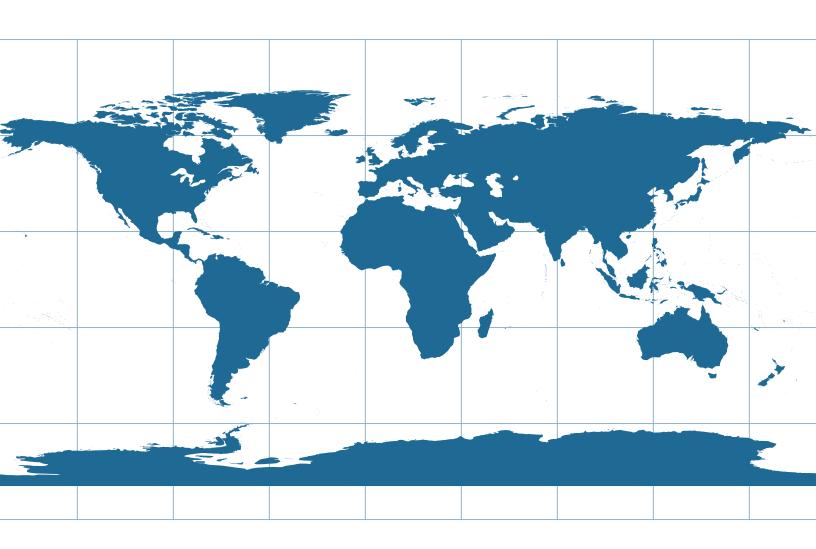
# World Economic Situation Prospects



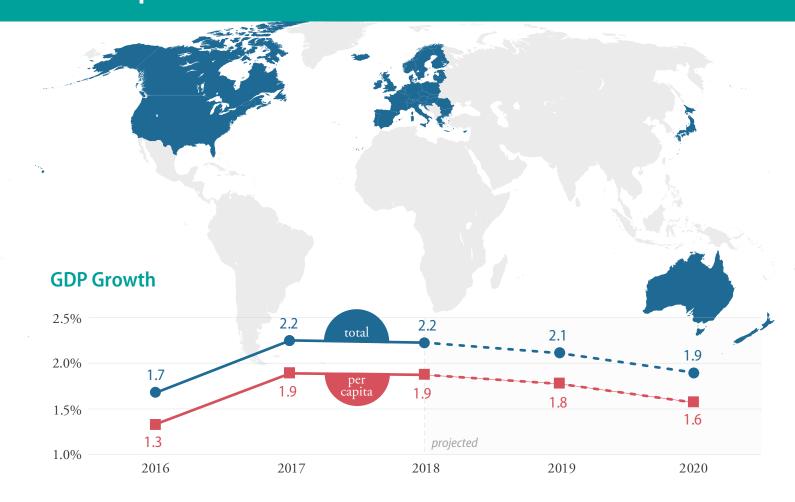


# World Economic Situation and Prospects 2019

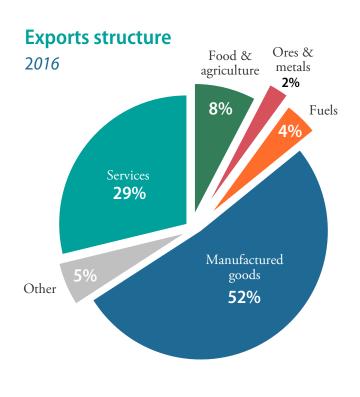




### **Developed economies**







# Regional developments and outlook<sup>1</sup>

#### **Developed economies**

- Capacity constraints are restraining economic growth in several developed economies
- Fiscal policy remains procyclical in the United States, while underpinning institutional challenges in Europe
- Monetary policy may need to be tightened faster than expected in the United States and Europe

# United States: GDP growth to moderate as impact of fiscal stimulus wanes amid rising capacity constraints

Economic confidence and sentiment indicators in the United States of America are near to historical highs, despite the wide range of tariff hikes and the build-up of trade tensions that intensified over the course of 2018. The impact of ongoing trade disputes on the domestic economy has been offset by major fiscal stimulus measures introduced in 2018, including a two percentage point drop in income tax rates, a steep decline in the corporate tax rate and a rise in federal government consumption spending, especially on defence. This has supported strong jobs growth and buoyant economic activity. In the first three quarters of 2018, gross domestic product (GDP) was 2.8 per cent higher than a year earlier. The expansionary fiscal stance has accelerated the pace of interest rate rises by the United States Federal Reserve (Fed), sparking episodes of turbulence in global financial markets and asset price adjustments. The federal deficit is expected to widen to about 5 per cent of GDP by 2019, and government debt will continue to rise relative to GDP for the next decade.

