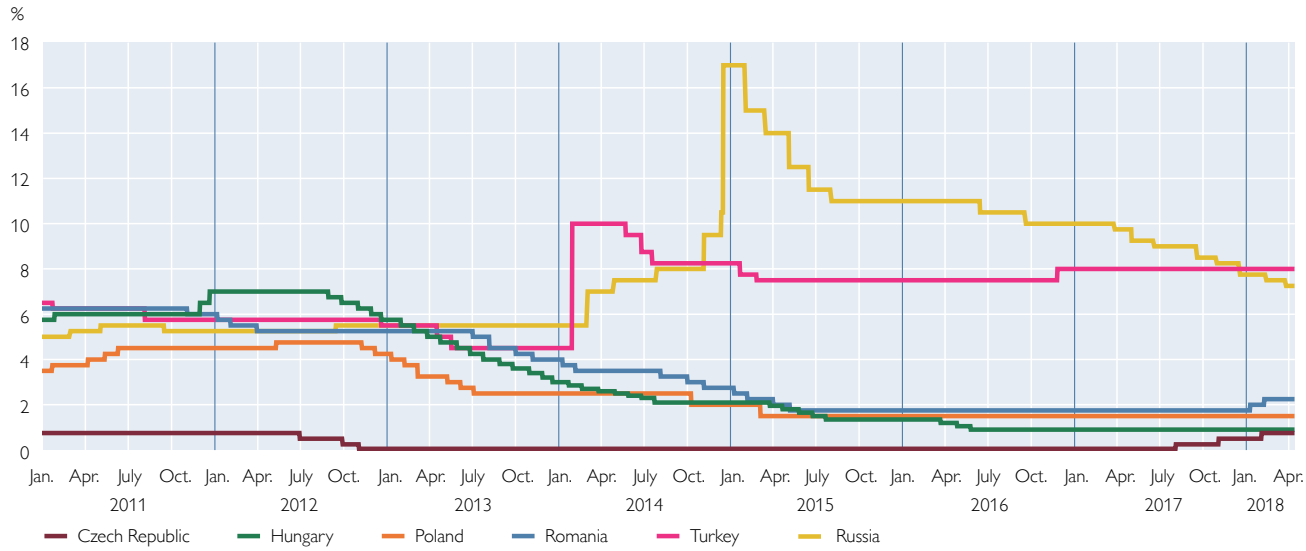
The Romanian central bank (NBR) increased its policy rate in January and February 2018, from 1.75% to 2.25%, following repeated adjustments of its deposit and lending facility rates in late 2017 and early 2018. Those steps were motivated by accelerating inflation that consistently overshot the inflation target. The NBR expects inflation to pick up further in the short run before returning to the upper bound of the variation band around its inflation target toward the end of this year. Upward risks to inflation stem among others from the fiscal policy stance and labor market conditions.

The Turkish central bank (CBRT) has kept its policy rate constant but increased the lending rate on its late liquidity window from 12.25% to 12.75% in December 2017, thereby raising the average cost of funding for the banking system.

The Hungarian central bank (MNB) expects inflation to remain below its target at least until mid-2019. Against this backdrop, the MNB continued to further selectively loosen its monetary policy by reducing the cap on its three-month deposit facility, by extending its foreign currency swap facility in order to boost

Chart 5

Policy rate developments in CESEE



Source: National central banks.

Hungarian forint liquidity in the system and by adding two new tools to its monetary policy tool kit (interest rate swaps to banks and regular purchases of mortgage bonds with at least three-year maturity).

The Russian central bank (CBR) repeatedly cut its policy rate in the review period, bringing interest rates down from 8.5% in October 2017 to 7.25% in April 2018 as inflation reached a historical low.

Stable and broadly solid credit developments

Growth of domestic credit to the private sector (nominal lending to the non-bank private sector adjusted for exchange rate changes) was solid in the review period. Most CESEE countries reported growth rates of around 5% year on year, reflecting favorable general economic conditions in an environment of low interest rates, heightened competition among banks and spillovers of monetary accommodation in the euro area into the CESEE region (see chart 6). Credit growth reflects to some extent a substantial increase in housing loans which went hand in hand with rising real estate prices. House prices rose by some 7% year on year in the second half of 2017 on average, and by even more than 10% in the Czech Republic and Turkey.

Within the region, credit growth was highest in Turkey, where accommodative macroprudential policies and loans backed by Turkey's Credit Guarantee Fund kept credit growth at around 15%. On the other side of the spectrum, Croatia was the only CESEE country not to report an expansion of the credit stock, despite some recovery in credit dynamics. This was mainly related to declining corporate credit as nonperforming assets were sold. While those sales had a positive impact on nonperforming loan (NPL) ratios in Croatia, profitability was hurt by the banking sector's provisioning for its exposure to Agrokor, the country's ailing retailer.

Czech Republic and Slovakia take further regulatory action

In terms of dynamics, credit growth retreated somewhat from previously high levels in Slovakia and the Czech Republic against the backdrop of regulatory action (with growth of credit to Slovak households, in particular, remaining in the double digits, however). Specifically, banks in both countries were required in 2017 to

hold countercyclical capital buffers of 0.5% of total risk exposures. Increases of the buffer rates are in the pipeline, to 1% in July 2018 and to 1.25% in January 2019 in the Czech Republic, and to 1% in August 2018 in Slovakia. Furthermore, both countries introduced measures to put a brake on the expansion of housing loans. The Slovak central bank (NBS) decreed that new borrowers have to be assessed for their ability to repay the loan in the event of an increase in interest rates. The Czech central bank (CNB) introduced loan-to-value ratios for housing loans as an additional macroprudential measure.

Credit growth also moderated somewhat in Slovenia. While consumer credit largely sustained its momentum, credit growth to corporations decelerated as increasing corporate profits enabled companies to satisfy their investment needs by means of retained earnings.

Somewhat higher credit growth rates were observed only for Russia, despite troubles in the country's banking sector that led to the bail-out of three medium-sized banks in the second half of 2017. Especially household credit benefited from gradually easing lending conditions and the economic recovery.

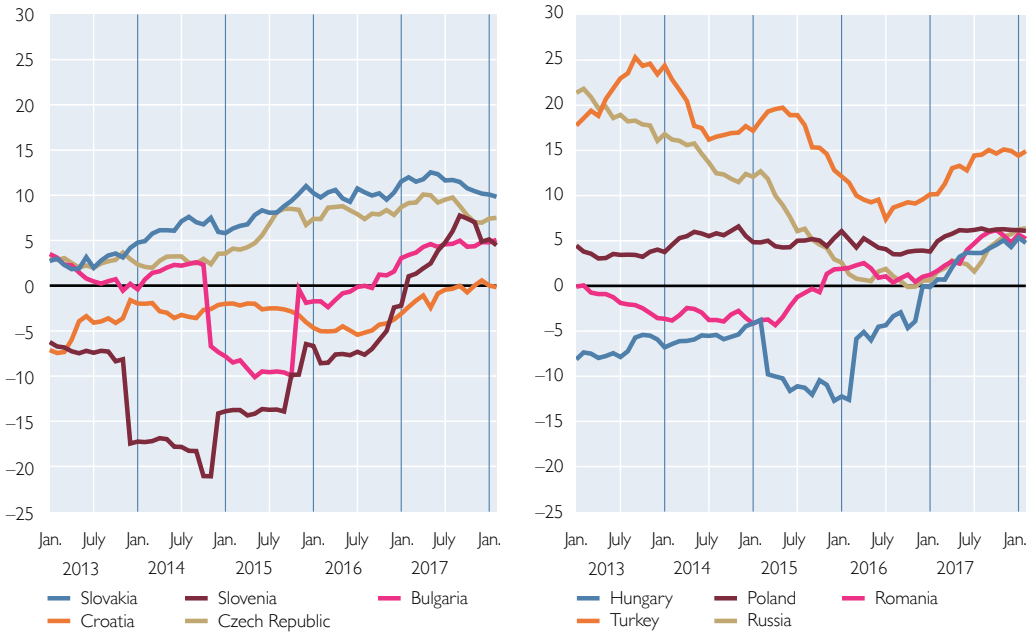
Lending surveys indicate easing supply conditions for the first time in two years

Lending surveys indicate a continued strength in demand for credit in the CESEE region. According to the most recent CESEE Bank Lending Survey of the European Investment Bank (EIB), demand for credit improved across the board in the second half of 2017. This marked the ninth semester of favorable developments. All factors affecting demand made positive contributions. Notably, investment accounted for a good part of the strengthening in demand, whilst debt restructuring was almost irrelevant. Access to funding also continued to improve in CESEE, supported by easy access to domestic sources (mainly retail and corporate deposits).

Chart 6

Growth of credit to the private sector

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



Source: National central banks.

For the first time in two years, increasing demand was paired with an easing of aggregate supply conditions in the second half of 2017 while the gap between credit demand and credit supply that had been perceived for several quarters continued to persist. On balance, this would imply an improvement of the loan quality associated with most of the new lending compared with previous credit cycles. Across the client spectrum, credit standards eased especially on SME lending and consumer credit, while they tightened on mortgages. Changes in local regulation and groups' NPLs were perceived as key factors adversely affecting supply conditions.

Country-level bank lending surveys conducted by national central banks mostly corroborate these findings: While more or less all countries reported rising demand for loans across sectors, trends in lending conditions were found to be more heterogeneous than in the EIB report. In particular, several countries (e.g. Poland and Romania) reported some tightening of credit conditions.

Budgetary consolidation moderate in light of historically strong economic dynamics

Solid fundamentals reflecting rapid employment growth, increased private consumption and high corporate profits had a positive impact on budget figures (see chart 7). Improvements in budget balances were especially strong in Croatia and Slovenia, where deficits in 2016 turned into a surplus and a balanced position in 2017, respectively. Bulgaria and the Czech Republic reported increasing budget surpluses in 2017, while Russia and Slovakia managed to cut their deficits considerably.

Improvements in headline budget balances, however, were not matched by equal improvements in cyclically adjusted budget figures. In fact, several of the EU Member States in CESEE reported some deterioration in cyclically adjusted budget deficits, indicating an expansionary fiscal stance. The deterioration was most pronounced in Hungary and Romania. Romania has already been urged, under a significant deviation procedure launched by the Council of the European Union in June 2017, to take action to correct the deviation from the adjustment path toward its medium-term budgetary objective to avoid the opening of an excessive deficit procedure (EDP).

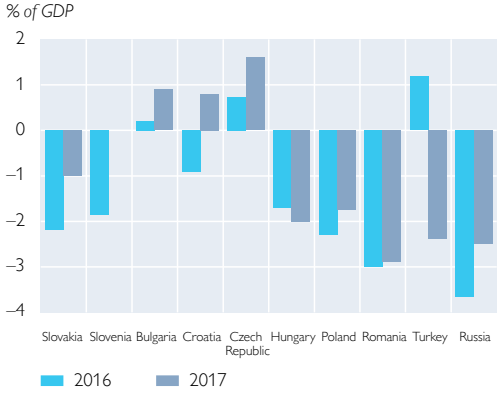
High-frequency and sentiment indicators point toward continued vivid growth

The largest increase in the budget deficit was reported for Turkey, where a surplus in 2016 turned into a deficit of 2.4% of GDP in 2017. In order to restore confidence in the economy, the Turkish government supported economic activity by fiscal loosening, inter alia by a large increase in government guarantees for corporate lending.

Leading indicators support the picture of a broad-based and strong economic upturn that will continue at least in the near future (see chart 8). With regard to activity indicators, industrial production growth declined somewhat from its high in summer 2017, dropping to an average of 4.5% in January 2018. This development, however, was mainly caused by weak readings for Russia. Industrial production in the CESEE EU Member States remained broadly stable at around 7%, while it accelerated notably in

Chart 7

Development of general government balances



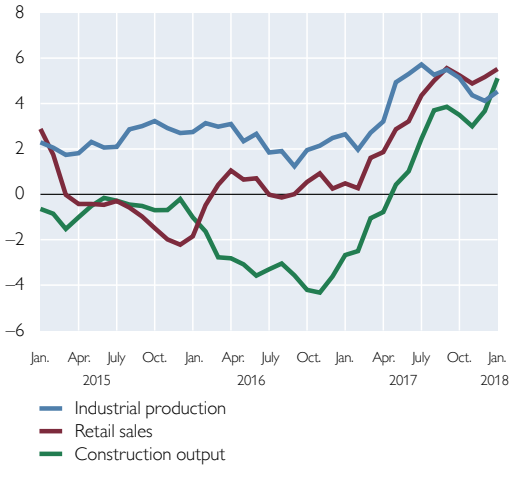
Source: Eurostat, European Commission, wiiw.

Chart 8

Leading indicators

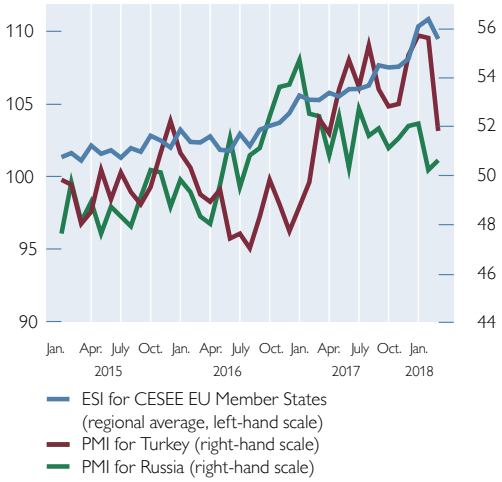
Activity indicators (CESEE regional average)

Year-on-year change in %, three-months moving average



Sentiment indicators

Points *Points*



Source: Eurostat, wiiw, European Commission, Markit.

Turkey (to 12% in January 2018). The growth rates of retail sales increased strongly in the third quarter of 2017 and hovered around 5.5% during the past months. Construction output growth saw the sharpest rise, to an average of 6.9% in January 2018.

Economic sentiment brightened especially in the CESEE EU Member States. The Economic Sentiment Indicator (ESI; average for the CESEE EU Member States) increased strongly in the second half of 2017 and reached a peak at 111 points in February 2018. It moderated somewhat in March 2018 while remaining well above its long-term average. The overall increases were led by sentiment in construction, which recorded the highest reading since early 2008. Industrial confidence and consumer confidence trended higher, too. The Purchasing Managers' Index (PMI) for Russia hovered around 51 points throughout the review period, slightly above the threshold of 50 points that indicates an expansion. Turkey's PMI increased to above 55 points in February 2018 before falling back to 52 points in March 2018.

Strong readings for leading indicators are reflected in the latest forecasts for the region. Projections for 2018 have been repeatedly revised upward and currently stand at an average of about 4% for the CESEE EU Member States and Turkey. The growth forecasts for Russia also tshow some upward trend but continue to fall short of other CESEE countries. For a detailed outlook for the CESEE region, see "Outlook for selected CESEE countries" in this issue.

Box 1

Ukraine: while recovery remains moderate, demand pressures push up inflation

In 2017, GDP grew at a pace of 2.5% (2016: +2.4%), driven by a brisk recovery of private consumption and fixed investment from low points of departure. The expansion of private consumption (+7.8%) was fueled by generous wage and pension increases, while capital formation continued to catch up after years of underinvestment. Public consumption also increased somewhat. Real exports' modest growth was more than offset by the expansion of real imports on the back of swelling domestic demand.

These broad demand pressures as well as rising production costs and global oil prices, a weak harvest (triggered inter alia by adverse weather conditions) and utility tariff hikes pushed up annual CPI inflation to 16.4% in September 2017. This prompted the National Bank of Ukraine (NBU) to interrupt and partly reverse its series of key policy rate cuts over the last one-and-a-half years. The NBU sharply increased the key rate in four steps (October and December 2017, January and March 2018) by a cumulative 450 basis points to 17%. Inflation still stood at 14.0% at end-February 2018 (despite a marked slowdown of the Ukrainian hryvnia's nominal depreciation in 2017), which is substantially above the target range of 8% ±2 percentage points. The monetary authority expects inflation to slow down and return to target in mid-2019 (then 6% ±2 percentage points). Unemployment (ILO definition) has lingered at a high level (9.5% on average in 2017), suggesting mismatches in the labor market.

Largely as a result of growing exports combined with even more swiftly expanding imports (inter alia reflecting increased energy purchases from abroad given the trade blockade of Donbass by Ukraine), Ukraine's current account deficit rose to 1.9% of GDP (2016: –1.4% of GDP). In addition to official financing, expanding inflows in the financial account largely consisted of proceeds from sales of USD 3 billion of eurobonds in September 2017, and moderate FDI inflows. Fiscal consolidation has made progress, and the general government budget deficit (including Naftogaz financing) is estimated to have declined to –1.5% of GDP in 2017 (from –2.3% of GDP in 2016). Over 2017, international reserves (excluding gold) increased by 6% to EUR 14.9 billion (about 3½ months of imports of goods and services). Although slowly declining, Ukraine's gross external debt is still very high (EUR 97 billion or above 100% of GDP at end-2017), and while financial needs in the short term appear manageable, rising public external debt maturities up to 2019 may be challenging.

Progress on reform steps (pension and land reform, anti-corruption court legislation, measures to step up privatizations) needed to complete the fourth review of the IMF Extended Fund Facility (EFF) program has been mixed. The pension reform and privatization bills were adopted in October 2017 and January 2018, respectively, while the anti-corruption court bill recently introduced to parliament does not appear sufficiently in line with IMF recommendations. Contrary to previous plans, domestic gas tariffs were not raised further in the fall of 2017. Since the fourth EFF tranche allocated in April 2017, no new IMF funds have been released, and the latest EU Macro-Financial Assistance program running until the end of 2017 expired without disbursal of the final tranche. Against the backdrop of the approaching presidential and parliamentary elections (in 2019), of rising domestic political tensions and of populist pressures, the risk of a stalling reform process has grown, which in turn may increase financial risks.

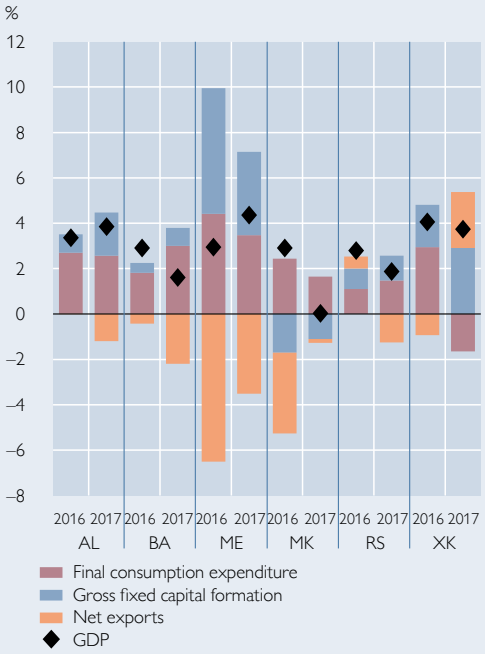
Box 2

Western Balkans[1]: economic growth on the decline despite a favorable external environment

While most of the economies in the Western Balkans reported accelerated growth in the second half of 2017, the regional average declined to 2.6% in 2017 in GDP-weighted terms, against 3.4% a year ago. Notably, strong domestic demand boosted GDP growth in Montenegro (4.4%) and Albania (3.8%). At the same time, economic growth decelerated sizeably in the largest economies in the region – Serbia, and Bosnia and Herzegovina – to 1.9% and 1.6%, respectively. In the former Yugoslav Republic of Macedonia (FYR Macedonia), economic growth fell to the lowest level in the past five years and stagnated on an annual basis. In Kosovo growth also softened somewhat, albeit from a high base, to reach 3.7%.

Chart 1

Robust contribution of domestic demand in 2017



Source: Eurostat, wiiw, World Bank.

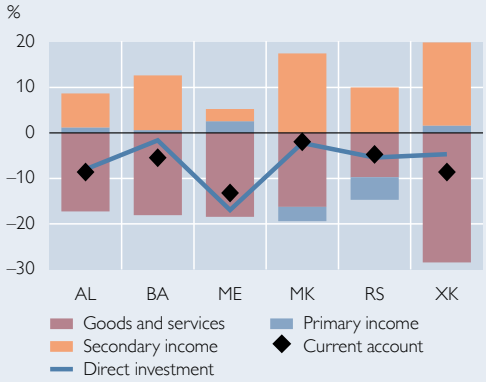
As in 2016, domestic demand was the main driver of GDP growth in all economies in the Western Balkans also in 2017 (see chart 1). While private consumption remained a robust driver of growth underpinned by declining unemployment and modest wage growth, its contribution declined slightly in most of the countries with the notable exceptions of Serbia, and Bosnia and Herzegovina. On a negative note, private consumption growth slipped into negative territory in Kosovo partly on the back of increased unemployment and stagnating wages. In addition, remittances stagnated especially in Albania as well as Bosnia and Herzegovina, thus representing a less supportive factor for GDP growth in 2017 than in the previous year. Finally, investment took a strong hit, mirroring prolonged political instability, in FYR Macedonia. Apart from that, growth of gross capital formation in 2017 improved on an annual basis, following enhanced implementation of infrastructure and energy projects.

Net exports became more of a drag for GDP growth in 2017 in spite of more favorable external demand. In particular, strong energy imports coupled with rising oil prices and increased domestic demand subtracted from growth in Serbia and in Bosnia and Herzegovina. In addition, harsh winter weather conditions necessitated more imports to Serbia, thus lifting the trade deficit by nearly 1 percentage point to 10.8% of GDP (see chart 2). In contrast, in Kosovo, Albania and FYR Macedonia, exports benefited from rising commodity and basic metals prices, which overall contributed to a narrowing of external imbalances. Even though Montenegro experienced an exceptional tourism season, strong construction-related imports dwarfed exports and thus widened the current plus capital account deficit to the highest levels since 2010 (i.e. 18.9% of GDP). The widening of external imbalances in 2017 went hand in hand with an increase of FDIs except in Albania and FYR Macedonia. Overall, the FDI

[1] *The Western Balkans comprise the EU candidate countries Albania, FYR Macedonia, Montenegro 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.*

Chart 2

External imbalances widened



Source: IMF, national central banks, World Bank.

Note: Positive (negative) values for direct investment positions indicate that the net acquisition of assets is higher (lower) than the net incurrence of liabilities.

coverage of the current account deficit stood at close to 80%, with Albania, Serbia and FYR Macedonia reporting full coverage.

Although labor market conditions remained strained in 2017, there was some improvement in most of the Western Balkan countries as the ongoing economic recovery and the recent reforms in some countries fed through to increasing employment rates. According to the Labour Force Survey, in 2017 annual employment increases were highest in Serbia (+2 percentage points) and Montenegro (+1.2 percentage points), with the services sector accounting for 80% of the increases as reported by the World Bank.[2] On a negative note, employment rates in 2017 are still well below comparable EU-28 levels (i.e. 71.1% in 2016) and hovered between 30% (Kosovo) and 57% (Serbia). In parallel, unemployment declined in all countries in the region except in Kosovo, where the unemployment rate was up by 3 percentage points as the increase of the labor force outpaced the employment rate (see statistical annex). In contrast, Bosnia and Herzegovina registered the largest drop in unemployment in the region (by 4.7 percentage points, to 21.1% by the end of 2017). However, this was partly due to declining labor force participation by young cohorts as a result of strong emigration.

Mirroring higher commodity prices and stronger domestic demand, consumer price inflation in the Western Balkans increased notably in 2017. In particular, prices in FYR Macedonia and in Bosnia and Herzegovina reversed their negative trend since 2013, reaching 1.3% and 1.2%, respectively. While remaining within the central bank target band, inflation edged up in 2017, with Serbia topping the list (+3.1%, on the back of higher prices of regulated food). In Montenegro, higher excise taxes along with adverse weather-related prices led to a rather solid price increase (+2.8%). With the acceleration of economic activity feeding through in the first months of 2018, all countries in the area but Serbia (where prices edged down) have since posted a further rise of inflation. The increase was most pronounced in Montenegro (+3.7% in February).

In contrast to 2016, only one of the inflation-targeting countries, namely Albania, still undershot the lower bound of the inflation target in the second half of 2017. However, following price increases in the first two months of 2018, Albanian inflation reached 2.1% in February, thus slightly exceeding the lower bound of the central bank's inflation target (3% ±1 percentage point). This compares with a policy rate of 1.25% adopted in May 2016, which the Bank of Albania intends to maintain at least until mid-2018. In Serbia, inflation decelerated somewhat in the second half of 2017 and beyond, reaching 1.5% in February 2018, which is exactly the lower inflation bound. In parallel, the National Bank of Serbia (NBS) lowered its key policy rate in four steps from 4% in July 2017, already a historical low, to 3% in April 2018. 3% is also the level to which the central bank of FYR Macedonia lowered its benchmark rate in March 2018, for the first time since February 2017, citing sluggish corporate lending activity and a negative output gap. Both the Albanian lek and the Serbian dinar have been appreciating against the euro. The NBS intervened frequently on the foreign exchange market to reduce exchange rate volatility vis-à-vis the euro (both in nominal and real terms), thus limiting the appreciation of the Serbian dinar to close to 4.5% between October 2017 and March 2018.

[2] *http://www.worldbank.org/en/region/eca/publication/western-balkans-regular-economic-report*

On the back of resolution mechanisms put in place in some Western Balkan countries, bank asset quality has been improving, thus generally supporting credit growth (see statistical annex). However, in individual countries in the region, NPL ratios remained as high as 14.8% (Albania) and 12% (Serbia) in September 2017. In Serbia, increased NPL sales to asset management companies helped reduce the NPL ratio. Albania benefited from the introduction of new insolvency legislation. In Montenegro, asset quality improved also due to the effective implementation of voluntary financial restructuring legislation, thus bringing the NPL share down to 7.3% as of end-2017. While having yet to implement an NPL resolution mechanism, Kosovo has recently made progress as well with introducing a new system to enforce collateral recovery, which contributed to the decline of the NPL share to 3.1% as of end-2017.

The ongoing process of cleaning up banks' balance sheets, more favorable lending conditions and elevated domestic demand fed through to credit dynamics in most countries such that the second half of 2017 was marked by stronger credit growth, with lending to households generally growing more strongly than loans to corporates. Specifically, bank lending to the private sector expanded robustly in Kosovo in the second half of 2017 (+11.5% year on year) and Bosnia and Herzegovina (+7.5% year on year), while in FYR Macedonia credit growth rebounded strongly exclusively on the back of the household sector. Albania was the only country to buck the regional trend, with a sluggish year-end credit growth of 3.6%, mostly due to loan write-offs. On a positive note, currency risks in private sector portfolios declined somewhat on the back of the ongoing implementation of de-euroization measures. In addition, the Albanian authorities launched a comprehensive de-euroization strategy in January 2018.

Regarding the fiscal stance, imbalances widened in most of the Western Balkan economies in 2017 despite robust revenue growth. Overall improved tax collection and higher revenues from indirect taxes could not prevent fiscal deficits from rising in all countries but Serbia, and Bosnia and Herzegovina. The latter two countries still posted surpluses of 0.8% and 1% of GDP, respectively. Montenegro accounted for the highest fiscal deficit in 2017, which increased to 5.9% of GDP on an annual basis, somewhat above the target of 5% of GDP. Looking at public expenditures, increased fiscal revenues have been directed somewhat more to the public sector wage bill and (to some extent ill-targeted) social benefits and transfers. This was particularly relevant for Kosovo, where also increased spending for pensions and benefits for war veterans lifted the fiscal deficit to 1.7% of GDP, however still keeping it below the 2% target of the fiscal rule. As regards capital expenditures, most of the countries posted an increase, especially so in Montenegro and Albania. At the same time, on the back of continued consolidation efforts, Serbia lowered capital spending, while Bosnia and Herzegovina increased spending only slightly. On a positive note, despite decelerating GDP growth and increasing fiscal deficits, the stock of public debt (including publicly guaranteed debt) was on the decline in most of the Western Balkan economies in 2017 as compared to the previous year. Accordingly, public debt in Serbia posted the strongest decrease of close to 10 percentage points of GDP, to 64.9% of GDP. Public debt increased only in Kosovo (to 16.3% of GDP, i.e. remained at a low level) and in Montenegro (to 66.6% of GDP).

As of the first quarter of 2018, only Bosnia and Herzegovina has a program with the IMF in place. In particular, with a considerable delay, Bosnia and Herzegovina completed the first review under the Extended Fund Facility (initially approved in September 2016), leading to the release of a tranche of EUR 74.6 million. Most recently, in February 2018 Serbia concluded a three-year precautionary Stand-By Agreement with the IMF in the amount of EUR 1.12 billion, without effectively withdrawing any funds so far.

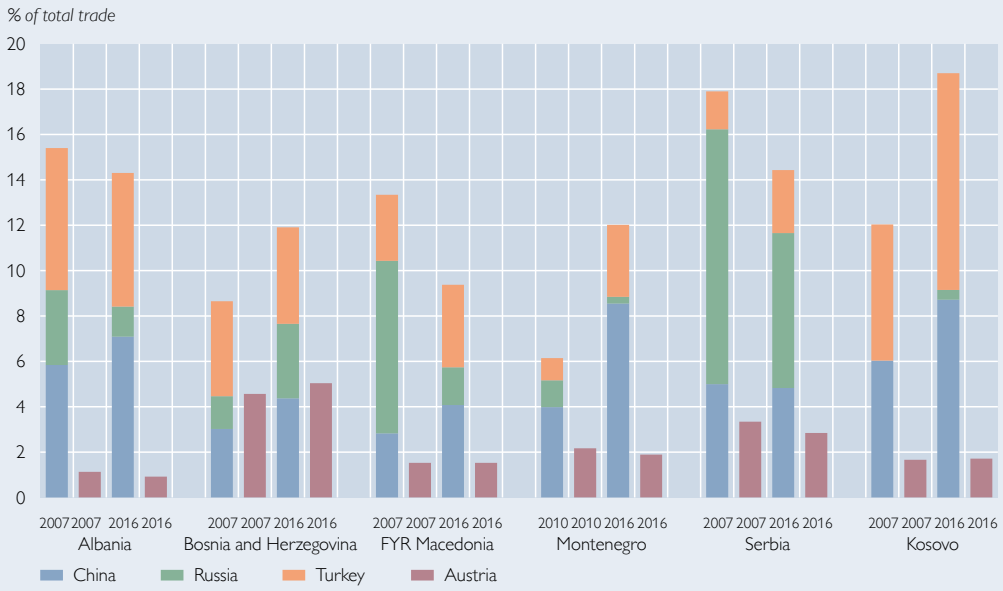
Spotlight: a brief take on the economic exposure of the Western Balkans to China, Russia and Turkey

The Western Balkans have become the center of attention recently, when it comes to connecting China to the EU through the One-Belt One-Road (OBOR) initiative along the Silk Road. Historically however, also Russia and Turkey kept one foot in the camp, notwithstanding the ongoing EU accession process.[3] Economic ties between the Western Balkan economies and China, Turkey and Russia have been established gradually based on trade agreements. While trading among themselves is established under the framework of the Central European Free Trade Agreement (CEFTA), all countries in the region have bilateral trade agreements with Turkey. Agreements for trade with Russia are in place only with Bosnia and Herzegovina, Albania and Serbia and under negotiation with Montenegro.

Although the European Union remains the major trading partner of all Western Balkan economies, the trade openness of the Western Balkan economies vis-à-vis Turkey has increased in all countries in the past ten years (see chart 3). In particular, in 2016 the share of trade with Turkey in total trade of the respective country ranked highest in Kosovo (10%) and was lowest in Montenegro (3.1%). While imports of Turkish goods prevail, especially Serbian goods exports to Turkey increased sizeably recently, reaching one-third of total trade with Turkey. Trade with Russia is comparably less important for most of the (potential) EU candidate countries, especially for Kosovo, Albania and Montenegro. On the contrary, although the share of Russia in the total trade of these countries has been on a declining trend, Russia has been among the top three trading partners for Serbia in the past years.[4]

Chart 3

Trade openness



Source: wiiw.

[3] In February 2018, the European Commission adopted the strategy for 'A credible enlargement perspective for and enhanced EU engagement with the Western Balkans,' to commit to a "geostrategic investment in a stable, strong and united Europe based on common values." The European Commission plans to gradually increase funding under the Instrument for Pre-Accession Assistance (IPA) until 2020. In 2018 alone, IPA for the Western Balkans is to reach EUR 1.07 billion, while EUR 9 billion have been disbursed in the 2007–2017 period.

[4] While Albania and Montenegro joined EU sanctions against Russia imposed as from March 2014 onward, Serbia and FYR Macedonia have decisively opposed such a move so far.

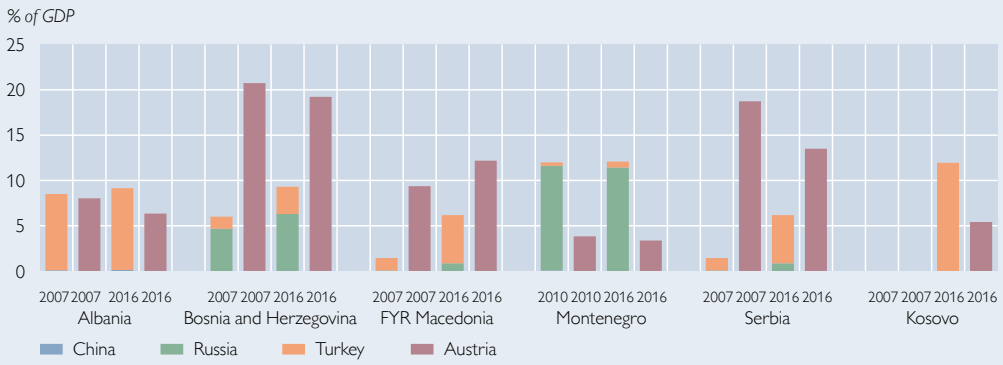
In the Western Balkan region, China has set up bilateral agreements with Albania, Montenegro (taxation treaty) and Serbia. In fact, China and Serbia signed a strategic partnership agreement in 2009, which laid the formal basis for a large number of infrastructure, energy, car manufacture and other projects. Accordingly, trade of goods with China has been highest in these three countries and is on an increasing trend in all Western Balkan countries. In Albania and Montenegro, it stood at 7% and 9% of total trade in 2016, respectively.

Despite the funding available from EU sources and international financial institutions (e.g. Western Balkans Investment Framework), the financing needs of the Western Balkan countries remain substantial. Non-EU firms' investments therefore benefit (potential) EU candidate countries, which cannot access large EU structural funds but are in need of financing to make progress toward EU accession. Turkish investment stocks in Albania and Kosovo rank among the highest, surpassing Austrian FDI stocks by a significant margin. Turkish FDI has more than quadrupled since 2007 in Serbia and FYR Macedonia and has targeted predominantly the construction, infrastructure and manufacturing sectors. In addition, Turkish-owned banks are among the largest banks in Albania, Kosovo and FYR Macedonia, taking up close to one-third of total banking assets in Albania.

Russian FDI stocks[5] are rather low in the majority of the Western Balkan countries except in Bosnia and Herzegovina and in Montenegro (see chart 4). Russian investments are mainly focused on key sectors such as energy, banking and real estate. In particular, Russia has been the largest investor in Montenegro with investments primarily in the real estate and tourism sectors. Total Russian investment in the country stood at slightly above 12% of GDP in 2016. In addition, the exposure to Serbia and FYR Macedonia has steadily increased since 2007.[6]

Chart 4

FDI stocks



Source: wiiw.

[5] For the sake of completeness, a discussion of the Russian exposure to the Western Balkans should include information also on loans granted to state entities. Although these have been sizeable in some of the countries in recent years, this would go beyond the scope of this box.

[6] Anecdotal evidence points toward a strong underestimation of Russian FDI stocks in FYR Macedonia and Serbia due to the channeling of Russian investments via EU countries with a preferential tax system (e.g. Cyprus, the Netherlands).

