

# Regional Economic Issues

## Central, Eastern, and Southeastern Europe A Broadening Recovery

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**MAY 17**



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May 2017

## Central, Eastern, and Southeastern Europe A Broadening Recovery

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## Country Coverage and Codes

**Central, Eastern, and Southeastern Europe (CESEE)** refers to Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Kosovo, Latvia, Lithuania, the former Yugoslav Republic of Macedonia, Moldova, Montenegro, Poland, Romania, Russia, Serbia, the Slovak Republic, Slovenia, Turkey, and Ukraine.

The following country codes and regional aggregates are used in the report:

**Baltic countries (Baltics)** (shown in **light blue**): Estonia (EST), Latvia (LVA), Lithuania (LTU)

**Central and Eastern Europe (CEE)** (shown in **blue**): Czech Republic (CZE), Hungary (HUN), Poland (POL), Slovak Republic (SVK), Slovenia (SVN)

**Commonwealth of Independent States (CIS)** (shown in **yellow**): Belarus (BLR), Moldova (MDA), Russian Federation (RUS, also in **red** when shown separately), Ukraine (UKR)

**Southeastern European EU member states (SEE EU)** (shown in **green**): Bulgaria (BGR), Croatia (HRV), Romania (ROU)

**Southeastern European non-EU member states (SEE non-EU or Western Balkans)** (shown in **light green**): Albania (ALB), Bosnia and Herzegovina (BIH), Kosovo (UVK), FYR Macedonia (MKD), Montenegro (MNE), Serbia (SRB)

**Turkey (TUR)** is shown in **black**.

Averages are weighted by purchasing-power-parity GDP weights.



\* The boundaries, colors, denominations, and any other information shown on the maps do not imply, on the part of the International Monetary Fund, any judgment on the legal status of any territory or any endorsement or acceptance of such boundaries. In this report, statistical data on Crimea and the City of Sevastopol are included as part of the data for the Russian Federation.





## A Broadening Recovery

May 11, 2017

### EXECUTIVE SUMMARY

**Growth has broadened across Central, Eastern, and Southeastern Europe (CESEE).** Outside the Commonwealth of Independent States (CIS) and Turkey, growth has remained strong, driven by accommodative policies. Meanwhile, Russia and the rest of the CIS are finally on the road to recovery, with firming oil prices lifting activity. Growth in Turkey has rebounded partially after dropping sharply in the wake of elevated political uncertainty.

**Inflation has started to increase in many countries.** Labor markets have tightened, with unemployment rates now falling to pre-crisis levels along with strong wage growth. Output gaps appear largely closed. With commodity prices and euro area inflation higher, CESEE headline inflation has picked up. In Russia, inflation is in retreat, but it remains high in Turkey.

**Near-term prospects are favorable, helped by strengthening global activity and continued supportive domestic macroeconomic policies.** Outside the CIS and Turkey, growth is projected to pick up, fueled by domestic demand and greater absorption of European Union (EU) structural funds. The recovery in Russia will support activity in other CIS and Baltic countries. In Turkey, growth is expected to remain weak amid ongoing political and economic uncertainty.

**Risks to the outlook are two sided, but tilted to the downside, notably over the medium term.** There is potential for some upside from stronger external demand, notably higher growth in the euro area and the United States, and a firmer recovery in commodity prices, which would help the CIS, and lower political uncertainty following key elections in Western Europe. Key downside risks include a global shift toward inward-looking policies and protectionism, a sudden tightening in global financial conditions, new shocks in advanced European economies, and further wage increases that could hurt competitiveness.

**In countries with largely closed output gaps, macroeconomic policy normalization needs to begin.** The priority is to start reducing still relatively large cyclically adjusted fiscal deficits to achieve medium-term fiscal targets, which will help lower vulnerabilities. Furthermore, where inflation is picking up on a sustained basis, monetary policy will soon need to gradually withdraw accommodation. A tighter fiscal stance would allow monetary policy to normalize more gradually in most inflation targeters, helping maintain hard-won gains in competitiveness. Meanwhile, Turkey needs to tighten monetary policy further to lower inflation and reduce elevated external vulnerabilities. By contrast, Russia can continue with monetary policy easing as inflation declines toward the central bank's target and fiscal policy is adjusting to lower oil prices.

**The main medium-term policy challenge is to boost potential growth and income convergence with structural reforms.** Gains from past reforms are largely exhausted and speeding up convergence is now more challenging. This would require strengthening institutions; improving public sector efficiency, including through restructuring state-owned enterprises and enhancing public sector investment management frameworks; and improving labor supply by raising participation rates and reducing structural unemployment.

Approved by  
**Poul M. Thomsen**

Prepared by a staff team consisting of Ahmed El Ashram and Yan Sun, with input from country teams, and research assistance from Cristina Batog and Vizhdan Boranova. The team was led by Laura Papi and Emil Stavrev, under the general guidance of Jörg Decressin. Administrative support was provided by Gilda Ordoñez-Baric. Tables and Figures reflect data as of April 28, 2017.

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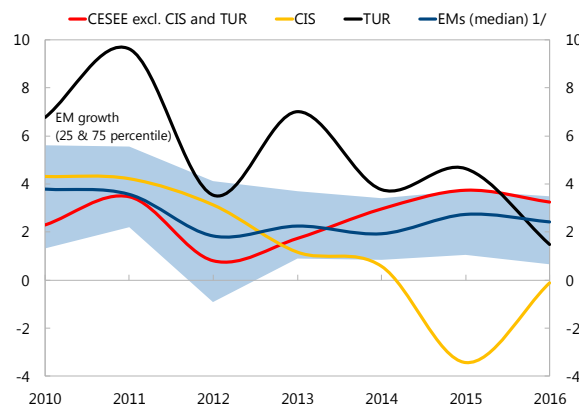
## A. Recent Developments: The Recovery Has Broadened

Over the past several years, growth in many countries of the Central, Eastern, and Southeastern European (CESEE) region compared favorably with that in other emerging market economies (Figure 1).

Outside the Commonwealth of Independent States (CIS) and Turkey, per capita growth has been robust, close to the 75th percentile of select emerging market economies since 2014. Following recent revisions to its national accounts, Turkey's growth has been much higher than previously estimated. The CIS has performed below par since 2013.

**In 2016, activity softened in some CESEE countries, while in the CIS, the recovery started taking hold** (Figure 2, panels 1–2):

**Figure 1. GDP Growth per Capita**  
(In percent)



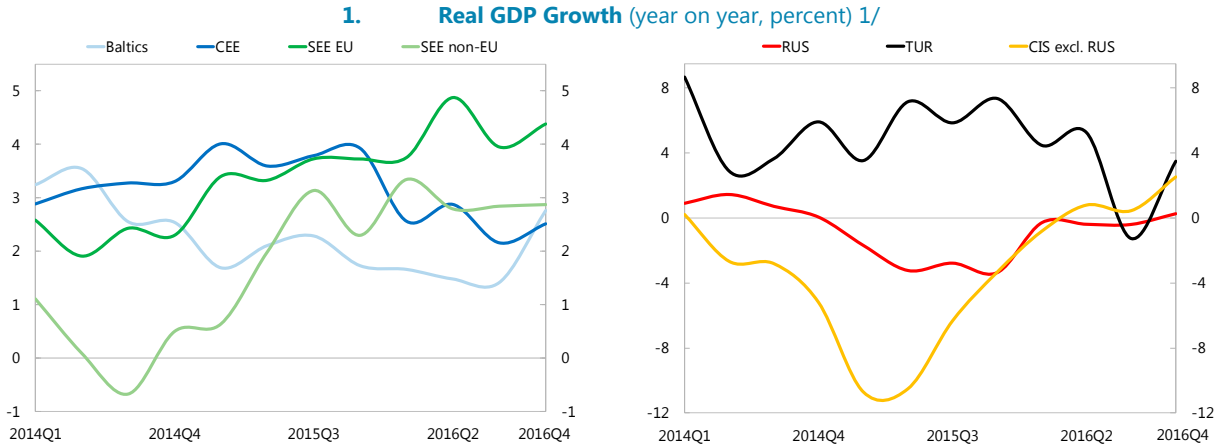
Source: IMF World Economic Outlook.

1/EM countries from other regions include: Argentina, Brazil, Chile, Colombia, Indonesia, Kazakhstan, Malaysia, Mexico, Peru, Philippines, Saudi Arabia, South Africa, Thailand, Venezuela, and Vietnam.

- **Outside the CIS and Turkey**, growth was still robust, but softened in some countries in the second half of 2016. Growth was mainly consumption driven, while investment was generally weaker. In several CESEE European Union (EU) countries, slower absorption of EU structural funds at the start of the new cycle weighed on activity.<sup>1</sup>
- **The CIS countries** started exiting the recession, supported by higher commodity prices. In Russia, the economy is estimated to have grown in the second half of 2016, with a recovery in private consumption accompanied by an uptick in manufacturing. Meanwhile, Ukraine's recovery picked up some steam on the back of stronger domestic demand as macroeconomic imbalances have been reduced. However, the recovery in Belarus remained elusive, reflecting structural weaknesses and elevated domestic vulnerabilities.
- **In Turkey**, activity slowed sharply in 2016Q3 reflecting multiple shocks, but it partially rebounded in 2016Q4. The slowdown reflected lower investment as the result of increased uncertainty in the wake of the failed coup attempt and weaker tourism activity, which interacted with external vulnerabilities (see Box 1). The rebound in 2016Q4 was driven by consumption and net exports.

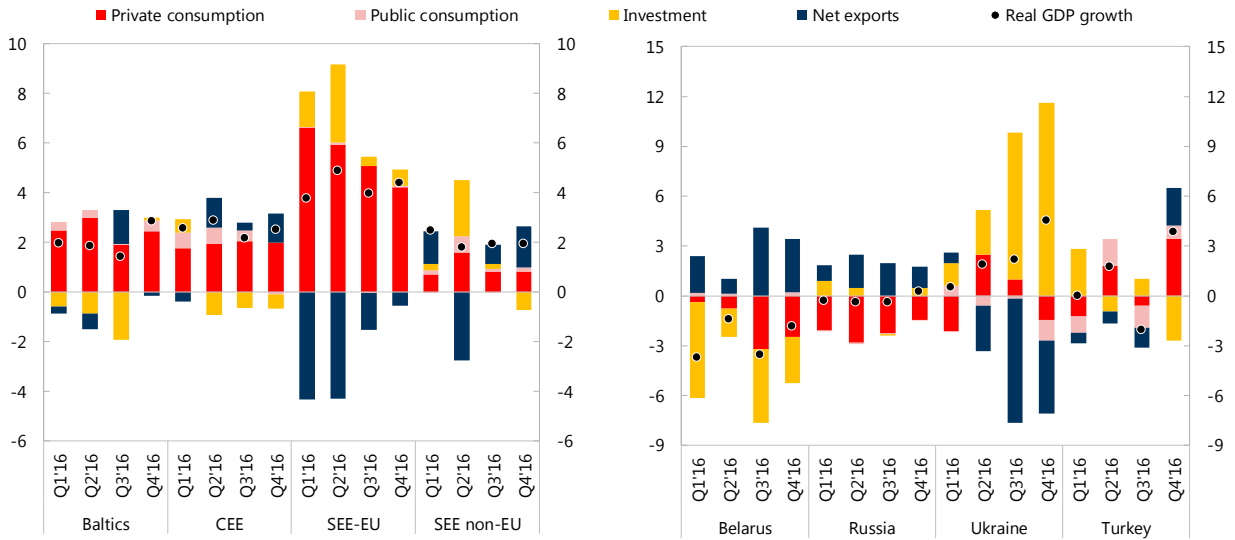
<sup>1</sup> In a few countries (Bulgaria, Romania, Slovak Republic), the increase in private investment (for example, the automotive industry in the Slovak Republic and residential construction in Romania) partly offset the decline in public investment.

**Figure 2. The Recovery Has Broadened in the Region**  
*The CIS is exiting the recession, while growth continues in the rest of the region*



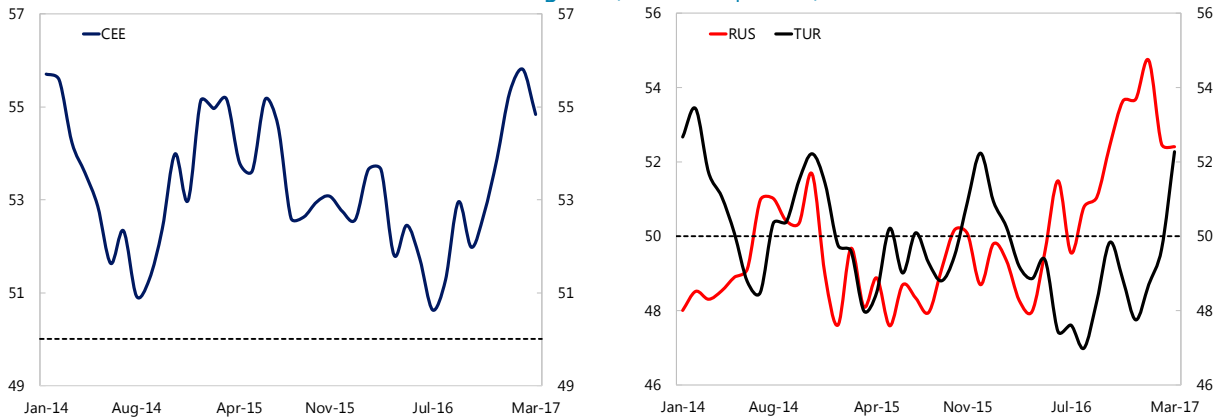
*Outside the CIS, growth remains consumption driven*

**2. Contribution to Real GDP Growth**  
 (growth, year on year, percent; contributions in percentage points)



*High frequency indicators suggest that activity is picking up in 2017*

**3. Manufacturing PMI (SA, 50+ =Expansion) 2/**



Sources: Haver Analytics; and IMF staff estimates.

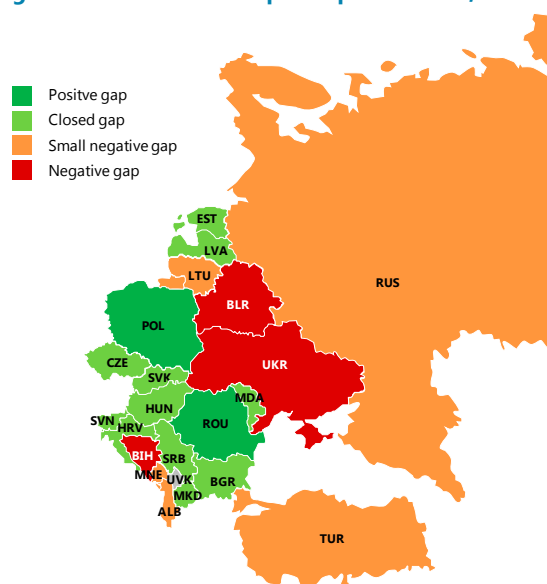
1/ Data for Bosnia and Herzegovina, Kosovo, and Montenegro are not available for Q4 2016; 2/ CEE average is calculated based on PMIs of the following countries: Czech Republic, Hungary, and Poland.

**After hitting a soft patch in 2016, growth is improving in most of the region.** High-frequency indicators, such as Purchasing Managers Indices (PMI), suggest that activity is strengthening in Central and Eastern European (CEE) countries (Figure 2, panel 3). In Russia, growth continues to recover, and in Turkey, the economy continues to stabilize after a sharp contraction in the third quarter of 2016.

**The cyclical recovery appears to be largely complete in much of the region** (Figure 3). A variety of estimates and other indicators suggest that many economies in the region are beginning to operate close to full capacity (Table 1). Most of the Baltics, CEE, and Southeastern European EU member states (SEE EU) are more advanced in the cycle, reflecting a high level of capacity utilization and significantly lower post-crisis potential output growth. However, estimates of output gaps are subject to wide margins of error and some of these countries may still be operating below potential. Turkey and Russia appear somewhat below potential, while in Belarus, Bosnia and Herzegovina, and Ukraine, output gaps remain negative. As discussed in greater detail below, the clearest signs of closing output gaps are coming from labor markets. Inflation pressures, while gradually building, still seem fairly contained.

**Other than in the CIS and Turkey, labor markets have tightened further** (Figure 4, panels 1–2). Unemployment rates have fallen to pre-crisis levels, and wage growth continues apace, accompanied by significant increases in minimum wages in many countries. In some economies (e.g. the Baltics and the CEE), labor shortages, especially for skilled workers, have become acute. However, despite recent improvements, the unemployment rates remain high in the SEE non-EU countries, reflecting deep-rooted structural problems, including incomplete reforms, a weak investment climate, infrastructure gaps, and low foreign direct investment (FDI) inflows (see Kovtun and others 2014; IMF 2015a).