There is growing evidence that firms in the United States are facing capacity constraints, which will restrain growth in 2019 despite the continued support of fiscal stimulus measures. Internal freight transportation costs have risen sharply—up 8.3 per cent year on year to September 2018—reflecting labour shortages in the trucking sector and capacity limits in rail transport. The unemployment rate is at its lowest level since 1969, and the ratio of job seekers to job openings is also at historical lows. While pockets of unemployment persist in certain sectors and regions of the country, and labour force participation rates of workers over the age of 55 have declined significantly since the global financial crisis, labour market conditions have clearly tightened (figure III.1). Firms have reported difficulties in finding qualified workers in several sectors, including highly skilled engineers, finance and sales professionals, construction and manufacturing workers, and information technology professionals. Recent changes in immigration policy, which are likely to restrict inward migration, will also act as a restraint on labour force expansion. Since 2000, immigration has contributed roughly half of the expansion of the United States labour force.

The impact of ongoing trade disputes on the domestic economy has been offset by major fiscal stimulus measures

Capacity limits in rail transport and increasing labour shortages restrain prospects for 2019

<sup>1</sup> For underlying forecast assumptions, refer to the appendix to chapter I. Country-level forecast detail is reported in the Statistical annex.

Percentage 1.4 1.2 1.0 8.0 0.6 0.4 0.2 0.0 2002 2004 2006 2008 2010 2012 2014 2016 2018 Mining and construction Manufacturing Trade, transportation and utilities Information, financial, professional and business services Education and health services Leisure and hospitality and other services Government

Figure III.1

Job openings in the United States by sector, relative to unemployment, 2001–2018

**Source:** UN/DESA, based on data from United States Bureau of Labor Statistics.

As capacity constraints tighten, the economy will rely on an expansion of imports to meet demand. This will cause the current account deficit to deteriorate, in contrast to the stated objectives of ongoing changes in United States trade policy. Increased reliance on imports, coupled with the upward impact of rising import tariffs and tightening capacity constraints, will also add to domestic price pressures. Input price pressures are already evident, particularly for construction materials and freight transportation. So far, higher input costs have largely been absorbed by firms, although headline consumer price inflation has exceeded 2.0 per cent since November 2017. Core inflation, closely monitored by the Federal Open Market Committee (FOMC) of the Fed, has also hovered at about 2 per cent for most of 2018. Wage pressures have started to build, and average hourly earnings growth has reached its highest level since 2009. Inflation is forecast to average 2.5 per cent in 2019.

Rising inflationary pressures have accelerated interest rate increases by the Fed

The rise in inflationary pressures has accelerated the pace of interest rate increases by the Fed, which raised rates four times in 2018. If capacity constraints persist, a greater share of rising costs will be passed on to customers, exerting further upward pressure on inflation. Interest rates are expected to rise by a cumulative 75 basis points in 2019, and the Fed will continue to reduce the size of its balance sheet. As monetary stimulus is withdrawn, GDP growth is expected to moderate to 2.5 per cent in 2019 and will revert towards 2 per cent when the temporary impact of fiscal stimulus measures dissipates in 2020.

Corporate tax cuts supported a strong rise in business investment in the first half of 2018, continuing the upturn seen in 2017. Some signs of moderation in the pace of investment activity emerged in the second half of the year, although investment in intellectual property products, which includes software, computers and research and development (R&D) activity, continued to expand rapidly. More moderate investment growth may partly reflect the impact of uncertainty regarding future trade relationships and rising interest

rates, while upgrading of computing equipment may be a reaction to rising capacity constraints. Residential investment contracted in 2018 and is expected to continue to act as a drag on GDP growth as interest rates rise further in 2019.