The financial and economic links between China and the Western Balkan countries intensified significantly between 2015 and 2017. Geographically, the Western Balkans (and Greece) constitute the final part of China's new Maritime Silk Road. With a view to extending the New Silk Road into the Balkans, China primarily invests in regional infrastructure, such as ports, railroads and highways, inter alia through the so-called "16+1 format," which incorporates Albania, Bosnia and Herzegovina, FYR Macedonia, Montenegro and Serbia. This strategy relies on the assumption that the countries in the region will catch up significantly, integrate into the EU and thus build a bridge for Chinese companies to the main EU markets. Politically, Chinese investors[7] show more readiness than other investors to get involved in countries with higher political instability, and to assume the role of a neutral force and a reliable business partner.[8]

[7] *The Western Balkan countries may be even more attractive to Chinese investors than EU Member States, partly because they enable them to bypass EU trade laws, antidumping regulations or even environmental rules that apply to EU Member States. In particular, there have been reported cases of construction builders working under conditions that do not comply with national labor laws (e.g. Pupin bridge in Belgrade). Even in the EU Member States, there have already been cases where the European Commission has expressed its concern about laws having been breached or agreements having been closed without prior consultation of the European Commission.*

[8] *Barisitz, S. and Radzyner, A. (2017). The New Silk Road, part II: implications for Europe. Focus on European Economic Integration Q4/17, OeNB, December 2017, https://www.oenb.at/Publikationen/Volkswirtschaft/Focus-on-European-Economic-Integration.html.*

2 Slovakia: solid economic expansion amid labor market tightening and excessive household credit growth

Domestic demand remains the main driver of GDP growth

Slovakia's real GDP growth continued at a rather solid pace during the second half of 2017, mainly on the back of robust household spending and a significant rebound in investment. Economic expansion thus accelerated a tad, to 3.4% in the year as a whole. Despite a slight upward trend in inflation and owing to favorable developments in the labor market, household consumption expanded at the highest rates since end-2008. After a significant contraction in 2016 and the first six months of 2017 mainly as a result of sluggish absorption of EU funds, gross fixed capital formation bounced back in the six months to December (more than 8% year on year). This relatively robust recovery, spurred by large investments in the automotive sector and public investments in infrastructure, was strong enough to lift up investment growth into positive territory in 2017 as a whole. The external sector continued to make a mildly positive contribution to growth in the second half of 2017, although marginally smaller than in the first six months. This is because a slightly accelerated growth in exports – driven mainly by services – was outpaced by growth in imports on the back of stronger domestic demand. However, it is worth mentioning that in the fourth quarter of 2017 export growth sped up while import growth decelerated. This was because demand pressures for highly specialized imports mainly in the automotive sector eased. As a consequence, net exports were the main contributor to growth in the final quarter of 2017.

For the first time in two years, the trade balance turned negative in the third quarter of 2017 due to strong imports, higher oil prices and summer shutdowns of factories. This seems to have been a temporary dip and, overall, the goods and services balance declined but remained in positive territory in the second half of 2017. Nonetheless, as a result, the current account deficit more than doubled compared to the first six months of the year. The general government deficit fell by somewhat more than 1 percentage point of GDP compared to 2016 (to 1% of GDP). This reduction was brought about mainly by the buoyant economic growth and, inter alia, lower interest payments and social expenditures. As a result, general government debt continued its downward trend, to about 51% of GDP.

Further measures planned to contain excessive growth of credit to households

Solid economic growth and the ensuing demand for skilled labor continue to translate into the highest employment levels on record, the lowest unemployment rates since the early 1990s and significant wage growth. The latter keeps outstripping productivity growth so that unit labor costs rise at a pace unseen for many years. To alleviate the aggravating shortages of skilled labor, rules for employing foreign workers were simplified for certain professions and regions with low unemployment.

Having turned positive in early 2017, inflation accelerated to 1.8% in the second half of the year (and to 2.2% in February 2018) owing mainly to food prices and, to a lesser extent, prices of services on the back of continued growth in wages.

Several macroprudential measures notwithstanding, loans to households – particularly driven by mortgages – keep growing at double-digit rates, the fastest in the euro area. As a result, the household debt-to-GDP ratio has reached the highest level in CESEE. To mitigate the excessive and risky household indebtedness, Slovakia's central bank considers further measures to contain the growth of credit to households.

Table 2

Main economic indicators: Slovakia

	2015	2016	2017	Q3 16	Q4 16	Q1 17	Q2 17	Q3 17	Q4 17
	Year-on-year change of the period total in %								
GDP at constant prices	3.9	3.3	3.4	2.7	3.2	3.0	3.7	3.4	3.5
Private consumption	2.2	2.7	3.6	2.0	2.9	3.3	3.5	3.9	3.6
Public consumption	5.4	1.6	0.2	1.9	–1.1	–1.1	–0.3	–1.4	3.1
Gross fixed capital formation	19.8	–8.3	3.2	–13.4	–14.6	0.8	–5.4	10.4	6.1
Exports of goods and services	6.4	6.2	4.3	5.9	7.8	8.2	–0.3	3.8	5.7
Imports of goods and services	8.4	3.7	3.9	1.6	5.3	7.7	–0.8	5.9	3.3
	Contribution to GDP growth in percentage points								
Domestic demand	5.4	0.9	2.6	–1.1	0.7	2.2	3.3	3.6	1.1
Net exports of goods and services	–1.5	2.4	0.5	3.7	2.4	0.8	0.4	–1.7	2.5
Exports of goods and services	5.9	5.8	4.0	5.1	7.4	7.9	–0.3	3.3	5.6
Imports of goods and services	–7.4	–3.4	–3.5	–1.3	–5.0	–7.1	0.8	–4.9	–3.1
	Year-on-year change of the period average in %								
Unit labor costs in the whole economy (nominal, per person)	1.6	1.4	2.8	1.6	2.3	2.2	2.4	4.0	2.7
Unit labor costs in manufacturing (nominal, per hour)	–0.3	3.7	6.3	5.6	5.5	3.3	9.7	6.9	5.3
Labor productivity in manufacturing (real, per hour)	4.4	0.5	0.4	–0.1	–0.6	2.3	–1.3	–0.1	0.9
Labor costs in manufacturing (nominal, per hour)	4.1	4.2	6.7	5.5	4.9	5.6	8.3	6.8	6.2
Producer price index (PPI) in industry	–3.0	–4.0	2.4	–4.3	–2.3	2.7	3.0	2.2	1.9
Consumer price index (here: HICP)	–0.3	–0.5	1.4	–0.7	–0.1	1.0	1.0	1.6	2.0
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	11.5	9.7	8.2	9.6	9.2	8.8	8.2	8.0	7.8
Employment rate (%, 15–64 years)	62.7	64.9	66.2	65.1	65.3	65.8	66.1	66.4	66.4
Key interest rate per annum (%)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Nominal year-on-year change in the period-end stock in %								
Loans to the domestic nonbank private sector[1]	11.0	10.3	10.2	10.0	10.3	11.5	12.3	11.5	10.2
of which: loans to households	12.4	13.4	11.8	13.2	13.4	13.9	13.4	12.3	11.8
loans to nonbank corporations	8.9	5.4	7.6	4.9	5.4	7.7	10.6	10.0	7.6
	%								
Share of foreign currency loans in total loans to the nonbank private sector	0.5	0.4	0.2	0.3	0.4	0.4	0.4	0.4	0.2
Return on assets (banking sector)	0.9	1.1	0.8	1.1	1.1	0.9	1.0	0.9	0.8
Tier 1 capital ratio (banking sector)	16.5	16.2	16.6	16.5	16.2	16.6	16.6	16.5	16.6
NPL ratio (banking sector)	4.8	4.3	3.6	4.6	4.3	4.2	4.0	4.0	3.6
	% of GDP								
General government revenues	42.5	39.3	39.4	..	..	..	..	..	..
General government expenditures	45.2	41.5	40.4	..	..	..	..	..	..
General government balance	–2.7	–2.2	–1.0	..	..	..	..	..	..
Primary balance	–1.0	–0.6	..	..	..	..	..	..	..
Gross public debt	52.3	51.8	50.9	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	51.7	55.0	..	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	35.0	38.2	..	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Trade balance	1.3	2.0	0.8	1.2	0.3	1.7	1.5	–0.9	0.8
Services balance	0.2	0.6	1.0	0.8	0.3	0.9	1.1	1.4	0.5
Primary income	–1.7	–2.3	–2.3	–2.4	–2.0	–1.4	–2.5	–2.5	–2.8
Secondary income	–1.6	–1.7	–1.5	–1.6	–1.8	–1.6	–2.3	–1.3	–0.8
Current account balance	–1.7	–1.5	–2.1	–2.0	–3.3	–0.4	–2.2	–3.3	–2.2
Capital account balance	3.5	2.0	0.9	0.6	2.1	0.0	1.8	0.4	1.5
Foreign direct investment (net)[2]	–0.1	0.6	–2.0	–2.7	–0.3	–4.5	–0.7	–3.1	0.0
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	85.4	90.9	110.8	89.8	90.9	95.1	95.2	97.3	110.8
Gross official reserves (excluding gold)	2.1	2.0	2.3	2.0	2.0	1.8	1.9	2.1	2.3
	Months of imports of goods and services								
Gross official reserves (excluding gold)	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3
	EUR million, period total								
GDP at current prices	78,896	81,154	84,985	21,245	21,006	19,340	21,196	22,315	22,135

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

[1] *Foreign currency component at constant exchange rates.*

[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).

3 Slovenia: economy steams ahead in second half of 2017

GDP growth at post-crisis high in final quarter of 2017

GDP growth during the final quarter of 2017 rose to its highest level since early 2008, lifting the full-year growth rate to 5%. Private consumption continued to grow at around 3% year on year during the second half of 2017, benefiting from the strong expansion of employment, continued real wage growth, relatively rapid credit growth to households and the further improvement of consumer confidence. Public consumption rose particularly in the fourth quarter of 2017 mainly due to the payment of matured financial liabilities of hospitals. Investment activity picked up sharply in the final quarter, reflecting surging construction and likely also the inflow of EU funds. At the same time, growth of investments in machinery and equipment continued to moderate, albeit from a high level, despite capacity utilization rates, improving corporate profitability and economic sentiment remaining at historically high levels. Export growth accelerated strongly in the second half of 2017, thanks to demand from other EU countries and sustained cost competitiveness. Since import growth grew less strongly, net real exports contributed substantially to the overall GDP growth rate.

Strong upswing of the economy benefits fiscal balance

Slovenia's budget deficit decreased substantially in 2017 and the country reported a balanced budget for the first time since 2007. Budget revenue was boosted by rapid employment growth, increased private consumption and high corporate profits. Encouraged by strong economic growth, public sector trade unions have been pressing for double-digit wage hikes, which the outgoing government has so far withstood, but with early elections scheduled for late May/early June there is the possibility of pre-election promises. Uncertainty is accumulating around the country's biggest bank, Nova Ljubljanska banka. Having initially committed to divesting at least a 50% stake in the bank by end-2017, the government instead submitted a new proposal (including a later sales deadline and the appointment of an independent administrator for the bank for the pre-privatization period), which is now subject to negotiations with the European Commission. According to the European Commission's 2018 Country Report under the European Semester, also reflecting the results of an in-depth review, Slovenia no longer experiences macroeconomic imbalances. Risks stemming from weaknesses in the banking sector, corporate indebtedness and short-term fiscal developments have receded. Nevertheless, major long-term challenges remain related to the pension, healthcare and long-term care system in connection with population aging.

No signs of underlying inflationary pressures despite headline inflation of close to 2%

Despite the rapid expansion of the economy and the output gap likely turning positive, inflation remained contained during the second half of 2017 and early 2018. Growth of credit to the private sector remained at around 5%, with household demand exceeding corporate demand, as improved probability presumably enabled businesses to cover their financing needs increasingly from internal sources. Banking sector profitability improved modestly in 2017 owing to the release of impairments and provisions. Income risk has remained one of the most significant risks for the sector, given the low interest rate environment, while growing mismatches between banks' assets and liabilities in terms of maturity and interest rate fixation have heightened funding and interest rate risks. The relatively rapid growth of real estate prices warrants careful monitoring. Current parliamentary discussion of a forced conversion of households' Swiss franc loans into euro loans and ongoing court cases about the validity of foreign currency loan contracts represent a contingent risk factor for banks, even though the share of foreign currency credits in household loans was moderate at less than 5%.

Table 3

Main economic indicators: Slovenia

	2015	2016	2017	Q3 16	Q4 16	Q1 17	Q2 17	Q3 17	Q4 17
	Year-on-year change of the period total in %								
GDP at constant prices	2.3	3.1	5.0	3.4	3.5	5.0	4.5	4.5	6.0
Private consumption	2.1	4.2	3.2	4.2	6.4	3.7	2.8	3.0	3.2
Public consumption	2.7	2.5	2.3	2.7	1.1	0.9	1.1	1.7	5.6
Gross fixed capital formation	–1.6	–3.6	10.3	–2.5	0.7	13.1	9.0	7.4	11.9
Exports of goods and services	5.0	6.4	10.6	5.8	5.6	9.7	8.4	11.9	12.3
Imports of goods and services	4.7	6.6	10.1	5.6	7.5	10.8	7.7	10.7	11.1
	Contribution to GDP growth in percentage points								
Domestic demand	1.7	2.7	3.7	2.7	4.4	4.7	3.3	2.6	4.2
Net exports of goods and services	0.6	0.5	1.3	0.7	–0.9	0.2	1.2	1.9	1.7
Exports of goods and services	3.8	5.0	8.2	4.4	4.4	7.7	6.5	9.1	9.6
Imports of goods and services	–3.2	–4.5	–6.9	–3.8	–5.3	–7.4	–5.2	–7.2	–7.9
	Year-on-year change of the period average in %								
Unit labor costs in the whole economy (nominal, per person)	0.4	1.6	0.6	1.1	1.0	–0.3	0.8	1.0	0.8
Unit labor costs in manufacturing (nominal, per hour)	–5.0	–5.3	–2.0	–5.4	–1.8	–2.8	1.5	–0.7	–5.6
Labor productivity in manufacturing (real, per hour)	5.7	9.1	9.1	8.7	10.9	5.8	8.0	10.5	12.0
Labor costs in manufacturing (nominal, per hour)	0.5	3.3	7.0	2.8	8.8	2.9	9.6	9.8	5.7
Producer price index (PPI) in industry	–0.2	–1.4	2.2	–1.3	–0.1	1.7	2.3	2.3	2.4
Consumer price index (here: HICP)	–0.8	–0.2	1.6	0.0	0.7	2.0	1.4	1.3	1.5
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	9.1	8.1	6.7	7.5	8.1	7.9	6.5	6.4	5.9
Employment rate (%, 15–64 years)	65.2	65.9	69.3	66.4	66.6	67.3	69.1	70.4	70.3
Key interest rate per annum (%)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Nominal year-on-year change in the period-end stock in %								
Loans to the domestic nonbank private sector[1]	–6.5	–2.4	4.8	–7.0	–2.4	1.3	3.8	7.8	4.8
of which: loans to households	0.1	3.3	6.8	1.7	3.3	5.2	5.9	7.3	6.8
loans to nonbank corporations	–11.2	–7.0	3.1	–13.7	–7.0	–2.0	2.0	8.2	3.1
	%								
Share of foreign currency loans in total loans to the nonbank private sector	3.8	3.2	2.4	3.5	3.2	3.1	2.8	2.5	2.4
Return on assets (banking sector)	0.3	0.9	1.1	1.1	0.9	1.4	1.2	1.2	1.1
Tier 1 capital ratio (banking sector)	20.1	20.2	..	20.8	20.2	20.0	19.9	19.7	..
NPL ratio (banking sector)	9.9	5.5	3.7	6.4	5.5	5.2	5.0	4.7	3.7
	% of GDP								
General government revenues	44.9	43.3	43.1	..	..	..	..	..	..
General government expenditures	47.7	45.3	43.1	..	..	..	..	..	..
General government balance	–2.9	–1.9	0.0	..	..	..	..	..	..
Primary balance	0.4	1.2	..	..	..	..	..	..	..
Gross public debt	82.6	78.6	73.6	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	67.9	60.8	..	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	27.6	27.3	..	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Trade balance	3.8	3.8	3.6	3.6	2.2	3.6	3.9	4.3	2.7
Services balance	4.8	5.4	5.9	6.3	5.1	5.4	6.1	6.9	5.3
Primary income	–3.2	–3.2	–2.6	–3.6	–3.4	–2.2	–2.2	–2.8	–3.0
Secondary income	–1.0	–0.8	–0.6	–0.9	–0.5	–0.9	–0.7	–0.5	–0.2
Current account balance	4.4	5.2	6.4	5.4	3.3	5.9	7.1	7.8	4.7
Capital account balance	1.1	–0.7	–0.5	–0.5	–1.0	–0.5	–0.6	–0.5	–0.5
Foreign direct investment (net)[2]	–3.3	–2.2	–1.2	–2.9	1.0	–2.1	1.2	–1.9	–2.1
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	120.1	110.9	100.4	113.4	110.9	109.4	106.8	102.6	100.4
Gross official reserves (excluding gold)	1.8	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	Months of imports of goods and services								
Gross official reserves (excluding gold)	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.2
	EUR million, period total								
GDP at current prices	38,837	4,018	43,278	10,390	10,396	9,901	11,010	11,106	11,261

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

[1] *Foreign currency component at constant exchange rates.*

[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).

4 Bulgaria: strong domestic demand momentum continues amid slowing exports

Slowing exports put some drag on economic activity

Despite some deceleration in the fourth quarter of 2017, economic growth continued to outperform post-2009 averages. The shift to a growth model driven by domestic demand has stabilized, whereby fixed investment and private consumption gained extra momentum in the second half of 2017. Export growth, on the other hand, significantly decelerated until the end of the year, inter alia due to an abating base effect in tourism (prompted by the diversion of tourist flows from Turkey in 2016). Some slowdown in import growth in the second half of 2017 was thus not sufficient to improve the contribution of net exports.

Gradually improving economic sentiment indicators have translated into a further rise in labor demand, and both unemployment and employment rates have approached best-performance levels of the past 20 years. As a result of the tightening labor market, annual real wage growth climbed to 10% in the second half of 2017, fueling private consumption but also considerably outpacing productivity advances. Increasing scarcity of labor coincides with a shift toward more capital spending. On the back of improved EU fund absorption, favorable lending conditions and a stronger focus of the new government on public infrastructure, gross fixed capital formation expanded with nearly 4% in 2017 at a rate not seen since 2008.

Strong wage increases have not yet resulted in significant inflationary pressures. Annual HICP inflation reached its 2017 peak in November with 1.9%, before receding to 1.5% in February 2018. Service prices have taken over the dominant role from energy and food prices in explaining inflation dynamics. As a result, also core inflation has experienced a gradual uptick, to 1.4% in February 2018.

Pick-up in lending activity alongside a gradual reduction in NPL ratios

Lending to the domestic nonbank private sector also experienced a considerable pick-up in the second half of 2017 (compared to subdued post-2009 dynamics). Deposits grew even stronger, contributing to a further reduction in the loan-to-deposit ratio. Moreover, loan growth has been primarily driven by local currency loans, inter alia due to the increase in savings in Bulgarian lev and more favorable terms of lending in lev. Therefore, the gradual decline in foreign currency lending as a share of total lending (observed since 2014) has also continued more recently. The NPL ratio (>90 days overdue specification) moved below 7% by the end of 2017 for the first time since the first quarter of 2010, and the coverage ratio improved as well. However, compared to other CESEE EU Member States, Bulgaria shows still one of the largest NPL ratios.

Government outperforms budgetary targets

As a result of expansionary private consumption and investment, revenue outperformance allowed the government to keep its budget in surplus in 2017 for another year, at 0.9 of GDP, rather than suffering a deficit of 0.6% of GDP as anticipated. The 2018 budget envisages a significant widening of spending for public wages and investment projects (the latter by 50% year on year). Nevertheless, the targets set in the 2017–2020 Convergence Programme (a general government deficit of 0.5% of GDP in 2018 and surpluses of 0.1% of GDP in 2019–2020) have so far not been amended and should remain within reach as long as revenue performance remains favorable. Bulgaria runs the semiannual presidency of the Council of the European Union from January to June 2018 and is currently working with its European partners on a roadmap for entering the EU's exchange rate mechanism (ERM II).

Table 4

Main economic indicators: Bulgaria

	2015	2016	2017	Q3 16	Q4 16	Q1 17	Q2 17	Q3 17	Q4 17
	Year-on-year change of the period total in %								
GDP at constant prices	3.6	3.9	3.6	3.0	4.3	3.6	3.9	3.8	3.0
Private consumption	4.5	3.6	4.8	0.4	4.7	3.8	5.7	4.6	5.2
Public consumption	1.4	2.2	3.2	3.0	6.8	5.8	1.2	2.5	3.5
Gross fixed capital formation	2.7	–6.6	3.8	–9.5	–10.0	2.4	4.0	4.2	4.1
Exports of goods and services	5.7	8.1	4.0	10.7	10.6	6.1	3.6	4.6	2.1
Imports of goods and services	5.4	4.5	7.2	5.9	4.9	9.1	6.2	5.4	8.2
	Contribution to GDP growth in percentage points								
Domestic demand	3.5	1.6	5.3	–0.5	1.3	5.3	5.2	4.0	6.5
Net exports of goods and services	0.1	2.3	–1.7	3.7	3.0	–2.2	–1.5	0.2	–3.4
Exports of goods and services	3.7	5.2	2.6	7.2	5.9	4.0	2.3	3.2	1.2
Imports of goods and services	–3.6	–2.9	–4.3	–3.5	–2.9	–6.2	–3.8	–3.0	–4.6
	Year-on-year change of the period average in %								
Unit labor costs in the whole economy (nominal, per person)	2.3	2.5	5.4	2.8	–0.3	2.6	4.1	7.5	8.3
Unit labor costs in manufacturing (nominal, per hour)	1.7	7.8	4.9	6.4	6.3	7.1	2.5	5.3	4.8
Labor productivity in manufacturing (real, per hour)	7.4	2.1	6.6	3.3	2.5	3.1	8.8	6.6	7.5
Labor costs in manufacturing (nominal, per hour)	9.2	10.0	11.7	10.0	9.0	10.4	11.5	12.2	12.6
Producer price index (PPI) in industry	–2.0	–3.1	4.9	–3.0	0.6	4.8	4.2	5.4	5.2
Consumer price index (here: HICP)	–1.1	–1.3	1.2	–1.1	–0.8	0.8	1.4	0.9	1.7
EUR per 1 BGN, + = BGN appreciation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	9.3	7.7	6.3	7.1	6.7	7.0	6.4	5.9	5.7
Employment rate (%, 15–64 years)	62.9	63.4	66.9	64.2	63.4	64.3	67.2	68.5	67.5
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
	Nominal year-on-year change in the period-end stock in %								
Loans to the domestic nonbank private sector[2]	–1.9	1.6	4.9	–0.2	1.6	3.7	4.3	5.0	4.9
of which: loans to households	–1.4	2.0	6.1	0.5	2.0	4.6	6.0	5.9	6.1
loans to nonbank corporations	–2.2	1.3	4.1	–0.7	1.3	3.1	3.3	4.4	4.1
	%								
Share of foreign currency loans in total loans to the nonbank private sector	49.9	44.4	37.9	46.3	44.4	42.5	41.0	39.7	37.9
Return on assets (banking sector)	1.0	1.4	1.2	1.6	1.4	1.2	1.4	1.2	1.2
Tier 1 capital ratio (banking sector)	20.5	20.9	20.9	21.5	20.9	21.3	21.3	21.0	20.9
NPL ratio (banking sector)	10.9	9.0	6.9	10.0	9.0	9.1	8.7	8.1	6.9
	% of GDP								
General government revenues	39.1	35.2	36.1	..	..	..	..	..	..
General government expenditures	40.7	35.0	35.2	..	..	..	..	..	..
General government balance	–1.6	0.2	0.9	..	..	..	..	..	..
Primary balance	–0.7	0.8	..	..	..	..	..	..	..
Gross public debt	26.0	29.0	25.4	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	96.6	91.4	..	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	23.8	23.2	..	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Trade balance	–5.8	–2.1	–4.1	–0.4	–2.8	–5.9	–3.3	–1.3	–6.3
Services balance	6.7	6.4	6.0	13.8	2.5	1.8	5.2	13.8	2.0
Primary income	–4.5	–2.3	–1.1	–2.0	–2.3	–2.2	–0.7	–0.6	–1.0
Secondary income	3.6	3.3	3.7	1.6	1.8	5.2	3.5	4.4	2.0
Current account balance	–0.1	5.3	4.5	13.0	–0.8	–1.0	4.7	16.3	–3.3
Capital account balance	3.1	2.2	1.0	1.4	0.6	1.1	0.7	1.0	1.3
Foreign direct investment (net)[3]	–5.2	–0.7	–1.4	–0.8	3.7	–2.2	–1.3	–0.7	–1.5
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	81.6	79.2	74.2	79.7	79.2	78.8	77.5	74.9	74.2
Gross official reserves (excluding gold)	42.2	46.7	44.1	46.5	46.7	46.5	45.9	46.4	44.1
	Months of imports of goods and services								
Gross official reserves (excluding gold)	8.0	9.4	8.2	9.3	9.4	9.1	8.8	8.8	8.2
	EUR million, period total								
GDP at current prices	45,287	48,129	50,430	13,076	13,493	10,260	12,347	13,800	14,023

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

[1] *Not available in a currency board regime.*
[2] *Foreign currency component at constant exchange rates.*
[3] *+ = 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: solid growth and fiscal improvements, but structural challenges remain

Strong private consumption growth, but investments and exports disappoint

Croatian GDP grew by 2.8% year on year in 2017, reflecting 3.3% growth in the third quarter and a slowdown to 2.0% in the fourth quarter. Private consumption remained the main growth driver, supported by positive labor market developments, a pick-up in lending to households and income tax changes. Consumer confidence improved in the second half of 2017 and reached its highest level since 2000 in February 2018. Growth of gross fixed capital formation slowed during the year, with the uncertainty surrounding Agrokor – the country's ailing retailer – most likely weighing on investments. EU fund absorption remains low, but Croatia succeeded in speeding up the process of tender calls and project contractions in 2017. Net exports continued to make a negative contribution to growth in the second half of 2017.

The growth of exports slowed, while the growth of imports increased in the second half of 2017 compared to the same period last year. The trade balance deficit widened, while the services balance surplus increased, supported by another record tourist season. The income balance improved markedly compared to the second half of 2016. Overall, the current account surplus increased to 3.9% of GDP in 2017 from 2.6% of GDP in 2016. External debt declined to 82.3% of GDP in 2017 from 89.8% in 2016.

Draft strategy for euro adoption and further fiscal consolidation needs

In October 2017, the Croatian central bank (HNB) and government jointly published a draft strategy for the adoption of the euro, emphasizing that the benefits of euro adoption outweigh the costs for Croatia. Euro accession would eliminate the high currency risk stemming from the euroization of the economy; the shares of loans and deposits to the private sector denominated in foreign currency have been declining, but still stood at 57% and 61%, respectively, at the end of 2017. The draft strategy does not include a time line for euro adoption.

One critical point in terms of euro adoption will be Croatia's debt-to-GDP ratio, which continues to stand well above the Maastricht criterion of 60% of GDP. The public debt-to-GDP ratio, however, declined moderately to 78% of GDP at end-2017. The Finance Ministry has announced that Croatia achieved a general government budget surplus in 2017 amid stable revenues and a notable downward trend in expenditure. The consolidation was aided by favorable GDP developments and financing conditions. In the first months of 2018, Fitch and Standard & Poor's upgraded Croatia's long-term sovereign rating from BB to BB+.

Appreciation pressures on the kuna exchange rate versus the euro

Monthly HICP inflation averaged 1.5% in the second half of 2017, a mild acceleration compared to the first half of the year. The first two months of 2018, however, brought a moderation of inflation to 0.9% in February. The HNB continued its expansionary stance and Croatian kuna liquidity increased to a record high of HRK 19.1 billion in December 2017. As a response to appreciation pressures on the kuna stemming largely from economic growth and current account developments, the HNB conducted four outright open-market operations, purchasing assets worth EUR 573 million from the banking sector in the second half of 2017 and a further EUR 405.5 million in January 2018.

The growth of loans to households turned positive in the second half of the year, but overall credit growth remained negative, as loans to the government and companies both contracted year on year. Loans to the government declined sharply, mostly related to the government's debt refinancing strategy.

Table 5

Main economic indicators: Croatia

	2015	2016	2017	Q3 16	Q4 16	Q1 17	Q2 17	Q3 17	Q4 17
	Year-on-year change of the period total in %								
GDP at constant prices	2.3	3.2	2.8	3.1	3.5	2.6	3.0	3.3	2.0
Private consumption	1.1	3.5	3.6	3.8	3.7	3.5	3.7	3.7	3.4
Public consumption	–0.9	1.9	2.0	2.4	2.2	1.5	1.7	2.3	2.6
Gross fixed capital formation	3.8	5.3	3.4	3.7	5.0	5.4	3.3	3.4	1.7
Exports of goods and services	9.4	5.6	6.1	5.5	6.5	9.5	6.5	5.7	3.6
Imports of goods and services	9.2	6.2	8.1	5.4	5.6	11.4	5.8	9.5	6.0
	Contribution to GDP growth in percentage points								
Domestic demand	2.1	3.3	3.5	1.8	3.2	4.4	2.9	3.8	3.3
Net exports of goods and services	0.3	–0.1	–0.8	1.2	0.2	–1.7	0.1	–0.4	–1.2
Exports of goods and services	4.3	2.7	3.0	3.6	2.9	3.7	2.9	3.7	1.6
Imports of goods and services	–4.0	–2.8	–3.7	–2.3	–2.6	–5.4	–2.8	–4.1	–2.8
	Year-on-year change of the period average in %								
Unit labor costs in the whole economy (nominal, per person)	..	..	..	..	..	..	..	..	..
Unit labor costs in manufacturing (nominal, per hour)	–3.3	51.9	2.1	56.3	48.8	9.8	–4.1	0.9	2.0
Labor productivity in manufacturing (real, per hour)	5.9	–31.6	3.5	–33.4	–29.6	–2.1	9.2	4.7	2.2
Labor costs in manufacturing (nominal, per hour)	2.2	4.2	5.5	4.0	4.8	7.5	4.7	5.7	4.3
Producer price index (PPI) in industry	–3.9	–4.3	2.0	–4.6	–1.7	2.3	1.8	1.8	2.0
Consumer price index (here: CPI)	–0.3	–0.6	1.3	–1.1	0.2	1.1	1.1	1.4	1.5
EUR per 1 HRK, + = HRK appreciation	0.3	1.1	0.9	1.1	1.3	2.0	1.0	0.9	–0.1
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	16.4	13.3	11.3	11.0	13.5	14.1	11.1	9.1	11.0
Employment rate (%, 15–64 years)	56.0	56.9	58.9	58.4	56.8	55.9	59.2	61.0	59.6
Key interest rate per annum (%)	..	..	..	..	..	..	..	..	..
HRK per 1 EUR	7.6	7.5	7.5	7.5	7.5	7.5	7.4	7.4	7.5
	Nominal year-on-year change in the period-end stock in %								
Loans to the domestic nonbank private sector[1]	–4.0	–3.8	0.8	–4.9	–3.8	–1.7	–0.9	0.0	0.8
of which: loans to households	–3.2	–4.6	2.3	–5.6	–4.6	–0.2	0.1	0.7	2.3
loans to nonbank corporations	–5.2	–2.6	–1.1	–4.1	–2.6	–3.5	–2.1	–0.9	–1.1
	%								
Share of foreign currency loans in total loans to the nonbank private sector	66.7	60.1	56.9	60.7	60.1	58.9	58.0	57.7	56.9
Return on assets (banking sector)	–1.1	1.3	0.9	1.4	1.3	0.4	0.5	0.7	0.9
Tier 1 capital ratio (banking sector)	19.1	21.3	21.7	19.9	21.3	21.6	21.7	21.3	21.7
NPL ratio (banking sector)	16.7	13.8	11.4	14.7	13.8	13.9	13.2	12.5	11.4
	% of GDP								
General government revenues	44.9	46.3	46.0	..	..	..	..	..	..
General government expenditures	48.4	47.2	45.3	..	..	..	..	..	..
General government balance	–3.4	–0.9	0.8	..	..	..	..	..	..
Primary balance	0.2	2.3	..	..	..	..	..	..	..
Gross public debt	83.8	80.6	78.0	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	99.3	94.7	..	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	38.4	35.2	..	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Trade balance	–15.7	–15.8	–16.8	–14.8	–13.6	–18.6	–19.0	–15.7	–14.1
Services balance	18.0	18.7	19.1	42.7	6.0	3.5	19.3	43.2	5.3
Primary income	–0.6	–3.2	–2.2	–4.7	–1.5	–2.3	–3.2	–2.1	–1.2
Secondary income	2.9	3.0	3.8	2.4	3.3	3.5	4.5	2.9	4.3
Current account balance	4.5	2.6	3.9	25.6	–5.7	–13.9	1.5	28.2	–5.6
Capital account balance	0.7	1.3	0.5	1.0	1.8	0.7	0.5	0.4	0.5
Foreign direct investment (net)[2]	–0.5	–4.1	–2.7	–5.8	–3.2	–2.0	–1.2	–2.5	–4.9
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	101.9	89.8	82.3	92.5	89.8	93.5	84.7	82.3	82.3
Gross official reserves (excluding gold)	30.8	29.1	32.3	28.4	29.1	34.3	29.5	31.0	32.3
	Months of imports of goods and services								
Gross official reserves (excluding gold)	8.0	7.6	7.9	7.4	7.6	8.7	7.4	7.7	7.9
	EUR million, period total								
GDP at current prices	44,539	46,399	48,686	12,978	11,624	10,678	12,226	13,740	12,042

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

[1] *Foreign currency component at constant exchange rates.*
[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).

6 Czech Republic: one of the most successful economic periods since the beginning of transition

All factors contribute to the strong economic expansion

Following a rebounding of the Czech economy in the first half of 2017, growth accelerated further in the second half of the year. Hence, real GDP growth came in at 4.3% in 2017 as a whole, substantially above the growth potential estimated by the Czech National Bank (CNB) at around 3%. While the economic boom was driven by both domestic demand and net exports, it was tilted to the former. Private consumption remained the key growth determinant, reflecting strong wage growth in the tight labor market and optimistic consumer expectations amid still low interest rates. In a similar vein, fixed investment continued edging up in the second half of 2017 and made the second strongest contribution to GDP growth. This does not only echo the low interest rate environment and positive expectations regarding future demand but possibly also a greater robotization of production by firms trying to cope with labor shortages and rapidly growing wages. In addition, households' property investment made a significant contribution to growth, fueled by still vigorous credit growth despite a gradual tightening of credit conditions. In contrast to the private sector components, the growth contribution of public consumption moderated further in the second half of 2017. The contribution of net exports to economic expansion slowed down continuously as a result of a fast acceleration of import growth. The latter was driven by buoyant domestic demand, particularly import-intensive fixed capital formation.

Despite some deterioration in the second half of 2017 on the back of, inter alia, higher oil prices both the trade and services balances remained in surplus. However, the current account turned slightly negative as a result of a higher secondary income deficit. The fiscal surplus increased from 0.7% of GDP in 2016 to 1.6% of GDP in 2017, bolstered mainly by higher tax revenues on the back of the strong economic growth. In the same vein, the debt ratio declined by more than 2 percentage points, to 34.6% of GDP in 2017.

Labor shortages have posed a challenge and raised inflation

The flip side of the robust economic growth is a continued tightening in the labor market. Employment keeps reaching historical highs while the historically low unemployment rate (also the lowest unemployment rate in the EU) declines further. Labor shortages and the ensuing high wage growth not fully matched by rising productivity are the biggest challenge for firms. To cope, they essentially seek to employ foreign workers and to invest into labor-saving technologies.

