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CONTENTS

LIST OF TABLES

LIST OF GRAPHS

LIST OF BOXES

EXECUTIVE SUMMARY

This report assesses the Czech Republic's economy in the light of the European Commission's Annual Growth Survey published on 16 November 2016. In the survey the Commission calls on EU Member States to redouble their efforts on the three elements of the virtuous triangle of economic policy — boosting investment, pursuing structural reforms and ensuring responsible fiscal policies. In so doing, Member States should focus on enhancing social fairness in order to deliver more inclusive growth.

Economic growth in the Czech Republic remains robust, despite a slowdown in 2016. Domestic demand has continued to be the main driver of growth in the country since it emerged from recession in 2014. Real GDP growth accelerated to 4.5 % in 2015 but, according to the Commission winter 2017 forecast, this is expected to have fallen to 2.4 % in 2016. Household consumption has been growing at a steady pace in recent quarters, amid renewed growth in disposable income. The pattern of investment growth has been volatile, however, giving rise to some volatility in headline economic growth. High investment growth in 2015, which translated into high overall GDP growth that year, was mainly due to the accelerated drawdown of available EU funds at the end of the last programming period. A significantly lower rate of drawdown in 2016, at the start of the new programming period, is expected to have contributed to a fall in investment and impacted negatively on headline economic growth. With investment growth expected to accelerate in 2017 and 2018 and household consumption growth expected to remain steady, real GDP growth is forecast to accelerate to 2.6 % and 2.7 %, respectively.

Labour market outcomes have improved considerably in recent years but there is now a growing risk of labour market shortages. The unemployment rate stood at 4.0 % in 2016, the lowest rate in the EU. The employment rate has risen quite rapidly in recent years amid high demand for labour. Employment growth is expected to slow down in the coming quarters, however, with limited scope for the participation rate to rise further. The likely emergence of demographic constraints in the medium term is expected to put further pressure on labour market conditions. Wage growth has accelerated, although it has been modest given to the current degree of tightness in the labour market. Unemployment, including long-term unemployment, has continued to fall and the Czech Republic continues to have one of the lowest poverty rates in the EU.

Inflation has accelerated and the Czech National Bank (CNB) has signalled that it will exit from its exchange rate commitment no earlier than in the second quarter of 2017. The CNB has operated an exchange rate floor vis-à-vis the euro since November 2013. The euro/koruna exchange rate has remained close to the announced CZK 27/EUR floor since August 2015 and the CNB has undertaken market interventions in order to defend its commitment, giving rise to a substantial increase in its foreign-denominated reserves. Inflation has started to accelerate, reaching 2.1 % in December 2016, one of the highest rates in the EU. While this is partly due to base effects, inflation is expected to stay at the CNB's inflation target of 2 % in 2017.

Overall, the Czech Republic has made some progress in addressing the 2016 country-specific recommendations. Substantial progress has been achieved with the parliament approval of the fiscal framework legislation (January 2017) as well as with a new career system and salary increases for teachers, as part of efforts to improve the attractiveness of the teaching profession. Some progress has been achieved with the reform aimed at making education more inclusive. There was some progress in removing barriers to greater labour market participation by under-represented groups, in particular women. Several measures contained in the anti-corruption action plan have been adopted and a new act on public procurement entered into force in October 2016. There was limited progress in ensuring the long-term sustainability of public finances. Healthcare expenditure continues to pose a challenge, although some measures aimed at improving cost efficiency are at various stages of adoption. On the other hand, the decision to cap the retirement age at 65 from around 2030 will have a negative impact on the sustainability of public finances. There was limited progress towards increasing the availability of e-government services. The government has presented a draft amendment to the Construction Act, with the aim of simplifying the permitting process and reducing the administrative burden. Limited progress has also been achieved on strengthening the governance of the R&D system and cooperation between business and academia remains weak.

Regarding progress in reaching the national targets under the Europe 2020 strategy, the Czech Republic has either reached or is making good progress towards its targets in most areas, including employment, R&D, renewable energy, greenhouse gas emissions and tertiary education. The country has also successfully reduced the risk of poverty or social exclusion. While the early school leaving rate remains low in international comparison, it has increased slightly over the past years and there are marked regional disparities. On energy efficiency, the final energy consumption is still below the 2020 target, but the primary energy consumption increased above the target level, according to the latest available data. The main findings of the analysis in this report, and the related policy challenges, are as follows:

- **While substantial efforts have been undertaken to tackle tax non-compliance, only a few measures are being pursued to simplify the tax system or to reduce the costs associated with paying taxes.** Tax compliance in the area of VAT has improved in recent years and the VAT compliance gap is expected to decrease further following the adoption of measures such as the VAT control statement and the electronic recording of sales. The costs associated with paying taxes still remain above the EU median, partly due to the low use of e-government services. The government is currently drafting a new income tax law, which aims to simplify the tax system.