Shifts in environmental policy in the United States—which include easing of restrictions on drilling, coal use and new car emissions standards—have helped support an expansion of activity in fossil fuel sectors. Real private fixed investment in mining exploration, shafts and wells increased by over 30 per cent in the first three quarters of 2018 compared to a year earlier, while the mining industry added 60,000 jobs in the year through end-September 2018. This short-term support to economic activity has also slowed progress towards an environmentally sustainable economy.

Fossil fuel sectors are expanding in North America

# Canada: housing market has cooled, but household debt may pose a risk as interest rates rise

In Canada, the economy registered exceptional growth of 3.0 per cent in 2017, driven by fiscal stimulus measures and strong gains in housing wealth. In 2018, the pace of growth moderated towards a more sustainable level of 2.0 per cent. Household consumption and investment growth slowed, largely reflecting more moderate activity in the buoyant real estate sector. This was partly offset by accelerating business investment, especially in mining and oil extraction industries. Higher oil prices will continue to support activity in the energy sector. While Canada continues to make important strides in its climate policy, including the Pan-Canadian Framework on Clean Growth and Climate Change, it is among the world's largest oil producers and has the world's third-largest proven oil reserves. Further expansion of the fossil fuel sector will slow progress towards environmentally sustainable economic growth.

Looking ahead, surveys point to strong investment growth in Canada in 2019, and economic activity is expected to continue to expand at the more moderate but healthy pace of 2.0–2.2 per cent in 2019–2020.

About two thirds of Canada's goods and services trade is conducted with the United States. This dependency was laid bare during the prolonged renegotiation of the North American Free Trade Association (NAFTA) between May 2017 and October 2018, which was the source of huge uncertainty regarding future trade relations, amid threats of high tariffs on key Canadian exports such as automobiles. The new United States-Mexico-Canada Agreement (USMCA) lifts a significant degree of uncertainty regarding relations with Canada's largest trading partner and eases some downside risks for the Canadian economy. The new agreement gives the United States greater access to the Canadian dairy market, which may cause some temporary disruption in this sector. The agreement also left open the removal of tariffs on steel and aluminium exports to the United States that were imposed in May 2018. While on the whole USMCA offers a stable framework under which firms will operate for the next 16 years, many firms may seek greater diversification in their export markets to protect against excessive dependence on a single market.

A key area of vulnerability in the Canadian economy is the high level of household debt, which stands well above the level of many other developed economies (figure III.2). House prices in Canada increased sharply from late 2015, with particularly strong gains in cities such as Toronto and Vancouver, partly reflecting strong speculative demand from foreign investors. This prompted policy measures to cool housing demand in major cities. By mid-2017 these measures had already helped to curb housing starts, and house prices stabilized in late 2017.

The United States-Mexico-Canada Agreement eases some downside risks for the Canadian economy

Household mortgage debt may pose a risk as interest rates rise

Percentage of GDP 120 2006 2010 2014 2018 100 80 60 40 20 0 Canada Japan **United States** Euro area

Figure III.2

Total credit to households, selected developed economies

Source: Bank for International Settlements.

While mortgage arrears remain very low, the outstanding stock of residential mortgages has doubled in size since 2006. Strong gains in housing wealth have also fuelled debt-driven consumption spending. The Bank of Canada is expected to continue to with-draw monetary stimulus from the economy, with interest rate rises likely to broadly track those of the Fed. With an increasing number of borrowers linked to variable rate loans, this exposes many households to interest rate risk. This will act as a constraint on household spending over the forecast horizon, with potential for a sharper slowdown if interest rates rise more rapidly than anticipated.