Inflation has ranged in the upper half of the tolerance band of the CNB's target (2% ±1 percentage point) since early 2017 and averaged some 2.4% in the second half of 2017 as well as in the year as a whole. Higher prices have been the result mainly of core inflation and food prices on the back of the booming economy as well as some one-off effects such as electronic sales registration. However, the latter effects have faded away and, in addition, increases of fuel and import prices have been moderated by the appreciating Czech koruna. Therefore, inflation has dropped from its peak at just below 3% in October 2017, to 1.6% in February 2018. Despite this decline, the CNB expects inflation to be above target for the rest of 2018 and to return to target in early 2019. The CNB started to gradually tighten monetary policy in August 2017. Since then the CNB has increased the two-week repo rate from 0.05% in three steps by 70 basis points.

Table 6

Main economic indicators: Czech Republic

	2015	2016	2017	Q3 16	Q4 16	Q1 17	Q2 17	Q3 17	Q4 17
	Year-on-year change of the period total in %								
GDP at constant prices	5.3	2.6	4.3	1.6	1.7	4.0	3.3	4.8	5.1
Private consumption	3.7	3.6	4.0	3.5	3.0	3.7	3.9	4.1	4.3
Public consumption	1.9	2.0	1.6	1.9	1.2	2.8	1.8	1.2	0.8
Gross fixed capital formation	10.2	–2.3	5.4	–3.5	–3.1	2.6	4.6	6.3	7.3
Exports of goods and services	6.0	4.5	6.5	1.8	2.2	7.5	4.4	6.5	7.6
Imports of goods and services	6.8	3.4	5.8	0.8	1.1	5.6	3.4	6.1	8.1
	Contribution to GDP growth in percentage points								
Domestic demand	5.5	1.4	3.3	0.7	0.8	1.8	2.2	4.0	5.0
Net exports of goods and services	–0.2	1.2	1.0	0.8	0.9	2.2	1.1	0.7	0.1
Exports of goods and services	5.0	3.7	5.2	1.4	1.7	6.3	3.6	4.9	5.9
Imports of goods and services	–5.2	–2.5	–4.2	–0.6	–0.9	–4.2	–2.5	–4.2	–5.9
	Year-on-year change of the period average in %								
Unit labor costs in the whole economy (nominal, per person)	–0.8	3.2	3.6	4.7	4.8	3.0	5.2	3.6	2.8
Unit labor costs in manufacturing (nominal, per hour)	–0.5	0.9	2.1	7.3	–3.6	5.5	1.4	1.2	0.6
Labor productivity in manufacturing (real, per hour)	3.7	2.0	6.1	1.9	3.0	4.0	9.3	5.6	5.4
Labor costs in manufacturing (nominal, per hour)	3.2	3.0	8.3	9.3	–0.7	9.7	10.8	6.9	6.0
Producer price index (PPI) in industry	–2.5	–3.2	1.2	–3.0	–1.3	2.6	1.9	0.5	–0.3
Consumer price index (here: HICP)	0.3	0.6	2.4	0.5	1.5	2.5	2.3	2.4	2.5
EUR per 1 CZK, + = CZK appreciation	0.9	0.9	2.7	0.2	0.1	0.1	1.8	3.6	5.4
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	5.1	4.0	2.9	4.0	3.6	3.5	3.0	2.8	2.4
Employment rate (%, 15–64 years)	70.2	72.0	73.6	72.2	72.9	72.8	73.3	74.1	74.3
Key interest rate per annum (%)	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.4
CZK per 1 EUR	27.3	27.0	26.3	27.0	27.0	27.0	26.6	26.1	25.6
	Nominal year-on-year change in the period-end stock in %								
Loans to the domestic nonbank private sector[1]	6.7	7.8	6.9	7.9	7.8	9.2	9.2	8.8	6.9
of which: loans to households	7.6	7.2	7.5	6.9	7.2	8.0	8.1	7.7	7.5
loans to nonbank corporations	5.7	8.5	6.2	9.2	8.5	10.6	10.5	10.1	6.2
	%								
Share of foreign currency loans in total loans to the nonbank private sector	10.8	13.0	13.3	12.6	13.0	15.5	14.8	15.2	13.3
Return on assets (banking sector)	1.2	1.3	1.1	1.4	1.3	1.1	1.3	1.2	1.1
Tier 1 capital ratio (banking sector)	17.9	17.9	18.7	17.2	17.9	17.6	18.3	18.0	18.7
NPL ratio (banking sector)	5.5	4.6	3.7	4.8	4.6	4.2	4.0	3.8	3.7
	% of GDP								
General government revenues	41.1	40.2	40.4	..	..	..	..	..	..
General government expenditures	41.7	39.4	38.8	..	..	..	..	..	..
General government balance	–0.6	0.7	1.6	..	..	..	..	..	..
Primary balance	0.5	1.6	..	..	..	..	..	..	..
Gross public debt	40.0	36.8	34.6	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	59.8	56.5	..	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	30.5	31.1	..	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Trade balance	4.1	5.2	4.8	3.8	3.2	7.7	5.7	3.3	2.8
Services balance	1.7	2.1	2.4	2.3	2.0	2.5	2.7	2.5	2.2
Primary income	–5.6	–5.7	–5.2	–7.2	–5.9	–0.4	–7.8	–7.4	–4.8
Secondary income	0.0	–0.6	–0.9	–0.7	–1.1	–1.3	–1.2	–1.1	–0.2
Current account balance	0.2	1.1	1.0	–1.9	–1.8	8.4	–0.6	–2.7	–0.1
Capital account balance	2.2	1.1	0.9	1.0	0.1	0.1	0.6	0.6	2.2
Foreign direct investment (net)[2]	1.1	–3.0	–2.7	–4.3	–1.2	–5.4	–2.1	–0.9	–2.6
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	68.5	73.3	89.3	71.0	73.3	90.1	92.6	92.0	89.3
Gross official reserves (excluding gold)	35.0	45.9	64.1	41.7	45.9	68.7	68.7	66.7	64.1
	Months of imports of goods and services								
Gross official reserves (excluding gold)	5.6	7.6	10.6	6.9	7.6	11.3	11.2	11.0	10.6
	EUR million, period total								
GDP at current prices	168,514	176,564	191,797	44,750	45,904	42,883	47,659	49,325	51,930

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

[1] *Foreign currency component at constant exchange rates.*
[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).

7 Hungary: fiscal and monetary policy remain loose amid rapid GDP growth

Accelerating consumption lifts GDP growth in the second half of 2017

Hungary posted strong GDP growth of 4% year on year in 2017, almost twice the rate of 2016. Growth was especially strong in the second half of the year, on the back of sharply accelerating consumption activity, with public consumption reviving in particular ahead of parliamentary elections in April 2018. Private consumption activity continued to be supported by strong wage and employment growth, falling unemployment and high consumer sentiment. At the same time, investment growth slowed down significantly during the second half of 2017, but still advanced at a double-digit rate, supported by the inflow of EU funds, low interest rates, accelerating growth of credit to both households (especially housing loans) and corporations, good economic prospects and record-high capacity utilization rates. Strengthening domestic demand fueled imports, which led to a negative contribution of net real exports to overall GDP growth even though exports remained sound despite cost competitiveness losses.

2017 budget deficit below target, debt level modified by Eurostat decision

Hungary's budget deficit amounted to 2% of GDP in 2017, slightly more than in 2016, but less than the 2.4% of GDP official target. Despite various tax cuts (e.g. VAT and corporate income tax rate reduction, cut in employers' social contribution rate, increased family tax allowance) and increased expenditure (e.g. on public sector wages, housing subsidies), fiscal developments benefited from rapid economic growth. Government debt declined from 76.0% of GDP in 2016 to 73.6% of GDP by end-2017. These figures already reflect the reclassification of Eximbank to the government sector, as negotiated with Eurostat. This methodological change raised government debt by around 2 percentage points of GDP for 2015–2017 (and to a lesser extent for previous years). In its Alert Mechanism Report 2018 of late 2017, the European Commission highlighted rapidly rising real house prices (albeit from undervalued levels), dynamic growth in unit labor costs and a tightening labor market as the most prominent risk factors for Hungary. Yet with these risks still appearing to be contained, the European Commission refrained from carrying out a further in-depth analysis in the context of the macroeconomic imbalance procedure.

MNB extends monetary policy toolkit to maintain loose conditions also on long-end of the curve

With inflation hovering between 2% and 2.5% during the second half of 2017 and early 2018 and the Hungarian central bank (MNB) expecting it not to reach the 3% target before mid-2019, the MNB left its main interest rates unchanged during the reporting period. The central bank continued to squeeze liquidity out of its three-month deposit facility by gradually reducing the limit on outstanding stocks, while at the same time gradually increasing the volume of its Hungarian forint liquidity-providing foreign exchange swaps. At its meeting in December 2017, the monetary council decided not to reduce the three-month deposit stock further in 2018. Instead, the MNB added two new tools to its set of standard monetary policy instruments from the beginning of 2018: unconditional 5- and 10-year interest rate swaps to banks and regular purchases of mortgage bonds with at least 3-year maturity. The new instruments have been designed to ensure loose monetary conditions not only at the short but also at the longer end of the yield curve and promote the provision of long-term credit to the private sector at fixed interest rates. Apart from these monetary policy measures, housing loans have been supported by so-called "certified consumer-friendly housing loans" (i.e. standardized long-term loan contracts with caps on interest rates and fees and comparably long interest fixation periods of 3, 5 or 10 years). The MNB granted such certificates to a large number of banks during the second half of 2017.

Table 7

Main economic indicators: Hungary

	2015	2016	2017	Q3 16	Q4 16	Q1 17	Q2 17	Q3 17	Q4 17
	Year-on-year change of the period total in %								
GDP at constant prices	3.4	2.2	4.0	2.5	1.9	4.3	3.3	3.9	4.4
Private consumption	3.6	4.3	4.7	4.1	4.5	3.5	4.7	5.1	5.6
Public consumption	1.1	0.8	0.3	–1.2	–2.5	–5.8	–2.2	2.8	6.1
Gross fixed capital formation	1.9	–10.6	16.8	–4.7	–15.0	21.6	21.0	14.4	13.1
Exports of goods and services	8.5	3.4	7.1	3.5	–0.2	10.2	5.4	4.7	8.3
Imports of goods and services	6.4	2.9	9.7	2.6	–0.2	12.7	7.6	9.1	9.7
	Contribution to GDP growth in percentage points								
Domestic demand	1.2	1.5	5.4	1.5	1.9	5.3	4.5	6.8	4.9
Net exports of goods and services	2.2	0.7	–1.4	1.0	0.0	–1.0	–1.2	–2.8	–0.5
Exports of goods and services	7.5	3.1	6.3	3.1	–0.2	9.6	5.0	4.2	7.0
Imports of goods and services	–5.2	–2.4	–7.7	–2.1	0.2	–10.6	–6.2	–7.0	–7.4
	Year-on-year change of the period average in %								
Unit labor costs in the whole economy (nominal, per person)	–2.4	4.4	5.9	4.3	5.1	6.1	7.8	5.1	4.4
Unit labor costs in manufacturing (nominal, per hour)	–0.1	8.5	5.5	10.5	8.3	3.8	6.1	6.5	5.6
Labor productivity in manufacturing (real, per hour)	4.1	–2.7	2.6	–3.7	–2.1	4.2	2.8	1.8	1.9
Labor costs in manufacturing (nominal, per hour)	4.0	5.6	8.3	6.4	6.1	8.1	9.1	8.5	7.6
Producer price index (PPI) in industry	–0.9	–1.6	3.3	–2.5	–0.3	3.4	2.9	2.5	4.3
Consumer price index (here: HICP)	0.1	0.4	2.4	0.1	1.3	2.6	2.1	2.5	2.3
EUR per 1 HUF, + = HUF appreciation	–0.4	–0.5	0.7	0.3	1.1	1.0	1.1	1.5	–0.7
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	6.9	5.2	4.2	4.9	4.5	4.6	4.3	4.1	3.8
Employment rate (%, 15–64 years)	64.0	66.5	68.2	67.1	67.5	67.1	68.1	68.7	68.8
Key interest rate per annum (%)	1.6	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9
HUF per 1 EUR	309.9	311.5	309.3	311.1	309.4	309.1	309.9	306.5	311.7
	Nominal year-on-year change in the period-end stock in %								
Loans to the domestic nonbank private sector[1]	–12.7	0.0	4.3	–2.9	0.0	0.7	3.7	4.1	4.3
of which: loans to households	–15.6	–2.7	1.3	–4.4	–2.7	–0.7	0.6	1.6	1.3
loans to nonbank corporations	–10.0	2.3	6.8	–1.6	2.3	1.8	6.3	6.3	6.8
	%								
Share of foreign currency loans in total loans to the nonbank private sector	24.3	22.4	23.5	21.6	22.4	22.4	23.0	23.1	23.5
Return on assets (banking sector)	–0.1	1.3	1.8	1.7	1.3	2.0	2.1	1.9	1.8
Tier 1 capital ratio (banking sector)	16.9	19.2	18.4	18.4	19.2	19.5	19.6	19.5	18.4
NPL ratio (banking sector)	10.6	5.6	3.7	8.1	5.6	5.4	4.5	4.1	3.7
	% of GDP								
General government revenues	48.2	44.9	44.5	..	..	..	..	..	..
General government expenditures	50.1	46.5	46.5	..	..	..	..	..	..
General government balance	–1.9	–1.7	–2.0	..	..	..	..	..	..
Primary balance	1.5	1.3	..	..	..	..	..	..	..
Gross public debt	76.7	76.0	73.6	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	76.8	72.6	..	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	20.9	20.4	..	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Trade balance	4.0	4.1	1.9	3.5	2.4	2.8	4.0	0.5	0.6
Services balance	4.9	5.9	5.8	7.7	4.8	5.3	5.9	6.9	5.2
Primary income	–4.5	–2.6	–3.9	–2.7	–2.9	–3.2	–4.3	–3.9	–4.2
Secondary income	–0.9	–1.3	–0.9	–1.1	–1.4	–1.0	–0.4	–1.1	–1.0
Current account balance	3.5	6.0	2.9	7.4	2.8	3.8	5.2	2.5	0.6
Capital account balance	4.6	0.0	1.2	–0.4	–0.3	1.0	2.3	0.4	1.3
Foreign direct investment (net)[2]	–1.2	–2.1	–1.6	–5.3	–4.0	–1.5	2.4	–2.9	–3.8
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	107.8	97.2	83.8	99.0	97.2	96.4	93.6	88.8	83.8
Gross official reserves (excluding gold)	27.3	21.4	18.8	20.9	21.4	21.0	19.8	18.3	18.8
	Months of imports of goods and services								
Gross official reserves (excluding gold)	4.0	3.2	2.7	3.1	3.2	3.1	2.9	2.7	2.7
	EUR million, period total								
GDP at current prices	110,706	113,760	123,465	28,836	31,515	27,217	30,515	31,664	34,069

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

[1] *Foreign currency component at constant exchange rates.*

[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).

8 Poland: inflation remains subdued despite high wage growth

Current account balance improves, investment recovers

GDP growth accelerated to 4.6% in 2017 (2016: 2.9%), with a stable quarter-on-quarter growth rate of about 1.1% in the second half of the year. Total final demand growth accelerated to 5.5%, with rather volatile real export growth slowing to 6.7% and domestic demand growth speeding up to 4.9%. Real import growth remained nearly unchanged at 7.7%. In the fourth quarter, both domestic demand and import growth were especially large. Unlike in 2015 and 2016, foreign demand contributed less than domestic demand to annual GDP growth, so that the net export contribution turned negative. Within domestic demand, fixed investment growth switched from a severe contraction that dragged GDP growth down by 1.6 percentage points in 2016 to a strong expansion that culminated in the last quarter of 2017 at 3.5% quarter on quarter. In parallel, inventory build-up continued, but at a slower pace, thus contributing less to GDP growth. Strong consumption and foreign demand, increasing industrial confidence, further rising high capacity utilization rates, stable liquidity positions and lower real lending rates supported the recovery of private business fixed investment. Profitability remained roughly stable overall, but deteriorated slightly in manufacturing, given moderate unit labor cost (ULC) increases. Housing investment growth seems to have accelerated (judging from the number of dwellings under construction), driven by beneficial income and financing conditions and the government's housing program for young families. Private consumption growth accelerated to 4.7%, coming into line with more strongly accelerating GDP growth. Besides the lagged effect of higher child benefits, this reflected further improving consumer confidence, a larger number of persons employed and higher real wage growth, while real pensions advanced only marginally. The first months of 2018 continued to see increases in production, sales, employment, wages and confidence. In 2017, the current account balance turned from a minor deficit to a small surplus of 0.3% of GDP, on account of improvements in the services balance and in the primary and secondary income balances. Also, the capital account surplus increased, while net FDI inflows continued to decline.

Monetary policy rates kept on hold given low core inflation

Manufacturing ULC increased considerably stronger than in the euro area in year-on-year terms in the second half of 2017. In addition, the Polish zloty's euro value was nearly 3 percentage points higher than a year earlier, further dampening international price competitiveness. In February, annual headline inflation stood at 0.7% (HICP) and 1.4% (national CPI), markedly lower than in January. The Polish Monetary Policy Council (MPC), pursuing an inflation target of 2.5% (CPI), has kept interest rates at 1.5% since March 2015. In its April 2018 meeting, it highlighted low core inflation despite high wage and GDP growth and announced that it expects inflation to remain close to target over the monetary policy transmission horizon.

Fiscal policy misses a window of opportunity to lower the structural deficit

The general government lowered its gross deficit to 1.7% of GDP in 2017, from 2.3% in 2016, as a result of stronger revenues (due to growth and better VAT collection) and lower investment than projected. By contrast, the structural deficit remained unchanged at 1.5% of GDP, thus making faster convergence to the medium-term objective of 1% of GDP unlikely despite the favorable economic situation. General government gross debt came in at 50.6% at the end of 2017, hence, 3.6 percentage points lower than at end-2016.

Table 8

Main economic indicators: Poland

	2015	2016	2017	Q3 16	Q4 16	Q1 17	Q2 17	Q3 17	Q4 17
	Year-on-year change of the period total in %								
GDP at constant prices	3.8	2.9	4.6	2.0	3.4	4.5	4.3	5.1	4.4
Private consumption	3.0	3.9	4.7	4.9	4.7	4.8	4.7	4.8	4.7
Public consumption	2.4	1.7	2.7	2.3	–0.6	0.6	2.3	2.0	5.1
Gross fixed capital formation	6.1	–7.9	5.2	–7.6	–9.1	–0.4	1.0	3.4	11.1
Exports of goods and services	7.7	8.8	6.7	6.1	7.7	9.9	3.1	7.7	6.6
Imports of goods and services	6.6	7.9	7.7	7.8	4.9	9.5	5.6	5.6	9.9
	Contribution to GDP growth in percentage points								
Domestic demand	3.2	2.2	4.7	2.7	2.1	3.9	5.4	3.9	5.6
Net exports of goods and services	0.6	0.7	–0.2	–0.7	1.4	0.6	–1.1	1.2	–1.2
Exports of goods and services	3.7	4.4	3.5	3.1	3.6	5.3	1.7	4.0	3.2
Imports of goods and services	–3.0	–3.7	–3.7	–3.7	–2.1	–4.7	–2.8	–2.8	–4.4
	Year-on-year change of the period average in %								
Unit labor costs in the whole economy (nominal, per person)	–0.6	2.1	0.9	2.1	1.7	–3.5	–2.5	4.9	5.1
Unit labor costs in manufacturing (nominal, per hour)	1.0	2.9	2.7	4.4	1.4	2.6	3.4	2.9	2.1
Labor productivity in manufacturing (real, per hour)	2.9	0.9	3.9	–0.8	3.7	1.7	4.1	3.8	5.7
Labor costs in manufacturing (nominal, per hour)	3.9	3.9	6.7	3.5	5.1	4.3	7.6	6.8	8.0
Producer price index (PPI) in industry	–2.1	–0.3	2.7	–0.2	1.6	4.1	2.7	2.6	1.6
Consumer price index (here: HICP)	–0.7	–0.2	1.6	–0.4	0.4	1.7	1.5	1.5	1.8
EUR per 1 PLN, + = PLN appreciation	0.0	–4.1	2.5	–3.5	–2.6	1.0	3.7	1.9	3.5
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	7.6	6.3	5.0	6.0	5.6	5.5	5.0	4.8	4.5
Employment rate (%, 15–64 years)	62.9	64.5	66.1	64.9	65.1	65.4	66.2	66.5	66.4
Key interest rate per annum (%)	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
PLN per 1 EUR	4.2	4.4	4.3	4.3	4.4	4.3	4.2	4.3	4.2
	Nominal year-on-year change in the period-end stock in %								
Loans to the domestic nonbank private sector[1]	5.3	3.9	6.2	3.5	3.9	5.5	6.1	6.1	6.2
of which: loans to households	3.9	4.0	4.8	4.1	4.0	4.2	4.4	4.5	4.8
loans to nonbank corporations	7.8	3.8	8.7	2.4	3.8	7.8	9.3	9.1	8.7
	%								
Share of foreign currency loans in total loans to the nonbank private sector	26.9	25.8	21.3	25.6	25.8	24.2	23.2	22.6	21.3
Return on assets (banking sector)	0.7	0.8	0.8	0.9	0.8	0.6	0.8	0.8	0.8
Tier 1 capital ratio (banking sector)	15.0	16.1	17.3	16.0	16.1	16.5	17.0	17.2	17.3
NPL ratio (banking sector)	7.5	7.1	6.8	7.3	7.1	6.9	6.9	6.9	6.8
	% of GDP								
General government revenues	38.9	38.8	39.6	..	..	..	..	..	..
General government expenditures	41.6	41.1	41.2	..	..	..	..	..	..
General government balance	–2.6	–2.3	–1.7	..	..	..	..	..	..
Primary balance	–0.9	–0.8	..	..	..	..	..	..	..
Gross public debt	51.1	54.2	50.6	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	46.5	49.2	..	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	35.4	36.3	..	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Trade balance	0.5	0.7	0.2	–0.4	0.4	0.6	0.2	0.6	–0.5
Services balance	2.5	3.3	4.0	3.3	3.1	3.9	4.3	4.1	3.7
Primary income	–3.4	–4.0	–3.8	–5.0	–3.2	–2.7	–4.9	–4.3	–3.4
Secondary income	–0.2	–0.3	0.0	–0.3	–0.5	0.1	–0.3	–0.1	0.2
Current account balance	–0.6	–0.3	0.3	–2.5	–0.2	1.9	–0.7	0.2	0.0
Capital account balance	2.4	1.0	1.3	0.0	1.7	0.6	0.8	0.9	2.5
Foreign direct investment (net)[2]	–2.1	–1.2	–0.3	–0.7	1.2	–1.3	1.9	–1.9	–0.1
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	70.5	74.9	67.8	74.3	74.9	74.6	72.2	69.1	67.8
Gross official reserves (excluding gold)	19.5	24.5	19.5	22.6	24.5	23.3	21.3	20.0	19.5
	Months of imports of goods and services								
Gross official reserves (excluding gold)	5.0	6.1	4.7	5.7	6.1	5.7	5.2	4.9	4.7
	EUR million, period total								
GDP at current prices	429,921	425,918	465,950	104,780	119,820	105,540	112,983	114,466	132,962

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

[1] *Foreign currency component at constant exchange rates.*
[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).

9 Romania: economic growth above potential amid fiscal concerns

GDP growth accelerating further on the back of private consumption growth

Romanian GDP growth continued to accelerate in the second half of the year, peaking at 8.8% in the third quarter with full-year GDP growth for 2017 reaching 7.0%. Private consumption growth accelerated further in the second half of the year, to around 12.5% year on year. The acceleration was partly driven by further procyclical income measures effective from July 1, 2017, as well as by favorable labor market developments and higher growth of lending to households. Consumer confidence deteriorated, amidst rising uncertainty regarding the path of interest rates, exchange rates and wages. The combined impact of the mix of government policies on income taxes, minimum wages, the shift of social contributions from employers to employees, and changes in the public sector remuneration system is currently unclear. In the second half of the year, growth of gross fixed capital formation accelerated markedly, partially driven by base effects, but there are some positive underlying developments. EU-fund absorption remains low so far. Net exports made a negative contribution to growth. Export growth decelerated throughout the year, while import growth remained strong.

Twin deficits persist, concerns regarding fiscal stance

The Romanian government has been adopting a rather procyclical, expansionary fiscal policy stance since 2016, which has resulted in budget deficits only narrowly below the EU's budget deficit threshold of 3% of GDP for two consecutive years. As a result, the structure of the budget has deteriorated, with tax cuts weighing on revenues, the share of expenditure on wages and pensions increasing and public investment expenditures falling. EU-fund absorption is also negatively affected as co-financing of projects is crowded out by other expenditures. In June 2017, the European Union opened a significant deviation procedure as Romania's fiscal stance implied a deviation from its medium-term objectives under the Stability and Growth Pact.

Romania's current account deficit increased to 3.4% of GDP at end-2017. In the second half of the year it amounted to 2.7% of GDP, an increase of about 1.3 percentage points compared to the second half of 2016. The deterioration was largely due to the goods balance, as exports grew more slowly than imports, which were fueled by high domestic demand. The service and income balance deteriorated mildly compared to the second half of 2016. External debt in the economy increased in absolute terms, but decreased as a percentage of GDP due to strong GDP growth.

Central bank increases interest rates amidst a rapid acceleration of inflation

CPI and HICP inflation rates accelerated sharply in the second half of the year, reaching 3.3% and 2.6%, respectively, in December 2017. The monetary policy-relevant CPI inflation reached 4.7% in February 2018 and is expected to remain above the central bank's target of 2.5% ±1 percentage point for most of 2018. The sharp acceleration of inflation was mainly driven by increasing excess aggregate demand, producer price pressures (mainly wages and utilities) and, from early 2018 onward, base effects. The Romanian central bank responded by increasing the policy rate by 25 basis points both in January and in February 2018, to 2.50%. The Romanian leu has depreciated mildly so far this year, but it could come under further depreciation pressure if current account and inflation developments continue.

Table 9

Main economic indicators: Romania

	2015	2016	2017	Q3 16	Q4 16	Q1 17	Q2 17	Q3 17	Q4 17
	Year-on-year change of the period total in %								
GDP at constant prices	4.0	4.8	7.0	4.3	4.8	5.7	6.1	8.8	6.9
Private consumption	5.9	7.8	10.2	7.1	4.7	7.3	7.5	12.4	12.6
Public consumption	0.4	3.6	0.8	1.5	9.1	3.8	–0.7	8.6	–4.7
Gross fixed capital formation	7.1	–1.8	5.2	–0.1	–12.1	–1.0	–0.4	6.2	12.6
Exports of goods and services	4.9	8.3	8.8	8.0	11.6	10.6	8.6	8.6	7.4
Imports of goods and services	8.1	10.0	10.6	7.4	8.9	10.5	10.2	11.1	10.7
	Contribution to GDP growth in percentage points								
Domestic demand	5.4	5.3	7.8	4.4	4.4	2.5	7.9	8.7	10.3
Net exports of goods and services	–1.4	–0.5	–0.8	0.7	0.8	1.1	–0.2	–1.4	–1.9
Exports of goods and services	1.9	3.6	3.9	3.5	4.3	5.9	3.9	3.6	2.9
Imports of goods and services	–3.3	–4.1	–4.7	–2.8	–3.5	–4.8	–4.1	–5.0	–4.8
	Year-on-year change of the period average in %								
Unit labor costs in the whole economy (nominal, per person)	–3.2	4.2	10.6	1.0	4.3	9.8	14.4	8.5	9.0
Unit labor costs in manufacturing (nominal, per hour)	6.8	9.9	4.9	9.5	7.9	8.0	4.5	5.3	2.2
Labor productivity in manufacturing (real, per hour)	–0.3	–0.2	9.0	1.2	1.8	6.7	11.2	7.7	10.1
Labor costs in manufacturing (nominal, per hour)	6.5	9.7	14.3	10.8	9.9	15.3	16.2	13.4	12.5
Producer price index (PPI) in industry	–2.2	–1.8	3.5	–2.0	0.3	3.5	3.0	3.6	3.7
Consumer price index (here: HICP)	–0.4	–1.1	1.1	–0.1	–0.1	0.4	0.6	1.0	2.4
EUR per 1 RON, + = RON appreciation	0.0	–1.0	–1.7	–0.8	–1.1	–0.6	–1.2	–2.6	–2.4
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	7.1	6.1	5.1	5.9	5.6	5.6	5.0	4.9	4.9
Employment rate (%, 15–64 years)	61.4	61.6	63.9	63.1	61.6	61.2	65.5	65.3	63.4
Key interest rate per annum (%)	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
RON per 1 EUR	4.4	4.5	4.6	4.5	4.5	4.5	4.6	4.6	4.6
	Nominal year-on-year change in the period-end stock in %								
Loans to the domestic nonbank private sector[1]	1.8	1.0	4.8	0.9	1.0	2.3	4.0	5.9	4.8
of which: loans to households	4.1	4.5	7.1	5.9	4.5	4.8	5.3	6.5	7.1
loans to nonbank corporations	–0.3	–2.4	2.3	–4.0	–2.4	–0.3	2.6	5.4	2.3
	%								
Share of foreign currency loans in total loans to the nonbank private sector	49.3	42.8	37.2	43.8	42.8	41.8	39.8	38.6	37.2
Return on assets (banking sector)	1.2	1.1	1.3	1.3	1.1	1.3	1.4	1.4	1.3
Tier 1 capital ratio (banking sector)	16.7	17.6	16.8	16.6	17.6	17.7	17.8	17.2	16.8
NPL ratio (banking sector)	13.5	9.6	6.4	10.0	9.6	9.4	8.3	8.0	6.4
	% of GDP								
General government revenues	35.0	31.6	30.5	..	..	..	..	..	..
General government expenditures	35.8	34.6	33.4	..	..	..	..	..	..
General government balance	–0.8	–3.0	–2.9	..	..	..	..	..	..
Primary balance	0.8	–1.5	..	..	..	..	..	..	..
Gross public debt	37.7	37.4	35.0	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	43.0	39.9	..	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	17.2	16.6	..	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Trade balance	–4.9	–5.4	–6.4	–5.0	–5.4	–6.0	–7.1	–5.7	–6.9
Services balance	4.2	4.5	4.3	4.2	3.8	5.3	4.7	4.1	3.4
Primary income	–2.4	–2.6	–2.7	–2.3	–0.6	–2.2	–6.0	–2.6	–0.5
Secondary income	1.7	1.5	1.4	1.6	1.0	0.7	1.9	1.5	1.4
Current account balance	–1.2	–2.1	–3.5	–1.5	–1.2	–2.2	–6.4	–2.7	–2.6
Capital account balance	2.4	2.5	1.2	2.5	1.0	0.6	0.7	0.6	2.5
Foreign direct investment (net)[2]	–1.8	–2.7	–2.4	–2.6	–2.4	–3.1	–1.3	–4.0	–1.4
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	57.5	54.8	50.2	56.5	54.8	54.2	53.1	51.1	50.2
Gross official reserves (excluding gold)	20.1	20.2	17.9	20.1	20.2	20.0	19.9	18.3	17.9
	Months of imports of goods and services								
Gross official reserves (excluding gold)	5.8	5.7	4.9	5.7	5.7	5.6	5.5	5.1	4.9
	EUR million, period total								
GDP at current prices	160,328	169,759	187,201	46,403	51,044	36,229	43,322	51,791	55,858

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

[1] *Foreign currency component at constant exchange rates.*
[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).

10 Turkey: strong fiscal stimulus boosts GDP growth, inflation at 15-year high

Broad-based acceleration of GDP growth, declining fiscal space

Following a robust expansion of 5.4% in the first half of 2017, GDP growth spiked in the third quarter at 11.3% – the highest growth since 2011. Despite a slowdown to 7.3% in the fourth quarter, economic growth in 2017 more than doubled against the previous year to 7.4%. Growth was broad based. Both private and public investments shot up throughout the year on the back of sizeable fiscal stimulus supported by the Credit Guarantees Fund (CGF) in the tune of TRL 250 billion. At the same time, the robust expansion of private consumption continued, inter alia, backed by a mild drop in unemployment (close to 10% in the final quarter of 2017) along with vivid retail credit activity.

The fiscal stance became strongly expansionary in 2017. On the back of temporary tax reductions, continued minimum wage subsidies, employment incentives schemes and CGF loan support, the budget of the general government slipped further into negative territory, to –2.4% of GDP. It thus exceeded its target set out in the 2017–2019 medium-term program of 1.7% of GDP by a sizeable margin. Although still on comfortable levels, gross public debt increased slightly, to 28.2% of GDP in 2017.

External imbalances are on the rise

On the external side, net exports contributed negatively to economic growth in the final quarter of 2017 against the backdrop of strong domestic demand. Export growth remained robust in line with the partial recovery of the tourism sector and the strengthening of economic activity in the EU. At the same time, imports were fueled by a pick-up in consumption. Accordingly, the current account deficit widened to 5.5% of GDP in July to December 2017 (compared to one year earlier). On the financing side, net FDI inflows disappointed as before, amounting to 1.1% of GDP in the second half of 2017 and covering only 20% of the current account deficit. The economy continued to be highly reliant on more volatile portfolio inflows and loans, which turned partially negative in the course of 2017. Gross external financing needs remain among the highest in emerging markets and came close to 25% of GDP in 2017.

Inflation at its peak sparked by strong lira depreciation and cost pressures

The large depreciation of the Turkish lira (21.5% against the U.S. dollar and 12.2% against the euro) between end-June 2017 and end-March 2018 fueled inflation, which reached a 15-year peak. Annual CPI inflation amounted to 11.1% in 2017 after climbing to 12.2% in the fourth quarter of 2017, well above the year-end target of 5%. Most recently inflation slowed down somewhat, to 10.3% in February 2018. Besides the exchange rate pass-through, higher inflation was due to higher prices of core goods, the expiration of tax incentives and the positive output gap. Rising inflation expectations and a likely continuation of the depreciation trend, among others, will possibly keep price rises high in the near term. The Central Bank of the Republic of Turkey (CBRT) expects inflation to come in at 8.4% at the end of 2018, notably above target.

CBRT expands monetary policy toolkit while keeping policy rate constant

In spite of strong depreciation pressures, the central bank kept its key policy rate at 8%. However, it lifted the rate of the late liquidity window from 12.25% to 12.75% in December 2017, thus increasing the effective cost of bank funding. With the aim of curbing depreciation pressures, the CBRT introduced new instruments aimed at providing foreign exchange liquidity to the banking and corporate sector in January 2017. However, the transmission of monetary policy was blunted by the easing of financial conditions on the back of policy-induced credit growth and the relaxation of macroprudential policies as from September 2016.