Figure 3. CESEE: WEO Output Gaps Estimates, 2017 1/



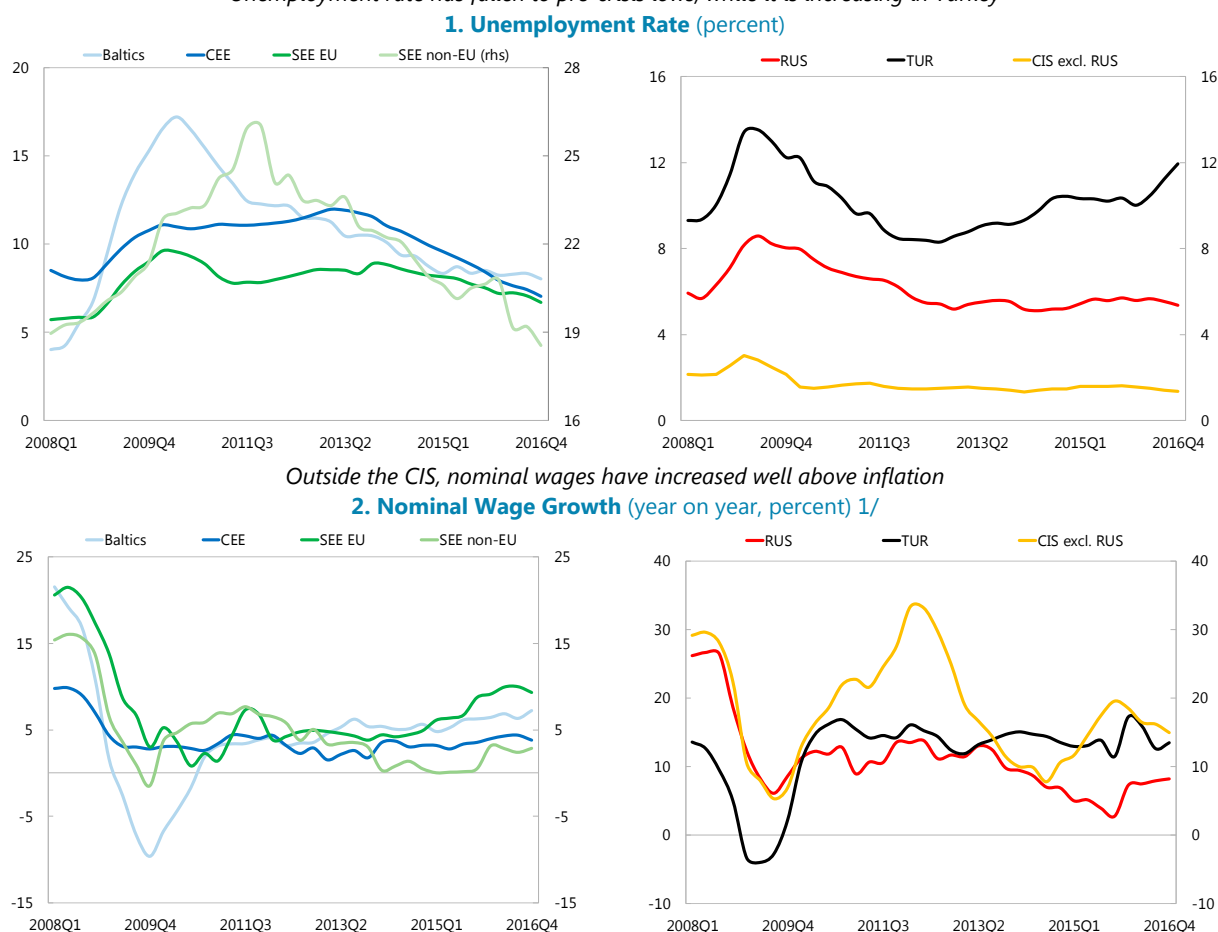
Sources: IMF World Economic Outlook; and IMF staff estimates. 1/ Output gaps reflect IMF country desk estimates; for Russia, the gap is a simple average of the desk estimate and a multivariate filter model estimate (see Table 1). Ranges are defined as (1) positive gap: greater than 0.5 percent; (2) closed gap: between -0.5 and 0.5 percent; (3) small negative gap: between -1.5 and -0.5 percent; (4) negative gap: between -3 and -1.5 percent. Data for Kosovo are not available.

Table 1. CESEE: Estimates of Output Gaps, 2017 (In percent of potential GDP)

	MVF 1/	WEO 1/	EC
Albania	-0.5	-0.6	...
Belarus	0.5	-1.6	...
Bosnia and Herzegovina	-0.2	-2.0	...
Bulgaria	0.8	-0.1	-0.1
Croatia	0.5	0.0	1.3
Czech Republic	0.9	0.5	0.5
Estonia	-0.4	-0.5	-0.1
Hungary	0.5	0.0	-0.1
Latvia	0.1	0.0	1.6
Lithuania	0.4	-0.9	1.6
Macedonia	0.0	-0.4	...
Moldova	-0.5	0.3	...
Montenegro	0.9	-0.5	...
Poland	0.2	0.5	0.2
Romania	0.8	1.0	0.6
Russia	-1.2	-0.4	...
Serbia	0.3	-0.2	...
Slovakia	0.3	0.0	-0.1
Slovenia	0.3	-0.1	1.3
Turkey	-1.0	-0.7	...
Ukraine	-0.5	-1.9	...

Sources: IMF World Economic Outlook, European Commission, and IMF staff calculations. 1/ MVF estimates are based on a multi-variate filter model. WEO estimates reflect IMF country desk estimates. Ranges are defined as: (1) Positive gap: greater than 0.5 percent; (2) closed gap: between -0.5 and 0.5 percent; (3) small negative gap: between -1.5 and -0.5 percent; (4) negative gap: between -3 and -1.5 percent.

**Figure 4. Labor Markets Have Tightened in Most of the Region**  
*Unemployment rate has fallen to pre-crisis lows, while it is increasing in Turkey*



Sources: Haver Analytics; and IMF staff calculations.

1/ Data for Albania is not available.

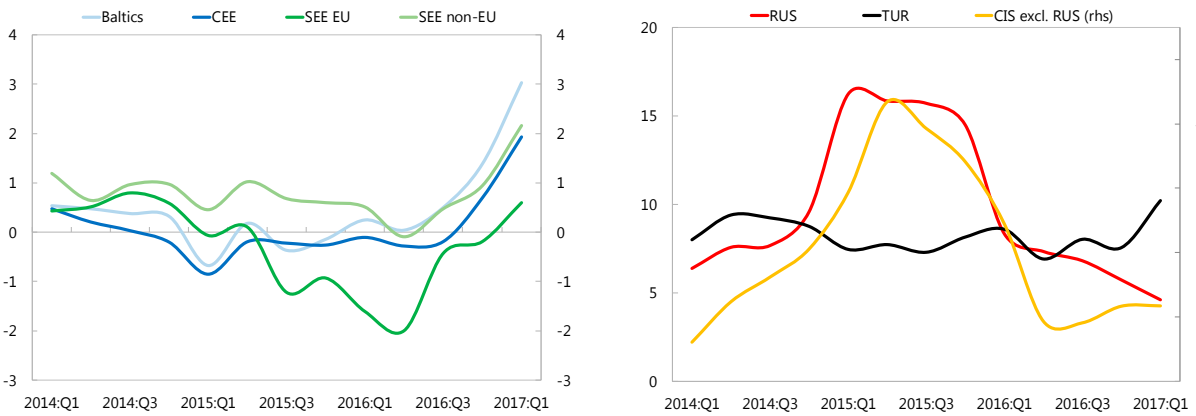
**Outside the CIS, inflation pressures are picking up but are still low, except in Turkey**

(Figure 5, panels 1–2). Other than in the CIS and Turkey, headline inflation has increased from low levels, mainly because of higher commodity prices and base effects. Developments in core inflation are more mixed, increasing more noticeably in the Baltics and the CEE in light of the advanced cyclical position of these economies. In the SEE EU, inflation turned positive after the impact of the value-added tax cuts in Romania dropped out. Looking ahead, surveys suggest an increase in inflation expectations in the CESEE EU countries (Figure 6, panel 3). Meanwhile, inflation is falling in Russia but increasing in Turkey and the rest of the CIS, largely reflecting the exchange rate pass-through of the recent currency depreciations and higher commodity prices.

**Figure 5. Inflation and Inflation Expectations Have Risen**

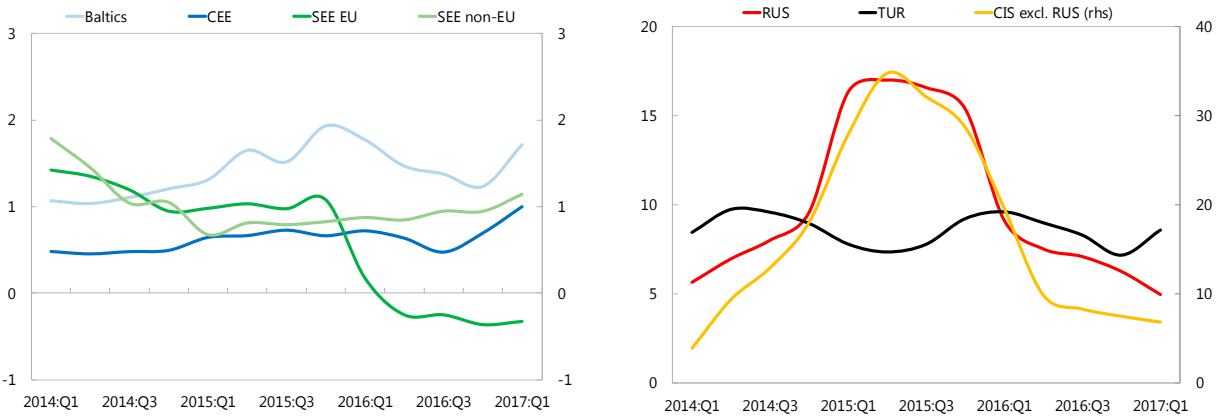
*Headline inflation has edged up, driven by energy prices, while it has declined in Russia*

**1. Headline Inflation** (end of period, year on year, percent)



*Increases in core inflation are more modest*

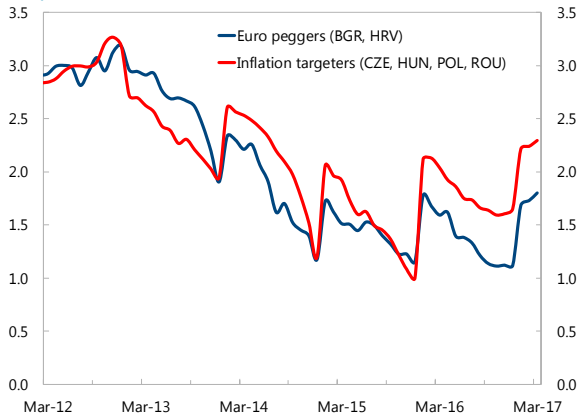
**2. Core Inflation** (end of period, year on year, percent)



*But inflation expectations have risen*

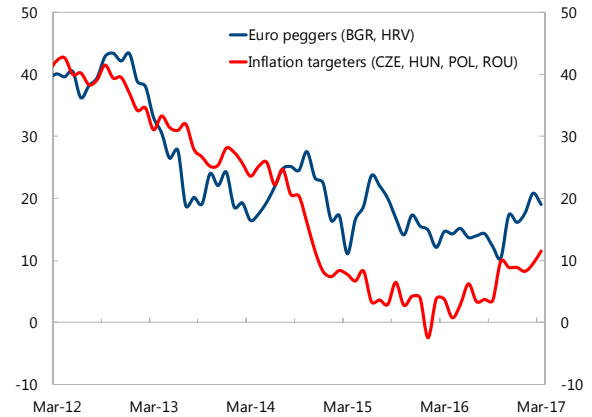
**3. Inflation Expectations**

**Consensus Forecast of Next Year's Inflation**  
(In percent)



**Consumer Expectations of Average Inflation**

(Price trends over the next 12 months; net balance) 1/

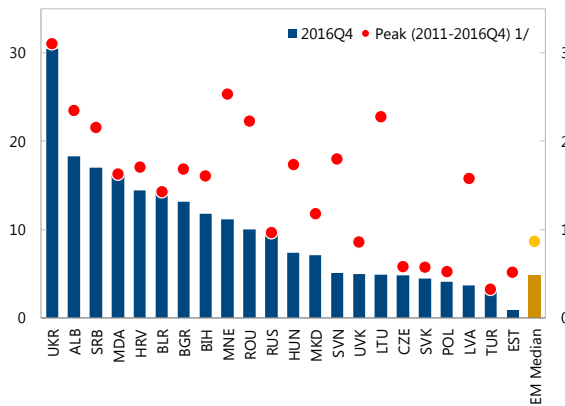


Sources: Consensus Economics Forecasts; European Commission Business and Consumer Survey; Haver Analytics; and IMF staff estimates.

1/ Net balance is calculated as  $+1 \times$  ("Percentage thinking it will rise a lot")  $+ 1/2 \times$  ("Percentage thinking it will rise moderately"  $- 1/2 \times$  ("Percentage thinking it will stay about the same")  $- 1 \times$  ("Percentage thinking it will fall").

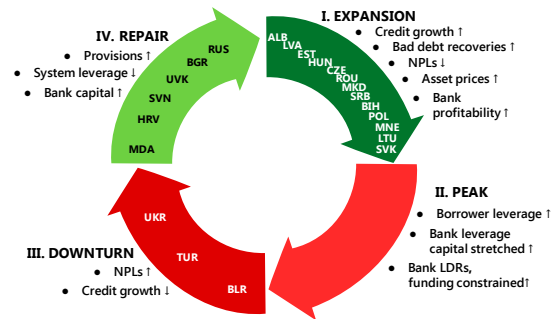
**Credit is gradually recovering, as balance sheet repair is progressing.** Non-performing loan (NPL) ratios have declined significantly from their post-crisis peaks in many CESEE economies, although they remain high relative to those in other emerging market economies (Figure 6). A few CESEE countries are now in the early expansion stage of the credit cycle (Figure 7). Other than in the CIS and Turkey, credit growth is accelerating, including in the Baltics and the CEE (Figure 8). Credit has been largely driven by lending to households, while lending to businesses has been more uneven, partly reflecting different levels of corporate leverage. Excluding the impact of NPL write-offs, credit growth is also improving in Albania, FYR Macedonia, and Serbia, and has stabilized in the SEE EU. In Russia, after stagnating for almost a year, credit growth is picking up, while in the rest of the CIS, credit contraction continued, albeit at a slower pace. In response to recent shocks, credit growth slowed in Turkey but is gradually recovering.

**Figure 6. Non-performing Loans are Falling**  
(In percent of total loans)



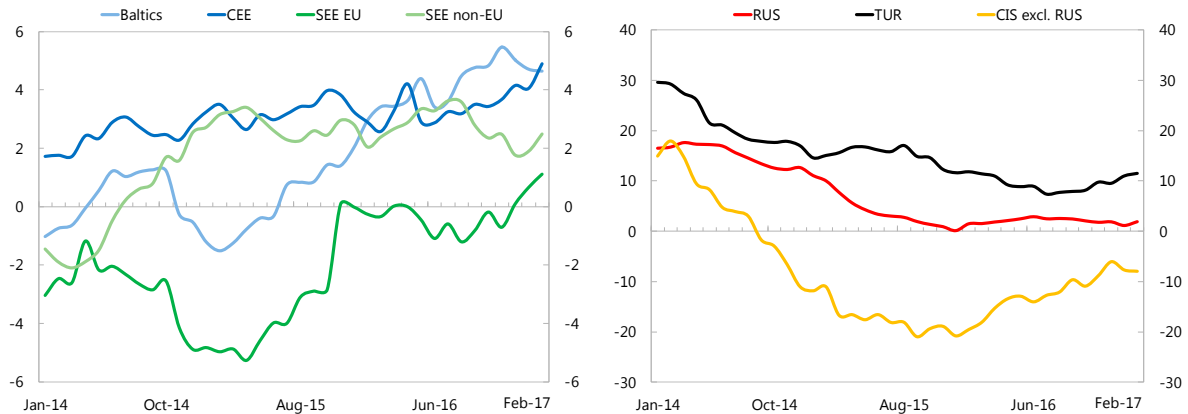
Source: IMF Financial Soundness Indicators database.  
1/ Data for Belarus, Croatia, Czech Republic, Lithuania, Macedonia, Romania, Russia, and Turkey is as of 2016Q3. Data for Albania and Serbia is annual.