#### Japan: economy at capacity despite a slower expansion

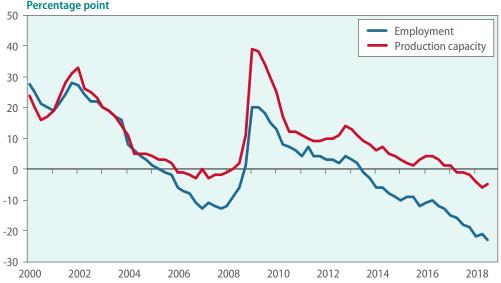
In Japan, real GDP growth slowed to 1.0 per cent in 2018 from 1.7 per cent in 2017. Rising corporate profits have resulted in robust growth in corporate capital investments, particularly in R&D. Solid growth of the world economy and a stable exchange rate resulted in resilient growth in external demand. However, a rapid decline in private housing investments has weighed on the aggregate investment level. The growth in private consumption has decelerated as consumer confidence waned over the year as a result of stubbornly weak real wage growth.

Labour markets remain tight. While unemployment came down to 2.3 per cent in September, the quarterly Tankan Survey of the Bank of Japan (BoJ) indicated a deepening labour shortage for business enterprises. The Tankan Survey also implied that capital equipment of business enterprises was operating at levels close to capacity limits (figure III.3). However, the situation did not give rise to significant inflationary pressure in 2018. The consumer inflation rate is estimated to have risen to 1.2 per cent in 2018 from 0.5 per cent in the previous year. However, the rise in the price level reflected mostly the rise in fuel prices. The core inflation rate (all items, less fresh food and energy) is estimated to be 0.4 per cent in 2018, only slightly higher than 0.1 per cent in the previous year.

Figure III.3

Diffusion indices on employment and production capacity in Japan, 2000–2018

Percentage point



Source: Bank of Japan's Tankan Survey. Note: Figures are for large enterprises. Negative values indicate a shortage of labour and production capacity in the majority of businesses.

The BoJ has maintained a set of unconventional monetary easing measures, known as Quantitative and Qualitative Monetary Easing (QQE). The BoJ has continued to use its balance sheet to expand the monetary base, but the pace of the asset expansion slowed down in 2018. Meanwhile, the year-on-year growth rate of the broad money stock (M2) decelerated from its peak of 4.0 per cent in October 2017 to 2.8 per cent in September 2018, at the same time, given the Government's commitments to lowering its debt dependency, the fiscal policy stance shifted to neutral in 2018.

Quantitative and qualitative monetary easing continues

Growth of GDP is forecast at 1.4 per cent for 2019 and 1.2 per cent for 2020. The consumer inflation rate is forecast at 1.5 per cent in 2019 and 2020 due to upward pressures on wage levels as well as the proposed hike of the sales tax rate in October 2019. Nevertheless, the inflation rate is forecast to remain well below the BoJ inflation target of 2 per cent.

An abrupt appreciation of the Japanese yen remains the main downside risk for the Japanese economy. A substantial appreciation of the yen would be deflationary and erode business sentiment reducing corporate profits of exporting industries. Labour shortages also pose a risk. An increased number of small businesses have already shut down, after failing to hire the necessary number of employees.

# Australia and New Zealand: robust economic growth continues despite emerging uncertainties

In Australia, real GDP growth is estimated to be 3.2 per cent in 2018. A consistent but more moderate economic expansion is forecast in 2019 at 2.7 per cent and in 2020 at 2.4 per cent. Investment in large mining projects peaked in 2012/13, at 9 per cent of GDP, and subsequently declined rapidly. In 2018, however, a rise in new dwelling construction allowed total real fixed capital formation to increase by more than 5 per cent. Housing-related investment is expected to moderate in 2019. As wage growth remains persistently slow, the inflation rate is estimated at 2.1 per cent in 2018, and forecast to be 2.2 per cent in 2019 and 2020.

Agriculture, forestry and fishing Mining 10 Manufacturing 8 6 2 2000 2002 2004 2006 2008 2010 2012 2014 2016 2018

Figure III.4
Sectoral share of gross value added in Australia, 2000–2018

Source: Australian Bureau of Statistics. Note: Figure shows percentage share of chain volume measure.