Table 10

Main economic indicators: Turkey

	2015	2016	2017	Q3 16	Q4 16	Q1 17	Q2 17	Q3 17	Q4 17
	Year-on-year change of the period total in %								
GDP at constant prices	6.1	3.2	7.4	–0.8	4.2	5.4	5.4	11.3	7.3
Private consumption	5.4	3.7	6.1	0.5	6.3	3.8	2.7	11.0	6.6
Public consumption	3.9	9.5	5.0	5.8	6.1	9.0	–2.7	6.7	7.4
Gross fixed capital formation	9.3	2.2	7.3	0.3	1.2	3.0	6.6	13.2	6.0
Exports of goods and services	4.3	–1.9	12.0	–9.4	2.5	10.1	11.1	17.9	9.3
Imports of goods and services	1.7	3.7	10.3	2.1	2.9	0.9	2.2	15.0	22.7
	Contribution to GDP growth in percentage points								
Domestic demand	6.5	4.1	6.6	1.1	5.1	4.5	3.2	11.1	7.0
Net exports of goods and services	0.5	–1.3	0.1	–2.5	–0.2	2.0	1.8	0.3	–3.1
Exports of goods and services	0.9	–0.4	2.5	–2.0	0.5	2.2	2.3	3.5	1.8
Imports of goods and services	–0.4	–0.9	–2.4	–0.4	–0.6	–0.2	–0.5	–3.3	–5.0
	Year-on-year change of the period average in %								
Unit labor costs in the whole economy (nominal, per person)	..	..	..	..	..	..	..	..	..
Unit labor costs in manufacturing (nominal, per hour)	10.6	15.0	6.0	17.4	13.0	8.1	7.7	2.7	5.9
Labor productivity in manufacturing (real, per hour)	4.1	3.0	6.2	0.3	3.5	3.9	6.0	8.7	6.3
Labor costs in manufacturing (nominal, per hour)	15.0	18.3	12.6	17.7	16.9	12.3	14.1	11.6	12.6
Producer price index (PPI) in industry	5.3	4.3	15.8	2.9	6.4	15.0	15.5	16.0	16.7
Consumer price index (here: HICP)	7.7	7.7	11.1	7.9	7.6	10.0	11.6	10.6	12.2
EUR per 1 TRY, + = TRY appreciation	–3.8	–9.6	–18.9	–3.9	–10.2	–17.5	–17.0	–19.8	–20.9
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	10.5	11.1	11.1	11.4	12.2	12.9	10.3	10.7	10.4
Employment rate (%, 15–64 years)	50.2	50.7	51.6	51.1	50.1	49.5	52.2	52.6	51.9
Key interest rate per annum (%)	7.6	7.5	8.0	7.5	7.7	8.0	8.0	8.0	8.0
TRY per 1 EUR	3.0	3.3	4.1	3.3	3.5	3.9	3.9	4.1	4.5
	Nominal year-on-year change in the period-end stock in %								
Loans to the domestic nonbank private sector[1]	19.4	15.8	20.8	8.2	15.8	20.3	21.5	23.2	20.8
of which: loans to households	8.5	9.6	16.3	6.3	9.6	12.3	13.4	17.6	16.3
loans to nonbank corporations	24.2	18.2	22.3	8.9	18.2	23.3	24.6	25.3	22.3
	%								
Share of foreign currency loans in total loans to the nonbank private sector	..	..	..	..	..	..	..	..	..
Return on assets (banking sector)	1.2	1.5	1.7	1.6	1.5	1.9	1.8	1.7	1.7
Tier 1 capital ratio (banking sector)	12.7	12.7	13.7	13.3	12.7	13.1	13.7	13.9	13.7
NPL ratio (banking sector)	3.1	3.4	3.1	3.4	3.4	3.3	3.2	3.2	3.1
	% of GDP								
General government revenues	32.4	..	..	..	..	..	..	..	..
General government expenditures	31.1	..	..	..	..	..	..	..	..
General government balance	1.3	1.2	–2.4	..	..	..	..	..	..
Primary balance	3.3	3.1	–0.7	..	..	..	..	..	..
Gross public debt	27.5	25.1	28.2	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	..	..	..	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	..	..	..	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Trade balance	–5.6	–4.7	–6.9	–4.7	–4.4	–4.8	–6.8	–7.8	–7.6
Services balance	2.8	1.8	2.3	3.2	1.5	1.0	1.9	4.2	1.9
Primary income	–1.1	–1.0	–1.3	–1.0	–1.0	–1.2	–1.6	–1.0	–1.4
Secondary income	0.2	0.2	0.3	0.1	0.3	0.3	0.3	0.3	0.3
Current account balance	–3.7	–3.8	–5.5	–2.4	–3.6	–4.8	–6.2	–4.3	–6.8
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)[1]	–1.5	–1.1	–1.0	–1.3	–1.2	–1.2	–0.6	–1.1	–1.0
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	48.4	50.1	51.3	50.0	50.1	51.3	51.4	50.6	51.3
Gross official reserves (excluding gold)	11.1	11.2	9.3	11.5	11.2	10.8	10.3	10.1	9.3
	Months of imports of goods and services								
Gross official reserves (excluding gold)	5.1	5.4	3.8	5.6	5.4	5.0	4.7	4.4	3.8
	EUR million, period total								
GDP at current prices	771,913	778,812	751,367	201,310	210,825	165,151	186,994	200,819	198,402

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

[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).

11 Russia: oil price recovery benefits macroeconomic stability

Modest economic recovery supported by private consumption and fixed investment

Given only sluggish structural change, the Russian economy continues to be strongly dependent on the oil price. The Urals grade crude price increase of about one-quarter to USD 53.0 per barrel in 2017 (annual average) provided a slight lift to the country's modest economic growth rate, which reached 1.5% that year. Recovery from the previous mild recession was driven by private consumption (+3.3%) and fixed investment (+4.3%), while public consumption remained more or less neutral and the growth contribution of net exports dipped further into negative territory. On the production side of GDP, agriculture led the recovery (+2.4%, helped by a record grain harvest), followed by natural resource extraction (+2.0%); manufacturing almost stagnated (+0.2%).

Record-low inflation allows key policy rate cuts

The oil price rebound contributed to reducing inflation by pushing up the external value of the Russian ruble, which appreciated 15% against the U.S. dollar and 13% against the euro in 2017 (annual averages, compared to 2016). Yet the most recent U.S. sanctions, comprising extensive transaction bans on 24 Russian businessmen and 15 companies, have had considerable offsetting effects. CPI inflation declined to 2.5% at end-2017 and a record low of 2.2% at end-February 2018 (year on year). Given this clear undershooting of the inflation target (4%), the Central Bank of Russia (CBR) continued to cautiously cut key rates in the six months to end-March 2018, by a cumulative 125 basis points to 7.25%.

Higher oil prices and prudent fiscal policy rein in budget deficit

Increasing revenues stemming from higher oil prices combined with sustained restraint in spending contributed to the decrease of the federal budget deficit to 1.5% of GDP in 2017 (2016: 3.6% of GDP). The shortfall was largely financed by the remainder of the budgetary Reserve Fund, which was thus fully exhausted and wound up at the end of the year. The National Wealth Fund (the sole remaining fiscal fund, mainly designed to support the pension system) shrank to 4.2% of GDP (end-February 2018).

Current account surplus and capital outflows expand slightly, external debt declines

The oil price-triggered recovery of exports (valued in U.S. dollars) was the key factor supporting Russia's current account surplus, which expanded to 2.3% of GDP in 2017 (2016: 2.0% of GDP). Net private capital outflows increased to 2.0% of GDP (from 1.5% of GDP). These outflows were mostly connected to banks' paying down their external liabilities. The country's total external debt declined to EUR 435 billion (or 31.2% of GDP) at end-2017, while international reserves (excluding gold) stood at EUR 297 billion (about 21.3% of GDP) in December 2017.

With still high NPLs, bank profitability remains weak, and lending recovers hesitantly

Given the country's yet modest economic growth and the still high ratio of NPLs (19.1% at end- 2018), lending in 2017 only expanded moderately by 2%, while deposits grew by 10% (exchange rate-adjusted and in real terms), the latter attracted by relatively high real interest rates. Banks' profits remained weak. In mid-December 2017, the CBR nationalized a third medium-sized privately-owned credit institution, Promsvyazbank (after Otkrytie and B&N three to four months before). All three players (considered too big to fail and accounting for about 7% to 8% of total banking assets, thus lifting the share of state-owned banks to around 70%) had expanded aggressively in recent years, suffered from bad loans and became subject to bank runs. Their combined recapitalization may require up to EUR 16 billion according to estimates and reflects continuing fragility in the banking system.

Table 11

Main economic indicators: Russia

	2015	2016	2017	Q3 16	Q4 16	Q1 17	Q2 17	Q3 17	Q4 17
	Year-on-year change of the period total in %								
GDP at constant prices	–2.8	–1.0	1.5	–0.4	0.3	0.5	2.5	1.8	0.9
Private consumption	–9.7	–4.5	3.3	–4.8	–3.2	2.7	4.3	5.2	4.3
Public consumption	–3.1	–0.5	0.4	–0.5	–0.5	0.4	0.5	0.6	0.4
Gross fixed capital formation	–9.9	–1.8	4.3	–0.8	–0.2	2.3	6.3	3.9	3.4
Exports of goods and services	3.7	3.1	5.1	4.2	3.7	7.1	3.3	4.5	5.2
Imports of goods and services	–25.8	–3.8	17.4	–3.7	0.4	16.5	20.7	16.3	15.4
	Contribution to GDP growth in percentage points								
Domestic demand	–8.7	–2.1	3.5	–2.5	–1.1	1.5	4.6	3.7	2.4
Net exports of goods and services	6.1	1.5	–2.3	2.7	0.8	–0.9	–3.6	–2.5	–1.9
Exports of goods and services	1.0	0.9	1.3	1.9	1.7	1.9	0.9	1.1	1.3
Imports of goods and services	5.1	0.6	–3.6	0.6	–0.1	–2.3	–2.9	–2.5	–3.2
	Year-on-year change of the period average in %								
Unit labor costs in the whole economy (nominal, per person)	..	..	..	..	..	..	..	..	..
Unit labor costs in manufacturing (nominal, per hour)	6.8	5.1	17.5	6.7	5.8	21.7	19.8	16.0	11.9
Labor productivity in manufacturing (real, per hour)	1.2	3.8	5.8	3.5	3.3	4.0	9.0	6.3	4.0
Labor costs in manufacturing (nominal, per hour)	8.0	9.1	24.0	10.4	9.2	26.5	30.7	23.4	16.1
Producer price index (PPI) in industry	13.5	4.3	7.8	3.9	4.7	13.1	5.5	4.5	8.0
Consumer price index (here: CPI)	15.6	7.1	3.6	6.8	5.7	4.5	4.0	3.3	2.6
EUR per 1 RUB, + = RUB appreciation	–25.0	–8.4	12.6	–2.3	6.5	31.9	18.1	4.1	–1.2
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	5.6	5.5	5.2	5.2	5.4	5.5	5.2	5.0	5.1
Employment rate (%, 15–64 years)	..	..	..	..	..	..	..	..	..
Key interest rate per annum (%)	12.6	10.6	9.1	10.4	10.0	10.0	9.4	8.9	8.2
RUB per 1 EUR	68.0	74.2	65.9	72.1	68.0	62.5	62.9	69.3	68.8
	Nominal year-on-year change in the period-end stock in %								
Loans to the domestic nonbank private sector[1]	2.9	0.6	5.7	0.5	0.6	2.0	2.4	4.2	5.7
of which: loans to households	–6.1	1.6	12.7	–0.2	1.6	3.4	5.9	8.8	12.7
loans to nonbank corporations	6.7	0.2	3.1	0.8	0.2	1.5	1.1	2.5	3.1
	%								
Share of foreign currency loans in total loans to the nonbank private sector	24.5	18.9	14.7	20.5	18.9	17.7	18.2	16.5	14.7
Return on assets (banking sector)	0.2	1.2	1.0	1.0	1.2	1.7	1.9	1.1	1.0
Tier 1 capital ratio (banking sector)	8.5	9.2	8.5	8.8	9.2	9.9	9.4	8.6	8.5
NPL ratio (banking sector)	16.7	18.9	19.1	18.4	18.9	18.8	18.9	18.8	19.1
	% of GDP								
General government revenues	32.3	32.7	33.3	..	..	..	..	..	..
General government expenditures	35.7	36.4	34.8	..	..	..	..	..	..
General government balance	–3.4	–3.6	–1.5	..	..	..	..	..	..
Primary balance	..	..	..	..	..	..	..	..	..
Gross public debt	13.1	12.9	13.0	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	..	..	..	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	..	..	..	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Trade balance	10.9	7.0	7.3	5.2	7.1	10.1	6.6	5.0	7.9
Services balance	–2.7	–1.8	–2.0	–2.0	–1.6	–1.5	–2.0	–2.4	–2.0
Primary income	–2.7	–2.7	–2.5	–2.4	–2.5	–1.5	–3.7	–2.7	–2.1
Secondary income	–0.4	–0.5	–0.6	–0.7	–0.4	–0.5	–0.4	–0.6	–0.6
Current account balance	5.0	2.0	2.3	0.1	2.7	6.6	0.6	–0.6	3.1
Capital account balance	0.0	–0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Foreign direct investment (net)[2]	1.1	–0.8	0.7	–0.6	–4.1	1.0	–1.4	0.4	2.5
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	38.8	41.7	31.2	41.3	41.7	39.0	35.1	33.4	31.2
Gross official reserves (excluding gold)	23.9	25.7	21.3	26.2	25.7	24.3	22.4	21.6	21.3
	Months of imports of goods and services								
Gross official reserves (excluding gold)	13.9	15.0	12.4	15.1	15.0	14.6	13.4	12.7	12.4
	EUR million, period total								
GDP at current prices	160,328	169,759	187,201	46,403	51,044	36,229	43,322	51,791	55,858

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

[1] *Foreign currency component at constant exchange rates.*
[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).

Outlook for selected CESEE countries

Boom in CESEE-6 has peaked, stable but moderate growth in Russia[1, 2]

We predict GDP growth in the CESEE-6 countries[3] to reach 3.9% per annum in 2018 and to moderate to 3.4% and 3.1% in 2019 and 2020, respectively. Over the entire projection horizon, Poland and Romania will be the growth leaders, while Croatia will see the lowest growth rates (below 3%). Economic growth is broad-based, benefiting from favorable internal and external conditions: strong wage growth supports private consumption, favorable financing conditions for households and corporates underpin lending, and the inflow of EU funds supports gross fixed capital formation especially in 2018. In addition, growth prospects for the euro area – the main trading partner of the CESEE-6 – have been revised upward since our last forecast. Downside risks to the outlook for the region emanate from both domestic and global factors and have increasingly been building up. Despite a strong growth momentum on the back of robust euro area growth, income convergence with the euro area will slow down to 1.4 to 1.5 percentage points over the forecast horizon from 2.3 percentage points in 2017.

We expect Russian[4] GDP to increase by 1.8% in 2018, which represents a slight upward revision from our previous forecast, given higher oil prices. Over the projection horizon, economic growth will ease somewhat to come to 1.5% in 2020. Private consumption growth and investment activity will expand moderately. In a similar vein, public spending is expected to augment relatively slowly due to a new budget rule. Export growth will be dampened by the strong Russian ruble, while import growth will pick up on the back of stronger domestic demand.

Table 1

OeNB-BOFIT GDP projections for 2018–2020 in comparison with other forecasts

	Eurostat/ Rosstat	OeNB-BOFIT April 2018 forecasts			IMF April 2018 forecasts			wiiw March 2018 forecasts		
	2017	2018	2019	2020	2018	2019	2020	2018	2019	2020
	Year-on-year growth in %									
CESEE-6	4.9	3.9	3.4	3.1	4.1	3.3	2.9	3.9	3.4	3.3
Bulgaria	3.7	3.5	3.2	3.0	3.8	3.1	2.8	3.6	3.5	3.4
Croatia	2.8	2.9	2.9	2.9	2.8	2.6	2.4	2.7	3.0	3.0
Czech Republic	4.6	3.5	3.2	3.2	3.5	3.0	2.5	3.5	3.2	3.2
Hungary	4.2	3.5	3.0	2.6	3.8	3.0	2.6	3.8	2.6	1.7
Poland	4.7	4.0	3.5	3.3	4.1	3.5	3.0	3.8	3.5	3.3
Romania	6.8	4.5	3.7	3.2	5.1	3.5	3.1	4.7	3.8	4.2
Russia	1.5	1.8	1.6	1.5	1.7	1.5	1.5	1.8	1.6	1.6

Source: OeNB-BOFIT April 2018 projections, ECB, Eurostat, IMF, Rosstat, wiiw.

Note: 2017 figures based on seasonally adjusted data.

[1] *Cut-off date for data underlying this outlook: March 26, 2018. 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 assumption of continued recovery in the euro area in line with the March 2018 ECB staff macroeconomic projections for the euro area. This implies real annual GDP growth of 2.4% in 2018, 1.9% in 2019 and 1.7% in 2020 in the euro area.*

[2] *Compiled by Antje Hildebrandt with input from Katharina Allinger, Stephan Barisitz, Markus Eller, Martin Feldkircher, Thomas Reininger, Tomáš Slačík 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 is based on quarterly data for Brent futures. The cut-off date for the oil price assumption was February 28, 2018. We expect an average oil price of USD 64 to USD 65 per barrel in 2018 (18% higher than in 2017) and a modest decline to USD 60 per barrel until 2020.*

1 CESEE-6: favorable internal and external economic conditions

In 2017, economic growth accelerated by 4.8% in the CESEE-6 countries. Hence, economic activity was much stronger than expected in the fall of 2017 despite the fact that our projections were already more optimistic than most CESEE-6 forecasts by other institutions. Additionally, GDP growth in 2017 turned out to be well above the 2016 outcome as domestic demand gained momentum. A stronger use of EU funds in particular pushed up investment activity, and favorable labor market conditions supported private consumption. Sentiment indicators confirm the overall optimistic economic momentum in the CESEE-6.[5] Over the projection horizon (2018 to 2020), we expect GDP growth to moderate but to remain robust overall. Growth will be broad-based: exports continue to be supported by a positive external environment, while domestic demand continues to be driven by still favorable labor market conditions and a high use of EU funds.

Monetary policy expected to remain rather accommodative

The overall accommodative monetary policy stance is expected to prevail over the projection horizon despite somewhat stronger inflationary pressures in some countries as the CESEE-6 economies are operating close to full capacity. However, until now most of the inflation-targeting central banks project that their respective country's inflation rate will remain within the target bands over the coming months. In addition, the (still) favorable financing conditions and ongoing progress in cleaning up banks' balance sheets support lending.

No noticeable fiscal tightening so far

Positive economic growth prospects have not induced noticeable fiscal tightening so far, despite high (and rising) structural deficits in some CESEE-6 countries. According to Romania's 2018 budget, the government is planning another year of procyclical fiscal policies. In Hungary, we expect a weakening of public consumption over the forecast horizon following accelerated public spending ahead of parliamentary elections in April 2018. For Poland, we do not forecast a strictly countercyclical fiscal policy stance over the projection horizon. In the remaining CESEE-6 countries, the fiscal stance is rather neutral or restrictive.

Strong private consumption growth set to continue

Against this background, private consumption will remain strong over the projection horizon, but some emerging developments may have a dampening effect. We expect wages to continue to grow robustly in light of favorable economic conditions, but some moderation will take place due to the strained labor market and base effects from earlier (substantial) minimum wage increases. Furthermore, stronger inflationary pressure will lower real disposable income. This will be particularly noticeable in Romania in 2018. In addition, the higher wage bill will not translate into proportionally higher consumption growth because a comparatively smaller share of income is expected to be used for consumption purposes and a larger share will be going into savings.

Mixed picture for public consumption growth

In most CESEE-6 countries, public consumption will be stronger in 2018 than in 2017 and will be supported, to a large extent, by public wage growth. This will be the case in Bulgaria and the Czech Republic. In Poland and Romania, public consumption growth will slow down – in Poland due to a freeze of the public wage bill in 2018 and in Romania due to fiscal consolidation needs.

Investment growth expected to remain robust in 2018

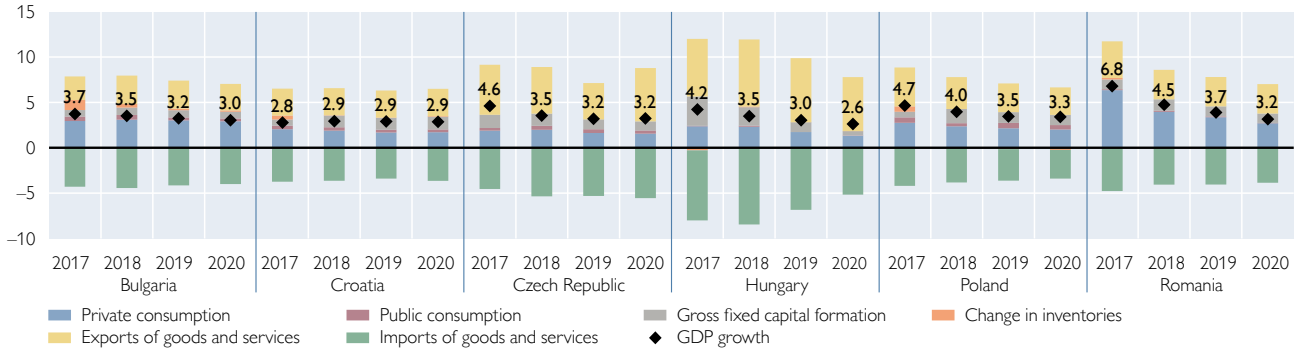
Investments in the CESEE-6 countries are strongly linked to the use of EU funds as a large share of investments (in particular in Bulgaria, Hungary and Romania) is (co)financed by EU transfers, which are expected to be utilized to a high degree

[5] *See the "Recent economic developments" section for more details.*

Chart 1

CESEE-6 GDP growth and contributions for 2018 to 2020

Percentage points, year-on-year GDP growth in %



Source: Eurostat, OeNB.

in 2018. In addition, further (labor-saving) private investment activity could kick in on the back of high capacity utilization rates and pressing labor shortages. Poland, for instance, will see much higher growth in gross fixed capital formation in 2018 than in 2017 because of carry-over effects from the fourth quarter of 2017. Apart from the base effect, which adds to exceptionally strong growth in 2018, investment activity in 2019 and 2020 will slow down also due to some frontloading of EU funds (as in Hungary) and potentially more restrictive financing conditions. In Croatia, investment growth will remain robust over the entire projection horizon because of a stronger absorption of EU funds.

Export activity clearly benefits from favorable euro area developments

Generally, export growth will be even stronger in 2018 than in 2017, before decelerating somewhat amid the expected gradual moderation of economic activity in the CESEE-6's main trading partners. In the Czech Republic and Romania, we expect a somewhat different picture. Export growth will slow down in 2018 – albeit from high levels – which is possibly attributable to the fact that these countries are already touching certain capacity constraints. Furthermore, rising unit labor costs in the manufacturing sector might weigh on export growth over the projection horizon. Import growth will remain firm, reinforced by robust private consumption and export-led demand for investment goods. From 2019 onward, however, import growth will weaken somewhat in line with the expected moderation of domestic demand. The contribution of net exports will remain negative in most CESEE-6 countries over the projection horizon. In the Czech Republic and Hungary, by contrast, the negative contribution will turn positive from 2019 onward.

Downside risks to growth in the CESEE-6 countries have clearly intensified since fall 2017

A number of downside risks to the forecast emanate from the current external environment. The implementation of frequently announced protectionist measures by the U.S. administration clearly takes center stage in our risk assessment. The U.S. has announced to impose tariffs on aluminum and steel imports, but as things stand, the EU countries will be exempt from these tariffs. Protectionist countermeasures by affected countries, like China, are difficult to predict at the current stage. An escalation into a trade war with tariffs being imposed on a wider range of goods poses an immediate risk to our forecast for the CESEE-6, which are all highly open economies. At this stage, however, we do not expect direct negative effects from U.S. steel tariffs on the CESEE-6 countries. Clearly, the picture

would change if U.S. tariffs were enforced on cars as this would heavily affect the car components industry and hence intra-European production networks.

Geopolitical tensions surrounding Ukraine or the Middle East continue to be seen as a downward risk to our CESEE-6 forecast. Further external risks relate to sudden financial market corrections, like those witnessed in early 2018 in the U.S.A., which might disrupt global economic expansion. Furthermore, stronger-than-anticipated monetary tightening in the U.S.A. could dampen global GDP growth via a tightening of financial conditions. In addition, given the high indebtedness of the private and public sectors in several advanced and emerging economies, vulnerabilities might surface which could have a dampening effect on global growth prospects.

Major challenges at the EU level – largely provoked by the Brexit decision – are considered another downside risk to our forecast. Assuming the target date for the U.K. leaving the EU to be at the end of March 2019 and the transition period to last until the end of 2020, we expect that the CESEE-6 economies will be directly affected by Brexit after the projection horizon via trade, migration and the flow of EU funds. However, political uncertainty related to recent election outcomes and their implications for the future European integration process remains a downside risk to our forecast.

Further major political risks stem from domestic developments in the CESEE-6 region. In some countries, repeated discussions with the EU on issues concerning regulation or amendments to laws, transparency or corruption have increasingly become a factor of uncertainty for foreign investors. Moreover, uncertainty about the political stance on integration in general and rising public protest in some countries could dampen (foreign) investment growth and consumer confidence in an adverse scenario.

Economically, heightened labor market constraints in all CESEE-6 countries represent a major risk factor for our forecast. Capacity constraints could dampen output growth beyond the deceleration envisaged in our baseline. Higher wages and demand-pull factors might push up inflation pressure. This could induce stronger-than-anticipated monetary tightening and dampen the revival of lending activity in the CESEE-6. Furthermore, higher inflation rates would curb real disposable income to a greater degree than expected. Unit labor costs in the manufacturing sector accelerating further or even more strongly might put external competitiveness at risk. For Romania and – to a much lesser extent – for the Czech Republic, we also see a (slight) danger of economic overheating. A hard landing would dampen economic growth toward the end of the projection horizon to a much higher degree than expected.

Turning to upside domestic risks to our forecast, we still see further room for increasing the absorption rate of EU funds for most CESEE-6 countries, despite the fact that investments were pushed up strongly by EU funds already in 2017. While, on average, around 50% of funds under the current EU financial framework are allocated to projects, the actual utilization rate is still below the rate that prevailed at the end of the fourth year of the previous framework.

With respect to external factors, the major upside risks to our forecast are currently a stronger economic upswing in the euro area – on the back of brighter-than-expected economic sentiment or additional fiscal loosening – or a more pronounced expansion of the global economy along with increasingly buoyant global trade.

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

Bulgaria: domestic demand continues to drive economic growth

Compared to our fall 2017 forecast, real GDP growth in 2017 came in a bit stronger than expected. This can be traced back i.a. to revisions of official national accounts data as well as to a stronger-than-expected expansion of inventories and gross fixed capital formation in the second half of 2017. We slightly upgrade our 2018 and 2019 GDP growth projections and maintain the overall expectation that GDP growth continues to be predominantly driven by domestic demand and to decelerate somewhat until 2020.

Private consumption growth increases in the short run on the back of higher disposable household income and improved consumer sentiment. But dried-up labor markets – with employment and activity rates already above pre-crisis levels – could prove a stumbling block for further acceleration in the years to come. Public consumption growth is expected to accelerate in 2018, reflecting the government's target to raise public wages significantly in 2018 (especially in the education sector). However, we expect some moderation in the medium term, in line with slight budgetary surpluses envisaged by the government for 2019 and 2020.

In line with government plans to strongly raise public investment spending in 2018 coupled with increasing EU fund absorption, gross fixed capital formation is projected to expand considerably more strongly than in the past few years. Growth will lose some momentum over the forecast horizon as tightening global financial conditions could make it harder to deal with crisis legacies, such as the comparatively elevated levels of nonfinancial corporate debt and nonperforming loans. Moreover, an increasing labor shortage (especially of skilled workers) might also limit investment growth in the near future (as suggested by recent firm-level survey results of the European Commission).

External demand assumptions for 2018 have improved considerably. As a result, we expect export growth to accelerate significantly this year but to lose some steam by the end of the forecast horizon. Imports, on the other hand, are fueled by vivid domestic demand. In particular, investment-related imports are expected to push up import demand. By contrast, decelerating domestic demand over the forecast horizon will result in a slowdown in import growth. Still, the contribution of net exports to GDP growth is expected to remain negative.

Croatia: growth slows despite strong private consumption

Recent developments have prompted us to revise our GDP forecast for Croatia moderately downward. We now expect a growth rate of 2.9% per annum year on year over the whole forecast horizon.

Private consumption growth – the main growth driver throughout 2017 – is expected to remain strong in 2018 as high consumer confidence was reported in the first months of the year, lending to households is growing and positive labor market developments are expected to continue. Public consumption will continue to grow but decelerate over the forecast period. Although Croatia exited the EU's excessive deficit procedure in 2017, fiscal consolidation will remain important as Croatia is moving toward euro adoption.

Gross fixed capital formation grew by 3.4% year on year in 2017, making a positive contribution to GDP growth. Investment growth is expected to accelerate this year to around 6% year on year. In this respect, the debt settlement plan for Agrokor and accelerated EU fund absorption may have positive effects. Regarding the former, a final settlement might reduce the uncertainty that has clouded the

investment climate in Croatia. Moreover, while EU fund absorption is still low, the Croatian government made progress in terms of speeding up tender calls and project contraction in 2017, setting the ground for faster absorption in the coming years.

Export growth is expected to slow down mildly over the forecast horizon, while import growth will continue to be reinforced by strong domestic demand growth. We expect a negative contribution of net exports to growth over the forecast horizon despite expectations of a record tourist season like in 2017.

Czech Republic: mildly overheated economy will cool down gradually

On the back of strong domestic demand, the Czech economy expanded by a buoyant 4.5% in 2017. While economic expansion remains solid, it has passed its peak and is expected to slow down gradually over the forecast horizon. Private consumption and investment will remain the key drivers of economic growth, spurred by consumers' and firms' optimism. The latter is fueled by still low interest rates, significant wage growth and positive expectations with respect to future demand developments.

The peaking economic cycle is most visible in the labor market. The unemployment rate hovers at historical lows (also in comparison with other EU countries), which largely results from demographic developments. Vacancies are expected to outnumber jobless persons in 2018. Scarce labor, in particular skilled labor, is becoming a bottleneck for the entire economy and is increasingly likely to dampen output growth and to force firms to raise wages and employ foreign workers.

Therefore, higher household incomes will continue to stimulate private consumption, which is projected to peak this year and to decelerate gradually thereafter amid rising interest rates. In the same vein, a rising wage bill in the government sector, backed by strong economic growth, will be one of the main determinants underlying strong public consumption. In addition, the shortage of labor is an incentive for firms to invest in automation and labor-saving technologies. Against this background, investment will remain solid over the forecast horizon, spurred also by rising external demand and a higher drawdown of EU funds. However, these positive factors will be countered by rising interest rates in the medium term. The fast growth of both the domestic economy and wages has pushed inflation to the upper half of the tolerance band. However, according to the Czech National Bank, these effects will fade away and inflation is expected to return to the 2% target toward end-2018 and to hover just below this rate thereafter.

Export expansion will remain robust despite a continuously appreciating Czech koruna. The automobile industry, a key sector, will benefit from moderately growing global demand. Hence, flagship carmaker Skoda, for instance, expects sales to increase further after record sales and profits in 2017. This might imply significant investment in infrastructure and new capacities on the one hand but also further pressure on the labor market on the other. Highly import-intensive exports and strong domestic demand will also continue to boost import growth. Against this background, the relatively significant contribution of net exports to GDP growth in 2017 is expected to neutralize or even turn slightly negative this year before it starts to recover gradually from 2019 onward.

Hungary: front-loading of EU fund absorption will cause investments to slow sharply

For Hungary, we still expect relatively strong GDP growth of 3.5% in 2018, followed by a slowdown to 3% in 2019, and to below this rate in 2020, when the investment cycle will be drawing to an end as EU funds will be exhausted. Furthermore, wage and employment growth will moderate, and fiscal and monetary policy will become neutral or tighten slightly.

Strong income growth, supported by further minimum wage hikes and a tight labor market, will keep private consumption growth elevated in 2018. However, as labor reserves are being exhausted, we expect employment gains to diminish gradually over the forecast horizon. Real wage growth is also likely to slow down from 2019 onward as nominal wage growth is set to moderate to more sustainable levels and inflation will pick up to reach the central bank's 3% target. As a result, we expect household consumption growth to slow markedly to around 3% in 2019 and 2.5% in 2020. Public consumption picked up sharply in the second half of 2017, possibly in connection with the April 2018 parliamentary elections. We expect slower public consumption growth over the remainder of 2018 and a stagnation in 2019 and 2020 amid a neutral fiscal policy stance.

Growth in gross fixed capital formation will deteriorate strongly in 2018 compared with 2017, but the inflow of EU funds as well as monetary and fiscal policies will continue to underpin investment growth. Corporate investment activity will additionally benefit from record highs of capacity utilization rates, favorable economic prospects, very strong industrial confidence and large investment projects in selected industries (e.g. in the car and car-related industries and in the oil industry). Emerging labor shortages and ongoing strong wage growth may additionally generate some capital-for-labor substitution in specific areas. Strong income growth and more generous housing subsidies support household investment. We expect investment activity to slow again substantially in 2019 and 2020 as – given the frontloading of disbursements – the inflow of EU funds will fall sharply. Tightening financing conditions, the completion of large investment projects and the withdrawal of fiscal stimuli (no further broadening of housing subsidies, scheduled rise in the currently preferential VAT rate on home construction) also point to a deceleration.

We expect export growth to accelerate modestly in 2018, supported by the recovery of euro area imports and new export capacities becoming operational. Export growth should ease again in 2019 and 2020, mirroring a slowdown in euro area import growth and some worsening of Hungary's cost competitiveness following the boost in wages on the one hand and the impact of additional new export capacities on the other. Since we expect moderating domestic demand to slow down import growth, the contribution of net real exports should gradually improve over the forecast horizon and should be positive in 2019 and 2020.

The main domestic downside risk to our forecast arises from the question of how quickly the absorption of EU funds will slow down toward the end of our forecast horizon.

Poland: growth declines gradually as stimuli fade

Poland's GDP growth will decline from the high rate of 4.6% in 2017 to 4.0% in 2018 and slow down further to 3.5% in 2019 and 3.3% in 2020. The main factor behind this deceleration is the slowdown of private consumption growth. In 2019 and 2020, export growth will slow modestly in line with a moderation of foreign demand.

Private consumption growth will decline to 4.0% in 2018 and to 3.4% in 2020 as the sizeable positive base effect of the pronounced increase in child benefits, higher personal income thresholds for the application of the lowest tax rate and the hike of official minimum wage rates will fade out. In addition, private consumption will be dampened by the slow growth of average retirement pensions, the lower statutory retirement age in force since October 2017, the general freezing of the wage bill for central government institutions in 2018 and the – albeit moderate –

pickup in inflation. Still, private consumption growth will continue to expand at robust rates on the back of strong wage and (gradually declining) employment growth, improved consumer sentiment and historically low interest rates on loans for consumption purposes. Public consumption growth will remain substantially below GDP growth in 2018, reflecting the freeze of the public sector wage bill, but will likely increase again in the 2019 election year (a continuation of that freeze has not been announced).

Gross fixed capital formation growth will accelerate strongly in 2018, partly because of a carry-over effect from the strong final quarter of 2017, and will moderate somewhat thereafter. Public and private investments will continue to rebound in line with an increasing absorption of EU funds. Furthermore, private investment will benefit from strong domestic consumption and foreign demand, already high capacity utilization, the favorable financing situation with respect to both own funds and external funds, and the knock-on effects of stronger public investment. Housing investment will continue to expand considerably in 2018, given favorable income developments and financing conditions; in 2019, however, the completion of the state-subsidized housing program for young people will dampen housing investment growth.

Export growth will remain close to 7% in 2018, somewhat diminished by the rise in manufacturing unit labor costs. In 2019 and 2020, export growth will moderately decelerate, given the slowdown in euro area and global imports.

The main domestic risks to our forecast are, on the downside, heightened political uncertainty undermining the pickup in investment and, on the upside, increased fiscal stimuli ahead of elections that could lift growth in 2019.

Romania: rising uncertainty over effects of recent policy measures

For Romania, we maintain our expectation that GDP growth will decelerate over the forecast horizon. However, we have mildly revised upward our forecasts for 2018 and 2019 to 4.5% and 3.7%, respectively.