**Figure 7. CESEE: Credit Cycle Positions**



Source: IMF staff estimates.

**Figure 8. Credit Growth is Recovering**  
(Year on year, in percent, net of foreign exchange valuation effect)



Source: European Bank for Reconstruction and Development.

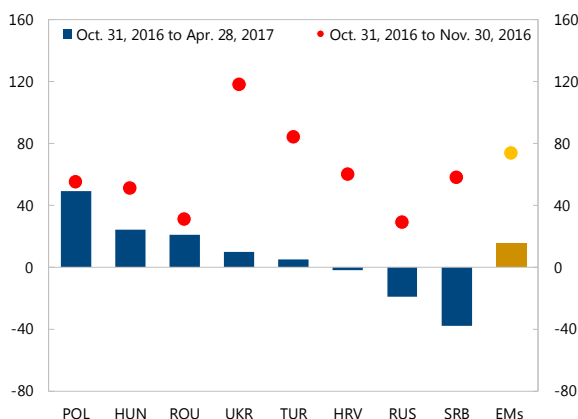
**Foreign-owned bank sales have had no adverse impact.** Some foreign-owned banks have been sold in the region as western parent banks realign country exposure. Overall, given improved economic conditions, bank surveys suggest that international banks are now increasingly looking to expand their activities in the CESEE region because operations are generally more profitable than in Western Europe.

**Financial conditions have tightened modestly.** Yields on long-term local and foreign currency bonds have increased, following the steepening of the U.S. yield curve in late 2016 (Figure 9, panels 1–2). As the U.S. election-related financial market volatility abated, European emerging market economy sovereign spreads have narrowed (particularly in Russia and Ukraine), flows through exchange-traded funds and mutual funds have recovered, and equity markets have continued to post gains (Figure 10, panels 3–4).

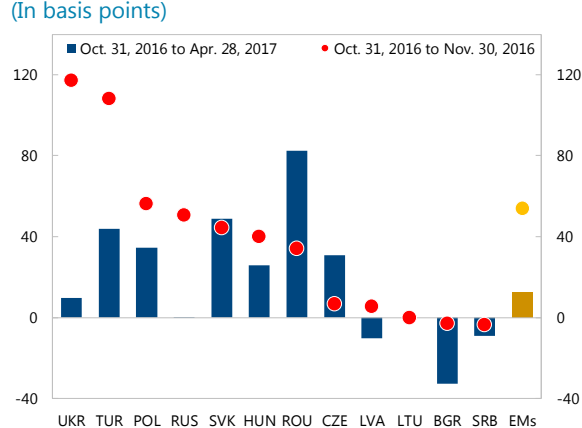
**Figure 9. CESEE: Financial Market Conditions Have Tightened Moderately since Last October**

*Yields on foreign currency and local currency bond have risen since the Fall 2016 WEO*

**1. Change in Foreign Currency Sovereign Bond Yields**  
(In basis points)

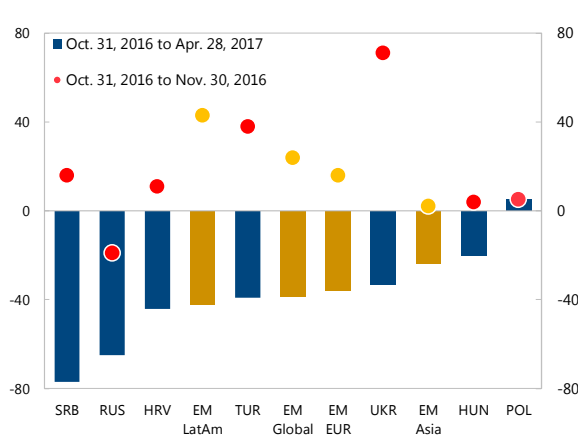


**2. Change in 10 Year Local Currency Sovereign Bond Yields**  
(In basis points)

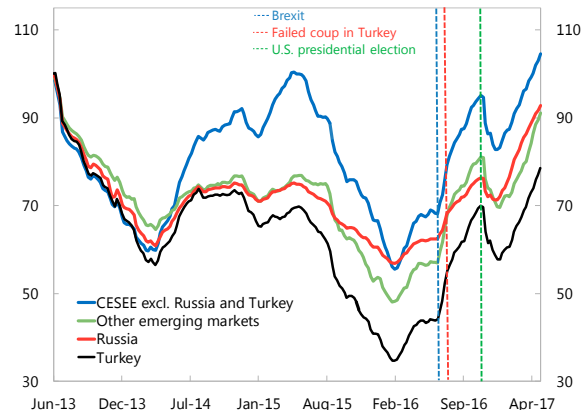


*EMBIG spreads have narrowed, and flows in bond funds have recovered*

**3. Change in EMBIG Spreads**  
(In basis points)



**4. Cumulative Flows to Exchange-Traded and Mutual Funds Investing in Emerging Market Bonds & Equities**  
(May 2013=100)



Sources: Bloomberg, Haver Analytics; and IMF Staff Calculations.

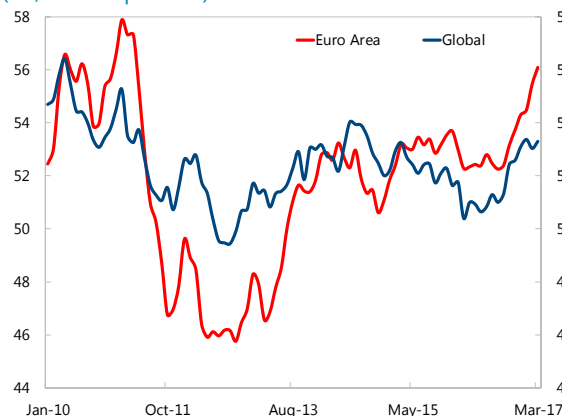


## B. Key Forces Shaping the Outlook: Stronger Global Activity, Russia's Recovery, and Supportive Domestic Policies

**A pick up in global activity portends better prospects for CESEE, while stronger commodity prices will underpin the recovery in the CIS.** Activity has strengthened in advanced economies, notably in advanced Europe, and some major emerging economies since the October 2016 *World Economic Outlook* (Figure 10). In 2017, an improving euro area outlook based on a cyclical recovery in global manufacturing and trade, and stronger U.S. growth reflecting an anticipated fiscal stimulus, are expected to increase external demand for the CESEE countries. The firming of commodity prices is supporting the recovery in Russia and the rest of the CIS countries, and is raising headline inflation globally (Figure 11).

**Figure 10. Composite PMI (Manufacturing & Services)**

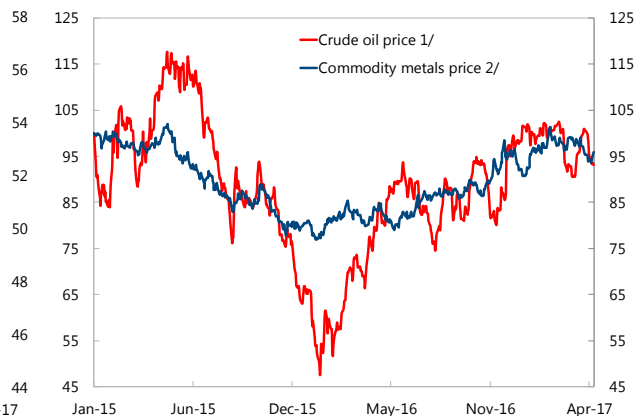
(SA, 50+=expansion)



Source: Haver Analytics.

**Figure 11. Commodity Price Developments**

(Index, Jan 2, 2015=100)



Source: IMF World Economic Outlook database.

1/ Simple average of spot prices for: Dated Brent, West Texas Intermediate, and the Dubai Fateh.

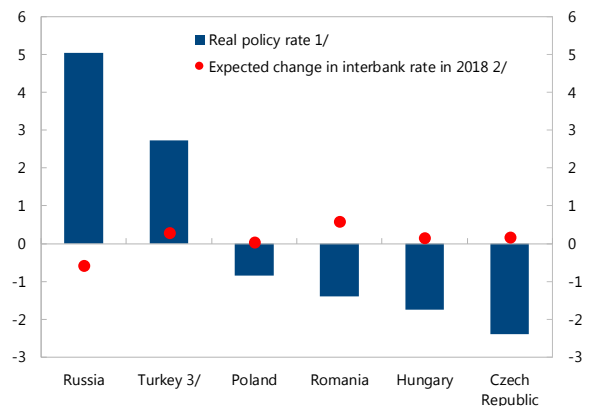
2/ Simple average of price indices for aluminum, copper, lead, nickel, tin, zinc, and uranium.

**A turnaround in Russia will have favorable spillovers to other CIS and Baltic countries to varying degrees.** In the past, spillovers from Russia to the rest of the CIS and the Baltics have been relatively large, through trade, investment, and financial channels (see IMF 2015d). Despite some weakening of trade linkages in recent years, some CIS and Baltic countries are still poised to benefit from the recovery in Russia (see Box 2).

**Monetary policy is expected to continue being accommodative in several of the CESEE EU countries and gradually ease in Russia.**

For the CESEE EU inflation targeters (Czech Republic, Hungary, Poland, and Romania), monetary policy remains accommodative and markets expect only modest tightening or no change in the case of Poland one year ahead (Figure 12). The Czech National Bank phased out an unconventional instrument by removing the exchange rate floor in early April. In Russia, following the recent easing in the monetary policy stance, interbank rates are expected to ease further. In Turkey, after the increase in the average funding rate since early 2017 (by about 350 basis points), markets expect interbank rates to increase modestly.

**Figure 12. Real Policy Rate and Market Expectations of Interest Rate Change**  
(In percent, as of April 28, 2017)



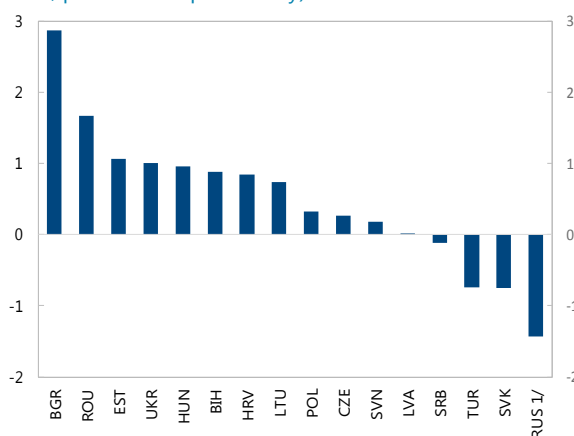
Source: IMF staff estimates.  
 1/ Real policy rate is calculated as nominal rate minus one year-ahead inflation forecast from the April 2017 WEO.  
 2/ Implied rate change is the 1-year ahead interbank interest rate swap rate minus current interbank interest rate.  
 3/ Weighted average cost of the Central Bank of the Republic of Turkey funding.

**Fiscal policy is projected to be neutral or expansionary in most countries**

(Figure 13). Expansionary fiscal stances are expected in Bulgaria, Croatia, Estonia, Hungary, and Romania, including because of the recently announced tax rate cuts in some of these countries. Given the largely closed output gaps, structural fiscal deficits will remain sizable for many countries in the region (Figure 14). However, in Russia, the fiscal consolidation process is expected to adjust to lower oil revenue.

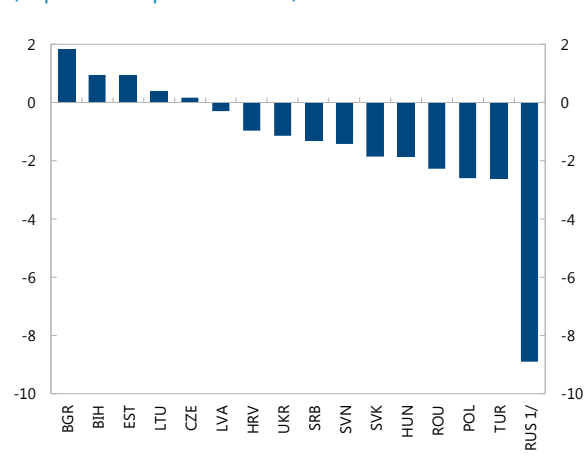
**The absorption of the EU Structural and Investment Funds is envisaged to pick up pace and boost activity in the region’s EU members.** After a slow start in the new cycle, projects supported by EU funds are expected to gradually move into the implementation phase. Based on

**Figure 13. CESEE: Cumulative Fiscal Impulse, 2017-18**  
(Change in structural fiscal deficit, in percent of potential GDP, positive is expansionary)



Source: IMF World Economic Outlook.  
 1/ For Russia, general government non-oil primary structural balance.

**Figure 14. CESEE: Structural Fiscal Balance, 2016**  
(In percent of potential GDP)



Sources: IMF World Economic Outlook; and IMF staff calculations.  
 1/ For Russia, general government non-oil primary structural balance.

evidence from the past cycle, higher absorption of EU funds is likely to have a strong cyclical impact on output in the CESEE EU members, and boost activity significantly starting in 2017. The empirical evidence suggests that the first-year multiplier is between  $\frac{1}{2}$  and  $\frac{2}{3}$  and the long-term impact could be as high as three in a cyclical downturn (see Box 3).

**Financial conditions are expected to remain favorable, given the expected gradual monetary policy normalization in advanced economies.** For most economies in the region, the European Central Bank's continued accommodative monetary policy stance is expected to allow financial conditions to remain favorable in the near term, despite the slightly faster-than-anticipated tightening of monetary policy in the United States.

### C. Outlook: Favorable in the Near Term, but Lower Potential Growth

**Near-term growth prospects are favorable for the region** (Table 2, panel 1). Other than in the CIS and Turkey, growth is expected to improve for most countries. Growth is set to pick up in the Baltics, the CEE, and most SEE non-EU countries, reflecting strong demand (domestic and external), and for the CESEE EU members, a pickup in the absorption of EU funds. In Bulgaria and Romania, growth is projected to slow moderately after a very strong performance in 2016. Russia's GDP is projected to expand by 1.4 percent in 2017 (higher than envisaged in October 2016), and growth for the rest of the CIS is also projected to improve and has been revised upward relative to October 2016 projections. Growth in Turkey is expected to remain weak at 2.5 percent in 2017 amid ongoing political and economic uncertainty.

**Table 2. Projections: Real GDP Growth and Inflation**  
(Percent, difference from October WEO in percentage points)

	1. Real GDP Growth					2. Inflation (period average)					
	Projections			Difference from October WEO		Projections			Difference from October WEO		
	2016	2017	2018	2017	2018	2016	2017	2018	2017	2018	
<b>CESEE</b>	1.5	2.2	2.4	0.1	0.2	<b>CESEE</b>	5.2	5.2	4.9	0.4	0.6
Baltics	2.0	2.8	3.1	-0.2	-0.2	Baltics	0.5	2.9	2.3	1.5	0.2
CEE	2.7	3.2	3.0	0.1	0.0	CEE	-0.2	2.2	2.3	0.9	0.4
SEE EU	4.2	3.7	3.1	0.4	0.2	SEE EU	-1.4	1.2	2.6	-0.1	0.0
SEE Non-EU	2.8	3.2	3.6	0.0	0.0	SEE Non-EU	0.5	2.0	2.5	0.0	-0.1
Russia	-0.2	1.4	1.4	0.3	0.2	Russia	7.0	4.5	4.2	-0.6	-0.3
Other CIS	0.7	1.2	2.4	-0.4	0.1	Other CIS	13.0	10.6	9.1	-0.5	0.7
Turkey	2.9	2.5	3.3	-0.5	0.1	Turkey	7.8	10.1	9.1	1.9	2.3

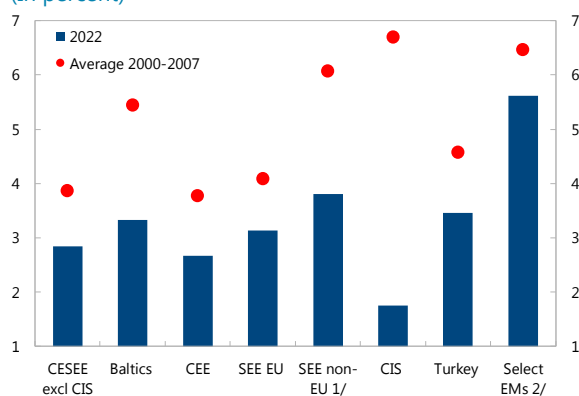
Source: IMF World Economic Outlook Database.

**The divergent inflation trends in the region are forecast to continue over the near term** (Table 2, panel 2). Other than in the CIS and Turkey, headline and, to a lesser extent, core inflation are projected to pick up, but core inflation is expected to generally stay below target for the remainder of 2017. In Russia, inflation is expected to continue to fall toward the central bank's target, reaching 4.5 percent in 2017. In the rest of the CIS, inflation is also projected to decline, but remain elevated at 10.6 percent. For Turkey, inflation is forecast to increase

significantly above target to about 10 percent in 2017—reflecting in part the exchange rate pass-through.