Australia faces international pressures to curb coal production

House prices moderate in New Zealand

Australia remains dependent on commodity exports. The share of primary products in merchandise exports in 2017/18 edged up to 61 per cent from 59 per cent in the previous year. Despite the stagnating price of iron ore, coal prices rose significantly in 2018, strengthening Australia's balance of payments position. The gross value added share of the mining industry surpassed that of the manufacturing industry in 2018 (figure III.4). As coalburning power generation is one of the major sources of carbon dioxide (CO<sub>2</sub>) emissions, Australia is expected to face increasing international pressures to curb coal production.

In New Zealand, real GDP growth is estimated at 2.9 per cent in 2018, and forecast to be 2.7 per cent in 2019 and 3.0 per cent in 2020. A mild deceleration in 2019 is expected, due to slower fixed capital investment growth and a cooling housing market. However, private consumption is forecast to be robust over 2019 and 2020; as economic fundamentals remain strong and the Government maintains its healthy fiscal position, robust growth is forecast to continue over 2019 and 2020. An abrupt downward adjustment of house prices is the main downside risk for the economy.

# Europe: robust growth ahead, but risks to the outlook are shifting

Europe will continue to see robust growth

Downside risks include increased trade tensions, a shift in policy stance, and Brexit Europe will continue to see robust growth of 2.0 per cent in both 2019 and 2020. The main drivers of this performance remain intact, notably solid household consumption propelled by lower unemployment, rising wages and the continued accommodative monetary policy stance. On the business side, companies, especially in the construction sector, also continue to benefit from the expansionary monetary policy stance.

However, the risk profile of the outlook has markedly changed for a number of reasons. First of all, numerous countries in the region find themselves on a decelerating growth trend, which is one symptom of the uncertainty created by the increase in global trade tensions. Second, the European Central Bank (ECB) faces the challenge of exiting its accommodative policy stance, which holds the potential for major ramifications

along the way, such as heightened financial market volatility. In the area of fiscal policy, the euro area will be faced with the unresolved problem of how to achieve and maintain a common policy stance in the absence, at least so far, of a more institutionalized policy framework. Tensions has arisen over the restrictions on fiscal policy imposed by EU policy guidelines. The European Commission has indicated that Italy's fiscal plans for 2019 are not in compliance with recommendations, while the Italian Government stands firm on the plans. Uncertainty over the credibility of the EU's fiscal framework has the potential to lead to sharp financial market reactions. Finally, the uncertainty created by the looming exit of the United Kingdom of Great Britain and Northern Ireland from the European Union (EU)—Brexit—has already led to increased tangible economic consequences, such as companies moving assets or diverting investment from the United Kingdom to the EU. In the case of a disorderly exit from the EU, the British economy runs the risk of even more domestic disruptions because of the lack of a broad legal framework for its future trade relations with the EU, while the European financial sector could face severe disruption.

The overall regional growth profile traces the performance of the largest economies in the region. In Germany, growth will remain moderately lower at 1.8 per cent in 2019 and 2020, as the external environment is becoming less supportive and the important car industry is facing disruption and pressure through new technologies, new competitors and significant legal and financial consequences from past sales practices related to the diesel technology. By contrast, private consumption remains a major driver of growth, given a strong employment picture that is increasingly feeding through to higher wages. In various regions in Germany, employment conditions are equivalent to full employment, with companies being held back in their operations by the lack of qualified workers. France will see a similar growth profile, with growth staying at 1.8 per cent in 2019 and 2020. Weaker exports will be offset by economic reforms that are expected to provide additional growth impetus going into 2020.

The lowest growth rate in the region will materialize in Italy, with the economy forecast to expand by just 1.2 per cent and 1.0 per cent in 2019 and 2020, respectively. The generally weakening external environment combines with significant constraints on private consumption in view of political uncertainty, the fragility of the banking system, and only limited growth in employment and wages. In the United Kingdom, economic growth will reach 1.4 per cent in 2019 and 1.7 per cent in 2020. The uncertainty related to the exit from the EU remains a major drag on the economy, with firms taking precautions against a hard exit without a clear agreement on future trade relations, while higher inflation and monetary policy tightening have negatively impacted consumer purchasing power. On the flip side, these factors are partially offset by stronger exports due to the increase in competitiveness stemming from the depreciation of the pound.