Private consumption growth is expected to remain the main driver of overall GDP growth. However, growth is expected to slow down for a number of reasons: the outlook for disposable income is uncertain as the government has passed a number of controversial measures with unknown consequences, such as shifting the obligation to pay social security contributions from employers to employees. Moreover, inflation has been accelerating rapidly over the past months and is expected to remain above the Romanian central bank's target rate for most of 2018. The central bank has already responded by increasing its policy rate by 25 basis points in both January and February and will most likely take further measures. Higher policy rates should also translate into tighter credit standards for households. These developments are also reflected in consumer confidence, which has deteriorated markedly since October 2017.

Gross fixed capital formation growth picked up noticeably in 2017, partially driven by base effects. Going forward, investments should be supported by strong GDP growth, supportive financing conditions and the acceleration of EU fund absorption toward the end of the 2014 to 2020 budgetary period. Net exports are expected to contribute negatively to growth over the entire forecast horizon. We expect export growth to remain supported by strong euro area demand but to be outpaced by import growth. The latter is expected to decelerate from 2018 onward in line with the slowdown in consumption growth.

The main risks to the forecast stem from Romania's fiscal stance and recent policy measures, especially in the labor market. For instance, there is a considerable risk that the Romanian government will not be able to keep the general government deficit below the EU's threshold of 3% of GDP in 2018. Uncertainty regarding future labor market developments is high due to recent policy changes. With effect from January 1, 2018, the Romanian government shifted the obligation to pay social security contributions from employers to employees. While the effects of this measure are partially mitigated by previous income tax changes and strong increases in minimum wages, for most employees, a pronounced increase in gross wages will be necessary to maintain their level of net wages. Such an increase is not mandated by law, however, and depends on negotiations with employers. Moreover, in 2018, the unified wage law is set to come into effect. This law aims at increasing the efficiency of the public remuneration system and will result in higher public sector wages. The government's policy stance could also have negative implications for the pace of EU fund absorption as cofinancing for EU projects is crowded out by other expenditures, such as higher public sector wages.

3 Russia: slow recovery continues

In 2018, we expect Russian GDP to increase by 1.8%. In the following years, Russian growth will ease to 1.6% in 2019 and to 1.5% in 2020 as the oil price is expected to gently decline to around USD 60 per barrel.

Private consumption will expand moderately, based on a rather slow growth of disposable income, low inflation and stepped-up growth of household lending. The rise of corporate sector wages is expected to remain reasonable relative to productivity adjustments. Fixed investment will increase as the country's relatively worn-out capital stock requires upgrading for replacement and production is close to capacity constraints. Capital formation may also slightly benefit from some further key interest rate reductions, which can be expected in 2018, given the low inflation rate that has been achieved. However, investment expansion will probably not shift into high gear as a number of large energy and infrastructure projects are approaching completion and appetite for new investment is still weakened by the poor business environment.

Public spending is expected to increase relatively slowly due to the authorities' new fiscal budget rule. Nevertheless, government revenues will grow notably in 2018, based on the trajectory of oil prices and on the continuing economic recovery, before rising at a lesser speed in the following years. The fiscal rule limits federal budget expenditure i.a. to a revenue frame which is determined by the price of Urals crude oil over the next few years. Should the basic calculation price of USD 41 to USD 42 per barrel be surpassed, which is highly probable, excess revenue is to be placed in the state reserve fund (National Welfare Fund). If the oil price remains roughly at its current level and spending is limited according to the fiscal rule, the budget seems on track to deliver a surplus.

Growth in the volume of Russian exports is expected to slow from brisk rates achieved last year as the Russian ruble remains fairly strong and Russian energy exports are likely to increase slowly, i.a. on the back of continued OPEC-Russia output restraints. We have slightly raised this year's import forecast from last fall as higher oil prices will increase domestic demand by raising oil-related incomes and will boost the country's export revenues. The recovery in imports, however,

will continue to decelerate significantly this year, and at a moderate pace in the coming years, as the increase in export earnings is fading.

Risks to the forecast for Russia

Oil prices represent a continuous risk to Russian economic growth. A higher-than-expected oil price could boost growth by improving export revenues, whereas a price drop would have the opposite effect. Partly connected to this, there are risks facing the global growth outlook: significant unexpected geopolitical events and other international incidents have come to the fore, and developments in the next few years may affect the Russian economy directly or via the global economy. In particular, the latest U.S. sanctions against Russia pose a sizeable downward risk to our forecast.

In the light of developments in recent years, growth in Russia's exports of basic commodities outside the energy sector could exceed expectations. However, as capacity utilization in Russia is near its earlier peaks, production capacity could constrain Russia's staple exports as well as the economy's growth more strongly than expected. This could be reinforced by the ongoing uncertainty surrounding productive capital formation.

Studies

Digging into the composition of government debt in CESEE: a risk evaluation

Markus Eller,
Johannes Holler[1]

This paper reviews the composition of government debt in Central, Eastern and Southeastern Europe (CESEE) with a particular focus on the related risk implications, using a unique dataset compiled from various sources. The comparatively strong increase in government debt levels recorded in CESEE since the global financial crisis (GFC), together with an increased role of foreign portfolio investors with a typically short-term orientation, has accentuated refinancing risks. Nevertheless, on the aggregate level, refinancing and interest rate risks have been reduced in CESEE as governments increasingly have been able to issue longer-term debt instruments. At the same time, however, risks are not distributed equally across CESEE: there are still a few countries that record sizeable short-term debt (partially denominated in foreign currency) and/or are likely to face pronounced repayment spikes in the period up to 2025. The combination of an increased debt stock and a dominant share of foreign currency-denominated government debt also implies substantial exposure to exchange rate risks in a few CESEE countries. Historical default episodes underline the riskiness of the large shares of foreign currency-denominated government debt that are often observed for countries with less developed capital markets. The issuance of debt instruments which are exposed to high refinancing and rollover risk is only partially driven by debt management strategies; it is also a direct consequence of domestic financial market conditions. Therefore, special emphasis should be placed on fostering CESEE capital markets to strengthen government borrowing at home and in the local currencies and to further develop derivative products to hedge interest and exchange rate risk.

JEL classification: E62, H12, H63, P35
Keywords: government debt structure; public debt management; sovereign risk; Central, Eastern and Southeastern Europe

During the 2008/2009 recession, several countries in Central, Eastern and Southeastern Europe (CESEE) were facing a situation of limited fiscal space as they were more concerned with avoiding a budget crisis than with implementing expansionary fiscal policy measures to mitigate the economic downturn (Eller et al., 2012). Despite the comparatively low government debt levels recorded before the crisis, CESEE countries had difficulties financing their soaring deficits given tight market conditions caused by a sharp rise in global risk aversion and liquidity shortages. Several experts highlighted that an unfavorable government debt structure – together with procyclical discretionary fiscal policies before the crisis and a lack of qualitative fiscal institutions – aggravated sovereign liquidity constraints at that time (Anderson et al., 2010; Eller et al., 2012). Studies on the impact of sudden changes in financial market conditions on sovereign liquidity and solvency (as can be observed in early warning exercises; see Baldacci et al., 2011) have increasingly addressed and identified the importance of sovereign balance sheet structures (Kose et al., 2017). We further elaborate on these insights by

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identifying and analyzing the key elements of government debt composition that determine the underlying risk position of government debt portfolios.

This paper provides a cross-country overview of how the structure of government debt has evolved in a sample of 15 CESEE economies (CESEE-15 – including EU Member States, EU candidate countries as well as Russia and Ukraine)[2] since the 2008 global financial crisis (GFC). Despite the variety of institutional backgrounds in the sample covered, we focus on a broad set of countries as they show similarities in terms of domestic capital market development (Jäger-Gyovai, 2014) and feasible sovereign debt management strategies. Moreover, CESEE countries preparing for EU membership and/or euro adoption can learn from their regional peers whether and how sovereign debt structures change once deeper European integration is achieved. Our main focus is on determining and discussing the risks embedded in government debt composition broken down by creditor, currency, maturity and type of interest rate.

The overview provided in this paper as well as our compiled dataset could greatly benefit follow-up research that aims to study the influence that risks implied by the structure of government debt have on the interaction of fiscal, monetary, financial and macroeconomic variables (Blommestein and Turner, 2012; Borensztein et al., 2004a; Das et al., 2010; Zampolli, 2012). Understanding the risk implications of sovereign debt structures in CESEE could also be essential for studying grading decisions of rating agencies, variations in sovereign yields or, more generally, volatilities of macrofinancial variables (Beer, 2018).

This paper is structured as follows: section 1 stresses the increased post-crisis debt burden in CESEE and highlights the importance of underlying changes in the government debt composition in order to identify overall risk dynamics implied by the debt portfolio. In section 2, which is the core part of the paper, we present key debt profile indicators across various dimensions and discuss related risks for public finances. Section 3 summarizes our risk assessment of government debt portfolios in CESEE and provides conclusions. Finally, details on the compilation of data and related limitations are presented in the annex.

1 Government debt dynamics in recent years and the role of debt structures

Deep recessions following the GFC significantly pushed up general government gross debt levels in CESEE (see chart 1). Starting from fairly low debt-to-GDP ratios before the GFC (of about 30% on average for the 15 countries under scrutiny[3] in 2007), several CESEE countries witnessed a relatively strong increase in debt ratios right after the GFC (reaching nearly 47% in 2012). Despite procyclical fiscal consolidation in several countries, the debt ratios of our country sample have increased further (to about 52% in 2017, as estimated by the IMF), driven e.g. by prolonged recessions and country-specific crises (as was the case for Ukraine and

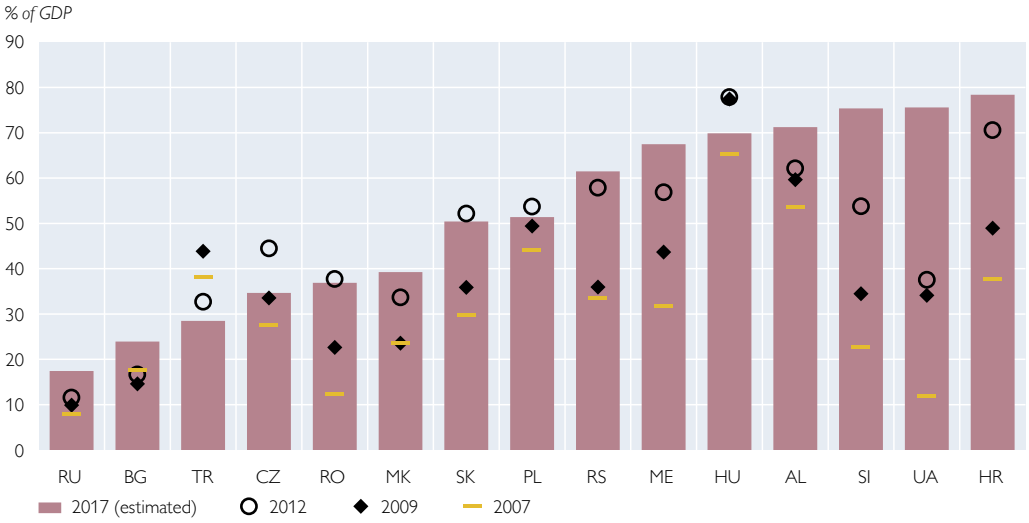
[2] *We cover a sample of 15 countries in total, basing our choice mainly on the availability of Bloomberg data: Albania, Bulgaria, Croatia, the Czech Republic, Hungary, FYR Macedonia, Montenegro, Poland, Romania, Russia, Serbia, Slovakia, Slovenia, Turkey and Ukraine.*

[3] *Cross-country averages are unweighted.*

several Western Balkan economies)[4]. If we look at the development of government debt ratios between 2007 and 2017, we find that several CESEE countries stand out, recording significant increases in government debt ratios: the government debt ratio was up by 64 percentage points of GDP in Ukraine, by 53 in Slovenia, by 41 in Croatia, by 36 in Montenegro and by 28 in Serbia. Together with Albania and Hungary, which already recorded debt ratios of more than 50% before the GFC, these CESEE countries post debt levels that are currently higher than 60% of GDP. In the remainder of the paper, we refer to these seven countries as the "high-debt" countries. "Medium-debt" CESEE countries with debt ratios between 30% and 60% of GDP include the Czech Republic, FYR Macedonia, Poland, Romania and Slovakia, while Bulgaria, Russia and Turkey belong to the "low-debt" countries with debt ratios below 30% of GDP.[5]

Chart 1

General government gross debt



Source: IMF World Economic Outlook (April 2018).

Debt sustainability analyses (e.g. Eller and Urvová, 2012) underline the destabilizing potential of high debt levels for public finances. A debt sustainability analysis focusing solely on debt ratios would conclude that due to the strong increase in government debt ratios, several CESEE countries are more vulnerable to macroeconomic shocks today than they were before the GFC. At the same time, we can observe that by increasing the maturity of debt portfolios (see section 2.3), most CESEE countries have reduced the level of risk arising from changing market conditions despite a substantial increase in debt ratios. Thus, by including risk metrics

[4] *While government debt widened in the CESEE-15 by about 22 percentage points of GDP between 2007 and 2017, non-CESEE EU Member States experienced, on average, a somewhat stronger increase, i.e. from about 54% in 2007 to 83% in 2017.*

[5] *This grouping of countries merely serves to indicate that risks increase with the level of indebtedness. Debt tolerance thresholds are likely to be lower in emerging economies than in advanced ones (Sturzenegger and Zettelmeyer, 2006). In its debt sustainability analysis, for instance, the IMF (2013) classifies an emerging market economy with a government debt-to-GDP ratio of more than 50% (in contrast to 60% in the case of advanced economies) as a higher-scrutiny country.*

that focus on the composition of government debt, debt sustainability assessments may change considerably. This paper stresses the role the structure of government debt plays in ensuring sustainable public finances, given that it decisively impacts the response of interest payments to economic shocks. According to the Guidelines for Public Debt Management published by the World Bank and the IMF (2014), an optimal debt portfolio should minimize interest payments subject to a prudent degree of risk. In this context, risk refers to all potential increases in debt service costs related to market, refinancing, liquidity, credit and operational risk. Definitions of these risk categories, however, vary in the literature. In our paper we focus, on the one hand, on market risk in the form of unexpected increases in the cost of debt arising from changes in market variables (i.e. interest rates and exchange rates) and, on the other hand, on refinancing risk, which corresponds to the risk that debt will have to be refinanced at an unusually high cost or, in extreme cases, cannot be rolled over at all.

2 Debt profile indicators

In this section, we cover the risk categories mentioned by providing information on the composition of government debt for the selected CESEE-15 countries by creditor (residents vs. nonresidents), by type of currency (local vs. foreign), by maturity (short-term vs. long-term) and by type of interest rate (fixed vs. variable). While we rely on a variety of data sources (balance of payments data, banking sector statistics, Eurostat, ECB) regarding the creditor structure, we resort to Bloomberg for data on the other structural dimensions and collect indicators on a quarterly basis for the CESEE-15; eight of these are EU Member States (Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia), five are EU candidate countries (Albania, FYR Macedonia, Montenegro, Serbia and Turkey), and the remaining two are Russia and Ukraine. For data-related details and caveats, see section A1 in the annex.

Due to the lack of publicly available data, we limit our attention to the liability structure of the respective government balance sheets, i.e. our analysis does neither address government assets[6] nor consider derivative products, which clearly have the potential to change the cost-risk profile of government debt portfolios[7]. Therefore, the overall risk position of government balance sheets has the potential to considerably deviate from the risks implied by the government debt portfolios presented in this paper. This should be kept in mind when interpreting the results.

[6] *Das et al. (2012) describe a potentially combined asset and liability management approach when analyzing the risk content of a government balance sheet. A net instead of a gross consideration of government debt would account for liquid assets whose realization could potentially be used for debt repayment. Government bank deposits would e.g. constitute such a liquid asset category. In the CESEE-15, general government deposits have accounted for about 3% of GDP on average since 2010; most recent observations (fourth quarter of 2017) indicate that these deposits are comparatively large in Croatia and the Czech Republic (accounting for nearly 7% of GDP), while those of Albania and FYR Macedonia are comparatively small (accounting for less than 1% of GDP).*

[7] *A large share of foreign currency-denominated government debt, for instance, would not immediately translate into higher exchange rate risks if there were derivative products that allowed the issuer to swap foreign currency-denominated debt into local currency-denominated debt in due time. For a detailed description of the use of derivative products by public debt managers, see Piga (2001). To the best of our knowledge, there is, to date, no systematic cross-country overview of the relevance of derivative products for sovereign borrowing in CESEE. According to the World Bank, only a minority of the CESEE-15 countries considered here have already used derivative products to hedge exchange rate risks (or are currently building up respective capacities).*

The following subsections present key metrics used to identify the overall risk position of government debt portfolios. For the sake of clarity and readability, we separately discuss the creditor structure, maturity and currency composition as well as the types of interest rate. In reality, however, these debt composition characteristics are interdependent and interlinked. In general, economic and financial market developments shape the playing field for debt issuance, implicitly determining sovereign debt management strategies and the type of investors who can be attracted. Countries with less developed capital markets and/or high inflation e.g. have a rather narrow set of viable strategies at their disposal. They almost certainly face difficulties in attracting investors for long-term bonds denominated in domestic currency. This is especially true in a high global risk/low liquidity environment as observed in the aftermath of the GFC. The typical answer to this problem is to issue short-term or foreign currency-denominated debt in order to meet financing needs. However, such instruments imply higher refinancing and market risks. An optimal debt strategy is based on an efficient mix of viable instruments, taking into account their position on the cost-risk dimension. Due to a potentially shallow domestic capital market, the domestic investor base may be scarce as well, stressing the need to attract foreign investors and to issue debt instruments denominated in foreign currencies, since foreign investors are often not allowed or simply do not want to hold foreign currency risk on their books. This highlights the fact that well-functioning capital markets are a key prerequisite for sound low-risk debt management strategies.

2.1 Creditor structure

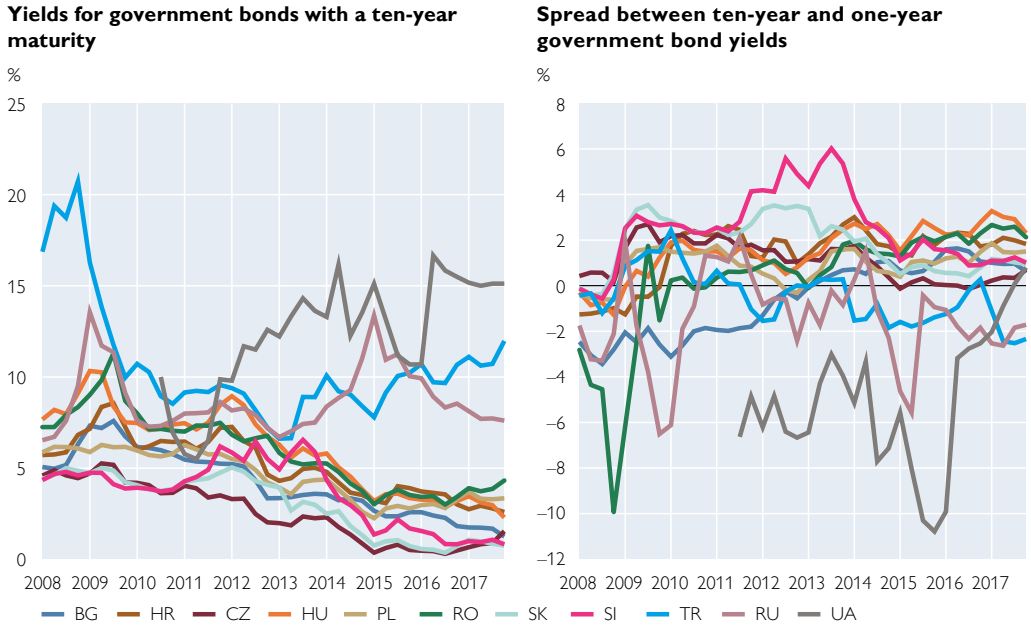
As a result of comparatively underdeveloped domestic capital markets in CESEE, governments in the region still tend to rely to a substantial degree on external (foreign) funding (Jäger-Gyovai, 2014). On the one hand, a large international investor base underlines a country's creditworthiness and thus substantially contributes to low funding costs (in normal times). On the other hand, a broad international investor base also implies low potential default costs for issuers, as first-round economic consequences have to be borne mainly by foreign investors, which, in turn, drives up country risk premia and consequently funding costs. Although the overall effect of foreign vs. domestic government debt holdings on funding costs is inconclusive, a broad and well-diversified investor base clearly contributes to low funding costs. Regarding the risk dimension, the influence of the share of foreign funding on public finances is also controversial. During periods of high global uncertainty and increasing risk aversion, a high share of nonresident creditors might increase the risk of losing access to market funding altogether (liquidity risk) or at favorable conditions (refinancing risk) due to confidence losses particularly among foreign investors (Kose et al., 2017). The situation at the beginning of the GFC illustrates this, as CESEE governments had to rely on external funding at the time in order to finance maturing liabilities and budget deficits. Yield spreads shot up (see chart 2) and a few, but not all, governments in CESEE faced liquidity constraints. For most of the countries under observation, the negative spread between ten-year and one-year government bond yields in 2008 and early 2009 reflected tight market liquidity that resulted in almost completely dried up markets for long-term government bonds of the CESEE-15 (yields did not reflect market prices) in the direct aftermath of the GFC. The yield development

furthermore suggested strong negative expectations concerning future economic developments during periods of elevated global risk aversion. Overall, the default risk indicated by credit default swap (CDS) spreads increased substantially (see chart 3). The large share of foreign creditors aggravated refinancing problems for the CESEE-15 at that time, since external funding weakened when it was actually needed most, corroborating the "when it rains, it pours" phenomenon that had been frequently observed in emerging market economies (Kaminsky et al., 2004). Domestic creditors are often less responsive to global economic shocks. The different reactions of external and domestic funding to economic shocks crucially depends on the type of investors, the nature of investments and, to a lesser extent, on the origin of investors per se. On average, however, domestic investors such as pension funds appear to operate on a longer investment horizon than foreign portfolio investors such as hedge funds. When evaluating the overall risk implied by the *creditor structure* of government debt, the amount of debt owed to certain investor groups has to be considered. In general, one can state that long-term investors who are less sensitive to current market conditions reduce liquidity and refinancing risk.

Based on the international investment position (IIP) and banking sector statistics, charts 4a and 4b show the evolution of government debt by creditor as a share of GDP and indicate that debt owed to nonresident creditors has become increasingly important since the GFC. From an average of 44% in the CESEE-15 in 2009, total government debt owed to nonresidents increased to 48% in 2012 and further to 51% at end-2016. Government debt owed to nonresidents is substantial[8] in all countries

Chart 2

Long-term government bond yields and slope of yield curve



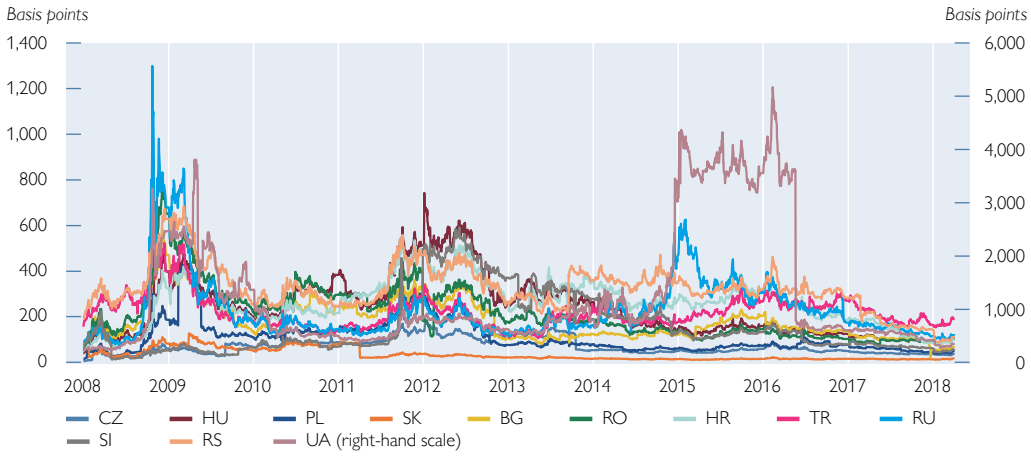
Source: Macrobond.

Note: Latest observation: Q4 17.

[8] *In its revised debt sustainability framework, the IMF (2013) qualifies countries as high-risk cases if government debt owed to nonresidents exceeds 45% or if government debt in foreign currency surpasses 60% of total debt in emerging market economies.*

Chart 3

Credit default swap premiums for government bonds with a five-year maturity



Source: Macrobond.

Note: Latest observation: April 4, 2018.

investigated (except Russia) and accounts for even more than 60% of total government debt in FYR Macedonia, Serbia, Slovenia and Slovakia (see chart 5). The significant increase in debt owed to nonresidents is partly due to multilateral support programs that have contributed to a rising share of loans to the respective governments from abroad (e.g. in Albania, Hungary, Romania, Serbia and Ukraine) but also, if not mainly, due to a more prominent role of foreign portfolio investors. The most recent observations (third quarter of 2017) show that remarkable parts of government debt are owed to foreign portfolio investors in the two euro area countries in our sample, Slovenia (63%) and Slovakia (53%), but also in the Czech Republic, Hungary, FYR Macedonia, Poland, Romania and Turkey (ranging between 30% and 45%).

Given the substantial shares of government debt owed to nonresidents, in particular portfolio investors, it is of interest to assess which countries and sectors actually dominate debt owed to nonresidents. As the CESEE economies presented in this article are strongly integrated with the euro area, we resort to complementary data from the ECB; table 1 shows the amount of outstanding debt securities issued by CESEE sovereigns and held as a total in the euro area, as well as broken down by different sectors, at the end of the third quarter of 2017. Looking at the CESEE EU Member States as issuing countries, we see (bottom panel of table 1) that considerable shares of their government debt securities are held in the euro area, ranging from about 14% of those issued by Hungary to about 44% of those issued by Slovakia. A sectoral breakdown reveals that euro area holdings of CESEE government debt securities are heavily dominated by financial corporations, with investment funds accounting for the biggest share (which is in line with the prominent role of foreign portfolio investors' holdings as discussed above). For instance, "other financial institutions" (which consist mainly of investment funds) cover more than 70% of euro area holdings of government debt securities issued in Hungary, FYR Macedonia, Montenegro, Russia, Serbia and Ukraine, while the corresponding shares issued in Albania, Croatia, Romania and Turkey lie between 50% and 70%. At the same time, insurance companies and pension funds with a

longer-term orientation hold considerable shares of CESEE government debt securities as well, i.e. about half of the euro area's holdings of Bulgarian, Slovenian and Slovakian government debt securities and between one-fifth and one-third of those issued by Croatia, the Czech Republic, Poland and Romania.

Despite the increased importance of debt owed to nonresidents, it should be emphasized that several CESEE countries are also characterized by improved domestic absorbance capacities. The share of government debt owed to the domestic banking sector (in the form of both loans and securities) e.g. has risen significantly in Hungary, Poland, Romania, Russia and Serbia since the GFC (see charts 4a to b). At the end of the third quarter of 2017, more than one-third of total government debt was owed to the domestic banking sector in Bulgaria, Croatia, Poland, Romania, Russia and Turkey. Complementary data from Eurostat (for EU Member States only) confirms that government debt owed to residents was attributable mainly to financial corporations[9]. The only notable exception was Hungary, where a comparatively large share of government debt is owed to domestic households (about 17% at end-2016).[10]

2.2 Currency structure

CESEE countries' need to attract an international investor base is also reflected in the fact that they issue a substantially larger share of foreign currency-denominated government debt than the advanced economies (Holler, 2013; OECD, 2017). The rationale behind foreign currency-denominated debt issuance is to attract foreign investors who are not willing to add foreign currency risk to their asset portfolio and ultimately to reduce funding costs by reducing liquidity premiums and increasing demand.

Clearly, a high share of foreign currency debt implies substantial market risk for the government's debt portfolio, while it tends to reduce funding costs by broadening the investor base. Countries with a high share of foreign currency-denominated debt are especially vulnerable (especially if their foreign currency debt is denominated in volatile currencies and/or currencies that are only poorly correlated with the issuer's economic cycle), as a depreciation of the domestic currency, which can typically be observed during economic downturns, increases the debt-to-GDP ratio and debt servicing costs. In contrast to other forms of market risk (e.g. interest rate risk), exchange rate risk might be especially harmful since it implies not only potential changes in interest payments but also a revaluation of the debt stock. This is the reason why the amount of debt that has to be rolled over and overall debt sustainability critically depend on exchange rates; as a consequence, sharp local currency depreciations might imply high default risks.

According to Bloomberg data, most CESEE countries under review held a considerable share of government debt in foreign currency at end-2017 (about 42%

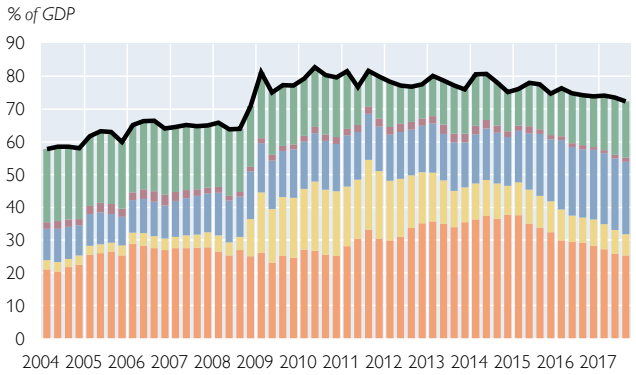
[9] *For most of the countries under observation, the share nonresident creditors have in total government debt based on Eurostat data is in line with the figures shown in charts 4a to 4b. However, there are a few notable exceptions, i.e. Hungary, Slovakia and Slovenia, with smaller Eurostat-based shares of debt to nonresidents. This is most likely the result of different types of valuation: Eurostat's government debt definition ("Maastricht debt") is measured at nominal (face) value, while IIP data are based on market values.*

[10] *Over the past few years, the Hungarian State Treasury has stepped up the issuance of state securities with various maturities and interest rate conditions specifically targeted at households and nonprofit organizations, not least in order to reduce reliance on foreign funding. These securities are characterized by more profitable conditions compared to T-bills or government bonds, representing attractive alternatives to bank deposits.*

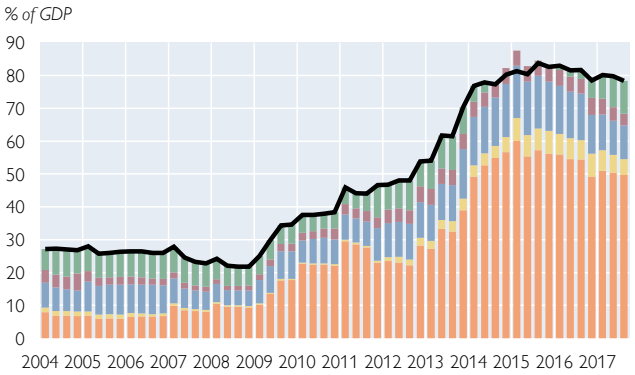
Chart 4a

General government gross debt by creditor: high-debt countries

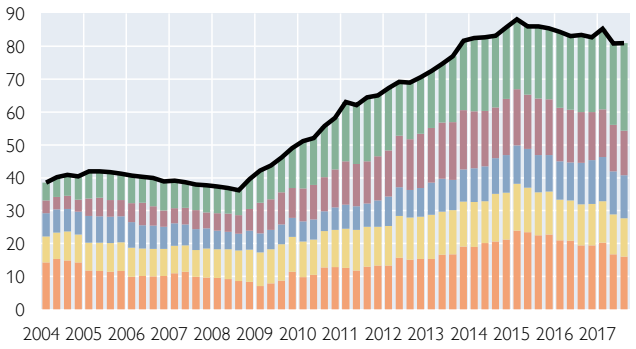
Hungary



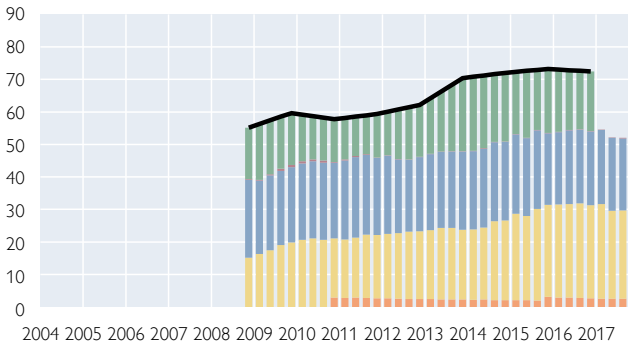
Slovenia



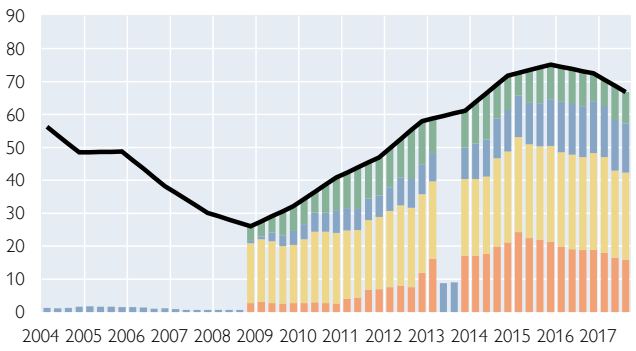
Croatia



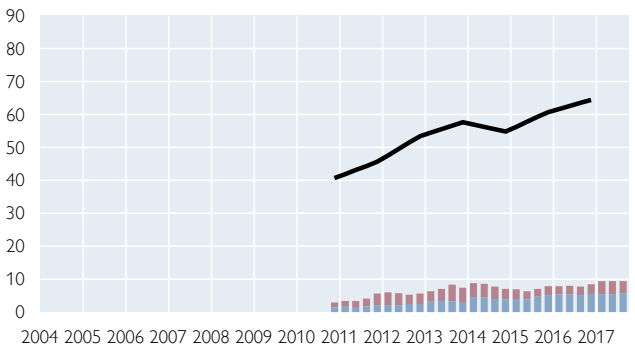
Albania



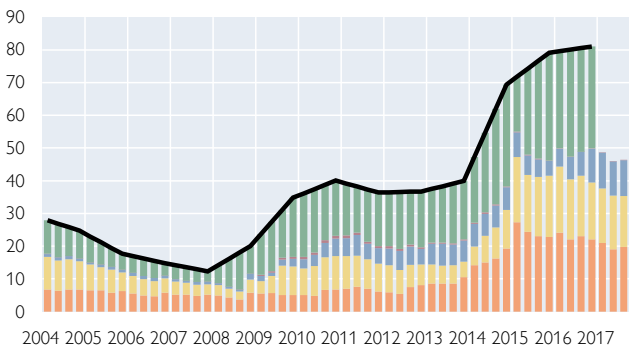
Serbia



Montenegro



Ukraine



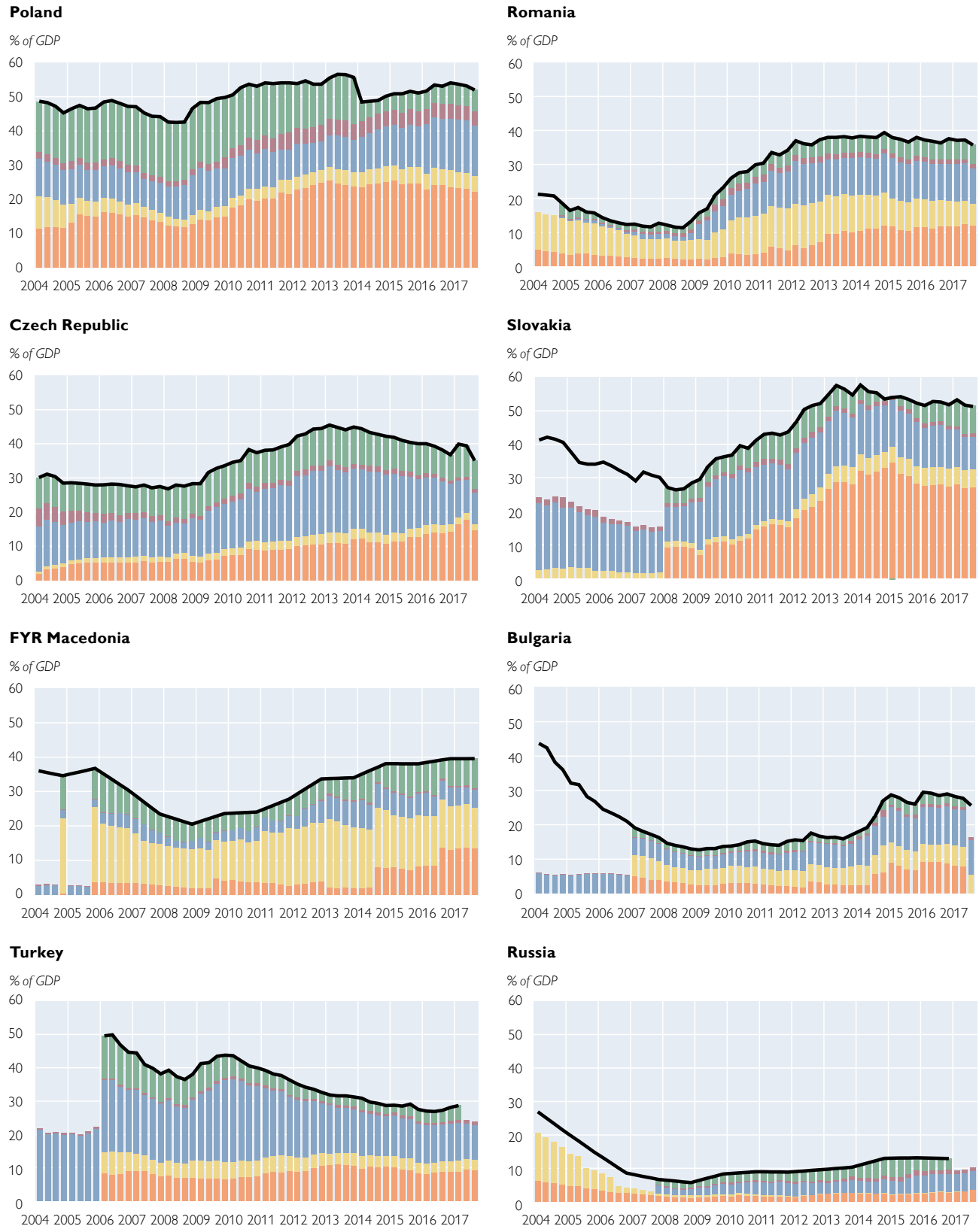
- Loans to government from abroad and other government liabilities vis-á-vis nonresidents
- Government debt securities held by foreign portfolio investors
- Government debt owed to other domestic investors (e.g. NCB, pension funds, investment funds, insurance companies) and statistical discrepancy
- Loans to government from domestic banking sector
- Government debt securities held by domestic banking sector
- General government consolidated gross debt

Source: Eurostat, IMF, national central banks.