**In the medium term, potential growth is expected to be significantly lower than pre-crisis levels for most CESEE countries.** Following the global financial crisis, potential growth has declined substantially across the region (Figure 15), reflecting weaker productivity growth and lower investment rates (see Chapter II of IMF (2016a)). Re-accelerating convergence is more challenging as gains from past reforms are largely exhausted. Also, rapidly aging populations and a declining workforce (except for Turkey, Figure 16), due partly to outward migration, will significantly weigh on the region’s long-term output potential and have considerable fiscal implications.

**Figure 15. Potential GDP Growth**  
(In percent)

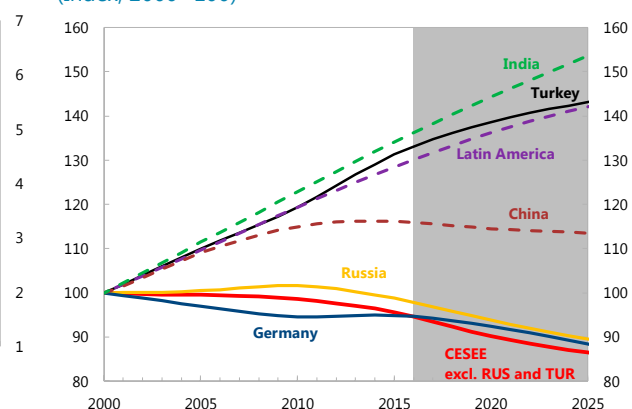


Sources: IMF World Economic Outlook; and IMF staff calculations.

1/ Data for Kosovo and Montenegro is not available.

2/ EM countries from other regions include: Argentina, Brazil, Chile, China, Colombia, Indonesia, Kazakhstan, India, Malaysia, Mexico, Peru, Philippines, South Africa, Thailand, and Venezuela.

**Figure 16. Working-Age Population**  
(Index, 2000=100)



Source: United Nation World Population Prospects (2015).

## D. Risks Remain Tilted to the Downside

**Risks to the CESEE outlook are two-sided but downside risks dominate, notably over the medium term.** In the near term, given the region’s openness, the main upside risk is stronger external demand, notably due to improved prospects in the United States and the euro area, with the latter more important given the close linkages with the region. There is a potential for upside as political uncertainty subsides, following key elections in Western Europe. The CESEE countries that are well integrated into German supply chains would benefit the most from stronger external demand, and the CIS would gain from higher commodity prices. Key downside risks stem from a global shift toward inward-looking policies and protectionism, a sudden tightening in global financial conditions, and new shocks in advanced Europe. The latter, for example, reflect uncertainty associated with upcoming major elections and the impact of post-Brexit arrangements, including on the EU budget. Domestically, there is also a risk that wages and inflation could accelerate appreciably more than projected, with adverse effects on competitiveness.

## Special Focus: Risks from Potential Rapid Tightening of Financial Conditions and Continuing High Wage Growth in the CESEE EU countries

**This section examines the risks from an unexpected rapid tightening of global financial conditions and the impact of continuing strong wage growth in the CESEE EU countries.**

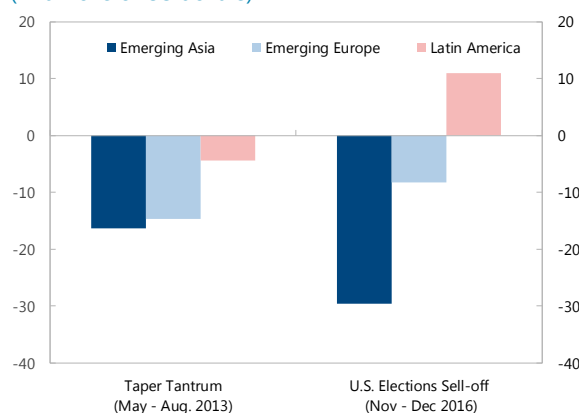
Unexpectedly tighter global financial conditions and potential further U.S. dollar appreciation could have an adverse impact on some economies in the region, given high dollar exposures and generally elevated external debt. In addition, quickly increasing wages could weaken the CESEE EU countries' competitiveness and slow the reduction in external vulnerabilities.

### How Exposed is CESEE to a Potential Rapid Tightening in Global Financial Conditions?

**Unexpected rapid tightening in global financial conditions could adversely affect CESEE.**

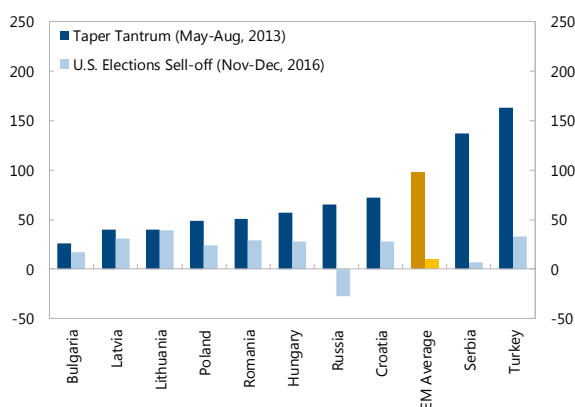
Past episodes of faster-than-anticipated and steep increases in U.S. long-term interest rates triggered sizable capital outflows. For example, the region experienced large capital outflows during the 2013 Taper Tantrum, similar to those in emerging Asia, and somewhat smaller outflows after the 2016 U.S. election (Figure 17). However, credit spreads widened and, except in Turkey, exchange rates depreciated generally by less than in other emerging market economies (Figures 18–19).

**Figure 17. Portfolio Flows to EM Blocs during Increased Volatility**  
(In billions of US dollars)



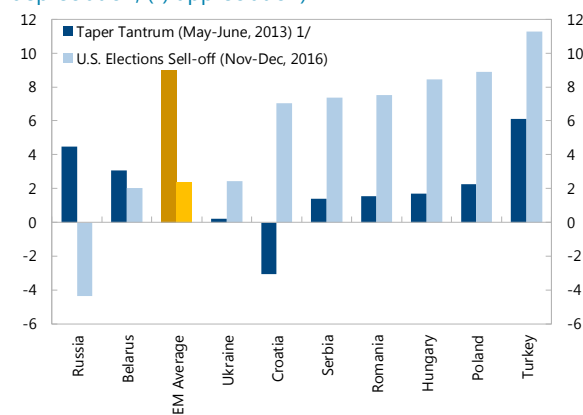
Sources: Bloomberg; IIF EM Portfolio Flow Tracker; and IMF staff calculations.

**Figure 18. EMBIG Spreads during Increased Volatility**  
(Change; in basis points)



Sources: Bloomberg; and IMF staff calculations.

**Figure 19. Exchange Rates vis-à-vis the U.S. Dollar during Increased Volatility**  
(In percent change; (+) depreciation, (-) appreciation)

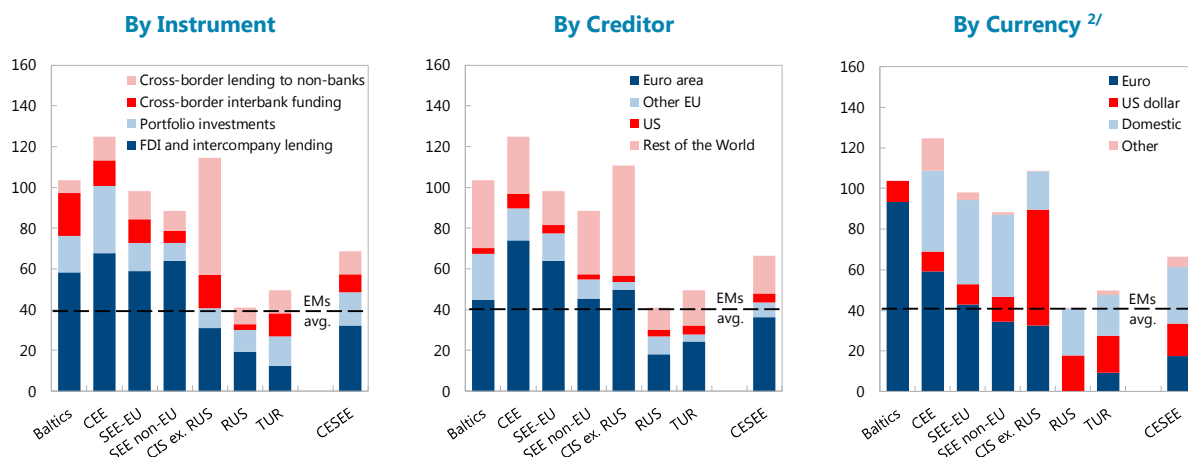


Sources: Bloomberg; and IMF staff calculations.  
1/ Reflects maximum depreciation from May 22<sup>nd</sup> to June 30<sup>th</sup>, 2013.

**Across the region, vulnerability to a further significant tightening in global financial conditions varies, reflecting differences in the structure of external liabilities** (Figure 20).

- Other than in the CIS and Turkey, elevated external liabilities are the main source of vulnerability, but composition is a mitigating factor.** External liabilities in these countries are about 100 percent of GDP, which is significantly greater than the emerging market economy average. However, mitigating factors include that the bulk of the stock is FDI and intercompany lending, which are generally more stable. Also, in most of these countries, a significant share of external liabilities is denominated in euros, including in Hungary where the U.S. dollar debt is largely swapped into euros. Although this part of the region is less directly exposed to potentially higher U.S. dollar funding costs, pressures could arise when the European Central Bank starts to reduce the extent of monetary accommodation. Also, portfolio investments in the CEE, and parent bank funding in the Baltics, create vulnerabilities, particularly if higher interest rates in advanced economies trigger outflows from emerging markets.
- Turkey and the CIS countries are vulnerable to potentially higher U.S. dollar funding costs, given their high share of U.S. dollar-denominated liabilities.** In Turkey, despite relatively lower external liabilities, the bulk of external funding is denominated in U.S. dollars and is from portfolio flows and cross-border bank borrowing with limited FDI. Exacerbated by the loss of sovereign investment grade status, it is vulnerable to higher U.S. dollar funding costs and potential outflows associated with a change in risk sentiment. In Russia, low external debt and large U.S. dollar export proceeds mitigate the high share of dollar liabilities. In the rest of the CIS, high external debt and significant cross-border borrowing increase those countries' vulnerability to external financing pressures.

**Figure 20. CESEE: Composition of External Liabilities, end-2015 1/ 2/**  
(In percent of GDP)



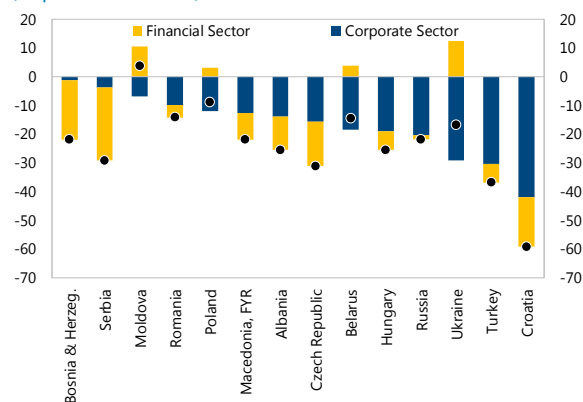
Sources: BIS Locational Banking Statistics; IMF, Coordinated Direct Investment Survey; IMF, Coordinated Portfolio Investment Survey; IMF, World Economic Outlook database; IMF, International Investment Positions Statistics; Bénétrix, Lane, and Shambaugh (2015); and IMF staff calculations.  
1/ Currency composition of external funding is based on weights of foreign currency liabilities estimated by Bénétrix, Lane, and Shambaugh (2015).  
2/ EM average includes Argentina, Bolivia, Brazil, China, Egypt, India, Indonesia, Jordan, Kazakhstan, Malaysia, Mexico, Morocco, Nigeria, Pakistan, Paraguay, Peru, Philippines, South Africa, Thailand, Tunisia, Uruguay, and Venezuela.

**Balance sheet mismatches create additional vulnerabilities if there were to be exchange rate pressures in some CESEE countries.** Although households generally have positive foreign exchange positions across the region, corporate balance sheet mismatches are large in Croatia, Hungary, Russia, Turkey, and Ukraine, with financial sector foreign exchange mismatches elevated notably in Bosnia and Herzegovina and Serbia (Figure 21). High dollar credit to the private sector in the CIS and Turkey suggests that a potential sharp U.S. dollar appreciation would generate significant corporate losses. In Hungary and Russia, corporate U.S. dollar exposures are reportedly hedged by U.S. dollar export proceeds, and the bulk of Croatian corporate debt is euro denominated.

**Some CESEE economies with weaker fundamentals and limited policy buffers are likely to experience greater decompression of risk premia during risk-off episodes.** Figure 22 shows a set of

external, financial, and fiscal indicators to assess relative vulnerability in periods of financial volatility, including vis-à-vis other emerging markets. Elevated current account deficits, large external-debt-refinancing needs, and low reserves coverage suggest that Turkey and the CIS countries (excluding Russia) may be the most vulnerable. Although refinancing needs for external debt are also elevated in CEE and the Baltics, they are mainly financed via intercompany and parent bank funding, lowering rollover risks. In Latvia, large external debt refinancing needs (reflecting significant nonresident bank deposits) raise financial vulnerability. Leverage ratios also remain elevated in the Baltics, the CIS, and Turkey, increasing sensitivity to counterparty risk in periods of risk aversion. Meanwhile, the relatively limited fiscal space, notably due to the still high public debt, in Croatia, Hungary, Ukraine, and some SEE non-EU countries increase vulnerability to repricing of sovereign debt, particularly during economic slowdowns.

**Figure 21. Sectoral Net FX Balance Sheet Exposures December 2016 1/**  
(In percent of GDP)



Sources: BIS Locational Bank Statistics; IMF Monetary and Financial Statistics; IMF World Economic Outlook database; Dealogic; and IMF staff calculations.

1/ Calculated as foreign currency assets less foreign currency liabilities of each sector based on reporting by domestic depository institutions, BIS banks and data on outstanding foreign currency debt instruments.

Figure 22. CESEE: Relative Performance Based on Selected Macro and Financial Indicators 1/ 2/

	(I)	(II)	(III)	(IV)	(V)	(VI)	(VII)	(VIII)
	Current Account Balance (Percent of GDP)	External Debt Amortization in 2017 (Percent of GDP)	ARA Reserve Adequacy Metric <sup>3/</sup>	Net External Position vis-à-vis BIS Reporting Banks (Percent of GDP)	Non-Resident Holdings of Debt Securities (In Percent of GDP)	Loan to Deposit Ratio (Percent)	General Government Fiscal Balance (Percent of GDP)	General Government Gross Debt (Percent of GDP)
<b>CEE</b>								
Czech Republic	1.1	30.0		-15.6	17.0	78.9	0.6	37.2
Hungary	4.9	12.0	128.6	-9.5	30.5	85.2	-1.7	74.1
Slovak Republic	0.4	22.5		-18.6	28.4	117.6	-2.0	52.3
Poland	-0.3	20.7	126.0	-13.8	19.1	106.3	-2.4	54.2
Slovenia	6.8			-6.4	49.6	90.7	-1.8	79.7
<b>SEE EU</b>								
Bulgaria	4.2	14.9	165.4	7.0	6.8	81.5	1.6	27.8
Croatia	2.6	28.5	97.9	-20.5	20.5	118.6	-0.8	84.2
Romania	-2.3	22.6	162.2	-11.7	9.3	96.4	-2.4	39.1
<b>SEE non-EU</b>								
Albania	-9.6	5.6	166.3	5.2	2.5	55.4	-1.7	72.7
Bosnia and Herzegovina	-4.5	21.4	130.7	-3.1	1.6	109.7	0.4	44.8
Kosovo <sup>4/</sup>	-9.8					92.9	-1.5	20.8
Macedonia, FYR	-3.1	16.3	117.7	-4.3	5.2	92.9	-2.6	39.1
Montenegro, Rep. of	-18.9	17.8		-6.3	10.1	79.3	-6.0	70.0
Serbia	-4.0	11.3	160.5	-5.4	21.9	104.9	-1.3	74.1
<b>Baltics</b>								
Estonia	2.7	49.1		-23.1	4.8	131.9	0.3	9.5
Latvia	1.5	78.9		-2.3	19.7	119.9	-0.4	37.5
Lithuania	-0.9	46.4		-10.9	26.2	106.8	0.3	40.0
<b>CIS</b>								
Russia	1.7	5.8	237.6	1.3	2.5	100.7	-3.7	17.0
Belarus	-3.6	28.5	30.5	-14.0	1.0	132.6	-1.5	52.2
Moldova	-3.4	37.3	149.3	15.4	0.2	73.9	-2.1	38.1
Ukraine	-3.6	27.3	66.6	0.3	14.3	133.7	-2.2	81.2
<b>Other</b>								
Turkey	-3.8	19.2	96.2	-18.1	10.3	140.1	-2.3	29.1
<i>High relative exposure value</i>	-3.8	18.5	100	-14.0	14.4	100	-3.0	60
<i>Low relative exposure value</i>	0.2	5.1	150	-2.3	3.8	85	-1.6	37

Sources: IMF World Economic Outlook database; BIS Locational Bank Statistics; WB-IMF Joint External Debt Hub; IMF Monetary and Financial Statistics; and IMF staff calculations.