A major risk of wider significance for the global economy stems from limited policy space in the euro area. In the wake of the financial crisis, countries followed a path of procyclical fiscal consolidation, with monetary policy playing the role of stimulating economic activity. Monetary policymakers repeatedly emphasized the need for individual countries to complement the extremely accommodative stance with necessary economic reforms to revitalize their economies. Today, with a turn in monetary policy imminent and by some measures even overdue, the window of opportunity provided by the extraordinarily loose monetary policy stance to undertake further-reaching economic reforms is about to start closing. In many cases, countries still find themselves in fundamentally challenging policy

Growth in Germany and France will remain slightly lower

Italy will see the slowest growth rate, while the exit from the EU casts a shadow on growth in the United Kingdom

Policy space in the euro area is limited

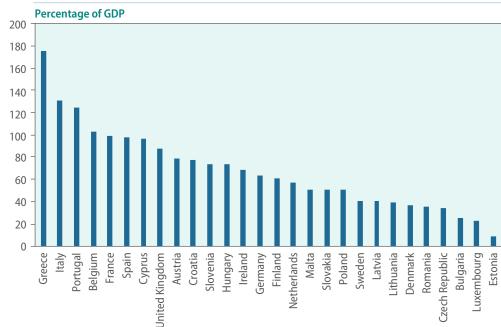
positions: Belgium, Greece, Italy and Portugal feature public debt-to-GDP ratios above 100 per cent, while in Cyprus, France and Spain, the ratio is only slightly less than 100 per cent (figure III.5).

Faster tightening of monetary policy may be needed

In terms of monetary policy, the ECB has signalled that it will maintain the current level of near-zero interest rates at least through the summer of 2019, and that after ending its net asset purchases at the end of December 2018, it will continue to reinvest the principal payments from maturing assets for an extended period of time. With respect to its policy interest rates, the ECB has made any move also conditional upon the convergence of inflation to a level of less than but close to 2 per cent over the medium term. The reinvestment of maturing assets will last as long as required in order to ensure favourable liquidity conditions.

Figure III.5

Public debt in the European Union, 2017



Source: Eurostat.

Assessing this monetary policy stance against the business cycle in the euro area shows that there is significant risk that monetary policymakers might fall behind the curve, in the sense of maintaining extraordinary crisis measures at a time when they are not needed anymore. In the case of upside surprises in inflation data, the ECB could be induced to tighten monetary policy faster than expected, accompanied by the resulting volatile readjustment in financial market expectations and financial asset prices.

A renewed crisis would pose a significant policy challenge High levels of debt, the prospect of rising interest rates with the associated jump in the costs of servicing these debt levels, and the EU budget rules on debt levels and deficits all serve to limit the scope for fiscal policy to offset the withdrawal of monetary stimulus. These conditions also leave very limited policy options in case of a renewed economic slowdown, stemming, for example, from an escalation of global trade frictions. Under one scenario, it would fall again to monetary policymakers to manage the economy, but from a starting position that is already akin to crisis modus, pinning them to the zero bound of

interest rates for much longer and with much fewer normalization options than anticipated. In the other scenario, national Governments could respond to a renewed slowdown by initiating more expansionary fiscal policy stances; this, in many cases, would be in open violation of EU rules, casting doubt on the validity of EU agreements and testing the tolerance of financial markets for further increases in debt levels.

During most of 2018, the EU members from Eastern Europe and the Baltics have sustained the buoyant economic dynamism of 2017, with GDP growth often exceeding earlier forecasts. The aggregate GDP of these countries has expanded by 4.2 per cent, well above the EU average; in the largest economy in the group, Poland, growth is estimated at 5.0 per cent.

Export performance of the Eastern European industrial sector remains one of the key growth drivers. Output of the automotive industry, after reaching record highs in 2017, remained strong, and the sector is attracting massive new investments despite rising wage costs. Private consumption, boosted by tight labour markets and the surge in nominal wages and mostly loose monetary policy, has also notably contributed to growth, becoming the main engine of the Polish economy. Investment has also increased rapidly, thanks to the higher rate of absorption of EU funds. The construction sector significantly contributed to growth in Hungary.