Note: Latest observation: Q3 17. Missing values for specific series are the reason for any gaps in the charts (mostly at the beginning or the end of the sample).

Chart 4b

General government gross debt by creditor: medium- and low-debt countries

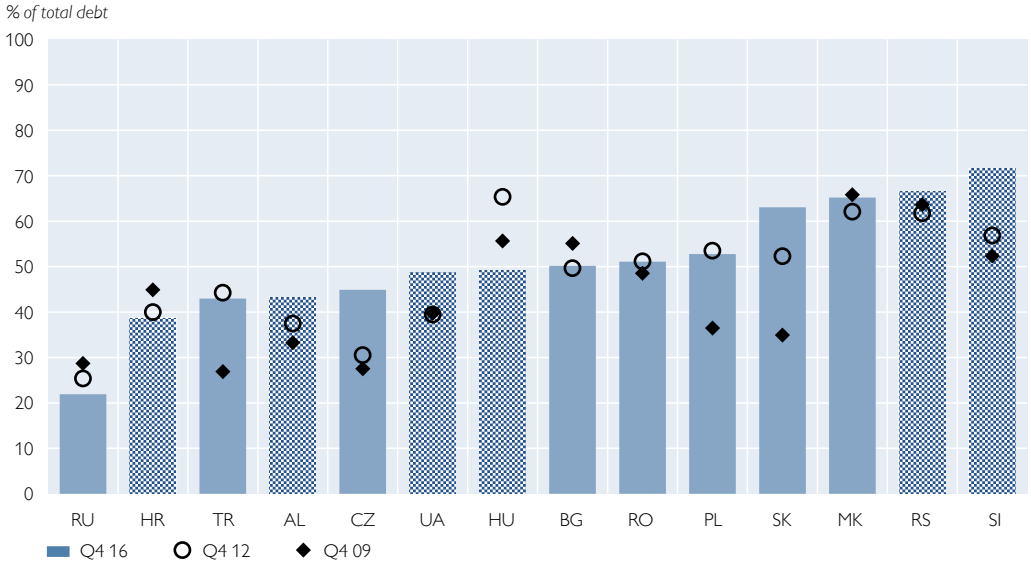


Source: Eurostat, IMF, national central banks.

Note: Latest observation: Q3 17. Missing values for specific series are the reason for any gaps in the charts (mostly at the beginning or the end of the sample).

Chart 5

Government debt owed to nonresidents



Source: Eurostat, IMF, national central banks, OeNB.

Note: Shaded bars indicate high-debt countries (with government debt ratios of more than 60%).

on average, see chart 6). This is especially true for Bulgaria, Croatia, Serbia and Ukraine, where foreign currency shares in total government debt range between 60% and 80%. But also in FYR Macedonia and Romania, government debt denominated in foreign currency is larger than that denominated in local currency. On the other end of the spectrum – with foreign currency-denominated debt accounting for shares of less than 30% – are the Czech Republic, Hungary, Russia, Slovakia and Slovenia.[11] While the share of foreign currency-denominated debt has remained largely stable on average across the CESEE-15 since 2009, several governments have succeeded in considerably reducing their reliance on foreign currency borrowing (the Czech Republic, Hungary, Poland, Romania, Russia and Serbia). In contrast, the strongest increase in foreign currency-based government borrowing was observed in Albania, Turkey and Ukraine. The figures recorded for end-2017 (see charts 7a and 7b) show that the euro dominates foreign currency-denominated government borrowing in the CESEE EU Member States (except for Hungary, where the U.S. dollar has a higher weight) as well as in Albania and FYR Macedonia, while the U.S. dollar dominates in Russia, Serbia, Turkey and Ukraine.[12] Issuance of government debt in foreign currencies other than the euro or the U.S. dollar only matters, to some extent, in Albania, Serbia and Ukraine.

[11] *Following the adoption of the euro, foreign currency-denominated debt as a share of total government debt shrank significantly in Slovenia in 2007 and in Slovakia in 2009.*

[12] *Note that Bloomberg figures may deviate from other sources due to Bloomberg's more extensive coverage of the public sector (see also section A1.2 in the annex). For instance, we noted considerable differences in the currency structure of government debt in Croatia, Hungary and Serbia. For the former two, figures based on the ECB's Government Finance Statistics show a significantly higher weight of the euro in foreign currency-denominated government debt in 2016. In Serbia, according to central government level data (as at end-2017) provided by the Serbian Ministry of Finance, foreign currency-denominated debt as a share of total debt is larger (77%) and the euro (about 42%) has a higher weight than the U.S. dollar (29%). The comparatively large share of U.S. dollar-based government borrowing in Serbia is, i.a., due to loans from the United Arab Emirates.*

Table 1a

Government debt securities issued by CESEE sovereigns and held in the euro area by different sectors

	Albania	Bulgaria	Croatia	Czech Republic	Hungary	FYR Macedonia	Montenegro
	Total amounts, EUR million						
Euro area total	125	2,371	4,383	11,538	10,855	540	285
of which:							
households and nonprofit organizations	6	17	147	27	86	27	55
insurance corporations and pension funds	0	1,276	952	2,719	1,171	40	14
monetary financial institutions	31	262	454	3,279	1,339	24	3
other financial institutions	87	807	2,709	5,461	8,115	441	210
nonfinancial corporations	0	4	34	15	12	7	4
general government	0	6	87	38	132	0	0
others	0	0	0	0	0	0	0
	Share of total amount held in the euro area, %						
Euro area total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
of which:							
households and nonprofit organizations	4.8	0.7	3.4	0.2	0.8	5.0	19.3
insurance corporations and pension funds	0.2	53.8	21.7	23.6	10.8	7.5	4.7
monetary financial institutions	25.0	11.0	10.4	28.4	12.3	4.5	1.0
other financial institutions	69.9	34.0	61.8	47.3	74.8	81.6	73.6
nonfinancial corporations	0.2	0.2	0.8	0.1	0.1	1.4	1.3
general government	0.0	0.2	2.0	0.3	1.2	0.0	0.0
others	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Share of total government debt securities, issued by the respective CESEE country, %						
Euro area total	..	24.6	17.2	18.9	14.1	..	..
of which:		0.0	0.0	0.0	0.0		
households and nonprofit organizations		0.2	0.6	0.0	0.1		
insurance corporations and pension funds		13.2	3.7	4.5	1.5		
monetary financial institutions		2.7	1.8	5.4	1.7		
other financial institutions		8.4	10.6	8.9	10.5		
nonfinancial corporations		0.0	0.1	0.0	0.0		
general government		0.1	0.3	0.1	0.2		
others		0.0	0.0	0.0	0.0		

Source: ECB Securities Holdings Statistics by Sector (SHSS) and Eurostat (for total issuance of debt securities).

Note: Issuing sector: general government. Other financial institutions cover mainly investment funds. Central bank holdings are not included. Euro area holdings of government debt securities issued by Slovakia and Slovenia do not include their domestic holdings.

To which extent exchange rate risks materialize depends on a variety of factors, one of which is exchange rate stability. Romania, Serbia and Ukraine, which are among the countries with major shares of government debt denominated in foreign currency, have a free-floating exchange rate regime with no nominal external anchor, while Bulgaria, Croatia and FYR Macedonia have a fixed exchange rate regime vis-à-vis the euro.[13] During a recession, exchange rate depreciations are more likely to happen in countries with flexible exchange rates and thus translate more rapidly into a higher debt burden than in countries with fixed exchange rates. However, even an exchange rate peg might be abandoned, depending on the intensity of the recession and the related macroeconomic adjustment costs. Another factor to be considered in CESEE countries is the exposure of private sector balance sheets to foreign currency risk. The dominance of the U.S. dollar in government borrowing in Ukraine, for instance, could be "cushioned" to some extent by the relatively high degree of dollarization in the Ukrainian economy. Serbia and Croatia,

[13] *A currency board in the case of Bulgaria and tightly managed arrangements in the case of Croatia and FYR Macedonia.*

Table 1b

Government debt securities issued by CESEE sovereigns and held in the euro area by different sectors

	Poland	Romania	Russia	Serbia	Slovenia	Slovakia	Turkey	Ukraine
	Total amounts, EUR million							
Euro area total	43,392	11,490	17,366	2,558	13,086	12,871	31,582	5,739
of which:								
households and nonprofit organizations	603	123	403	6	95	30	310	69
insurance corporations and pension funds	11,661	3,807	1,036	122	6,261	6,214	1,798	280
monetary financial institutions	11,251	1,529	331	155	1,771	3,370	9,045	33
other financial institutions	19,047	5,824	15,424	2,260	4,849	3,170	20,062	5,339
nonfinancial corporations	68	20	17	1	27	20	74	6
general government	744	187	139	15	83	68	293	12
others	18	0	16	0	0	0	1	0
	Share of total amount held in the euro area, %							
Euro area total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
of which:								
households and nonprofit organizations	1.4	1.1	2.3	0.2	0.7	0.2	1.0	1.2
insurance corporations and pension funds	26.9	33.1	6.0	4.8	47.8	48.3	5.7	4.9
monetary financial institutions	25.9	13.3	1.9	6.0	13.5	26.2	28.6	0.6
other financial institutions	43.9	50.7	88.8	88.3	37.1	24.6	63.5	93.0
nonfinancial corporations	0.2	0.2	0.1	0.0	0.2	0.2	0.2	0.1
general government	1.7	1.6	0.8	0.6	0.6	0.5	0.9	0.2
others	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
	Share of total government debt securities, issued by the respective CESEE country, %							
Euro area total	23.1	23.1	..	..	44.3	35.0	..	..
of which:	0.0	0.0			0.0	0.0		
households and nonprofit organizations	0.3	0.2			0.3	0.1		
insurance corporations and pension funds	6.2	7.7			21.2	16.9		
monetary financial institutions	6.0	3.1			6.0	9.2		
other financial institutions	10.1	11.7			16.4	8.6		
nonfinancial corporations	0.0	0.0			0.1	0.1		
general government	0.4	0.4			0.3	0.2		
others	0.0	0.0			0.0	0.0		

Source: ECB Securities Holdings Statistics by Sector (SHSS) and Eurostat (for total issuance of debt securities).

Note: Issuing sector: general government. Other financial institutions cover mainly investment funds. Central bank holdings are not included. Euro area holdings of government debt securities issued by Slovakia and Slovenia do not include their domestic holdings.

in contrast, are linked more tightly to the euro area's business cycle and private sector balance sheets in these countries are considerably euroized; therefore, the comparatively high share of U.S. dollar-based government borrowing in Serbia and Croatia implies more severe exchange rate risks for public debt management.

Finally, when connecting creditor and currency structures, it is interesting to see that, based on regional averages, the share of government debt owed to nonresidents is largely similar to that denominated in foreign currency. This does not necessarily imply, however, that foreign creditors lend to CESEE sovereigns via foreign currency instruments only. There are also a few cases where foreign investors have an important share in domestic currency debt, which under certain circumstances may result in sudden outflows – recall e.g. what happened in Hungary in the fall of 2008 when foreign investors withdrew from the government securities market on a grand scale.

Chart 6

Government debt denominated in foreign currency

% of total debt

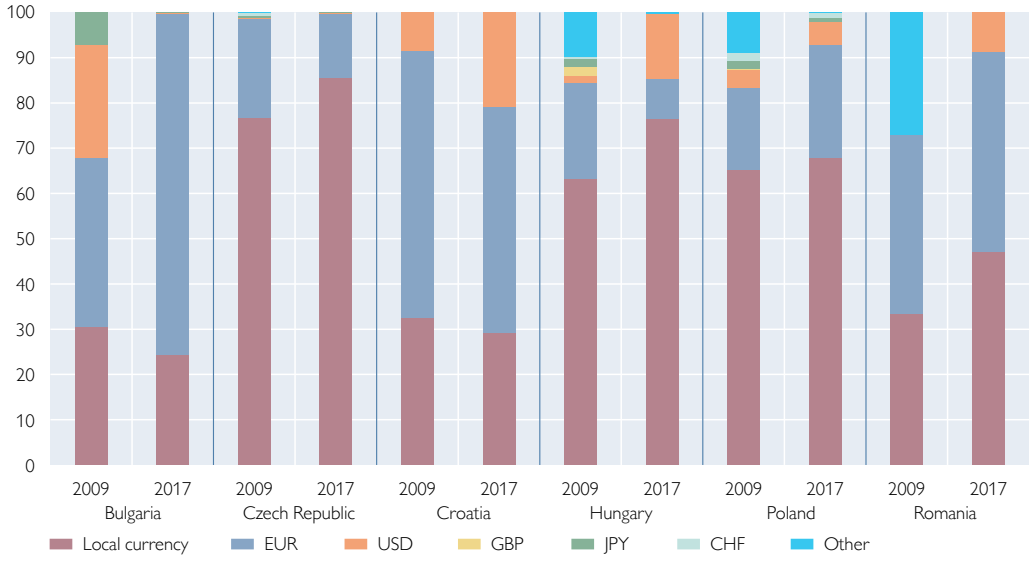
Source: Bloomberg, OeNB calculations.

Note: Shaded bars indicate high-debt countries (with government debt ratios of more than 60%).

Chart 7a

Currency structure of government debt

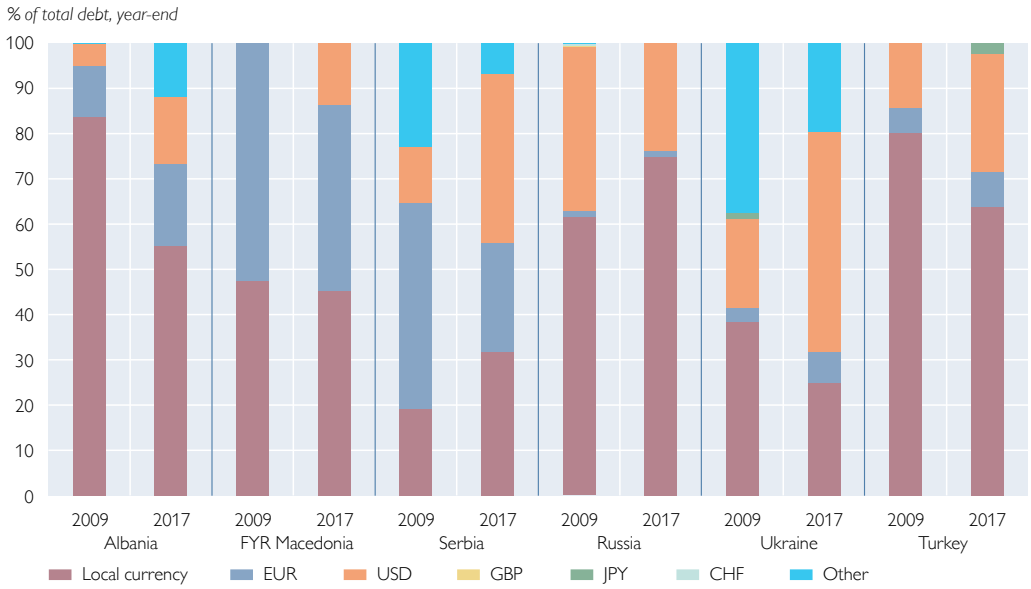
% of total debt, year-end



Source: Bloomberg, OeNB calculations.

Chart 7b

Currency structure of government debt



Source: Bloomberg, OeNB calculations.

2.3 Maturity structure

The maturity of government debt is another crucial element for determining the market and rollover risk implied by the structure of government debt. Regardless of the currency composition of government debt, financial market changes, like interest rate movements, have a substantial impact on debt servicing costs if the maturity of government debt is biased toward the short term. If interest rates go up, maturing short-term debt has to be refinanced at higher costs (this is true also for debt with variable interest rates and short interest rate fixation periods; see following subsection). An interest rate increase – which is likely to be pronounced in emerging markets during periods of increased market stress because of highly volatile risk premia – immediately translates into a higher debt servicing burden for sizeable short-term debt and thus limits fiscal space. In addition, a large share of short-term debt implies high rollover risk, i.e. the need to refinance a substantial part of debt under uncertain market conditions. The fact that long-term debt implies both low market and rollover risk for the issuer leads to international organizations' benchmark recommendations to aim for large long-term debt positions to reduce the risk implied by debt structures (World Bank and IMF, 2014). Unfortunately, long-term debt issuance is usually associated with higher borrowing costs, often leaving public debt managers with the sole option to rely increasingly on higher-risk short-term financing.

Metrics that are commonly used to evaluate the refinancing risks implied by the debt portfolio are the shape of the redemption profile, the average time to maturity (ATM) or the share of debt falling due within a specific period. Quarterly redemption profiles of government debt as of the fourth quarter of 2017 are shown in charts A1a and A1b in the annex for each country under observation. Pronounced repayment spikes in these profiles signal potential liquidity constraints in case of future macrofinancial stress. There are several countries that are likely to face

concentrated debt redemptions in the period up to 2025, e.g. Albania, Hungary, FYR Macedonia, Montenegro, Romania, Serbia, Slovakia and Slovenia.

The ATM measures the volume-weighted average (residual) time in which the debt portfolio will mature. The ATM of government debt has lengthened from about 5 years at end-2009 to 7 years in early 2015, before recently coming down again to about 6 years (on average across the 15 countries under scrutiny; figures are available upon request). Most recent observations indicate that Slovakia, Slovenia and Ukraine have the longest ATM among the countries under review (about 8 to 9 years), while the ATM is shortest in Hungary and Montenegro (about 4 years).

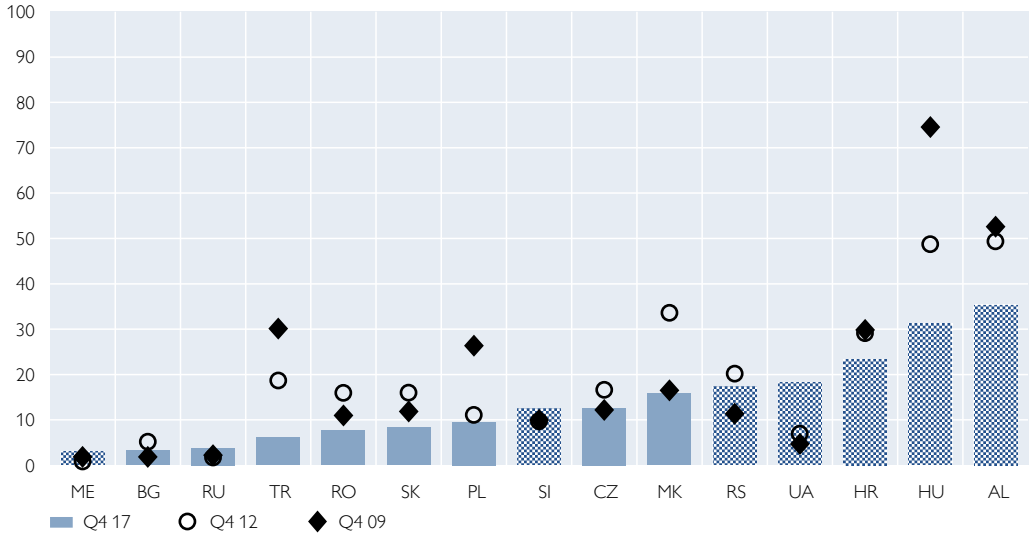
If we do not consider all the future payments within the debt portfolio, as was the case for the ATM calculations, but focus on outstanding debt maturing within one year only, we see that short-term refinancing needs have decreased significantly in CESEE. When measured as a share of GDP (see chart 8a), the bulk of improvement took place in the post-2012 period, given regional averages of nearly 10% of GDP in 2009, 9.4% in 2012 and about 7% in 2017. When measured as a share of total debt (see chart 8b), however, short-term debt had already decreased considerably between 2009 and 2012 (e.g. in Albania, Croatia, Hungary and Poland). While about 26% of total debt across CESEE was falling due within one year at end-2009, the corresponding figure nearly halved to 14% at end-2017. Nevertheless, there were still a few countries with about one-quarter of their total debt falling due within one year at end-2017, i.e. Albania, Hungary and FYR Macedonia. In general, these results corroborate the observation that financial crises are often followed by reduced reliance on short-term government borrowing (Kose et al., 2017) and the easing of market conditions for longer-term instruments.

To help evaluate the rollover risk implied by foreign currency debt, charts 9a and 9b show the development of short-term government debt by country and currency. In most countries, both local and foreign currency-denominated government debt shows a gradual decline in short-term maturities. Moreover, across the board, foreign currency-denominated government debt has less of a short-term nature than debt issued in local currency. Substantial shares of foreign currency-denominated debt maturing in 2018 can only be identified for the Czech Republic (about one-quarter) and in Hungary, Russia, Serbia and Ukraine (about 10% to 15%).

Chart 8a

Short-term government debt as percentage of GDP

Outstanding general government debt maturing within one year, % of GDP (four-quarter moving sums)



Source: Bloomberg, OeNB calculations.

Note: For Montenegro Q4 09 figures refer to Q4 10. Shaded bars indicate high-debt countries (with government debt ratios of more than 60%).

Chart 8b

Short-term debt as percentage of total government debt

Outstanding general government debt maturing within one year, % of total debt

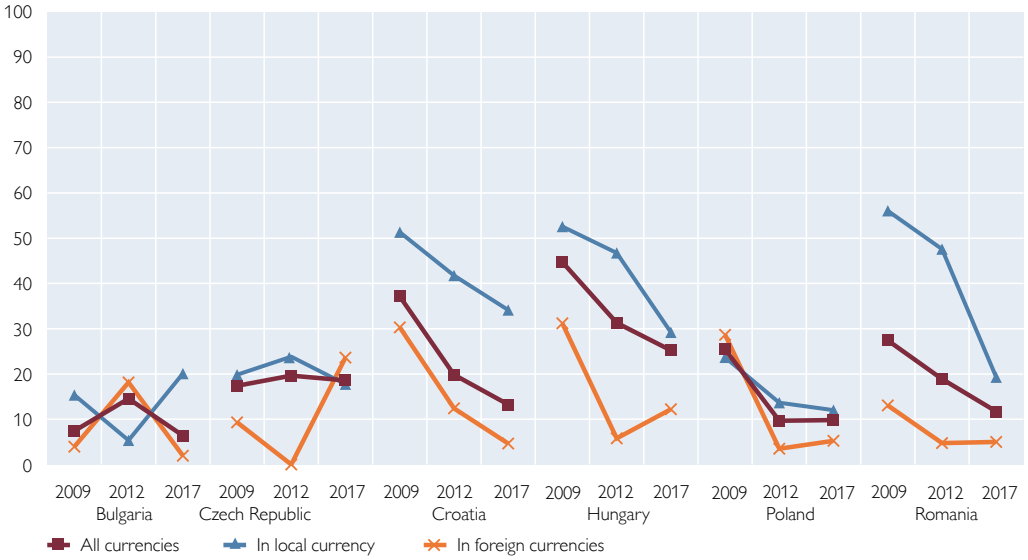
Source: Bloomberg, OeNB calculations.

Note: Shaded bars indicate high-debt countries (with government debt ratios of more than 60%).

Chart 9a

Share of debt maturing within one year by currency

% of total debt

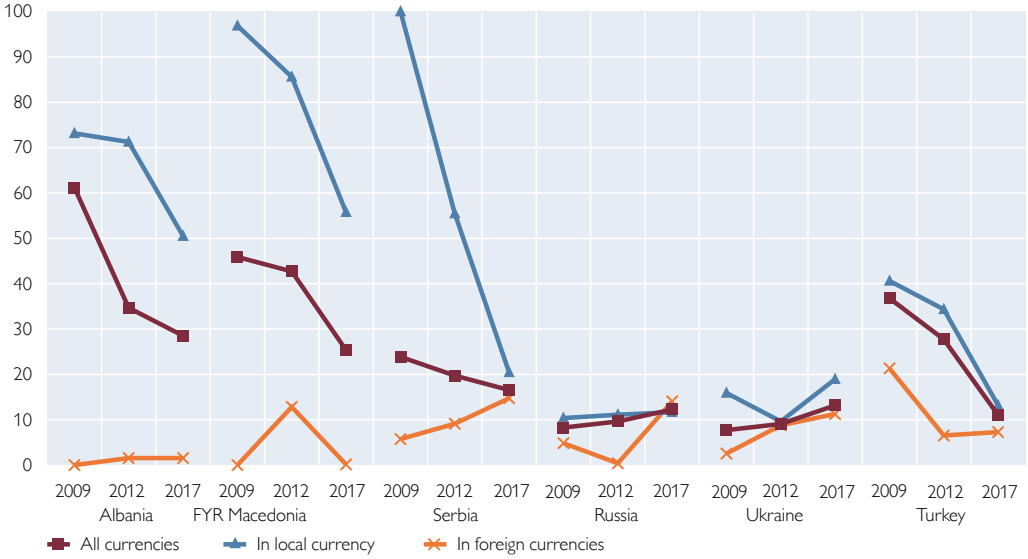


Source: Bloomberg, OeNB calculations.

Chart 9b

Share of debt maturing within one year by currency

% of total debt



Source: Bloomberg, OeNB calculations.

2.4 Interest rate structure

The most common "plain vanilla" government bonds usually comprise bonds with fixed coupons for which interest is, in most cases, paid once a year at a legally predetermined date. Alternatively, a variety of variable rate bonds ("floaters") exist with coupon payments linked to certain benchmarks. The most commonly used variable rate instruments are bonds with coupon payments linked to money

market interest rates, e.g. EURIBOR rates. Nevertheless, inflation-linked instruments have gained importance in advanced economies. In case of demand and monetary policy shocks, these instruments may serve to support macroeconomic stabilization by smoothing the government budget (Fenz and Holler, 2017). Furthermore, some authors have proposed, for emerging market economies, to link interest payments on government bonds to the real business cycle in the form of GDP-indexed bonds (see e.g. Borensztein et al., 2004b). According to this proposition, interest payments would be reduced in bad times and increased in good times, thus acting as some kind of insurance against economic slowdowns and strengthening the countercyclical pattern of fiscal policy. So far, however, this instrument has only rarely been implemented as it requires identifying the business cycle position in real time, which is often difficult in emerging economies given their pronounced macroeconomic volatilities. Moreover, insufficient demand often prevents a significant issuance of such bonds – especially with longer-term maturity.

Fixed rate bonds held to maturity clearly imply no market risk, while their interest rate structure has no influence on rollover risk. Since markets for variable rate debt are rather shallow (i.e. trading volumes and turnovers are low), issuers are often confronted with substantial liquidity premiums that can be justified by increasing the investor base through attracting additional investor groups (e.g. pension funds that are natural investors for inflation-linked government bonds as they aim to hedge potential risk implied by future pension promises).

The Bloomberg data used provide information on the type of interest rate fixation for government bonds only.[14] Variable rate bonds are important in just a

Chart 10

Government bonds with interest rates to be refixed within one year

% of total government bonds

Source: Bloomberg, OeNB calculations.

Note: Shaded bars indicate high-debt countries (with government debt ratios of more than 60%).

[14] *In terms of debt type, Bloomberg distinguishes between government bond principals and outstanding term loans. At end-2017, bonds accounted for the lion's share of total debt at about 87%, this share having remained rather stable over time. Only a few CESEE countries post bond shares of less than 80% of total debt, namely Albania and Ukraine (65%) as well as Montenegro and Serbia (about 75%).*

few CESEE countries. Substantial shares of variable rate bond debt can be identified in Poland and Russia at about 20%, in the Czech Republic and Hungary at about 15% and in Albania, Turkey and Ukraine at about 8% of total government bonds (figures as of end-2017).

The debt portfolio's short-term vulnerability to interest rate changes can be quantified by the share of debt whose interest rate has to be refixed within one year, i.e. fixed rate debt that falls due and needs to be rolled over plus existing debt contracted at variable rates. Mirroring the significant reduction of short-term debt since 2009 (and acknowledging the low share of variable rate debt), short-term refixing needs have also been relieved considerably (see chart 10). At end-2017, about 22% of CESEE-15 government bonds on average were subject to a short-term interest rate realignment (compared with 32% at end-2012 and 38% at end-2009). A few countries stand out, though: in 2018, nearly 50% of government bonds were subject to an interest rate realignment in Albania, nearly 40% in Hungary and Russia and nearly 30% in the Czech Republic, FYR Macedonia and Poland.

3 Summary and concluding remarks

To evaluate the overall risk position of a government's debt portfolio, different risk criteria must be considered. Based on the structure of government debt in terms of creditors, currency, maturity and interest rate fixation, we demonstrated that several CESEE countries are vulnerable to refinancing and market risk (in the form of interest rate and exchange rate risk), which is partly attributable to their limited ability to implement low-risk debt management strategies under the given market conditions.

On the aggregate level, despite the strong increase in debt ratios following the global financial crisis (GFC), the shift to longer-term debt issuance has reduced refinancing and rollover risk in CESEE. Nevertheless, our analysis shows that key risk characteristics are distributed heterogeneously across countries. A higher share of government debt owed to foreign portfolio investors (which is particularly pronounced in the CESEE EU Member States) points to potential vulnerabilities in case of sudden jumps in global risk aversion. At the same time, the average time to maturity (ATM) observed in CESEE governments' debt portfolios has broadly lengthened, and only a few countries record a considerable share of debt falling due in 2018 (Albania, Hungary and FYR Macedonia) and/or meaningful short-term repayments in foreign currency (the Czech Republic, Hungary, Russia, Serbia and Ukraine). Despite the lengthening of maturities on the aggregate level, it must be emphasized that the debt redemption profiles of several countries under review show pronounced repayment spikes. As regards exchange rate risk, several CESEE countries have been able to maintain or reduce the share of foreign currency-denominated government debt since the GFC – even though debt levels have risen and nonresident creditors have assumed a more prominent role. However, a large share of foreign currency-denominated government debt – in combination with an already large debt stock – reveals vulnerabilities in Croatia, Serbia and Ukraine. Finally, interest rate risks have been alleviated somewhat due to lengthening maturities and the resulting lower need to refix interest rates in the short run. But again, risks are not equally distributed across the CESEE-15. There are still a few CESEE countries that will have to realign interest rates for sizeable portions of government bonds in 2018 (Albania, the Czech Republic, Hungary, FYR Macedonia, Poland and Russia).

On a more general policy-oriented note, the comparatively underdeveloped domestic capital markets in CESEE imply a strong need to attract foreign creditors, leading to a large proportion of government debt being owed to foreign investors. Besides the fact that short term-oriented foreign investors appear to be strongly sensitive to global economic sentiments, which implies elevated refinancing risk in case of global shocks, CESEE government debt managers' dependency on foreign creditors often creates the need to issue debt in foreign currency – this implies the most severe market risk. Coupon and principle payments linked to foreign exchange rates imply higher interest payments and debt stocks in case of depreciation, which is usually positively correlated with economic crises and countercyclical monetary policy reactions. Various historic sovereign default episodes observed over the last decades, e.g. in Mexico and Argentina, prompted the drafting of international best practice standards (World Bank and IMF, 2014) to avoid excessive unhedged positions of foreign currency-denominated debt. Unfortunately, underdeveloped domestic capital markets that force the country in question to attract foreign creditors in the first place also imply obstacles to using derivative products to hedge against exchange rate risk. Markets might be shallow due to missing counterparties. The further strengthening of domestic capital markets in CESEE (e.g. as targeted by the European Bank for Reconstruction and Development since 2010) and the use of exchange rate swaps to hedge against exchange rate risk appear to be key elements required to reduce the potential default risks implied by the structure of government debt portfolios.

Finally, it should be noted that improving the composition of liabilities in the public sector balance sheet – e.g. by redirecting government debt toward domestic creditors, longer-term maturities and domestic currency denomination – is not the only way to expand fiscal space and/or mitigate sovereign liquidity constraints during crisis episodes. Qualitative and independent fiscal institutions are equally important when it comes to creating a sound track record in the conduct of sustainable fiscal policy.

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Annex

A1 Data-related particularities and caveats

A1.1 Government debt by creditors

We approximate the share of consolidated general government gross debt owed to resident vs. nonresident creditors, as presented in section 2.1, using international investment position (IIP) data and banking sector statistics. First, we calculate the share of government debt owed to nonresident investors based on IIP data, including government debt securities held by foreign portfolio investors (bars in orange in

charts 4a to 4b) and loans to the government from abroad (e.g. loans granted in the context of multilateral support programs) as well as other government liabilities vis-à-vis nonresidents in terms of currency and deposits (ocher bars). Second, we resort to banking sector statistics (aggregated balance sheets of credit institutions and money market funds) and calculate the share of government debt securities held by the domestic banking sector (blue bars) and loans to the government from the domestic banking sector (purple bars). Finally, government debt owed to other domestic investors (e.g. national central banks, pension funds, investment funds, insurance companies; green bars) is approximated by calculating the difference between consolidated gross debt (based on Eurostat or IMF data) and government debt owed to foreign investors and the domestic banking sector.