1/ The figure reflects only the relative performance for each indicator. It uses an indicative color scheme based on tentative demarcation values within a distribution in a sample of EMs. **Orange** represents values higher than the high relative exposure value; **dark green** represents values below the low exposure value; and **light green** represents values in between. **Gray** reflects unavailable or inapplicable data. Specifically, for (I), (II), and (V), the relative positions are based on the top and bottom quartile for each metric in a sample of EMs, while for (IV) they are based on the bottom and top quartiles for CESEE; for (III), upper and lower positions are based on the IMF's methodology for Assessing Reserve Adequacy (ARA); for (VI), countries in the upper range are those with leverage ratio above 100 percent, which reflects the informal target expressed by some foreign parent banks in the context of deleveraging since the global financial crisis, while the lower one reflects the bottom quartile for CESEE; for (VII) and (VIII), countries in the upper range are those that exceed the EU's Stability and Growth Pact targets for the fiscal deficit and public debt, while the lower one reflects the bottom quartile for public debt and the top quartile for fiscal deficit, in a sample of EMs.

2/ For (I), (III), (IV), (VI), (VII), (VIII), values reflect 2016 staff estimates. For (II), data reflects scheduled amortization of outstanding external debt in 2017. For (V), latest available data is as of 2015.

3/ IMF's Assessing Reserve Adequacy (ARA) Metric measures reserve coverage using a weighted index of short-term debt, potential outflows resident and nonresident capital, and shocks to export income. Weights vary based on the exchange rate regime (see IMF, 2013).

4/ The public debt figure includes former Yugoslav debt, not recognized by Kosovo.

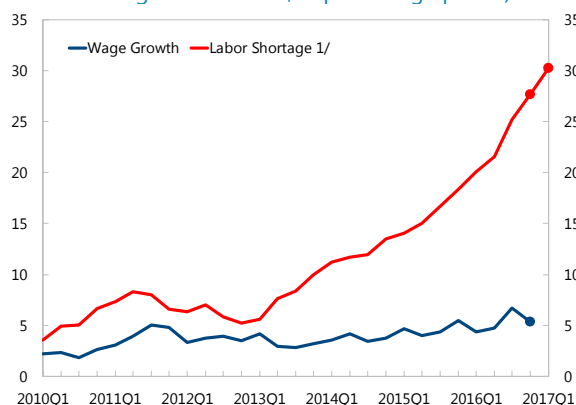


## CESEE EU: Will High Wage Growth Push up Inflation and Undermine Competitiveness?

**In the CESEE EU countries, wage growth is likely to remain high in the near term because labor markets are set to tighten further.** Annual real wage growth in these countries has averaged about 4.5 percent since 2014, outstripping labor productivity growth by about 2 percentage points per year. Recent industry surveys suggest that labor shortages have increased significantly in several of these countries since 2013, implying that wage pressures will likely persist (Figure 23). The faster increase in labor shortages relative to wage growth in recent years may reflect structural shortages of skilled labor, notably in the CEE countries (possibly driven in part by emigration), which may not be easily resolved by wage increases. For example, Estonia's registered wage growth in the information technology sector has not been much above the economy-wide average, despite acute and persistent skills shortages (see IMF 2017a). Moreover, anecdotal evidence suggests that immigrant labor from neighboring countries (for example, Ukraine) may have helped meet some of the labor needs in Poland and thereby mitigated wage growth.

**Figure 23. CESEE EU: Wage Growth and Labor Shortages**

(Wage growth: annual change, in percent;  
Labor shortage: net balance, in percentage points)



Source: Haver Analytics.

1/ Labor shortage refer to answers to European Commission survey question on labor as a limiting factor to production.

**The strong wage growth has had a limited impact on inflation so far.** Its influence has been offset by low commodity prices, low imported inflation from the euro area, and compression in profit margins. Profit margins have been falling in recent periods, more notably in the Baltics, Hungary, and the Slovak Republic (IMF 2016c, Chapter 1, Box 1.2). Empirical evidence suggests that wage growth has a small but statistically significant short-term impact on both core and headline inflation. The small impact is partially consistent with the findings suggesting that price inflation does not respond persistently to changes in labor costs or real activity.<sup>2</sup> For CESEE EU countries, the impact of wage growth is considerably smaller (by a factor of five) than the impact of euro area inflation, consistent with a large share of imported goods in the consumer baskets of these small open economies. Specifically, 1 percentage point higher wage growth would increase core or headline inflation in the CESEE countries by about 0.06–0.08 percentage points in the short term and 0.3 percentage point in the long term. In contrast, estimates suggest that a 1 percentage point increase in euro area inflation would raise headline or core inflation in the CESEE EU economies by 0.2–0.3 percentage point in the short term and 1.5 percentage points or more in the long term (see Annex A).<sup>3</sup>

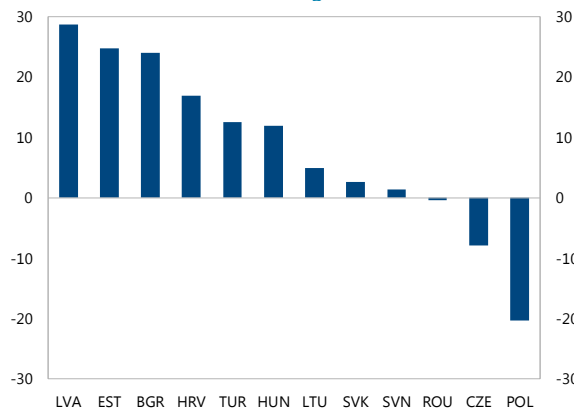
<sup>2</sup> For example, Peneva and Rudd (2015) find that the pass-through from labor costs to inflation has declined considerably and almost disappeared in the United States in recent periods.

<sup>3</sup> This is in line with Iossifov and Podpiera (2014), who also find a significant but small impact of the unemployment rate gap on inflation and a larger impact of euro area inflation.

**The impact of high wage growth on competitiveness needs to be monitored closely, even if it has not yet materially affected external positions.**

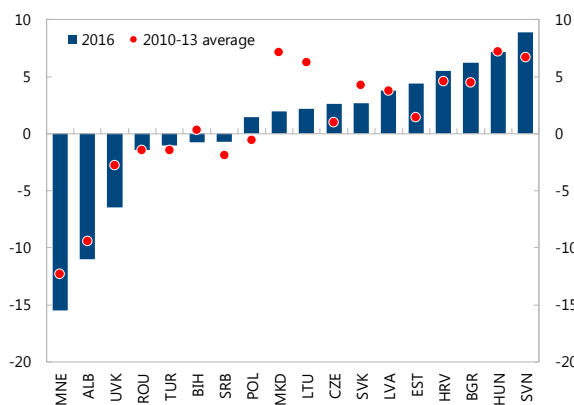
Indicators of competitiveness are not conclusive, but the impact of wage growth has not been large so far, except in some Baltic countries. Deviations in the real effective exchange rate (based on unit labor costs in manufacturing) from the 2000–15 average are mixed, with several countries being in the ±5–10 percent range, while in Bulgaria, Estonia, and Latvia, the difference exceeds 20 percent (Figure 24). In addition, non-oil current account balances have been relatively stable for most countries (Figure 25), and export market shares appear to be broadly unchanged for many CESEE countries in 2014–16 (Figure 26). Nevertheless, the Baltic countries show signs of modest erosion in export market shares since 2014, and in other countries the adverse impact may come with a lag.<sup>4</sup>

**Figure 24. Selected CESEE: REER Developments**  
(In percent, change of 2016Q3 over average of 2000-15, based on ULC in manufacturing)



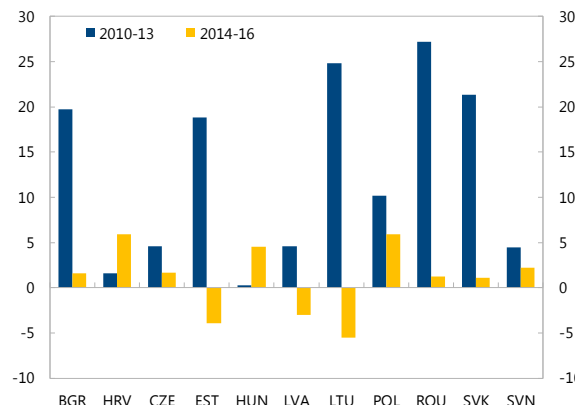
Sources: European Commission; Haver Analytics; and IMF staff calculations.

**Figure 25. CESEE: Non-oil Current Account Balance**  
(In percent of GDP 1/)



Source: IMF World Economic Outlook database.  
1/ Excluding CIS countries.

**Figure 26. CESEE EU: Change in Export Market Share**  
(In percent)



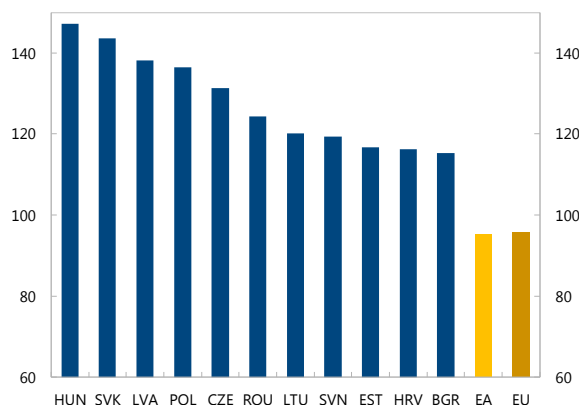
Source: European Commission.

<sup>4</sup> See similar arguments in IMF (2017a), where for Estonia, rapid unit labor cost growth and the deterioration of other competitiveness indicators (such as export market shares and profitability in the tradables sector) raise concerns that further unmitigated wage growth runs the risk of hurting competitiveness.

**If the recovery in energy prices continues and euro area inflation is sustained, the impact of further rapid increases in wages will not be offset as before, and is likely to lead to faster reflation.**

With a relatively high energy share in the consumer price index of the CESEE EU countries compared with the average for the euro area (Figure 27), higher energy prices will result in a sharper rebound in headline inflation in the short term. Higher commodity and import prices will further weigh on profit margins in commodity importers. With the gradual increase in euro area inflation and higher energy prices (although neither may prove durable), and a relatively advanced cyclical position, at least in early 2017, inflation could rise faster than projected. The trends for wage growth and profit margins observed in the region contrast sharply with the decline in the labor share of income seen in many advanced and emerging market economies (IMF 2017b, Chapter 3). Given relatively weak productivity growth, continuing strong wage growth will likely add to pressures on both core and headline inflation.

**Figure 27. CESEE EU: Energy Share in CPI, 2017**  
(In parts per 1000)



Source: Eurostat.

## E. Policy Priorities

**Outside the CIS and Turkey, macroeconomic policies need to adjust to the advanced cyclical recovery and reduce vulnerabilities further.** Accommodative fiscal and monetary policies have supported the recovery, and the time is ripe to gradually change course, preserving hard-won gains in competitiveness and continuing to lower external debt. These considerations suggest that fiscal policy should bear the brunt of the macroeconomic adjustment, allowing monetary policy to gradually withdraw the substantial accommodation it presently provides.

**Fiscal policy needs to tighten in many countries.** Given the advanced cyclical position, cyclically adjusted deficits that are still relatively large, and the need to preserve competitiveness, more fiscal consolidation is appropriate, including to rebuild room for policy maneuver. Another consideration is to stabilize and reduce public debt as population aging accelerates, entailing higher social spending and lower revenue. To the extent possible, fiscal consolidation should be accompanied by enhancing the quality of expenditure and the composition of revenue.

**For the CESEE EU inflation targeters, monetary policy should remain accommodative, but may need to begin normalizing gradually if underlying inflation moves up persistently.**

Given the upside risks to inflation, inflation-targeting central banks (Czech Republic, Hungary, Poland, and Romania) should prepare to phase out unconventional measures (such as the credit support schemes in Hungary) in an orderly way, taking care to avoid excessive tightening of monetary conditions. Gradual conventional tightening may subsequently be needed to contain inflation pressure and inflation expectations. Faster tightening could be required if high wage growth causes inflation to rise more rapidly than expected.

**Financial policies should continue to advance balance sheet repair, including further reduction in NPLs.** Countries with plans drafted under the new Regional NPL Action Plan of the Vienna Initiative should continue with their implementation and pursue strategies that helped successfully reduce NPL ratios in several countries, including Hungary, Romania, and Slovenia. Many other countries' priorities should focus on enhancing prudential oversight to provide banks with incentives to write off or restructure impaired loans, strengthening debt enforcement regimes and insolvency frameworks, and deepening markets for distressed debt (see IMF 2015c).

**A different policy mix is needed to address recent shocks that buffeted the region's two largest economies—Russia and Turkey:**

- In *Russia*, monetary policy can continue to ease as inflation expectations fall toward the central bank's target. The pace of easing should take into account the pickup in economic activity and the need to build credibility under the newly introduced inflation-targeting regime. Meanwhile, to adjust to permanently lower oil prices, the ambitious medium-term fiscal consolidation, aiming for well-targeted and durable adjustment, should continue.
- In *Turkey*, a further tightening of monetary policy is necessary, given the need to lower inflation and reduce elevated external vulnerabilities. Judicious use of available fiscal space can help cushion the impact of negative shocks to avoid a sharp economic slowdown, but should be accompanied by credible medium-term consolidation plans.

**Structural reforms to boost productivity and investment and reinvigorate income convergence in the region are paramount.** As discussed in more detail in IMF (2016b), these reforms should focus on strengthening institutions and improving public sector efficiency, including through state-owned enterprise restructuring and strengthening public sector investment management frameworks. Given adverse demographics, active labor market policies aimed at increasing participation rates are critical to boosting labor supply and lifting potential growth (see IMF (2016a) for a discussion on immigration). Structural reforms to improve the investment climate and reduce labor market rigidities can help reduce the still-high unemployment rate in the SEE non-EU countries. For Russia, the structural reform agenda should be rekindled to focus on diversifying sources of economic growth by facilitating the reallocation of resources to the non-energy tradable sector, while reducing administrative pressures on businesses and improving labor mobility. For Turkey, the priorities continue to be improving the business climate (especially institutional stability and quality), increasing domestic private savings, and addressing labor market rigidities to reduce informality and better integrate refugees.

### Box 1. Turkey: Recent Developments and Near-Term Outlook<sup>1</sup>

**Turkey is at a different point in the economic and financial cycle from the rest of the region.** Activity and credit growth slowed sharply in 2016 against a backdrop of increased political and economic uncertainty. Security concerns have adversely affected tourism arrivals, which, together with a surge in imports, has weakened the current account. Inflation has been high and volatile, and unemployment has been rising.

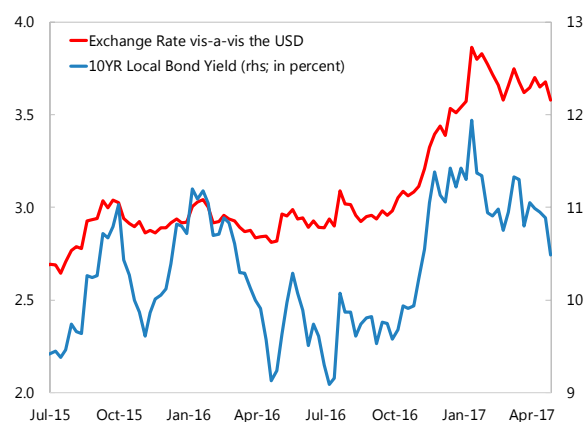
**The recent significant revisions to the national accounts have improved key macroeconomic indicators.** Nominal and real GDP growth were revised upward by an average of 2.7 percentage points over 2011–15. This revision lowered the public and external debt-to-GDP ratios by as much as 5 and 9 percentage points, to 28 percent and 46 percent of GDP, respectively. The 2015 current account deficit is now 3.8 percent of GDP, about 0.7 percent of GDP lower than before the revision, and the fiscal deficit improved by 0.2 percent of GDP.