Labour market conditions have continued to tighten (box III.1), with the unemployment rate at record lows in several countries. For example, the Czech Republic has the lowest in the EU, at 2.3 per cent, while the unfilled vacancies rate in the country has exceeded 5.0 per cent in 2018. Those conditions—exacerbated in certain countries by outward migration, skills shortages and demographic trends—exerted upward pressure on wages.

There are signs that some of those economies may be operating above potential. This raises questions about growth sustainability, as consumption-driven expansion and the rising private debt burden are masking numerous risks. The climbing house prices across Eastern Europe and the increased exposure of the financial sector to housing loans may indicate the emergence of another housing bubble. Concerns about overheating—along with currency pressures linked to the stronger dollar and the announced tapering of the ultra-loose ECB stance—and accelerating inflation have prompted a few central banks to tighten monetary policy (the Czech National Bank lifted policy rates several times, for example). By contrast, in Hungary and Poland, where wage pressures have yet to feed into inflation (perhaps because of higher saving rates and remittance outflows), the monetary stance remained loose.

Economic activity in the group is expected to moderate in 2019–2020 as global trade tensions may negatively affect exports, and the consumption boom should slow in response to inflation. The EU funding from the 2014–2020 budget cycle has apparently passed its peak. The aggregate growth of this group of countries should nevertheless exceed the EU average, as they are still catching up, with capital accumulation, technology transfers and productivity gains. However, both external and internal constraints are emerging. The outflow of labour to the richer EU counterparts is curbing capacity output and has reached dangerous levels of depopulation in certain cases. The decision of the United Kingdom to leave the EU may affect future migration flows, although a mass return of migrants from the United Kingdom to their countries of origin in Eastern Europe and the Baltic States is unlikely. The proposed reduction in EU cohesion funds in the 2021–2027 EU budget cycle may curb further progress in infrastructure development and construction; however, some countries that attained fiscal surpluses, such as the Czech Republic, intend to carry on with publicly funded infrastructure projects.

Aggregate GDP of EU members from Eastern Europe and the Baltics expanded

Industrial exports, consumption and investment propel growth...

...but labour shortages are holding back expansion

Some moderation in economic activity is expected in 2019–2020

#### Box III.1

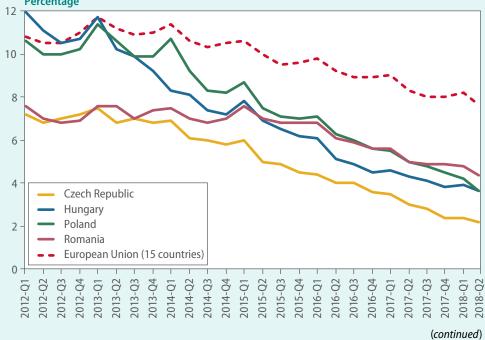
#### **Emerging labour shortages in Eastern Europe**

Since the beginning of the transition to market economies in the late 1980s, high unemployment has persisted as one of the most serious macroeconomic and social problems in the countries of Eastern Europe and the Baltic States (EU-11). Privatization and restructuring of the formerly State-owned enterprises—often involving massive layoffs, modernization of the industrial sector and the resulting skills mismatch, the shift from manufacturing to services sector with smaller-sized companies, and reductions in the public sector, along with other factors—contributed to persistently high structural and long-term unemployment in the region. The situation improved in the early 2000s, as significant job gains were seen in the region. However, most of the new jobs created were in the construction and manufacturing industries, which were hit very hard by the global economic and financial crisis in 2008-2009. According to the World Bank, nearly half of the jobs created during the period 2002–2008 were subsequently lost in the crisis (World Bank, 2013); in some countries the unemployment rate jumped to 20 per cent. The post-crisis recovery in employment was sluggish, as fiscal austerity policies often involved further cuts in public sector employment and restrained aggregate demand, the construction industry was slow to recover, and gains in labour productivity allowed firms to postpone hiring decisions.