Note that this approximation relies on data from various sources some of which rely on different statistical compilation methods (e.g. with regard to valuation types, revision dates or sectoral classification). As a result, the variation in the residual category "government debt owed to other domestic investors" should be interpreted with caution; in extreme cases, the sum of components may be larger than total debt (e.g. for Slovenia in early 2015). Finally, note that satisfactory quarterly figures for total government debt are not available for a few countries and we therefore interpolate annual figures linearly to obtain quarterly frequency (for Albania, FYR Macedonia, Montenegro, Serbia, Russia and Ukraine).

A1.2 Bloomberg data

To calculate the structural indicators presented in sections 2.2 to 2.4, we use the Bloomberg terminal and resort to its built-in debt distribution function (DDIS) to retrieve the estimated redemption profiles of government debt, starting with the fourth quarter of 2009 and proceeding on a quarterly basis in order to put together the relevant time series in retrospect.

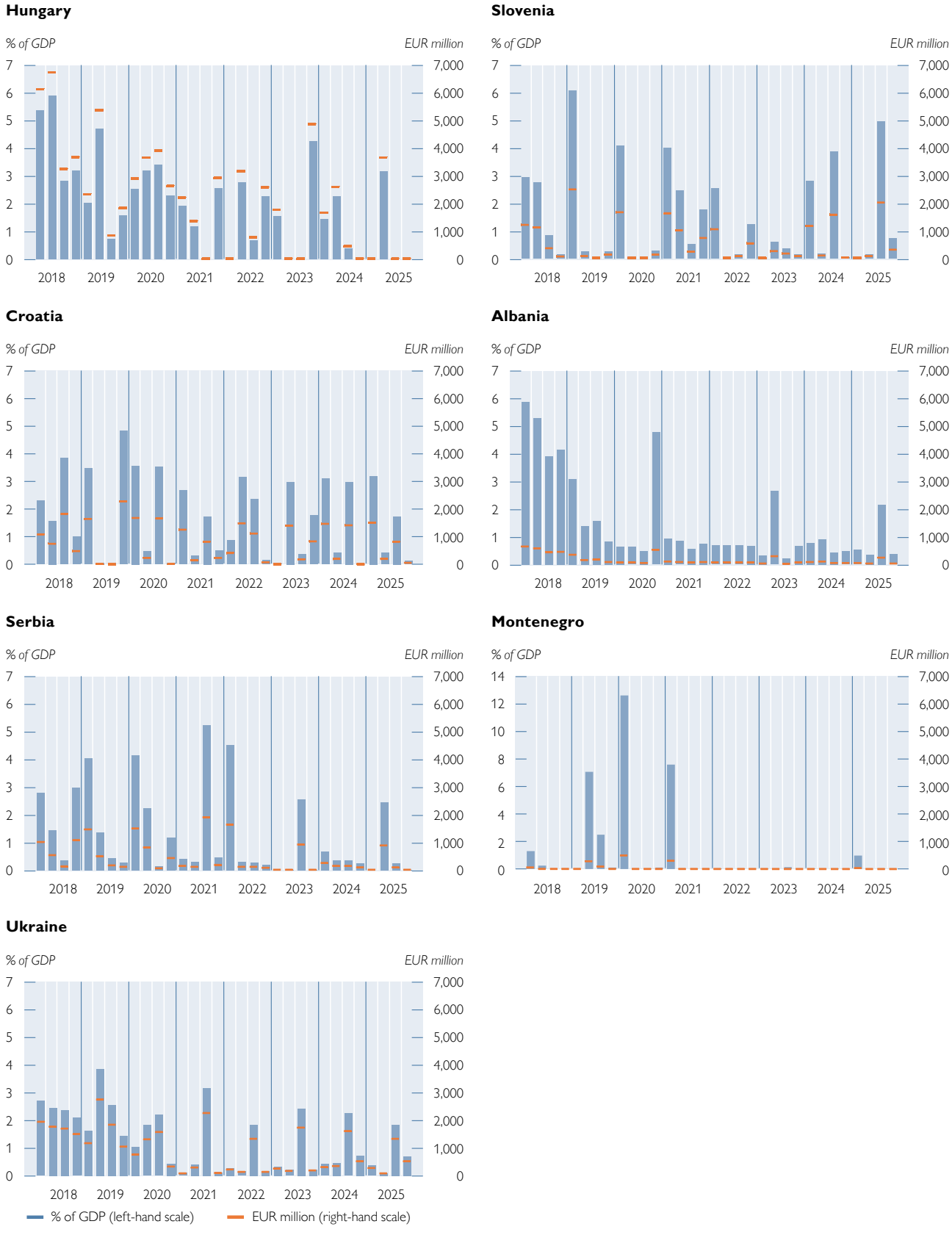
Bloomberg's government debt figures refer to the general government level and in several cases also include state-owned enterprises. Please note that the magnitude of government debt recorded by Bloomberg is largely consistent with that presented by other data sources. For example, when compared to the IMF's Financial Soundness Indicators, the country-specific deviation lies only at around 2% on average. However, given the fact that Bloomberg data are based on security-level information, some case-specific compilation errors cannot be ruled out and any interpretation should thus focus on general trends and magnitudes.

In addition to the figures on total government debt redemption, we obtained information on the breakdown of government debt into different types of debt (government bond principals and outstanding term loans), the type of coupon (only available for bonds: fixed or zero coupon rate vs. floater or variable rate), and the currency denomination.

The presented data are based on debt structures at the date of data retrieval. Maturity structures presented here are therefore equivalent to residual maturities (i.e. current period until debt redemption) rather than original maturities, matching our interest in current debt structures and debt servicing capabilities (Wood, 2009). Data based on original maturities (i.e. the period from the issue date until the redemption of a debt security) would be useful for classifying financial instruments in broad terms. However, this type of data is not available in Bloomberg.

Chart A1a

Government debt redemption profiles: high-debt countries

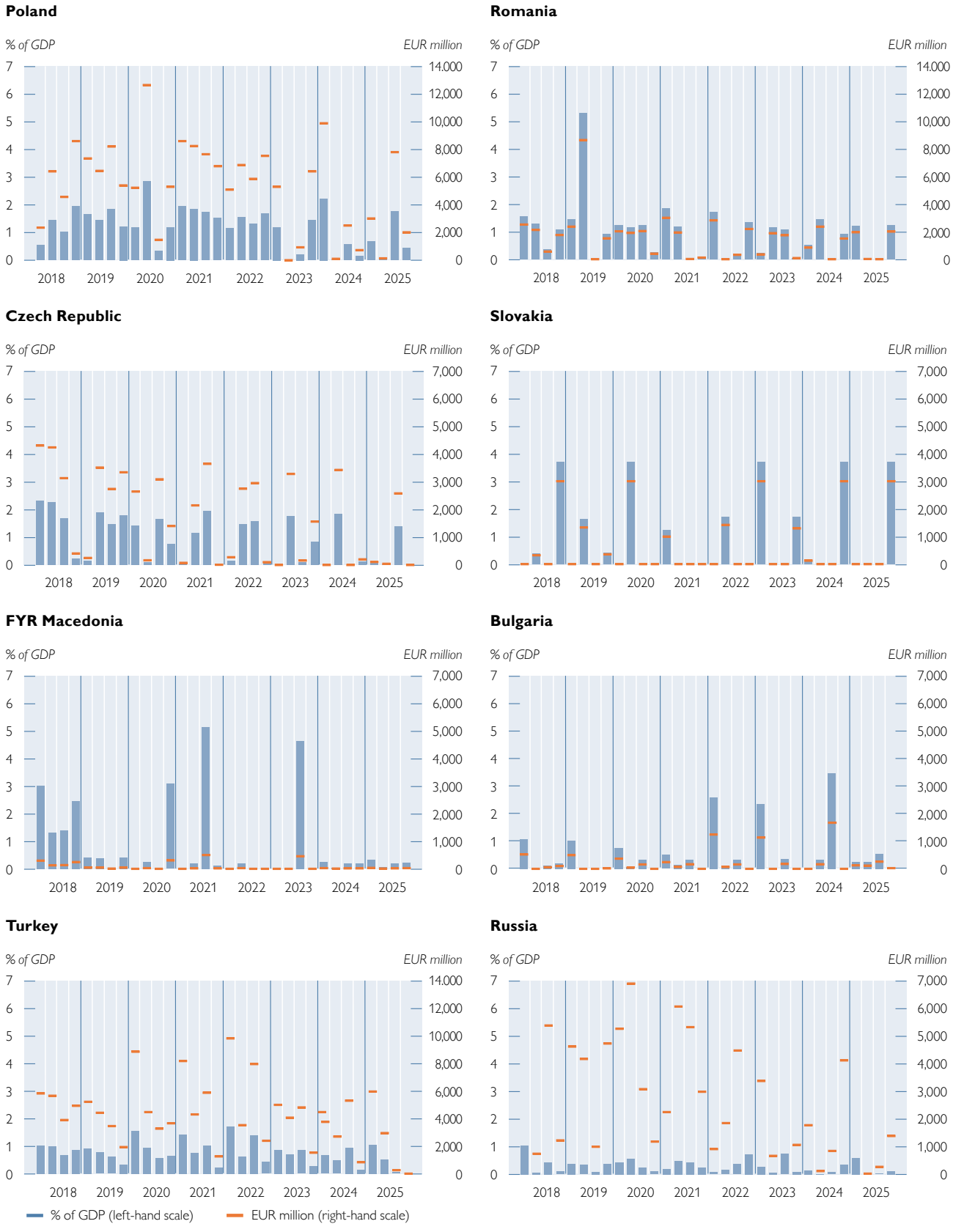


Source: Bloomberg, OeNB.

Note: Estimated quarterly redemption profile of government debt (government bond principals and term loans outstanding) as of Q4 17, based on its residual maturity. Figures have been transformed from local currency units into EUR million using the exchange rate as at end-2017. GDP shares are based on GDP at end-2016.

Chart A1b

Government debt redemption profiles: medium- and low-debt countries



Source: Bloomberg, OeNB.

Note: Estimated quarterly redemption profile of government debt (government bond principals and term loans outstanding) as of Q4 17, based on its residual maturity. Figures have been transformed from local currency units into EUR million using the exchange rate as at end-2017. GDP shares are based on GDP at end-2016.

Explaining the impact of the global financial crisis on European transition countries: a GVAR approach

Arta Hoxha[1]

This study investigates how GDP and financial shocks in the EU-15 are transmitted to European transition countries, using a global vector autoregression (GVAR) approach. Our GVAR model is estimated for 32 countries over the period from Q1 1999 to Q4 2014. The results indicate that, while the estimated spillovers from negative shocks to GDP and financial stress in the EU-15 to European transition countries are always negative, the size of these effects varies considerably across regions. Notably, the Baltic countries' GDP levels show the most severe and statistically significant impact from the shocks to both GDP and the financial stress index in the EU-15. Both types of shocks to the EU-15 appear to be propagated mainly through foreign credit flows, FDI and remittances, suggesting that the financial channel, particularly foreign credit flows, play a major role in the transmission of shocks to the Baltic countries. The examined Southeastern European (SEE) countries, on the other hand, are affected mainly by shocks to EU-15 GDP, which are propagated predominantly through exports, FDI and foreign credit flows. EU Member States in Central, Eastern and Southeastern Europe (CESEE) are less severely affected by shocks to EU-15 GDP, possibly because they represent more advanced transition countries and are better able to offset crisis effects and thus contribute to the resilience of the region.

JEL classification: F15, F30, G01
Keywords: global financial crisis, transition countries, GVAR

Although a large number of empirical studies have investigated the international transmission of the global financial crisis (GFC) (Claessens et al., 2010; Cetorelli and Goldberg, 2011; Chudik and Fratzscher, 2011; Haas and Lelyveld, 2014; Chen et al., 2016), the literature is still unable to provide conclusive results on the determinants of crisis severity in different transition countries (Berglöf et al., 2009; Berkmen et al., 2009; Blanchard et al., 2010; Lane and Milesi-Ferretti, 2011; Rose and Spiegel, 2009a, 2009b, 2011). This study aims to enhance knowledge in this area by providing analyses of the international transmission of shocks to European transition countries[2], employing the global vector autoregression (GVAR) approach developed by Pesaran et al. (2004).

A distinguishing feature of the recent GFC was the speed and synchronicity with which it spread around the world. The European transition countries were severely affected by the GFC with an average GDP decline of around 7% in 2009, experiencing a more severe impact than any other region in the world, including the EU-15, where output decline averaged 5% in 2009. The impact of the crisis on economic activity varied extensively across countries. Slovenia, Croatia, Romania and the Baltic countries were more severely affected by the GFC, with 2009 output

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[2] *The GVAR model is estimated for 32 countries, including 17 European transition economies: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Kosovo, Latvia, Lithuania, the former Yugoslav Republic of Macedonia (FYR Macedonia), Montenegro, Poland, Romania, Serbia, Slovakia and Slovenia; and 15 advanced European economies (EU-15): Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxemburg, the Netherlands, Portugal, Spain, Sweden and the United Kingdom.*

decline ranging from 6.5% (Romania) to 18% (Latvia), while Albania was less severely affected, recording 3% output growth in 2009.

One of the key outcomes of the transition process in the European transition countries has been deeper international integration through trade and financial flows. The rapid increase in exports has led to a significant expansion of the exports-to-GDP ratio, which has made these countries vulnerable to a decrease in export demand. A large proportion of exports is directed toward the EU, exposing these countries to shocks in the EU. In addition, evidence suggests that countries with stronger trade linkages have more synchronized business cycles (Juvenal and Monteiro, 2017). Moreover, cross-border bank acquisitions have been an important component of financial integration.

By 2009, the average asset share of foreign banks in European transition countries had reached more than 82%. Cross-border lending and foreign bank ownership resulted in a pre-GFC credit boom in these countries, which boosted investment and output growth, but also led to large external imbalances financed by cross-border capital flows. In most of these countries, debt was mainly denominated in foreign currency, which made borrowers vulnerable to a depreciation of the exchange rate. Furthermore, even though remittances are an important source of capital flows in many transition countries, they have made these countries more vulnerable to external shocks by creating an additional potential channel for contagion. Consequently, despite the well-known benefits of economic integration, it also appears to have made these countries more vulnerable to the effects of global shocks by creating or strengthening potential channels for contagion through trade, foreign banks, FDI, remittances and cross-border bank flows. On the other hand, countries that made more progress with EU integration and institutional reforms may have been better able to deal with external shocks, since their higher quality institutions may be expected to contribute to output stability (Balavac and Pugh, 2016).

The aim of this study is to investigate how GDP and financial shocks in the EU-15 are transmitted to European transition countries. To this end, the study will examine the aforementioned potential channels for contagion through trade and financial flows. It begins with a discussion of the modeling framework, its structure and applications. The methodology rests on four stages. First, guided by the underlying theory, the variables that enter each country model are selected and the vector autoregression (VAR) model is extended with a set of country-specific foreign variables. These foreign variables are computed as weighted averages of the respective domestic variables, based on certain weights. In the next stage, the weights for constructing the country-specific foreign variables are calculated. Considering the importance of both trade and financial linkages between European transition countries and advanced European economies (EU-15), trade, FDI and remittance weights are computed and considered for the model. In the third stage, each variable in the model is tested for stationarity. Next, the vector error correction model (VECM) is specified for each country. Particular attention has been paid to diagnostic tests and stability conditions to ensure the model is statistically well specified and capable of producing valid estimates. In the final stage, the GVAR is solved and results from the estimated model are interpreted by means of impulse response functions.

In using GVAR, the limited and quite recent body of literature that uses this modeling framework is extended in several important aspects. First, this is the first study that uses the GVAR to model the transmission of financial shocks to European transition countries. Second, weights based on bilateral remittance flows, to our knowledge, represent an original contribution to the GVAR modeling framework. Third, unlike several other GVAR studies on the transmission of crises, our model has been developed to deal with country heterogeneity. Last but not least, the model specifications and variable definitions rely on arguments put forward in the extensive literature on the transmission of the GFC, which is not always the case in the relatively small body of GVAR studies.

The main finding highlights the importance of the trade channel in the international transmission of shocks. The transmission of shocks affecting the EU-15's GDP to European transition countries' GDP is stronger in all regions when using trade weights to construct the foreign country-specific variables, indicating that trade linkages are the main channel of shock transmission from advanced EU economies to European transition countries.

The paper is structured as follows: Section 1 provides an overview of the GVAR modeling framework, its structure and applications. Section 2 specifies the variables and data to be used in this investigation. Section 3 provides details of the estimation technique adopted and presents the empirical findings, and section 4 concludes.

1 The GVAR methodology

The GVAR approach, established by Pesaran et al. (2004) and further developed by Dées et al. (2007) and Dées et al. (2009), can be used to investigate the international interdependencies among countries and international channels of shock transmission (Dovern and van Roye, 2013). For a detailed description of the methodology, this study refers to Di Mauro and Pesaran (2013). GVAR combines separately estimated country-specific VARs into a global model. In such a model, domestic variables are linked to country-specific foreign variables. The latter are constructed from the domestic variables of other countries based on certain weights that account for the international trade, international finance or other interdependencies between countries. The country-specific foreign variables themselves serve as a proxy for common unobserved factors, such as the diffusion of technological progress, or investors' behavior during times of financial crisis or other determinants that we may not be able to measure but of which we know that they are present and that they affect all countries. However, even when all these commonalities are accounted for, there might still be some residual interdependencies due to policy or trade spillover effects. Therefore, in a GVAR model the weighted combinations of observable factors are assumed to take into account the unobservable factors. All country-specific variables are treated as endogenous variables. Country-specific foreign variables are calculated and allowed to directly influence domestic variables in the model. The foreign variables and global variables are assumed to be weakly exogenous, assuming that every individual country is a small economy compared to the rest of the world. This is the key assumption of the GVAR modeling strategy since it allows country models to be estimated individually and to be combined only at a later stage (Di Mauro and Pesaran, 2013). For every country, the standard VAR augmented with foreign variables is estimated. The augmentation takes place at the country

level, but once the system as a whole is solved, we end up with a simple VAR. The general specification of a country specific VARX*[3] model is described below:

Suppose there are $N+1$ countries in the global economy, indexed by $i=0,1,2,\ldots,N$, where $N=18$ and country 0 is treated as the reference country (EU-15 in our case). For each country i an augmented $VARX^*(q_i, q_i^*)$ model, where q_i and q_i^* are the lag orders of the domestic and foreign variables, respectively, can be written as follows:

$$x_{it} = a_{i,0} + a_{i,1}t + \sum_{j=1}^{q_i} \alpha_{i,j} x_{i,t-j} + \sum_{j=0}^{q_i^*} \beta_{i,j} x^*_{i,t-j} + \sum_{j=0}^{q_i} \gamma_{i,j} d_{t-j} + u_{i,t,} \qquad (1)$$

for $t=0,1,2,\ldots,T$, and $N=0,1,2,\ldots,N$, where x_{it} is the k_i x 1 vector of country-specific domestic or endogenous variables, x_{it}^* is the k_i^*x 1 vector of country-specific foreign variables (weakly exogenous), d_t a vector of global exogenous variables (that exist in every country VARX*, a_{i0} is a constant, t is a linear trend, and $u_{i,t}$ is the k_ix 1 vector of idiosyncratic, serially uncorrelated, country-specific shocks. Foreign-specific variables are constructed as weighted averages across the domestic variables of all countries, with the weights also being country-specific:

$$x_{it}^* = \sum_{j=0}^{N} w_{ij}\, x_{jt} \qquad (2)$$

where w_{ij} are a set of weights such that w_{ii} and the sum of all weights equals 1. The weights are determined so as to capture the importance of country j in the economy of country i. The country-specific VAR models can be transformed into error correction forms (VECMX*), which makes it possible to distinguish between short-run and long-run relationships and to treat the long-run relationships as co-integrating.

The GVAR model allows interactions between countries through three different channels: dependence of the domestic variables on foreign country-specific variables and their lags; dependence of the domestic variables on global exogenous variables such as oil prices; and dependence of shocks in country i on shocks in country j (Di Mauro and Pesaran, 2013). Even though the VECMX* models are separately estimated on a country-by-country basis taking potential cointegration between x_{it} and x_{it}^* into account (Smith and Galesi, 2014), the GVAR model is solved for the whole system, in which all variables are endogenous. Accordingly, after estimating the individual country VECMX* models as described, the corresponding VARX* models are recovered as the basis for impulse response analysis.

2 Model specification

The first GVAR model is estimated for 32 countries, i.e. 17 European transition economies and 15 advanced European economies (EU-15), using quarterly data for the period from Q1 2003 to Q4 2014. The variables used to capture the potential channels of international transmission of shocks are derived from the theory on financial contagion as well as the recent experience of the examined countries with the GFC. First, theory on financial contagion distinguishes between two main channels of international shock transmission: the trade channel and the financial

[3] * *represents the foreign country-specific variables included in the model.*

channel (Eichengreen et al., 1996; Glick and Rose, 1999; Corsetti et al., 2000; Dornbusch et al., 2000; Forbes, 2002). Second, European transition countries were severely affected by the GFC with an average GDP decline of around 7% in 2009 and other macroeconomic variables also experiencing a sharp decline. The following variables were most severely affected during 2009: Exports of goods and services dropped by around 10%; cross-border bank flows' decline averaged 13%; FDI inflows dropped by around 57%; and remittance inflows were also severely affected, falling sharply in Albania, Bosnia and Herzegovina, Poland, Romania and Slovenia.

Therefore, we will use two main groups of variables in this study to capture the main channels of financial contagion, i.e. the trade channel and the financial channel. The variable used to capture the trade channel is exports. Since the theory on financial contagion implies that exports represent one of the main channels of international shock transmission (Eichengreen et al., 1996; Glick and Rose, 1999; Corsetti et al., 2000; Forbes, 2002; Juvenal and Monteiro, 2017) shocks in advanced European economies are expected to more severely affect European transition countries that have stronger trade links with them. Quarterly data on exports have been obtained from Eurostat, the World Bank and central banks.

The second group of variables will capture the international transmission of global financial shocks through financial linkages. A financial crisis in one country can lead to direct financial effects, including reductions in FDI and other capital flows abroad. Since the global financial crisis affected the EU-15 financial sectors, transition countries with strong financial links with these advanced economies are expected to have been more severely affected by the crisis. Therefore, following the literature on the transmission of global financial crises (Dornbusch et al., 2000; Rose and Spiegel, 2010; Cetorelli and Goldberg, 2011; Milesi-Ferretti and Tille, 2011; Fratzscher, 2012), the following variables are used to capture the effects of crisis transmission through the financial channel: inward FDI flows, foreign credit flows, credit flows in foreign currencies, and remittances. All these variables are expected to influence the international transmission of global financial shocks. FDI data have been obtained from the OECD, Eurostat and the European Commission. Data on foreign credit flows and credit flows in foreign currencies have been obtained from the Bank for International Settlements' international banking statistics (BIS IBS). This analysis is based on locational data, since these data are residence-based; therefore they are expected to reflect whether conditions in specific "financial center" countries affect flows to other countries, including flows to local subsidiaries. Data on remittances have been obtained from the World Bank database.

3 Empirical approach

Our methodology follows the following stages: First, the variables that enter each country model are selected and the VAR model is extended with a set of country-specific foreign variables. Second, the weights for constructing the country-specific foreign variables are computed. In the third stage, each variable in the model is tested for stationarity. Next, the VECM is specified for each country, which means determining the lag order of the underlying VAR models and testing for cointegration and the cointegrating ranks. Subsequently, different diagnostic tests are performed and the global GVAR is solved. In the final stage, results from the estimated model are interpreted by means of impulse response functions.

The foreign country-specific variables are constructed as weighted averages of the corresponding variables of other countries based on certain weighting schemes. Previous GVAR studies have mainly employed trade weights for constructing the foreign country-specific variables (Pesaran et al., 2004; Dées et al., 2007; Nickel and Vansteenkiste, 2013). In contrast, Eickmeier and Ng (2011) use a combination of trade and financial weights, namely inward and outward FDI positions, cross-country bilateral trade flows and bilateral financial claim positions[4]. Galesi and Sgherri (2009) employ weights based on bank lending data. Nevertheless, considering the importance of both trade and financial linkages between European transition countries and advanced European economies, we believe that it is necessary to consider both trade and financial weights and investigate which of these weights more accurately capture the transmission channels between European transition countries and advanced European economies. The trade weights are computed using cross-country exports and imports data for the period 2005–2007. The first type of the financial weights is based on FDI. FDI weights are computed based on the average inward and outward FDI positions during the period 2003–2007[5]. Considering the large share of remittance income in European transition countries' GDP, in particular in SEE countries, we decided to employ a second type of financial weights in our model based on bilateral remittance flows among countries[6]. Weights based on bilateral remittance flows, to our knowledge, represent an original contribution to the GVAR modeling framework; they are available from the author upon request.

3.1 GVAR model specification

We use the GVAR Toolbox 2.0 developed by Smith and Galesi (2014) to estimate the model. At the onset of the analysis, we aggregate the examined EU countries into a region in order to be able to treat them as one base "country" so as to capture their collective impact on the European transition countries. With the exception of the EU model, all country models include the same set of variables, where data are available. The following domestic variables enter into each country model: GDP, exports, inward FDI flows, foreign credit flows, remittances and foreign credit flows in foreign currency. Following the GVAR literature, the global variable price of oil (*Poil*) enters all country models as a weakly exogenous variable. Considering the importance of the EU-15 variables for the rest of the examined countries and the EU-15's size and dominance compared to the transition countries, European transition countries' variables are not expected to affect the EU variables; therefore, following the GVAR literature, the foreign country-specific variables are not included in the EU model. Other country models include all the foreign country-specific variables. GDP (*gdp*), exports (*exp*), FDI (*fdi*), foreign credit flows (*fcf*), credit flows in foreign currencies (*eur*) and remittances (*rem*) are measured in real terms and transformed to logs. The variable specifications are presented in table 1 below.

[4] *The bilateral financial claims positions are not used in this study to compute weights due to lack of data for some of the examined countries.*

[5] *These specific periods for computing trade and FDI weights were chosen for two reasons: data availability and to cover the period before the global financial crisis.*

[6] *Bilateral remittance estimates have been obtained from the World Bank database. They have been constructed based on a methodology developed by Ratha and Shaw (2007). The earliest year for which bilateral remittance flow data are available is 2010, hence we use this year for constructing remittance weights in this study.*

Table 1

Variable specification of country-specific VARX*[1] models

Non-EU models			EU model		
Domestic variables	Foreign variables	Global variables	Domestic variables	Foreign variables	Global variables
gdp	*gdp**	*Poil*	*gdp*	-	*Poil*
exp	*exp**	-	*exp*	-	-
fdi	*fdi**	-	*fdi*	-	-
fcf	*fcf**	-	*fcf*	-	-
rem	*rem**	-	*rem*	-	-
eur	*eur**	-	*eur*	-	-

Source: Author's compilation.

[1] **represents the foreign country-specific variables included in the model.*

Before proceeding with the next stage of GVAR estimation, we examine the time series properties of the underlying data. Standard Dickey-Fuller unit-root tests and weighted symmetric augmented Dickey-Fuller (ADF) tests (Park and Fuller, 1995) suggest that at the 5% significance level, for the majority of the variables, we are unable to reject the null of non-stationarity.[7] Next, different information criteria are checked and, based on the results, the benchmark model with respect to weighting schemes is selected. More specifically, the performance of the GVAR model in terms of stability (related to its eigenvalues), persistence profiles and impulse response functions is compared under different weighting schemes. These three indicators are crucial with regard to the overall stability and performance of the GVAR model (Pesaran et al., 2004; Eickmeier and Ng, 2011; Smith and Galesi, 2014). In the case of I(1) cointegrated variables, the eigenvalues should lie on or inside the unit circle, i.e. no eigenvalue should be above 1. The persistence profiles refer to the time profiles of the effects of system- or variable-specific shocks on the cointegrating relations in the GVAR model (Pesaran and Shin, 1996, 1998) and they have a value of unity on impact, while they should tend to zero as $t \rightarrow \infty$. It was observed that the GVAR model that uses only trade weights provides the best performance in terms of these indicators (no eigenvalues that lie above the unit circle, persistence profiles converge to zero, while the impulse responses, which will be discussed latter, are statistically and economically more significant); hence, it was selected as the benchmark model. All models are estimated using $p_i = q_i = 1$ lags[8] and the final specification passes a range of diagnostic checks (more detailed information available from the author upon request).[9]

[7] *Leybourne et al. (2005) provide evidence of the superior performance of the weighted symmetric test statistic compared to the standard ADF test or the generalized least squares ADF test proposed by Elliot et al. (1996). The lag length employed in the ADF and weighted symmetric unit root tests is set at 1 for all countries.*

[8] *Considering the small number of observations, the results of the serial correlation diagnostics as well as eigenvalues of the model and persistence profiles, we reduce the number of lags to 1 for both domestic and foreign variables in all countries (which is a common approach in the GVAR literature when dealing with a small number of observations).*

[9] *As such we test the weak exogeneity assumption employing a test developed by Johansen (1992) and Harbo et al. (1998) which checks the joint significance of the estimated error correction terms in auxiliary equations for the country-specific foreign variables. Nevertheless, the weak exogeneity assumption is rejected at the 5% significance level for the following two variables: exports in Macedonia and foreign credit flows in Montenegro. Even though, based on the results of the test, weak exogeneity holds for all variables of the EU-15, we decided to exclude all the foreign variables in the EU model, since the EU-15 are considered the dominant "country" in our model and we would not expect other smaller countries to affect its variables. Finally, we also found that for most variables no serial autocorrelation is left in the residuals of the country models.*

3.2 Dynamic analysis with generalized impulse response functions

This section investigates the dynamic properties of the GVAR model based on generalized impulse response functions (GIRFs). Identifying shocks in a GVAR is difficult, similarly as in standard VARs, and is further complicated by the cross-country interactions and the high dimensionality of the model (Chudik and Pesaran, 2016). Hence, in the absence of strong a priori beliefs on the ordering of the variables and countries in the GVAR model, the GIRFs provide useful information about the dynamics of the transmission of shocks although they cannot identify the origin of shocks. In this study, the EU-15 region is considered as the possible source of shocks. The GIRFs are provided for a period of 40 quarters. However, only the impulse responses of the first 8 to 10 quarters are considered for interpretation. Due to the relatively large number of countries included in our model, we aggregate the examined European countries into four subregions in order to simplify the discussion of the impulse responses and focus our interpretation on the common patterns of responses based on specific regions. Our four subregions are defined as follows: Baltic countries, i.e. Estonia, Latvia and Lithuania; SEE countries, i.e. Albania, Bosnia and Herzegovina, FYR Macedonia, Montenegro, Kosovo and Serbia; CESEE EU countries, which include: the Czech Republic, Bulgaria, Hungary, Poland, Romania, Slovakia, Slovenia and Croatia; and the previously aggregated EU-15 countries.

The results presented in charts 1 and 2 show that the impulse responses stabilize relatively quickly, suggesting that the estimated GVAR model is stable. This is confirmed by the eigenvalues of the GVAR model, which are all within the unit circle and by the persistence profiles, which converge to zero relatively quickly. However, it should be pointed out that the bootstrap simulation provides rapidly widening confidence bands around the impulse responses, which is most likely the result of the short time series included in the model.

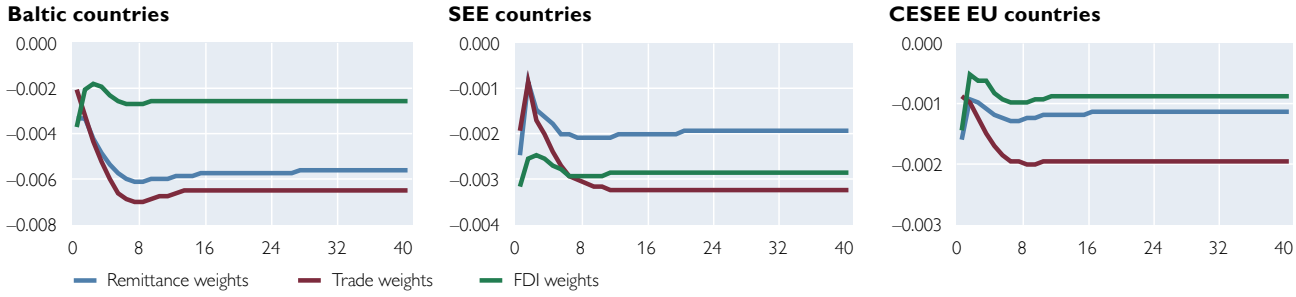
3.2.1 Impulse response functions of a one-standard-error shock to EU-15 GDP

This subsection reports the effects of a one-standard-error negative shock to EU-15 GDP, which corresponds to a 0.3% decline, on five variables in the European transition economies: GDP, exports, FDI, foreign credit flows and remittances. Chart 1 reports the regional impulse response functions (point estimates) of GDP following a shock in EU-15 GDP using trade weights, FDI weights and remittance weights. The graphs indicate that the effect of the GDP shock is stronger in all regions when using trade weights to construct the foreign country-specific variables, indicating that trade represents the strongest linkage between European transition countries and advanced European economies. In addition, as discussed in the previous section, it is observed that the GVAR model that uses only trade weights provides the best performance in terms of persistence profiles and eigenvalues, which is why it is selected as the benchmark model.

Next, we discuss the impulse response functions of the variables of interest, keeping in mind that trade weights were used to construct the foreign country-specific variables. Although the 90% confidence intervals presented in chart 2 suggest statistical insignificance or borderline significance of the impulse response functions in some cases, there is an economic interest in analyzing whether the dynamic behavior of the variables used in the model is synchronized across countries. The Baltic countries' GDP shows the most severe and statistically significant impact

Chart 1

Regional impulse response functions (point estimates) of GDP following a one-standard-error shock to EU-15 GDP



Source: Author's calculations.

Note: The impact is in percentages and the horizon is quarterly.

from the shock in EU-15 GDP, possibly due to these countries' stronger trade links with the EU-15 countries[10]. Their GDP experiences a decline of 0.3% on impact, which then reaches 0.7% by the seventh quarter, after which the effect dissipates in the following periods. The SEE transition countries also display a severe impact from the shock to EU-15 GDP, with a decline in their GDP by 0.3% on impact, which then increases to 0.5% and stabilizes by the eighth quarter. In the CESEE EU countries, GDP falls by 0.15% on impact, with its decline stabilizing in the eighth quarter at about 0.3%.

As expected, exports are also negatively affected by a GDP shock in the EU-15. From a regional perspective, exports from SEE countries appear to be most severely affected by the shock in the EU-15, even though the impact is at the borderline of the 10% level of statistical significance. The CESEE EU countries' exports also display a severe and statistically significant impact from a shock to EU-15 GDP, which stabilizes at a 0.6% decline by the eighth quarter. Contrary to the strong and synchronized regional GDP and exports responses to the EU-15 GDP shock, the generalized impulse responses of FDI to the GDP shock are statistically insignificant or close to borderline significance at the 10% level, indicating that economic shocks in the EU-15 may not have a severe impact on FDI flows. The SEE transition countries display the most severe and statistically significant impact from the shock in EU-15 GDP, with a decline of their FDI by 0.5% on impact, which then rises to 1% by the fifth quarter and stabilizes in the following periods.