**However, external imbalances remain elevated, increasing the sensitivity to financial market volatility.** External financing requirements are high at 23 percent of GDP given the still-large current account deficit and the banking and corporate sectors' relatively high reliance on short-term external funding. The Turkish lira came under substantial pressure in recent months, sliding by more than 25 percent against the dollar since the end of June 2016 (Figure 1.1). The sharp depreciation led to higher inflation and amplified pressures on corporate balance sheets and banks' asset quality, given the high share of foreign currency loans (in excess of 20 percent of GDP). However, capital flows have recovered since end-February 2017, with credit spreads and bond yields falling (Figure 1.2).

**In late 2016, the authorities announced measures to support growth and reduce excessive lira volatility.** These measures comprised a package of temporary tax cuts, corporate and small and medium enterprise loan guarantees, and measures to reduce domestic use of foreign currency, including by collecting public sector foreign exchange receivables in lira. The central bank also increased the policy rate and lowered foreign exchange reserve requirements to support foreign exchange liquidity.

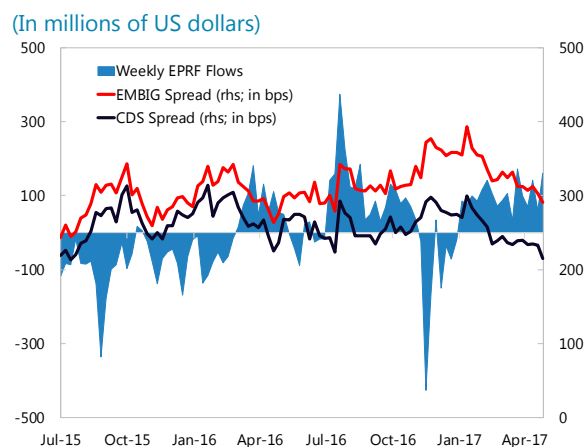
**The near-term outlook is subdued.** Near-term growth is projected to remain below potential in Turkey. Political uncertainty and less favorable global financial conditions are expected to keep borrowing costs elevated. Imbalances are expected to persist, with inflation remaining above target and external debt rising. Nevertheless, net exports may benefit from a weaker lira, and fiscal incentives may help support investment.

**Figure 1.1 Turkey: Exchange Rate and 10 Year Sovereign Domestic Bond Yield**



Source: Bloomberg.

**Figure 1.2 Turkey: Capital Flows and Credit Spreads**



Sources: Bloomberg; and Haver Analytics.

<sup>1</sup> Prepared by Ahmed El-Ashram, with inputs from Plamen Iossifov.

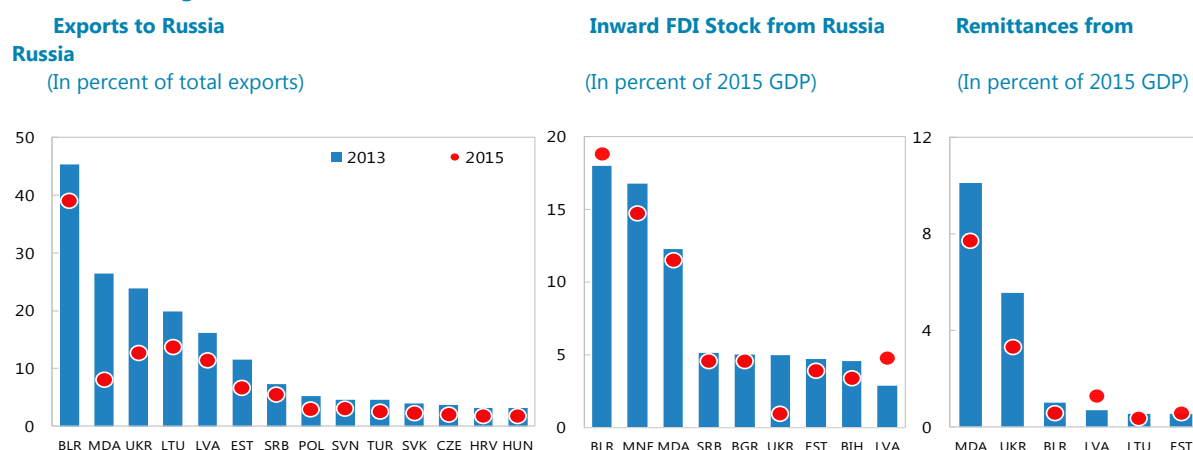
**Box 2. Regional Spillovers from the Nascent Recovery in Russia<sup>1</sup>**

**Russia’s economic activity has traditionally had important spillovers to other members of the Commonwealth of Independent States (CIS) and the Baltics through trade, investment, and remittances.** Trade linkages have been the strongest channel. In addition, Russian foreign direct investment (FDI) flows mainly to neighboring Belarus, Moldova, and Montenegro, and, to a lesser extent, to Serbia and Bulgaria. Moldova and Ukraine were the two main recipients of remittances from Russia in 2015. For the rest of Central, Eastern, and Southeastern Europe (CESEE), real linkages have been limited other than in the energy sector, where Russia supplied a significant share of Europe’s natural gas and oil imports.

**Trade linkages have weakened following geopolitical tensions surrounding Ukraine, including as a result of EU sanctions and Russian countersanctions.** Increased trade restrictions and retaliatory measures between Russia and Ukraine, including the recent suspension of a free trade agreement, have significantly reduced trade flows (Figure 2.1). Ukraine’s share of exports to Russia declined to 13 percent from about 24 percent in 2013. Moldova’s exports to Russia plummeted to less than 10 percent from close to 25 percent in 2013, following the ban on food and wine imports. For the Baltics, the Russian embargo on European Union (EU) food products resulted in these countries’ reorienting their exports toward the EU. Specifically, Estonia’s trade with Russia in value-added terms has fallen to only 1 percent of GDP. Sanctions have also lowered transit services for exports to third countries in Ukraine and the Baltics, particularly Lithuania.

**Despite weaker linkages, a turnaround in the Russian economy could still be supportive to some CIS and Baltic economies.** In particular, Belarus has strong linkages to Russia, which remains its largest foreign investor, financing about 60 percent of its FDI, and its main trading partner, with an export share of about 45 percent. Belarus also benefits from Russian financial support, including through a regional stabilization fund and lower prices for energy imports. Following some bilateral economic tensions in 2016-17 centered on the pricing of energy imports, a tentative agreement between Russia and Belarus on payments for oil and gas products was announced in April 2017, reducing frictions to spillovers from the recovery in Russia. Despite reduced trade linkages, Latvia and Lithuania would still benefit given their trade exposure to Russia (11 percent and 14 percent of their exports, respectively). Also, Latvia continues to receive external financing through nonresident Russian deposits and some FDI investments—both of which have increased since 2014. A rebound in Russia’s labor market would improve remittances to Moldova, which, given their magnitude, would have significant implications for Moldova’s growth and external position. Finally, stronger income growth in Russia could increase tourism in other CESEE countries, including Turkey.

**Figure 2.1 CESEE: Trade, Investment and Remittances Channels with Russia**



Sources: IMF, Direction of Trade Statistics Database; IMF, Coordinated Direct Investment Survey Database; World Bank Migration and Remittances Database.

<sup>1</sup>Prepared by Ahmed El-Ashram.

**Box 3. EU Funds Absorption—How Much of a Cyclical Boost Can Be Expected?<sup>1</sup>**

**EU structural and Investment Funds (ESIF) are sizable.**

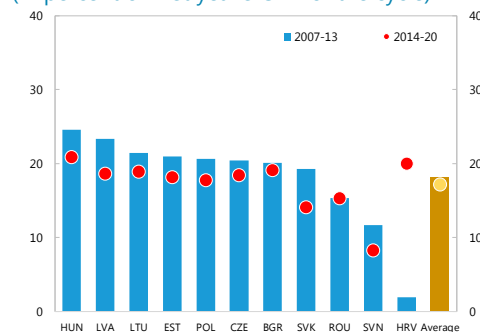
The average annual EU funds absorption across the Central, Eastern, and Southeastern European (CESEE) EU members was 1.5 percent of recipient countries' GDP in 2007–15, about a third of government investment in these countries.<sup>2</sup> For the 2014–20 cycle, the planned total ESIF allocation increased in euro terms relative to the previous cycle (for Croatia, the increase is notable because it entered the EU in 2013), but is broadly unchanged as a share of GDP (Figure 3.1).

**The EU funds have exhibited considerable cyclical dynamics.**

EU funds' absorption is inherently cyclical, as evidenced during the previous cycle (Figure 3.2). The projects, identified and agreed on by the EU and recipient countries, often take time to start and implement. EU funds absorption is therefore largely influenced by exogenous factors related to project implementation, as well as by changes in EU-wide policies.

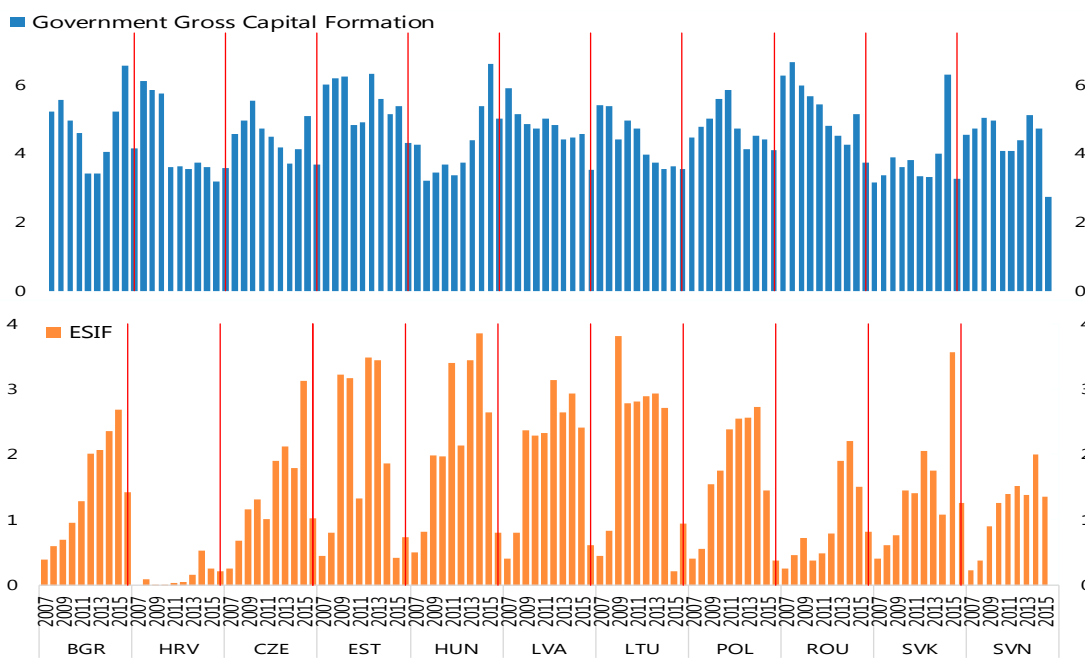
**Figure 3.1 EU Structural and Investment Funds Allocations**

(In percent of first year's GDP of the cycle)



Sources: European Commission, IMF World Economic Outlook Database, and IMF staff estimates.

**Figure 3.2. CESEE EU: Government Gross Capital Formation and EU Funds Absorption**  
(2007-2016, in percent of GDP)



Sources: European Commission, and IMF staff calculation.

<sup>1</sup>Prepared by Yan Sun.

<sup>2</sup>See IMF (2015e) for a description of EU structural and cohesion funds and their absorption during the 2007–13 cycle (also called “program period”). Funds for the 2007–13 cycle could be utilized until 2015.



### Box 3. EU Funds Absorption—How Much of a Cyclical Boost Can Be Expected? (Concluded)

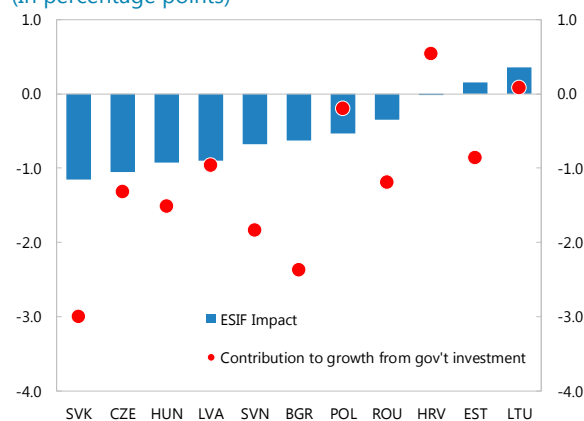
**The impact of EU funds on growth is empirically estimated using a panel regression for the CESEE EU countries for the period 2008–15.** Similar to the estimation of fiscal expenditure multipliers, the impact of the EU funds is estimated by regressing annual GDP growth on the change in EU funds. This exercise is done in a panel comprising the 11 CESEE EU countries, controlling for private and public investment as well as for country-specific factors (for example, trade openness) using fixed effects. The estimates suggest that the EU funds' impact multiplier is between  $\frac{1}{2}$  and  $\frac{2}{3}$  (see Annex B). These estimates are in line with estimates of expenditure multipliers for emerging market economies in the region provided in the literature. For example, Klyuev and Snudden (2011) find expenditure multipliers of about  $\frac{1}{2}$  in the first year and generally larger in an economic downturn for the Czech Republic. Similarly, Muir and Weber (2013) estimate that for Bulgaria, the first-year investment multiplier is about 0.3 to 0.6. Government consumption multipliers used by some regional central banks in a zero lower bound monetary setting are also similar, for example, 0.5 in the Czech Republic, 0.8 in Estonia, and 0.7 in Slovenia (see Kilponen and others 2015). Spilimbergo, Symansky, and Schindler (2009) report that capital spending multipliers have been estimated to be between 0.5 and 1.8. However, they note that multipliers vary depending on country circumstances, and suggest using a multiplier of 0.5 or less for small open economies. Ilzetzki, Mendoza, and Vegh (2011) find that, in emerging market economies, spending multipliers range from 0.1 to 0.3, while revenue multipliers lie between 0.2 and 0.4 in the short term.<sup>3</sup>

#### **EU funds absorption fell for most CESEE EU countries in 2016 as the previous EFIS cycle came to an end and the new cycle has not gathered speed yet, weighing on growth.**

After a ramp up of project implementation in 2014–15 under the previous cycle, new project implementation under the 2014–20 cycle got off to a slow start in 2016 with new projects still in the planning or contracting stage, except for Lithuania and Estonia where EU funds absorption increased. Reflecting low EU fund project implementation, public investment fell in most countries except Croatia and Lithuania. Using the multiplier estimates from the panel regression, the impact of the decline in EU funds absorption on growth is estimated to range from  $\frac{1}{2}$  to 1 percentage point for most of the CESEE EU countries and account for a significant part of the negative contribution of government investment to growth in 2016 (Figure 3.3).

**With absorption rates for the new programming cycle projected to pick up, EU funds are expected to boost GDP growth in many CESEE EU countries.** Preliminary data already indicate that ESIF project implementation is gathering pace. If the tempo of EU funds absorption is similar to the last cycle, the additional contribution to 2017 GDP growth for CESEE EU countries could be in the range of  $\frac{1}{4}$ – $1\frac{1}{2}$  percentage points.

**Figure 3.3. CESEE EU: Impact of ESIF Funds and Government Investment on Growth, 2016 1/**  
(In percentage points)



Sources: European commission; and IMF staff estimates.

1/ ESIF impact calculated as  $0.5 \times \text{change in ESIF in percent of GDP}$ . Government investment's contribution to growth is calculated from expenditure based national accounts data.

<sup>3</sup>In general, evidence on multipliers for emerging market economies is relatively scarce in the literature compared with studies on advanced economies; for a recent summary, see Batini and others (2014).



## Annex A. CESEE EU: Impact of Wage Growth on Inflation

To assess the impact of wage growth on inflation (headline and core) for the CESEE EU countries (Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic, and Slovenia), the specification below is estimated using a panel data set for the 11 CESEE EU countries, with quarterly data for 2004:Q2–2016:Q3:

$$\pi_{it} = \alpha + \beta_1 \pi_{it-1} + \gamma \mathbf{X} + \sum_{j=1}^n \delta_j z_{jt} + u_{it}, \quad (\text{A1.1})$$

where  $\pi_{it}$  is headline or core inflation and  $u_{it}$  is the error term (specified both with and without country fixed effects).

The set of explanatory variables  $\mathbf{X}$  includes domestic variables such as wage growth; the change in the nominal effective exchange rate (+ means appreciation); the change in administered prices and taxes; the percent change in world oil and food prices (converted to local currencies, and weighted by the share of energy and food prices in the Harmonised Index of Consumer Prices). The  $z_j$  are different measures of euro area inflation (headline or core), either stand alone or interacted with country characteristics such as the exchange rate regime and the share of foreign value added in domestic demand.