Since 2014, however, the situation has been changing quite steadily (figure III.1.1). In many of the EU-11 countries, the unemployment rate declined to record lows in 2018, with the Czech Republic having the lowest unemployment rate in the EU, at 2.3 per cent. Persistent labour shortages emerged as one of the most serious constraints on economic growth, including in Poland, which has seen noticeable labour migration from Ukraine since 2014. About 75-80 per cent of surveyed firms in the Czech Republic, Hungary and Poland in 2018 indicated labour shortage as a constraint to capacity expansion.

Several factors contributed to the dramatic decline in unemployment in the region. Economic growth and expansion of output capacity in response to the stronger external and domestic demand have definitely played an important role. Activity rates in the region have been steadily increasing, exceeding 76 per cent in the Czech Republic in 2018. A simple ordinary least squares (OLS) regression based on a version of Okun's Law, which links cyclical unemployment dynamics to economic growth, identifies

Figure III.1.1 Unemployment rate, selected countries in Eastern Europe Percentage



Source: Eurostat.

a correlation between GDP growth and movement in the unemployment rate. However, this relationship can only partially explain the steep decline in unemployment rates in recent years, which may partly reflect the shadow economy not captured by the labour force surveys and large outward migration. Meanwhile, many countries in the region have also been experiencing unfavourable demographic trends over the last decade, including population ageing and decline, and gradual withdrawal from the labour force by those heavily impacted by the transition process.

High levels of outward labour migration to the EU-15, especially from Poland and the Baltic States, may also help explain the decline in unemployment. Outward migration was important for alleviating labour market pressures in the region, as many migrants came from the pool of workers with a higher probability of unemployment at home, belonging to medium-skill groups but with limited work experience. On the other hand, in the Czech Republic, which has the lowest unemployment rate in the region, net inward migration has been positive since the early 2000s; in Poland, the net migration balance has also turned positive since 2016.

The current labour market situation in most of the EU-11 can be characterized as quantitative labour shortages—a mismatch between the total supply and demand for labour affecting virtually all sectors of the economy. The tightness of the labour market in the Czech Republic is illustrated in figure III.1.2A. The Beveridge curve plots the vacancy rate against the unemployment rate; moving up the curve and to the left indicates increasing tightness of the labour market. This is clearly different from the qualitative labour shortages observed in some of the EU-15 countries (European Parliament, 2015), which are reflecting skill mismatches or reluctance to accept wages/working conditions. In this case, a high unemployment rate often coexists with a high number of unfilled positions (figure III.1.2B).

The observed record-low unemployment rates in Eastern Europe, combined with labour shortages across sectors, have driven rapid real wage growth, which is starting to outpace productivity gains. The shortage of workers has also influenced the magnitude of foreign direct investment outflows from those countries, in particular to South-Eastern Europe. Since encouraging immigration remains a politically contentious issue, companies may expedite automation and robotization in production to increase productivity. But there is also emerging evidence that workers from the EU-15 countries, although in small numbers, are increasingly moving to Eastern Europe in search of employment. Data from Eurostat points to steadily increasing numbers of working-age EU-15 citizens residing in the EU-11. If this trend persists, it may constitute a further important step towards the integration of the European labour markets.

Box III.1 (continued)

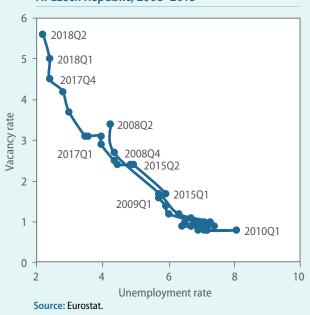
a Estimation of a relationship  $U_t - U_{t-4} = \beta_0 + \beta_1 * \left(\frac{y_t}{V_{t-4}} - 1\right) + \varepsilon_t$  was carried out for 8 countries in the region, using Eurostat's quarterly seasonally adjusted output and unemployment rate data for 2010 Q1–2018 Q2, producing statistically significant regression coefficients for the economic growth variable and  $R^2$  values for the equations ranging from 0.11 in the case of Poland to 0.71 in the case of Croatia.

Author: Grigor Agabekian (UN/DESA/EAPD).

Figure III.1.2

Beveridge curves

A. Czech Republic, 2008–2018



#### B. Finland, 2012–2018