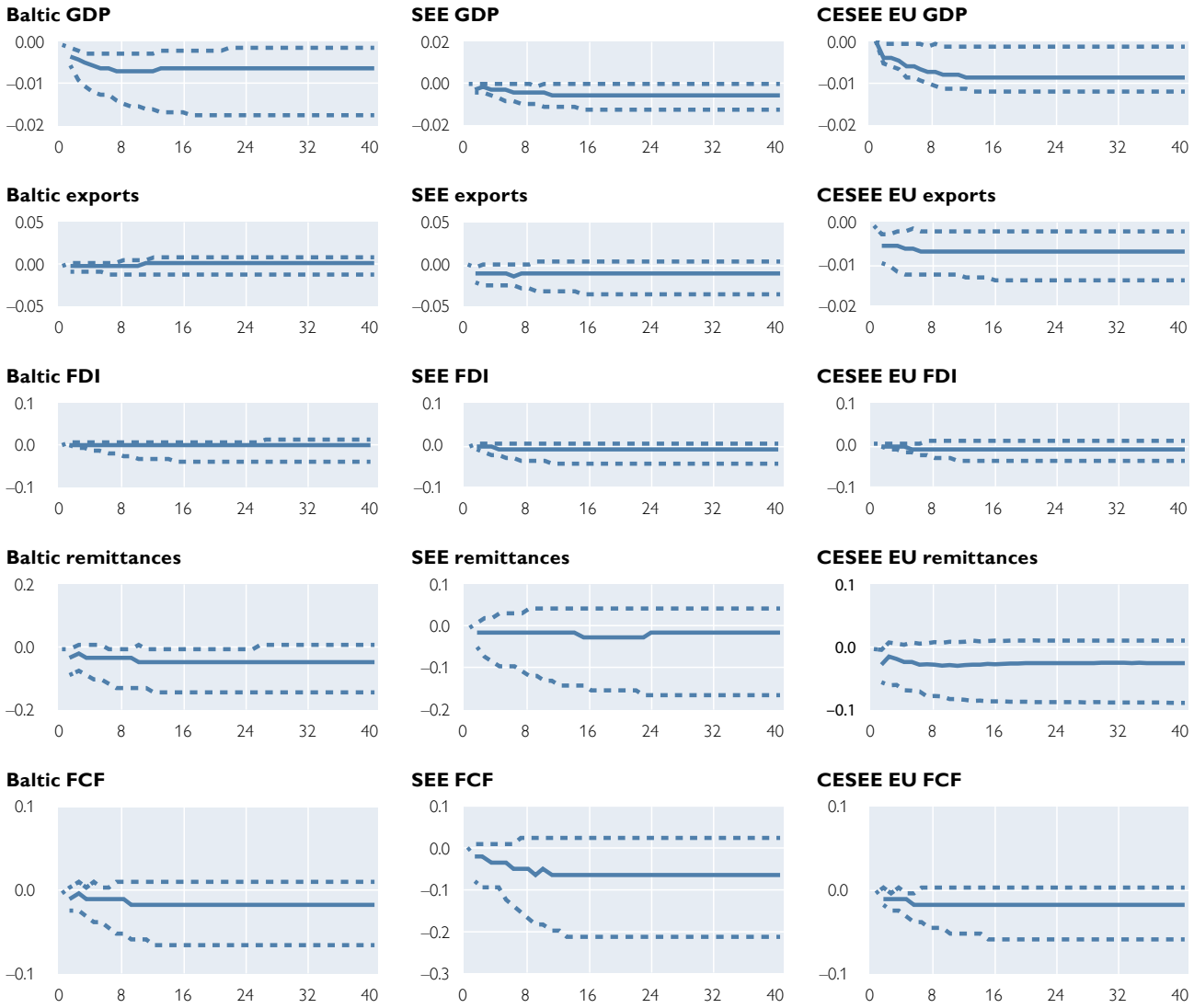
On average, all regions experience a fall in foreign credit flows of 1% to 5% following a negative shock to EU-15 GDP. The impulse response functions stabilize after about 8 quarters. The effect is strongest in the SEE countries; however, it appears to be statistically insignificant, though close to the 10% borderline of statistical significance, across all regions.

All regions experience a fall in remittances of 1% to 5% following a negative shock to EU-15 GDP. The impulse response functions stabilize after about 8 quarters. However, the effect appears to be statistically insignificant across all regions except for the Baltic countries, where it appears to be at the 10% borderline of statistical significance.

[10] *The average share of exports from the Baltic countries to the EU-15 during the period 2005–2007 was 65% of their total exports.*

Chart 2

Regional impulse response functions of GDP, exports, FDI, remittances and foreign credit flows following a one-standard-error shock to EU-15 GDP



Source: Author's calculations.

Note: The chart shows median generalized impulse responses following a one-standard-error fall in EU-15 GDP, together with the 90% confidence bands. The impact is in percentages and the horizon is quarterly. FCF = foreign credit flows.

Finally, we analyze the impact of GDP shocks in advanced EU countries on European transition countries' output in subsamples which are defined by various country characteristics: EU membership, level of foreign bank ownership and level of openness. Consequently, we address one of the main aims of this study, i.e. to analyze whether a country's structural characteristics influence the transmission of global shocks. In addition, splitting the sample in various ways also enables us to deal with country heterogeneity in a more careful manner, since the subsamples analyzed here consist of more homogenous groups than the entire sample of 17 transition countries. The results suggest that non-EU members, countries with higher levels of foreign bank ownership and more open transition countries experience a more

severe output decline as a result of shocks in EU-15 GDP. Impulse response functions are presented in chart A1 in the annex.

3.2.2 The effects of increased financial stress in the EU-15

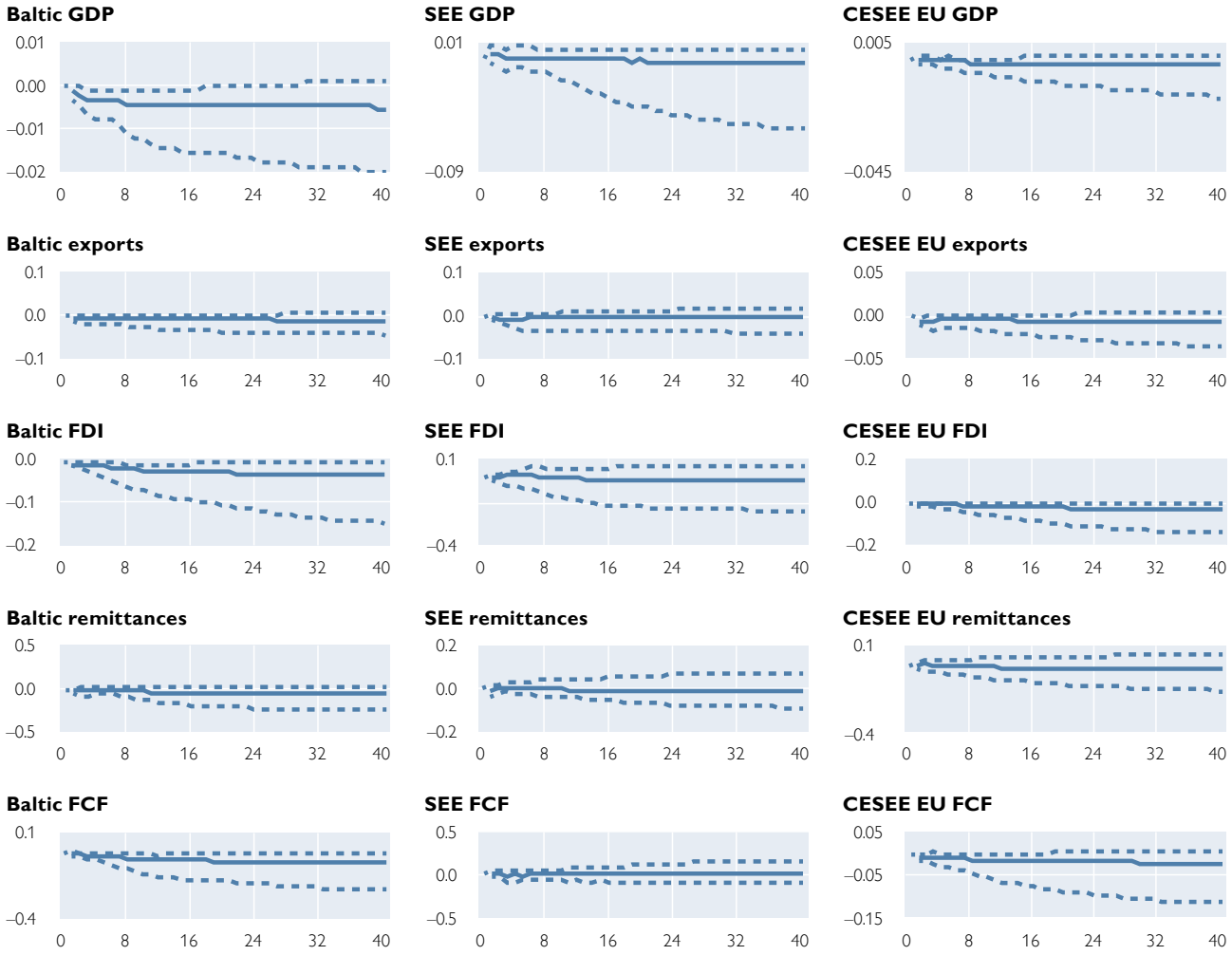
In this subsection, the baseline model is modified in two ways. First, given the relatively small number of observations included in the baseline model, the dataset is extended by using observations from the first quarter of 1999 to the fourth quarter of 2014 to estimate the 16 country/region-specific VARX* models. However, due to lack of data, two countries were dropped from the estimation (Kosovo and Montenegro). Second, given this study's objective of analyzing the macroeconomic effects of increased global financial market volatility, we include an indicator to measure the systemic stress in advanced economies in our framework. This indicator for advanced economies is the composite indicator of systemic stress (CISS), constructed by Holló et al. (2012), which measures the contemporaneous state of instability in the financial system. The CISS can be interpreted as a measure of systemic risk that has already materialized (Holló et al., 2012).

The CISS is composed of 15 mostly market-based financial stress measures, equally split into five categories: the financial intermediaries sector, money markets, equity markets, bond markets and foreign exchange markets. Together, these represent the most important segments of an economy's financial system.

The rest of this subsection reports the effects of a one-standard-error positive shock to the CISS in the EU-15 on five variables of interest: GDP, exports, FDI, foreign credit flows and remittances. The generalized impulse responses of GDP to the shock in the EU-15 CISS are presented in chart 3 below. As can be seen in this chart, the positive shock to the EU-15 CISS results in GDP decreases in all regions included in our model. The Baltic countries display the most severe and statistically significant impact from the shock in their GDP, with a decline of 0.1% on impact, which intensifies to 0.5% by the eighth quarter and then stabilizes in the following periods. The CESEE EU countries also show a severe impact from the shock to the EU-15 CISS, with a decline of their GDP by 0.1% on impact, which doubles to 0.2% by the eighth quarter. The effect is not statistically significant in SEE countries. As expected, exports are also negatively affected by the CISS shock in the EU-15, their decline ranging from 0.5% to 1%. Their impulse response pattern is similar across all regions, showing an initial decline in exports of 0.5% during the first two quarters following the shock, and then oscillating and dissipating in about five to eight quarters. From a regional perspective, exports from Baltic countries appear to be most severely affected by a shock to the EU-15 CISS, even though the impact is at the borderline of the 10% statistical significance level. The exports of CESEE EU countries also display a severe and statistically significant impact from a shock to the EU-15 CISS. The effect is less significant statistically in the SEE region. When it comes to FDI, the Baltic countries display the most severe and statistically significant impact from the shock in the EU-15 CISS, with an FDI decline of 1% on impact, which then rises to 3% by the eighth quarter. Similar behavior of the impulse response is observed across the examined CESEE EU countries. The generalized impulse responses of FDI are weaker and clearly statistically insignificant for the SEE countries. The generalized impulse responses of remittances are clearly statistically insignificant for all regions. The generalized impulse responses of foreign credit flows are the strongest in the Baltic countries;

Chart 3

Regional impulse response functions of GDP, exports, FDI, remittances and foreign credit flows following a one-standard-error shock to the EU-15 CISS



Source: Author's calculations.

Note: The chart shows median generalized impulse responses following a one-standard-error fall in the EU CISS, together with the 90% confidence bands. The impact is in percentages and the horizon is quarterly. FCF = foreign currency flows.

foreign credit flows decline by 5% by the eighth quarter, while their response is weaker and clearly statistically insignificant for SEE countries. CESEE EU countries also show a decline in foreign credit flows following a shock in the CISS of the EU-15.

4 Conclusions

Employing a GVAR approach, we analyzed the international transmission of shocks from advanced EU economies to European transition countries. Our findings suggest that the transmission of shocks from EU-15 GDP to European transition countries' GDP is stronger in all regions when using trade weights to construct the foreign country-specific variables, indicating that trade linkages represent a significant channel of shock transmission from advanced EU economies to European transition countries.

While the estimated spillovers from shocks to GDP and the financial stress index in the EU-15 to European transition countries are negative, they vary considerably

across regions. More specifically, the Baltic countries' GDP shows the most severe and statistically significant impact from the shocks to both GDP and the financial stress index in the EU-15. The shocks appear to be propagated to the Baltic countries mainly through foreign credit flows, FDI and remittances, suggesting that the financial channel, particularly foreign credit flows, played a major role in the transmission of shocks to these countries. An important transmission mechanism of the recent GFC previously identified in the literature is the global restriction of credit. It is well known that a higher level of foreign bank presence[11] may expose a country to foreign shocks and may tighten liquidity conditions during a crisis, as parent banks reallocate capital across borders, and therefore capital may be withdrawn from a transition country when it is needed in the bank's home country (Cetorelli and Goldberg, 2011). In addition, previous empirical studies (Popov and Udell, 2012; Haas and Lelyveld, 2014) have shown that foreign bank subsidiaries in emerging Europe reduced lending earlier and faster than domestic banks. Further investigation revealed evidence consistent with this conjecture. The results of the impulse response functions of shock transmission from advanced EU economies to European transition countries, when broken down in subsamples defined by the level of foreign bank ownership, suggest that shocks in EU-15 GDP cause a more severe and statistically significant output decline in countries with higher levels of foreign bank ownership.

The SEE transition countries also display a severe impact from the shock to EU-15 GDP, with a decline of their GDP by 0.3% on impact, which increases to 0.6% and stabilizes by the eighth quarter. The shock is propagated to the SEE countries through exports, FDI and foreign credit flows. However, the examined SEE countries do not appear to be affected by a shock to the EU-15 CISS; the impulse response functions are clearly statistically insignificant for all the variables, possibly due to the relative lack of development of the financial sector, which in the main has not been affected by risky and unsafe financial instruments.

The CESEE EU countries are less severely affected by the shock to EU-15 GDP, possibly because they represent more advanced transition countries. Belke et al. (2009) have shown that a more advanced level of development has a positive effect on institutional quality as measured by the World Bank's Worldwide Governance Indicators, which increases countries' ability to deal with external shocks. In general, the institutional characteristics that may shape the impact of external shocks are related to the quality of developed institutions, progress with transition to a market economy and the quality of government policymaking. Therefore it seems that CESEE EU countries are more able to offset crisis effects and thus contribute to the resilience of European transition countries. This argument is supported by further investigation in this study. Compared to non-EU transition countries, EU transition countries display a more severe and statistically significant output decline as a result from the shock in EU-15 GDP. The shock is mainly propagated to CESEE EU countries through the export channels, probably due to stronger trade linkages with the EU-15.

For SEE countries, there may have been some advantages to their lack of financial development. Conversely, our findings for the CESEE EU countries suggest that

[11] *The average share of foreign bank assets in the Baltic region during the period 2000–2014 was 83%.*

there are advantages to institutional development. This contrast may suggest that, while institutional development with respect to governance – including a capacity for monetary and fiscal stabilization through policymaking – and well-functioning markets are unambiguously positive from the perspective of being able to adjust to external shocks, financial development may be a "mixed blessing," bringing both benefits and costs.

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Annex: model specification

Table A1

Chosen lag length and cointegration rank

Country	P	q	Number of cointegrating relations based on Johansen trace statistics	Final number of cointegrating relations
Albania	1	1	5	2
Bosnia and Herzegovina	1	1	3	2
Bulgaria	1	1	4	4
Croatia	1	1	3	3
Czech Republic	1	1	4	4
Estonia	1	1	3	3
EU-15	1	1	0	0
Hungary	1	1	2	2
Kosovo	1	1	2	2
Latvia	1	1	4	4
Lithuania	1	1	3	3
FYR Macedonia	1	1	3	3
Montenegro	1	1	4	1
Poland	1	1	3	3
Romania	1	1	3	3
Serbia	1	1	2	2
Slovakia	1	1	3	3
Slovenia	1	1	4	4

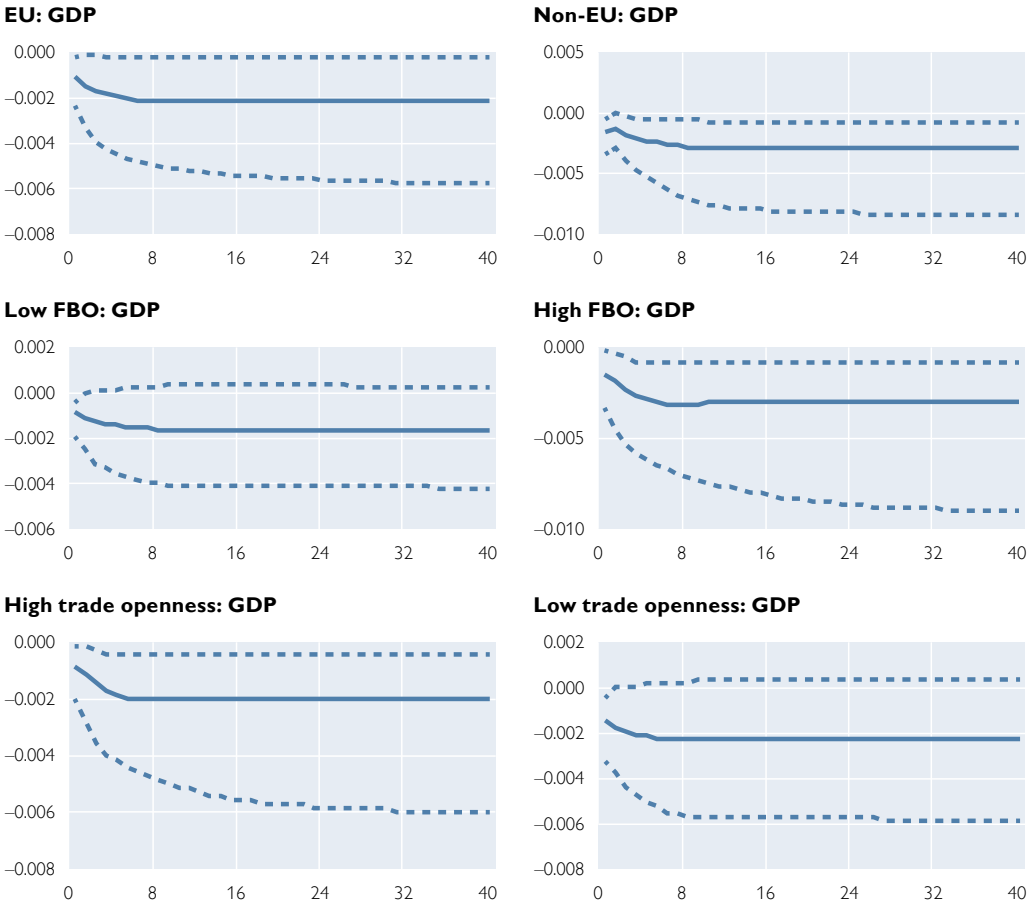
Source: Author's compilations.

The choice of cointegration rank is a crucial step in the empirical analysis since a misspecification of the long-run relationships can destabilize the GVAR model and distort the results and impulse response functions (Bussière et al., 2009). The formal test for cointegration, the trace test or the Johansen test, as set out in Pesaran et al. (2000) for models with weakly exogenous I(1) regressors, is based on the null of a unit root. The VARX* can manage within-country and between-country cointegration, and as a result country-specific foreign variables also need to be considered for long-run relationships (Pesaran and Smith, 2006), as there are many international long-run relationships, e.g. the relationship between remittances and remittance-sending countries' economic performance (GDP). The rank orders

of the VARX models are estimated based on Johansen's trace statistics, as set out in Pesaran et al. (2000) for models with weakly exogenous I(1) regressors. The critical values for models including weakly exogenous variables are obtained from MacKinnon et al. (1999). Because the GVAR model with the chosen number of cointegrating relations based on Johansen trace statistics was not stable, i.e. there were a number of eigenvalues lying above the unit circle and the persistent profiles did not converge to zero even after 40 periods, following Smith and Galesi (2013), we then decreased the number of cointegrating relations in the countries where the persistence profiles did not converge to zero after 40 periods, or where they did converge to zero in a manner that clearly indicated a problem in the underlying vector. Table A1 reports the final order of the VARX* models and the number of cointegration relations.

Chart A1

Impulse response functions of GDP following a one-standard-error shock to EU-15 GDP (EU membership, foreign bank ownership, trade openness)



Source: Author's calculations.

Note: The chart shows median generalized impulse responses to a one-standard-error fall in EU-15 GDP, together with the 90% confidence bands. The impact is in percentages and the horizon is quarterly. EU = European transition countries that are EU members; non-EU = European transition countries that are not yet members of the EU; FBO = foreign bank ownership.

Statistical annex

Statistical annex

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

Table 1

Output, unemployment and prices

	2015	2016	2017	Q3 16	Q4 16	Q1 17	Q2 17	Q3 17	Q4 17
Gross domestic product	*Annual real change in %*								
Albania	2.2	3.4	3.8	2.4	4.3	4.0	4.4	3.6	3.4
Bosnia and Herzegovina[1]	3.8	2.9	1.6	10.6	1.9	0.7	0.9	1.8	3.0
Kosovo	4.1	4.1	3.7	4.1	3.8	2.7	4.3	4.4	3.2
FYR Macedonia	3.9	2.9	0.0	2.4	3.3	–0.0	–1.3	0.2	1.2
Montenegro	3.4	2.9	4.4	3.0	3.5	3.1	5.2	4.7	4.0
Serbia	0.8	2.8	1.9	2.8	2.5	1.2	1.5	2.2	2.5
Ukraine	–9.8	2.4	2.5	2.7	4.6	2.8	2.6	2.4	2.2
Industrial production	*Annual real change in %*								
Albania	–2.1	–18.0	0.7	–18.1	–5.2	1.2	9.8	–4.9	–2.5
Bosnia and Herzegovina[2]	3.1	4.4	3.1	2.6	5.7	2.5	1.8	5.5	2.7
Kosovo	5.9	1.8	3.5	7.6	–3.6	9.6	0.6	5.6	0.2
FYR Macedonia	4.9	3.4	0.2	4.9	–1.8	–1.5	3.7	–2.4	0.9
Montenegro	7.9	–3.2	–4.2	–0.3	–3.7	–10.4	–8.5	–1.4	2.6
Serbia	8.4	4.7	2.7	3.4	2.4	0.6	0.2	6.3	3.5
Ukraine	–13.0	2.8	0.4	2.3	3.6	0.1	0.4	0.4	0.8
Average gross wages – total economy	*Annual change in %*								
Albania	1.8	0.9	9.8	1.1	0.6	4.1	11.0	11.2	12.8
Bosnia and Herzegovina	–0.0	0.9	1.6	0.8	1.7	1.5	1.8	1.6	1.5
Kosovo	5.8	1.8	–1.5	..	..	..	..	..	..
FYR Macedonia	2.7	2.0	2.6	1.7	2.1	2.3	2.3	2.9	3.1
Montenegro	0.3	3.5	2.0	4.8	4.1	3.8	1.8	1.1	1.3
Serbia	–0.4	3.8	4.0	3.0	3.5	4.3	4.7	3.9	3.0
Ukraine	21.2	23.3	37.0	23.2	20.8	36.8	37.1	36.8	37.2
Unemployment rate[3]	*%*								
Albania	17.5	15.6	14.1	15.2	14.5	14.6	14.3	14.0	13.6
Bosnia and Herzegovina	28.2	25.8	21.1	..	..	..	..	..	..
Kosovo	32.9	27.5	30.5	27.5	28.7	30.5	30.6	30.2	30.6
FYR Macedonia	26.3	24.0	22.6	23.6	23.2	23.1	22.7	22.3	22.1
Montenegro	17.8	18.0	16.4	17.1	17.9	17.7	15.3	15.1	17.4
Serbia	18.2	15.9	14.1	14.4	13.6	15.2	12.3	13.5	15.3
Ukraine	9.5	9.7	9.9	9.2	10.0	10.5	9.5	9.1	10.5
Consumer price index	*Period average, annual change in %*								
Albania	1.9	1.3	2.0	1.9	1.9	2.4	2.0	1.7	1.8
Bosnia and Herzegovina	–1.0	–1.1	1.2	–1.1	–0.4	1.1	1.2	1.1	1.3
Kosovo	–0.5	0.3	1.5	0.2	1.0	1.6	1.9	1.7	0.7
FYR Macedonia	–0.3	–0.2	1.3	–0.1	–0.1	0.5	1.2	1.5	2.1
Montenegro	1.4	0.1	2.8	–0.4	0.7	2.5	2.5	3.3	2.9
Serbia	1.4	1.1	3.1	1.0	1.5	3.1	3.7	3.0	2.9
Ukraine	48.5	14.9	14.4	8.0	12.3	13.9	13.8	16.2	13.9

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

[1] Expenditure-side data. For 2015 and 2016 from annual national accounts, for 2017 aggregated from quarterly national accounts.

[2] Value added in the national accounts.

[3] Labor force survey.

Table 2

External accounts

	2015	2016	2017	Q3 16	Q4 16	Q1 17	Q2 17	Q3 17	Q4 17
Trade balance	*% of GDP*								
Albania	–22.4	–24.2	–24.4	–25.4	–23.3	–22.6	–22.7	–26.0	–26.0
Bosnia and Herzegovina	–24.2	–22.8	–23.5	–19.4	–25.5	–23.4	–24.7	–19.6	–27.2
Kosovo	–36.3	–37.7	–39.2	–36.3	–37.9	–39.4	–39.8	–37.0	–40.9
FYR Macedonia	–20.1	–18.6	–17.9	–16.6	–18.7	–20.0	–17.1	–15.9	–18.7
Montenegro	–40.0	–41.9	–43.9	–36.6	–38.4	–46.6	–51.3	–34.8	–46.8
Serbia	–11.9	–10.0	–10.8	–9.0	–10.5	–11.6	–9.9	–8.5	–13.2
Ukraine	–3.8	–7.5	–8.3	–8.0	–8.0	–6.6	–7.6	–8.8	–9.6
Current plus capital account balance	*% of GDP*								
Albania	–7.4	–6.9	–5.9	–5.4	–4.5	–4.8	–7.0	–3.1	–8.3
Bosnia and Herzegovina	–4.2	–3.8	–3.8	–1.8	–4.4	–3.2	–4.8	–1.5	–6.3
Kosovo	–8.1	–8.8	–6.2	3.8	–13.1	–13.6	–15.4	14.5	–14.0
FYR Macedonia	–1.9	–2.6	–1.3	4.5	–4.5	–6.2	–3.9	7.0	–2.5
Montenegro	–13.2	–18.1	–18.9	18.6	–28.7	–41.4	–31.5	18.1	–38.8
Serbia	–4.8	–4.0	–5.7	–3.3	–4.2	–8.7	–3.8	–3.8	–6.7
Ukraine	2.3	–1.4	–1.8	–4.5	–0.5	–1.6	0.9	–3.3	–2.7
Foreign direct investment[1]	*% of GDP*								
Albania	–8.0	–8.7	–8.4	–11.3	–9.0	–7.6	–7.2	–11.5	–7.2
Bosnia and Herzegovina	–1.6	–1.5	–2.1	–1.3	–1.9	–4.3	–1.1	–1.7	–1.5
Kosovo	–4.7	–2.9	–3.9	–4.4	–1.1	–5.1	–4.8	–2.9	–3.2
FYR Macedonia	–2.2	–3.3	–2.3	–0.8	–4.9	–4.8	0.4	1.9	–6.6
Montenegro	–16.9	–9.4	–11.2	–9.8	–8.9	–13.1	–12.0	–6.5	–15.2
Serbia	–5.4	–5.4	–6.6	–5.5	–5.2	–7.0	–7.0	–6.8	–5.6
Ukraine	–3.3	–3.5	–2.0	–3.8	–0.5	–2.1	–4.1	–1.1	–1.1
Gross external debt	*End of period, % of GDP*								
Albania	74.6	73.4	68.5	74.7	73.4	73.0	70.1	68.6	68.5
Bosnia and Herzegovina	69.6	68.8	..	..	..	..	..	..	..
Kosovo	33.3	33.7	33.3	33.6	33.7	34.0	34.2	33.1	33.3
FYR Macedonia	69.3	74.2	73.6	78.5	74.2	78.9	78.2	76.8	73.6
Montenegro	..	..	..	..	..	..	..	..	..
Serbia	99.5	99.0	91.0	96.5	99.0	96.5	94.1	94.9	91.0
Ukraine	133.3	127.7	98.2	126.8	127.7	119.8	108.4	102.9	98.2
Reserve assets excluding gold	*Period average, annual change in %*								
Albania	27.6	26.9	25.4	25.6	26.9	26.5	24.6	24.3	25.4
Bosnia and Herzegovina	28.5	30.3	32.5	30.0	30.1	29.0	29.6	31.6	32.5
Kosovo[2]	13.7	12.1	10.9	14.7	12.1	11.2	10.9	12.8	10.9
FYR Macedonia	22.6	24.4	20.8	25.6	24.4	23.3	21.9	20.4	20.8
Montenegro	17.5	19.7	20.7	18.7	19.7	18.4	16.7	18.4	20.7
Serbia	29.2	27.6	25.2	25.8	27.6	25.9	25.6	27.7	25.2
Ukraine	13.9	16.4	15.0	15.8	16.4	14.8	16.0	15.4	15.0

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

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

Table 3

Banking sector indicators

	2015	2016	2017	Q3 16	Q4 16	Q1 17	Q2 17	Q3 17	Q4 17
Bank loans to the domestic nonbank private sector	*End of period, annual change in %*								
Albania[1]	–4.3	0.4	3.6	1.3	0.4	0.6	0.6	3.5	3.6
Bosnia and Herzegovina[1]	2.2	3.4	7.5	2.3	3.4	4.6	6.2	7.5	7.5
Kosovo	7.3	10.4	11.5	9.6	10.4	10.9	10.0	10.2	11.5
FYR Macedonia[1]	6.8	0.9	7.7	2.6	0.9	–0.4	4.5	5.5	7.7
Montenegro	2.7	6.2	6.1	4.3	6.2	7.1	5.9	5.6	6.1
Serbia[1]	–1.1	1.3	7.9	3.7	1.3	3.1	3.9	4.9	7.9
Ukraine[1]	–22.2	–4.0	–17.7	–9.9	–4.0	–6.0	–3.1	–2.6	–17.7
Share of foreign currency loans[2]	*End of period, %*								
Albania	56.9	53.4	51.1	54.5	53.4	53.1	51.5	51.6	51.1
Bosnia and Herzegovina	70.5	64.5	62.9	65.7	64.5	62.8	62.5	62.9	62.9
Kosovo	..	..	..	..	..	..	..	..	..
FYR Macedonia	42.6	42.2	40.6	42.7	42.2	42.9	42.4	41.2	40.6
Montenegro[3]	7.9	6.3	..	5.5	6.3	6.4	5.8	5.4	..
Serbia[4]	70.7	67.9	66.2	67.9	67.9	67.6	66.4	66.9	66.2
Ukraine	56.0	49.5	43.9	53.9	49.5	47.6	45.9	44.1	43.9
NPL ratio	%								
Albania	18.2	18.3	13.2	21.3	18.3	17.4	15.6	14.8	13.2
Bosnia and Herzegovina	11.8	10.1	..	10.3	10.1	9.8	9.5	9.2	..
Kosovo	6.2	4.9	3.1	5.1	4.9	4.5	3.9	3.6	3.1
FYR Macedonia	8.5	5.5	5.1	6.0	5.5	5.6	5.6	5.5	5.1
Montenegro	12.6	10.3	7.3	10.2	10.3	9.9	8.8	7.4	7.3
Serbia	19.6	15.6	..	17.3	15.6	15.5	14.3	12.0	..
Ukraine	28.0	30.5	54.5	31.0	30.5	55.1	57.7	56.4	54.5
Tier 1 capital ratio	%								
Albania	13.5	13.8	15.1	13.6	13.8	14.2	14.6	14.8	15.1
Bosnia and Herzegovina	13.8	15.0	14.8	15.1	15.0	14.8	15.1	14.9	14.8
Kosovo[5]	19.0	17.9	18.0	18.3	17.9	18.3	18.1	17.8	18.0
FYR Macedonia	13.9	13.9	14.2	14.2	13.9	14.1	14.5	14.6	14.2
Montenegro[5]	15.5	16.1	16.4	16.3	16.1	15.9	16.6	16.8	16.4
Serbia	18.8	20.0	..	19.2	20.0	20.6	21.3	21.5	..
Ukraine	8.3	9.0	12.1	10.4	9.0	9.8	9.2	11.5	12.1

Source: National central banks.

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

Table 4

Monetary and fiscal policy indicators

	2015	2016	2017	Q3 16	Q4 16	Q1 17	Q2 17	Q3 17	Q4 17
Key interest rate	*End of period, %*								
Albania (one-week repo rate)	1.8	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Bosnia and Herzegovina[1]	..	..	..	..	..	..	..	..	..
Kosovo[1]	..	..	..	..	..	..	..	..	..
FYR Macedonia (28/35-day central bank bills)	3.3	3.8	3.3	4.0	3.8	3.3	3.3	3.3	3.3
Montenegro[1]	..	..	..	..	..	..	..	..	..
Serbia (one-week repo rate)	4.5	4.0	3.5	4.0	4.0	4.0	4.0	3.8	3.5
Ukraine (discount rate)	22.0	14.0	14.5	15.0	14.0	14.0	12.5	12.5	14.5
Three-month interbank rate	*Period average, %*								
Albania	3.2	2.0	2.2	1.7	1.9	2.5	2.2	1.9	2.0
Bosnia and Herzegovina	..	..	..	..	..	..	..	..	..
Kosovo	..	..	..	..	..	..	..	..	..
FYR Macedonia	1.9	2.0	1.8	2.1	2.0	1.9	1.8	1.7	1.7
Montenegro	..	..	..	..	..	..	..	..	..
Serbia	6.2	3.4	3.4	3.6	3.5	3.5	3.5	3.5	3.1
Ukraine	20.3	17.6	14.3	16.7	16.3	15.6	14.6	13.8	13.3
Exchange rate	*Period average, national currency per EUR*								
Albania	139.7	137.4	134.1	136.8	136.1	135.8	134.4	132.9	133.5
Bosnia and Herzegovina	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Kosovo	..	..	..	..	..	..	..	..	..
FYR Macedonia	61.6	61.6	61.6	61.5	61.5	61.6	61.6	61.6	61.5
Montenegro	..	..	..	..	..	..	..	..	..
Serbia	120.7	123.1	121.4	123.3	123.3	123.9	122.9	119.8	119.1
Ukraine	24.2	28.3	30.0	28.3	28.0	28.8	29.1	30.4	31.7

	2015	2016	2017	2015	2016	2017
	General government balance			General government debt		
	End of period, % of GDP					
Albania	–4.0	–1.8	–2.0	72.9	72.3	70.1
Bosnia and Herzegovina	0.7	1.2	1.0	41.9	40.5	40.8
Kosovo	1.6	0.2	–0.1	12.9	14.0	16.3
FYR Macedonia	–3.5	–2.7	–2.7	38.1	39.6	39.3
Montenegro	–8.3	–3.6	–5.4	60.7	64.4	65.1
Serbia	–3.7	–1.3	1.2	75.1	72.5	61.6
Ukraine	–1.6	–2.3	–1.4	79.1	80.9	71.8

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

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

Conventions used

.. = data not available.
Discrepancies may arise from rounding.