Equation (A1.1) is a variant of an open economy Keynesian Phillips curve common in the literature (see, for example, Galí and Gertler 1999), and follows more closely with the set up in Iossifov and Podpiera (2014). The notable difference with the latter is that it uses wage inflation as an explanatory variable rather than estimated unemployment rate gap or inflation expectation.

The regression results suggest that for headline inflation, imported inflation (as proxied by euro area inflation), energy and food prices, changes in administered prices and taxes, and changes in the nominal exchange rate have a significant impact (Tables B1–B2). Even for core inflation, euro area inflation and changes in administered prices and taxes remain significant.

As expected, wage growth affects both headline and core inflation, although its impact is smaller than that of euro area inflation. These results are robust when taking into account countries' exchange rate regimes or additional country-specific factors. These findings are in line with similar studies of inflation in the CESEE EU economies. For example, Iossifov and Podpiera (2014) find that the unemployment rate gap (that is, deviations from the non-accelerating inflation rate of unemployment) is significant in explaining core inflation for *non-euro area EU* countries (Bulgaria, Croatia, Czech Republic, Hungary, Lithuania, Poland, Romania, Denmark, Sweden, and the United Kingdom), along with a similar set of variables that are considered here (that is, euro area inflation, energy and food prices, changes in administered prices and taxes, changes in the nominal exchange rate). They also find that the impact from imported inflation on domestic inflation is much larger than that of the unemployment rate gap. Also, IMF (2015b), which studies inflation dynamics in the Czech Republic, Poland, Sweden, and Switzerland, comes to similar conclusions.

Table A1. Estimation Results for Headline Inflation for Equation (A1.1)

Explanatory \ Dependent Variables	(1)	(2)	(3)	(4)	(5)	(6)
	Headline inflation					
Inflation (t-1)	0.746*** (0.0306)	0.775*** (0.0254)	0.746*** (0.0319)	0.713*** (0.0329)	0.734*** (0.0339)	0.694*** (0.0344)
Wage growth	0.0774*** (0.0236)	0.0737*** (0.0228)	0.0776*** (0.0233)	0.0745*** (0.0233)	0.0761*** (0.0227)	0.0752** (0.0241)
Wage growth (t-1)	-0.0205 (0.0241)	-0.0287 (0.0231)	-0.0200 (0.0253)	-0.0132 (0.0214)	-0.0161 (0.0211)	-0.0118 (0.0218)
Change in NEER	-0.0485*** (0.0139)	-0.0529*** (0.0132)	-0.0485*** (0.0140)	-0.0448*** (0.0128)	-0.0488*** (0.0126)	-0.0447*** (0.0132)
Change in NEER (t-1)	-0.00770 (0.00908)	-0.00603 (0.00831)	-0.00764 (0.00917)	-0.00635 (0.00952)	-0.00640 (0.00904)	-0.00816 (0.0102)
Contribution of admin. price	1.014*** (0.0947)	1.028*** (0.0904)	1.015*** (0.0952)	1.009*** (0.0983)	1.025*** (0.103)	1.003*** (0.0864)
Contribution of admin. price (t-1)	-0.897*** (0.107)	-0.941*** (0.100)	-0.894*** (0.103)	-0.852*** (0.124)	-0.877*** (0.122)	-0.820*** (0.125)
Contribution of taxes	0.555*** (0.0739)	0.525*** (0.0713)	0.556*** (0.0740)	0.572*** (0.0753)	0.556*** (0.0779)	0.583*** (0.0718)
Contribution of taxes (t-1)	-0.457*** (0.0806)	-0.488*** (0.0821)	-0.457*** (0.0812)	-0.438*** (0.0727)	-0.453*** (0.0744)	-0.426*** (0.0722)
Change in energy price	0.0832*** (0.0195)	0.0850*** (0.0185)	0.0834*** (0.0195)	0.0793*** (0.0195)	0.0825*** (0.0192)	0.0782*** (0.0198)
Change in energy price (t-1)	-0.0656*** (0.0135)	-0.0362** (0.0155)	-0.0668*** (0.0150)	-0.0644*** (0.0125)	-0.0604*** (0.0132)	-0.0616*** (0.0130)
Change in food price	0.0657*** (0.0144)	0.0859*** (0.0130)	0.0648*** (0.0146)	0.0649*** (0.0146)	0.0694*** (0.0148)	0.0636*** (0.0145)
Change in food price (t-1)	-0.0251 (0.0171)	-0.0290 (0.0174)	-0.0246 (0.0173)	-0.0222 (0.0154)	-0.0199 (0.0158)	-0.0205 (0.0159)
EA inflation, stand alone	0.309*** (0.0449)		0.319*** (0.0862)			
EA core inflation		0.421*** (0.0879)	-0.0297 (0.158)			
EA inflation, interacted with FX-regime						
free float				0.211*** (0.0648)		
other managed				0.244*** (0.0654)		
pegged to euro				0.570*** (0.0994)		
euro				0.397*** (0.0782)		
EA inflation, interacted with FX-regime and the share of foreign value-added in demand:						
free float					0.00583** (0.00232)	
other managed					0.00528** (0.00183)	
pegged to euro					0.0112*** (0.00235)	
euro					0.00568*** (0.00175)	
EA inflation, interacted with country dummies, not reported						(0.0755)
Constant	-0.321*** (0.0566)	-0.388*** (0.103)	-0.304** (0.112)	-0.356*** (0.0763)	-0.264** (0.0889)	-0.368*** (0.0712)
Observations	530	530	530	530	530	530
R-squared	0.956	0.955	0.956	0.958	0.956	0.959
Number of countries	11	11	11	11	11	11

Robust standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

Table A2. Estimation Results for Core Inflation for Equation (A1.1)

Explanatory \ Dependent Variables	(1)	(2)	(3)	(4)	(5)	(6)
	Core inflation					
Core inflation (t-1)	0.832*** (0.0241)	0.831*** (0.0237)	0.831*** (0.0233)	0.799*** (0.0140)	0.798*** (0.0134)	0.801*** (0.0180)
Wage growth	0.0600** (0.0197)	0.0630** (0.0202)	0.0619*** (0.0193)	0.0578** (0.0187)	0.0577** (0.0186)	0.0623** (0.0201)
Wage growth (t-1)	-0.0186 (0.0168)	-0.0152 (0.0176)	-0.0172 (0.0179)	-0.0106 (0.0130)	-0.00911 (0.0134)	-0.00905 (0.0142)
Change in NEER	-0.0137 (0.0119)	-0.0122 (0.0114)	-0.0123 (0.0114)	-0.0131 (0.0123)	-0.0135 (0.0123)	-0.0122 (0.0118)
Change in NEER (t-1)	-0.00959 (0.0155)	-0.00826 (0.0157)	-0.00885 (0.0159)	-0.00940 (0.0154)	-0.0101 (0.0154)	-0.00617 (0.0170)
Contribution of admin. price	0.590*** (0.116)	0.581*** (0.110)	0.581*** (0.111)	0.585*** (0.121)	0.586*** (0.123)	0.569*** (0.118)
Contribution of admin. price (t-1)	-0.609*** (0.121)	-0.587*** (0.117)	-0.602*** (0.114)	-0.574*** (0.119)	-0.574*** (0.117)	-0.543*** (0.125)
Contribution of taxes	0.329*** (0.0827)	0.345*** (0.0834)	0.339*** (0.0806)	0.344*** (0.0836)	0.346*** (0.0835)	0.348*** (0.0777)
Contribution of taxes (t-1)	-0.327*** (0.103)	-0.318** (0.102)	-0.320** (0.102)	-0.329** (0.109)	-0.329** (0.108)	-0.305** (0.108)
Change in energy price	0.00173 (0.0114)	0.00288 (0.0124)	0.00167 (0.0114)	0.00406 (0.0120)	0.00437 (0.0118)	0.00354 (0.0136)
Change in energy price (t-1)	-0.00649 (0.0117)	-0.0286** (0.0102)	-0.0215** (0.00866)	-0.00687 (0.0109)	-0.00729 (0.0109)	-0.0296** (0.00952)
Change in food price	0.0189 (0.0114)	0.00520 (0.0105)	0.00989 (0.00781)	0.0168 (0.0115)	0.0165 (0.0114)	0.00422 (0.0111)
Change in food price (t-1)	-0.00332 (0.0172)	0.000143 (0.0176)	-0.00258 (0.0164)	-0.00373 (0.0163)	-0.00307 (0.0162)	0.00140 (0.0171)
EA core inflation	0.379*** (0.0963)		0.171 (0.129)			
EA inflation		0.197*** (0.0600)	0.139 (0.0862)			
EA core inflation, interacted with FX-regime						
free float				0.221* (0.101)		
other managed				0.248*** (0.0655)		
pegged to euro				1.244*** (0.102)		
euro				0.341** (0.109)		
EA core inflation, interacted with FX-regime and the share of foreign value-added in demand:						
free float					0.00789** (0.00316)	
other managed					0.00698*** (0.00185)	
pegged to euro					0.0293*** (0.00233)	
euro					0.00663*** (0.00169)	
EA core inflation, interacted with country dummies, not reported						
Constant	-0.430*** (0.128)	-0.277*** (0.0822)	-0.381** (0.123)	-0.433*** (0.0936)	-0.431*** (0.0854)	-0.284*** (0.0803)
Observations	530	530	530	530	530	530
R-squared	0.941	0.941	0.941	0.943	0.943	0.945
Number of countries	11	11	11	11	11	11

Robust standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

## Annex B. Impact of EU Funds on Growth in the CESEE EU Countries

The estimates of the impact of the EU funds on growth is based on the following panel regression estimated using data for the 11 CESEE EU countries (Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic, and Slovenia) over 2008–15:

$$g_{it} = \alpha + \beta g_{it-1} + \sum_{j=0}^2 \gamma_j ESIF_{it-j} + \sum_{j=0}^2 \delta_j z_{it-j} + u_{it} \quad (\text{B1.1})$$

where the subscript  $i$  denotes country ( $i=1,\dots,11$ ) and the subscript  $t$  denotes time ( $t=2008,\dots,2015$ );  $g$  is real GDP growth in percent;  $ESIF$  is the change in the EU funds in percent of GDP; and  $z_{it}$  are the control variables, including the changes in total gross capital formation, government gross capital formation, and private sector gross capital formation measured in percent of GDP.<sup>5</sup> The disturbance term  $u_{it}$  is specified as follows:

$$u_{it} = \mu_i + \lambda_t + v_{it}$$

and contains both a country fixed effect  $\mu_i$  and a time effect  $\lambda_t$ .

The equation is similar to the setting used in IMF (2010), which studies the impact of fiscal consolidation on growth. Given that this is a dynamic panel, the regression is estimated using the Arellano and Bond dynamic panel generalized method of moments (GMM) estimator (Arellano and Bover 1995). The estimators help partially address potential sensitivity of GMM estimators to the assumption of exogeneity and so forth, and the reported standard errors are also corrected for finite sample bias. The results show that the impact multiplier of the EU funds is between  $\frac{1}{2}$  and  $\frac{2}{3}$  (see Table B1). The results also show that the EU funds' impact spans more than one period—consistent with the fact that many EU-funded projects, for example, infrastructure projects, are generally multiyear endeavors.

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<sup>5</sup> The correlation between change in EU funds absorption and change in government investment is very low (0.08). Reflecting weak total investment and decline in private investment, the correlations for change in EU funds absorption and private investment and total investment are  $-0.3$  and  $-0.27$ , respectively. Therefore, collinearity is not a major concern for the estimation.

Table B1. Estimation Results for Equation (B1.1)

Explanatory Variables \ Dependent Variable: real GDP growth	(1)	(2)	(3)	(4)	(5)
real GDP growth (t-1)	0.315*** (0.0662)	0.492*** (0.107)	0.509*** (0.0805)	0.316*** (0.0860)	0.448*** (0.0986)
Change in EU funds absorption	0.645*** (0.157)	0.478*** (0.182)	0.647*** (0.150)	0.477** (0.194)	0.663*** (0.142)
Change in EU funds absorption (t-1)	1.176*** (0.203)	1.009*** (0.278)	1.005*** (0.227)	1.284*** (0.266)	1.143*** (0.196)
Change in EU funds absorption (t-2)	1.719*** (0.177)	1.234*** (0.204)	1.294*** (0.177)	1.737*** (0.218)	1.364*** (0.175)
Change in Gross Capital Formation (Priv. Sector)		-0.00452 (0.153)	0.0149 (0.146)		
Change in Gross Capital Formation (Priv. Sector) (t-1)		-0.397*** (0.124)	-0.372*** (0.129)		
Change in Gross Capital Formation (Priv. Sector) (t-2)		-0.129** (0.0592)	-0.0935 (0.0902)		
Change in Gross Capital Formation (Government)		0.768*** (0.292)		0.621*** (0.237)	
Change in Gross Capital Formation (Government) (t-1)		0.533 (0.384)		0.447 (0.424)	
Change in Gross Capital Formation (Government) (t-2)		0.0351 (0.409)		-0.119 (0.480)	
Change in Total Gross Capital Formation					0.221 (0.138)
Change in Total Gross Capital Formation (t-1)					-0.293** (0.130)
Change in Total Gross Capital Formation (t-2)					-0.0277 (0.0980)
Observations	66	66	66	66	66
Number of countries	11	11	11	11	11

Robust standard errors in parentheses.

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

## Appendix I. CESEE: Growth of Real GDP, Domestic Demand, Exports, and Private Consumption, 2015–18

(Percent)

	Real GDP Growth				Real Domestic Demand Growth				Real Export Growth (goods and services)				Real Private Consumption Growth			
	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018
<b>Baltics<sup>1</sup></b>	2.0	2.0	2.8	3.1	4.1	2.5	3.4	3.8	0.4	2.9	3.4	3.5	4.0	4.6	3.5	3.6
Estonia	1.4	1.6	2.5	2.8	0.7	2.6	3.2	3.7	-0.6	3.6	3.4	3.4	4.6	4.0	3.1	3.6
Latvia	2.7	2.0	3.0	3.3	2.4	3.0	4.3	4.1	2.6	2.6	2.5	3.2	3.5	3.4	3.5	3.5
Lithuania	1.8	2.3	2.8	3.1	6.7	2.1	3.0	3.6	-0.4	2.9	3.8	3.7	4.1	5.5	3.6	3.7
<b>Central and Eastern Europe<sup>1</sup></b>	3.9	2.7	3.2	3.0	3.4	2.3	3.4	3.3	7.6	7.0	6.0	5.5	3.0	3.9	3.6	3.2
Czech Republic	4.5	2.4	2.8	2.2	4.8	1.4	2.7	2.5	7.7	4.3	3.8	3.5	3.0	2.9	2.8	2.6
Hungary	3.1	2.0	2.9	3.0	1.4	2.2	3.1	3.0	7.7	6.9	6.3	6.6	3.1	7.2	3.3	3.1
Poland	3.9	2.8	3.4	3.2	3.4	2.8	3.7	3.7	7.7	8.4	7.0	6.0	3.2	3.6	4.0	3.6
Slovak Republic	3.8	3.3	3.3	3.7	4.7	0.9	3.3	3.5	7.0	4.8	5.2	5.7	2.2	2.9	3.2	3.0
Slovenia	2.3	2.5	2.5	2.0	1.4	2.4	3.0	2.5	5.6	5.9	3.5	3.7	0.5	2.8	2.1	2.0
<b>Southeastern Europe-EU<sup>1</sup></b>	3.5	4.2	3.7	3.1	4.5	4.4	4.5	3.5	6.1	7.0	5.8	5.7	5.0	5.7	5.3	3.6
Bulgaria	3.6	3.4	2.9	2.7	3.5	1.6	3.1	2.8	5.7	5.7	3.5	3.9	4.5	2.1	3.0	3.0
Croatia	1.6	2.9	2.9	2.6	1.2	3.1	3.7	3.2	10.0	6.7	5.5	5.0	1.2	3.3	3.5	2.9
Romania	3.9	4.8	4.2	3.4	5.5	5.6	5.2	3.8	5.4	7.6	6.6	6.5	6.0	7.4	6.5	3.9
<b>Southeastern Europe-non-EU<sup>1</sup></b>	2.2	2.8	3.2	3.6	1.9	2.4	2.9	3.1	7.2	8.4	6.9	6.5	1.7	2.1	2.3	2.7
Albania	2.6	3.4	3.7	4.1	0.1	3.8	4.5	1.8	-0.2	6.0	3.2	4.9	0.9	0.9	3.6	3.9
Bosnia and Herzegovina	3.1	2.5	3.0	3.5	1.5	2.7	3.6	3.7	7.6	3.8	3.4	4.5	2.9	2.4	2.8	2.6
Kosovo	4.1	3.6	3.5	3.6	4.3	5.0	4.3	3.4	2.5	1.7	3.7	4.2	3.8	5.5	3.7	3.4
Macedonia, FYR	3.8	2.4	3.2	3.4	3.4	1.5	2.2	2.8	6.7	11.5	11.8	10.5	3.7	4.2	3.2	2.6
Montenegro	3.4	2.4	3.3	3.4	4.7	7.6	5.0	6.7	9.4	3.5	4.4	3.4	2.2	5.0	1.7	3.8
Serbia	0.8	2.8	3.0	3.5	1.4	1.1	1.9	3.0	10.2	11.9	8.9	7.5	0.5	0.8	1.3	2.2
<b>European CIS countries<sup>1</sup></b>	-3.4	-0.1	1.4	1.6	-9.3	-1.5	1.2	1.7	2.3	2.3	3.6	3.7	-10.2	-4.1	1.5	2.1
Belarus	-3.8	-3.0	-0.8	0.6	-7.6	1.2	-1.8	-1.6	2.1	7.6	2.5	2.4	-2.3	1.7	-0.3	-0.3
Moldova	-0.4	4.0	4.5	3.7	-5.8	-4.1	4.0	3.3	2.3	14.8	4.3	3.1	-2.3	2.9	3.0	3.4
Russia	-2.8	-0.2	1.4	1.4	-9.1	-2.3	1.1	1.7	3.7	2.3	3.8	3.8	-9.7	-5.0	1.4	2.1
Ukraine	-9.8	2.3	2.0	3.2	-12.1	6.0	4.0	3.9	-13.2	-1.6	2.0	3.4	-20.5	1.8	3.1	2.9
Turkey	6.1	2.9	2.5	3.3	5.4	4.2	1.8	3.0	4.2	-2.0	4.1	4.0	5.5	2.3	2.6	3.2
<b>CESEE<sup>1,2</sup></b>	0.8	1.5	2.2	2.4	-2.1	1.0	2.1	2.5	4.1	2.8	4.5	4.3	-2.6	-0.1	2.5	2.7
Emerging Europe <sup>1,3</sup>	0.5	1.4	2.1	2.4	-2.7	1.0	2.0	2.5	4.0	2.7	4.5	4.4	-3.1	-0.5	2.4	2.7
New EU member states <sup>1,4</sup>	3.7	3.0	3.3	3.0	3.7	2.8	3.6	3.4	6.8	6.8	5.8	5.5	3.5	4.4	4.0	3.3
<b>Memorandum</b>																
Euro Area <sup>1</sup>	2.0	1.7	1.7	1.6	1.9	2.0	1.7	1.6	6.5	2.9	4.0	3.9	1.8	2.0	1.5	1.5
European Union <sup>1</sup>	2.4	1.9	2.0	1.8	2.2	2.2	2.0	1.8	5.7	3.0	4.0	3.7	2.2	2.3	1.9	1.7

Sources: IMF World Economic Outlook database; and Fund staff estimates.

<sup>1</sup> Weighted averages using 2015 GDP valued at purchasing power parity.<sup>2</sup> Includes Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Kosovo, Latvia, Lithuania, Macedonia FYR, Moldova, Montenegro, Poland, Romania, Russia, Serbia, Slovak Republic, Slovenia, Turkey, and Ukraine.<sup>3</sup> CESEE excluding Czech Republic, Estonia, Latvia, Lithuania, Slovak Republic, and Slovenia.<sup>4</sup> Includes Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic, and Slovenia.

## Appendix II. CESEE: CPI Inflation, Current Account Balance, and External Debt, 2015–18

(Percent)

	CPI Inflation (Period average)				CPI Inflation (End of period)				Current Account Balance to GDP				Total External Debt to GDP			
	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018
	Baltics <sup>1</sup>	-0.3	0.5	2.9	2.3	0.0	2.1	2.4	2.0	-0.9	0.6	-0.8	-0.9	98.3	103.0	101.5
Estonia	0.1	0.8	3.2	2.5	-0.2	2.4	3.4	2.3	2.2	2.7	1.4	0.9	94.8	91.1	85.8	80.6
Latvia	0.2	0.1	2.8	2.5	0.4	2.1	1.5	1.7	-0.8	1.5	-1.1	-1.4	141.6	147.3	140.9	136.4
Lithuania	-0.7	0.7	2.8	2.0	-0.2	2.0	2.4	2.0	-2.3	-0.9	-1.6	-1.5	74.4	82.3	85.4	82.7
Central and Eastern Europe <sup>1</sup>	-0.5	-0.2	2.2	2.3	-0.2	1.1	2.3	2.3	0.5	1.0	0.0	-0.2	77.1	77.3	77.8	73.7
Czech Republic	0.3	0.7	2.3	1.8	0.0	2.0	2.3	1.8	0.9	1.1	1.2	0.7	69.4	70.7	76.5	70.5
Hungary	-0.1	0.4	2.5	3.3	0.9	1.8	2.8	3.0	3.4	4.9	3.7	3.0	104.5	90.1	87.6	78.8
Poland	-0.9	-0.6	2.3	2.3	-0.5	0.8	2.3	2.4	-0.6	-0.3	-1.7	-1.8	69.2	73.9	72.9	70.1
Slovak Republic	-0.3	-0.5	1.2	1.5	-0.5	0.2	1.4	1.6	0.2	0.4	0.3	0.2	83.7	81.1	85.2	83.6
Slovenia	-0.5	-0.1	1.5	2.0	-0.4	0.5	1.4	2.0	5.2	6.8	5.5	5.1	114.3	103.6	104.1	101.2
Southeastern Europe-EU <sup>1</sup>	-0.7	-1.4	1.2	2.6	-0.9	-0.4	1.9	2.6	-0.1	-0.2	-0.9	-0.9	66.1	61.5	61.1	57.9
Bulgaria	-1.1	-1.3	1.0	1.8	-0.9	-0.5	1.7	1.8	-0.1	4.2	2.3	2.0	74.7	69.0	67.8	65.4
Croatia	-0.5	-1.1	1.1	1.1	-0.6	0.2	0.8	1.2	5.1	2.6	2.8	1.8	101.5	92.8	89.7	84.2
Romania	-0.6	-1.6	1.3	3.1	-0.9	-0.5	2.2	3.1	-1.2	-2.3	-2.8	-2.5	55.4	52.1	52.7	49.7
Southeastern Europe-non-EU <sup>1</sup>	0.7	0.4	1.9	2.4	0.7	1.0	2.2	2.5	-6.1	-5.9	-6.9	-6.9	71.2	67.8	68.3	66.6
Albania	1.9	1.3	2.3	2.9	2.0	2.2	2.6	3.0	-10.8	-9.6	-13.7	-13.0	49.4	47.5	48.4	46.9
Bosnia and Herzegovina	-1.0	-1.1	1.4	1.7	-1.2	-0.3	1.9	2.1	-5.7	-4.5	-6.3	-6.3	63.3	63.8	62.7	62.3
Kosovo	-0.5	0.3	0.9	1.8	-0.1	1.3	1.0	1.8	-8.5	-9.8	-10.8	-11.1	12.2	11.2	13.5	13.7
Macedonia, FYR	-0.3	-0.2	0.6	1.7	-0.3	-0.2	1.5	1.9	-2.1	-3.1	-1.8	-2.0	68.1	66.9	70.9	71.5
Montenegro	1.2	-0.4	2.1	1.5	1.5	0.8	1.5	1.4	-13.3	-18.9	-22.0	-25.6	160.9	165.3	166.2	170.3
Serbia	1.4	1.1	2.6	3.0	1.6	1.5	2.6	3.0	-4.7	-4.0	-4.0	-4.0	84.1	76.6	76.4	72.3
European CIS countries <sup>1</sup>	18.1	7.8	5.2	4.8	15.3	6.1	5.1	4.5	4.2	1.1	2.4	2.6	48.1	50.6	44.3	43.4
Belarus	13.5	11.8	9.3	8.7	12.0	10.6	10.0	9.1	-3.6	-3.6	-4.7	-5.0	67.9	79.6	74.6	73.4
Moldova	9.6	6.4	5.5	5.9	13.5	2.4	6.5	5.5	-5.0	-3.4	-3.8	-4.0	97.7	97.4	92.8	92.7
Russia	15.5	7.0	4.5	4.2	12.9	5.4	4.4	4.0	5.1	1.7	3.3	3.5	39.5	42.4	35.2	34.2
Ukraine	48.7	13.9	11.5	9.5	43.3	12.4	10.0	7.0	-0.3	-3.6	-3.6	-2.9	130.0	123.8	127.4	126.3
Turkey	7.7	7.8	10.1	9.1	8.8	8.5	10.0	8.8	-3.7	-3.8	-4.7	-4.6	46.1	47.1	53.1	52.9
CESEE <sup>1,2</sup>	10.0	5.2	5.2	4.9	9.0	4.9	5.2	4.7	1.1	-0.2	-0.1	0.0	56.4	57.5	55.8	54.1
Emerging Europe <sup>1,3</sup>	10.9	5.6	5.5	5.2	9.8	5.2	5.5	5.0	1.2	-0.4	-0.2	-0.1	54.0	55.2	53.1	51.7
New EU member states <sup>1,4</sup>	-0.5	-0.4	2.0	2.4	-0.4	0.8	2.2	2.3	0.3	0.7	-0.3	-0.4	75.8	75.1	75.3	71.4

Sources: IMF World Economic Outlook database; and Fund staff estimates.

<sup>1</sup> Weighted averages using 2015 GDP valued at purchasing power parity.<sup>2</sup> Includes Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Kosovo, Latvia, Lithuania, Macedonia FYR, Moldova, Montenegro, Poland, Romania, Russia, Serbia, Slovak Republic, Slovenia, Turkey, and Ukraine.<sup>3</sup> CESEE excluding Czech Republic, Estonia, Latvia, Lithuania, Slovak Republic, and Slovenia.<sup>4</sup> Includes Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic, and Slovenia.

### Appendix III. CESEE: Evolution of Public Debt and General Government Balance, 2015–18<sup>1</sup>

(Percent of GDP)

	General Government Balance				Public Debt			
	2015	2016	2017	2018	2015	2016	2017	2018
Baltics <sup>2</sup>	-0.5	0.1	-0.6	-0.5	33.1	32.6	30.8	29.7
Estonia	0.1	0.3	0.3	-0.2	10.1	9.5	9.0	8.7
Latvia <sup>3</sup>	-1.5	-0.4	-1.2	-0.3	34.8	37.5	33.7	32.1
Lithuania	-0.2	0.3	-0.6	-0.7	42.5	40.0	38.9	37.7
Central and Eastern Europe <sup>2</sup>	-2.1	-1.7	-2.3	-2.0	53.7	54.6	54.4	53.6
Czech Republic	-0.6	0.6	-0.2	0.0	40.3	37.2	36.0	34.6
Hungary	-1.6	-1.7	-2.6	-2.5	74.7	74.1	73.3	71.9
Poland	-2.6	-2.4	-2.9	-2.6	51.1	54.2	54.6	54.1
Slovak Republic	-2.7	-2.0	-1.8	-1.1	52.5	52.3	51.9	50.9
Slovenia <sup>3</sup>	-3.6	-1.8	-2.5	-2.6	83.1	79.7	77.7	77.4
Southeastern Europe-EU <sup>2</sup>	-2.0	-1.3	-2.9	-3.0	43.1	43.1	43.1	43.6
Bulgaria <sup>3</sup>	-2.8	1.6	-1.3	-1.0	25.6	27.8	24.5	24.1
Croatia <sup>3</sup>	-3.3	-0.8	-1.9	-1.8	86.7	84.2	83.1	81.6
Romania	-1.5	-2.4	-3.7	-3.9	39.4	39.1	40.6	41.7
Southeastern Europe-non-EU <sup>2</sup>	-3.0	-1.4	-1.8	-2.0	60.7	59.9	58.6	57.0
Albania <sup>3</sup>	-4.1	-1.7	-1.0	-2.1	73.7	72.7	68.6	64.8
Bosnia and Herzegovina	-0.4	0.4	-0.8	-0.8	45.4	44.8	42.5	41.1
Kosovo <sup>3,4</sup>	-1.9	-1.5	-2.5	-2.8	18.9	20.8	23.5	24.5
Macedonia, FYR	-3.5	-2.6	-3.3	-3.4	38.2	39.1	37.6	39.2
Montenegro <sup>3</sup>	-4.8	-6.0	-7.5	-8.7	69.3	70.0	74.3	78.7
Serbia <sup>3</sup>	-3.7	-1.3	-1.4	-1.2	76.0	74.1	72.8	70.1
European CIS countries <sup>2</sup>	-3.3	-3.5	-2.8	-2.2	22.6	23.6	24.6	24.7
Belarus <sup>3,5</sup>	-4.9	-1.5	-7.4	-7.7	53.0	52.2	58.0	63.1
Moldova <sup>3</sup>	-2.3	-2.1	-3.7	-3.3	38.5	38.1	40.2	41.5
Russia <sup>3</sup>	-3.4	-3.7	-2.6	-1.9	15.9	17.0	17.1	17.3
Ukraine <sup>3</sup>	-1.2	-2.2	-3.0	-2.5	79.3	81.2	89.8	85.3
Turkey <sup>3</sup>	-1.6	-2.3	-3.2	-2.3	27.6	29.1	29.8	29.8
CESEE <sup>2,6</sup>	-2.5	-2.6	-2.7	-2.2	32.5	33.5	34.0	33.8
Emerging Europe <sup>2,7</sup>	-2.6	-2.8	-2.9	-2.3	31.4	32.7	33.3	33.2
New EU member states <sup>2,8</sup>	-2.0	-1.5	-2.3	-2.1	49.8	50.4	50.2	49.6

Sources: IMF World Economic Outlook database; and Fund staff estimates.

<sup>1</sup> As in the WEO, general government balances reflect IMF staff's projections of a plausible baseline, and as such contain a mixture of unchanged policies and efforts under programs, convergence plans, and medium-term budget frameworks. General government overall balance where available; general government net lending/borrowing elsewhere. Public debt is general government gross debt.

<sup>2</sup> Weighted averages using 2015 GDP valued at purchasing power parity.

<sup>3</sup> Reported on a cash basis.

<sup>4</sup> Public debt includes former Yugoslav debt, not recognized by Kosovo.

<sup>5</sup> General government balance: the measure reflects augmented balance, which adds to the balance of general government outlays for banks recapitalizations and is related to called guarantees of publicly-guaranteed debt.

<sup>6</sup> Includes Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Kosovo, Latvia, Lithuania, Macedonia FYR, Moldova, Montenegro, Poland, Romania, Russia, Serbia, Slovak Republic, Slovenia, Turkey, and Ukraine.

<sup>7</sup> CESEE excluding Czech Republic, Estonia, Latvia, Lithuania, Slovak Republic, and Slovenia.

<sup>8</sup> Includes Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic, and Slovenia.



## ABBREVIATIONS

ALB	Albania	HICP	Harmonised Index of Consumer Prices
AUT	Austria	HUN	Hungary
ARA	assessing reserve adequacy	IMF	International Monetary Fund
BGR	Bulgaria	ITA	Italy
BIH	Bosnia and Herzegovina	LTU	Lithuania
BIS	Bank for International Settlements	LVA	Latvia
BLR	Belarus	LUX	Luxembourg
CEE	Central and Eastern Europe	MDA	Moldova
CESEE	Central, Eastern, and Southeastern Europe	MKD	Former Yugoslav Republic of Macedonia
CIS	Commonwealth of Independent States	MNE	Montenegro
CPI	consumer price inflation	NPL	non-performing loan
CZE	Czech Republic	OECD	Organisation for Economic Co-operation and Development
DEU	Germany	PMI	Purchasing Managers Index
ECB	European Central Bank	POL	Poland
EIB	European Investment Bank	REI	Regional Economic Issues
EM	emerging market economies	ROU	Romania
EMBIG	Emerging Markets Bond Index Global	RUS	Russia
EPFR	Emerging Portfolio Fund Research	SA	seasonally adjusted
ESIF	EU Structural and Investment Funds	SEE	Southeastern Europe
EST	Estonia	SOE	state-owned enterprise
EU	European Union	SRB	Serbia
FIN	Finland	SVK	Slovak Republic
FDI	foreign direct investment	SVN	Slovenia
FRA	France	TUR	Turkey
FX	foreign exchange	UK	United Kingdom
GDP	gross domestic product	UKR	Ukraine
GRC	Greece	UVK	Kosovo
		WEO	World Economic Outlook

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