- **Pension and healthcare expenditure poses a risk to the long-term sustainability of public finances.** The Czech authorities still face challenges in improving cost effectiveness in the healthcare sector, although recent measures are going in the right direction. The fiscal framework was evaluated as one of the weakest in the EU in 2016. The fiscal responsibility law was adopted in January 2017 and is likely to address the most serious shortcomings of the fiscal framework.

- **In the context of a tight labour market, the participation of under-represented groups, including women with young children and low-skilled workers, remains low.** The labour market participation of women with young children is negatively affected by the low availability of affordable childcare, long parental leave entitlements and low use of flexible working arrangements. Labour market outcomes for low-skilled workers are notably weaker than for all other groups. While the rate of poverty is one of the lowest in the EU, people with disabilities and members of the Roma community face a much higher risk of poverty due to low participation in the labour market.

- **Reform measures aimed at improving the inclusiveness of compulsory education started to be implemented in 2016.** While it is too early to gauge their impact, inclusion of Roma children in mainstream education remains limited. Recent salary increases for teachers and a new career system contribute to improving the attractiveness of the teaching profession.

- **Investment is hampered also by inefficiencies in the business environment, in particular related to the regulatory burden, and other administrative hurdles.** Inefficiencies are notable in connection with construction permits and paying taxes. Entry requirements into professions are relatively restrictive. The Czech authorities are taking measures to reduce the administrative burden. With regard to transport infrastructure, the quality of the road network remains relatively low. There are delays in implementing transport infrastructure projects, an area in which investment has been inadequate in recent years. The rollout of a number of EU co-financed projects has been delayed by non-compliant environmental impact assessments, which reflects wider deficiencies in the preparation and implementation of such projects.

- **While R&D investment has increased, governance reforms are not being fully implemented yet.** The level of total investment in R&D has come close to the EU average and the corresponding Europe 2020 target of public R&D expenditure is likely to be achieved if recent trends are maintained. The Czech Republic still faces challenges in a number of areas, particularly in relation to cooperation between businesses and research institutes.

- **The incidence of corruption in the Czech Republic continues to be perceived as major ongoing problem.** Advances have been made on the implementation of the anti-corruption plan, with a number of measures adopted yet, but a large number of announced reforms are still pending.

- **Public procurement indicators reveal significant inefficiencies and challenges.** These include the extensive use of contracts without prior calls for tenders and contracts with just a single bidder. Other shortcomings include inadequate training for procurement officers and a high incidence of corruption. Centralised or joint purchasing activities remain underutilised, particularly in the healthcare sector.

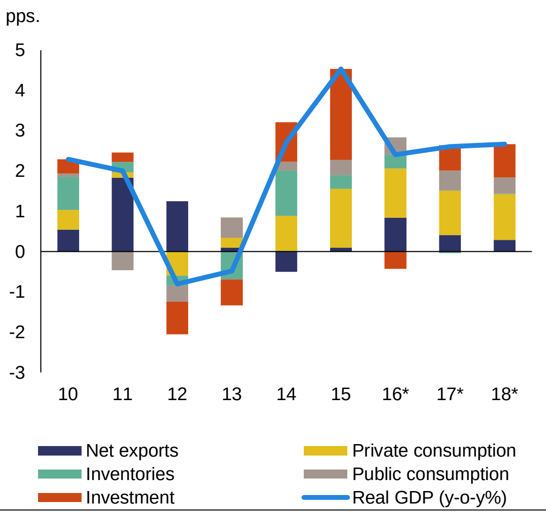
- **The use of e-government services in Czech Republic is one of the lowest in the EU, but has increased from 2015.** The actions taken to improve availability of e-government services are in progress and some have not yet been initiated. Responsibility for the rollout of services is spread over several ministries. Stakeholders perceive limited cross-sector cooperation. The drawdown of available EU funds for the development of e-government services has been low so far.

1. ECONOMIC SITUATION AND OUTLOOK

Growth performance

Economic growth remains solid in the Czech Republic, although it slowed down in 2016 following a spike in 2015 (Graph 1.1). Real GDP growth reached 4.5 % in 2015, with a significant positive contribution from investment. Investment is forecast to have contributed negatively to real GDP growth in 2016, according to the Commission winter 2017 forecast, with a significant fall in EU co-financed investment activity at the start of the new programming period for EU funds (see below). A projected recovery in investment should give rise to positive contributions in 2017 and 2018. Domestic consumption is expected to remain the main driver of growth over this period, amid rising household income. Real GDP growth is forecast to have fallen to 2.4 % in 2016 but to rise to 2.6 % in 2017 and 2.7 % in 2018. However, downside risks to these forecasts are posed by the highly open Czech economy, which is particularly vulnerable to negative developments in world demand. A weaker-than-expected recovery in investment would also weigh on economic growth.

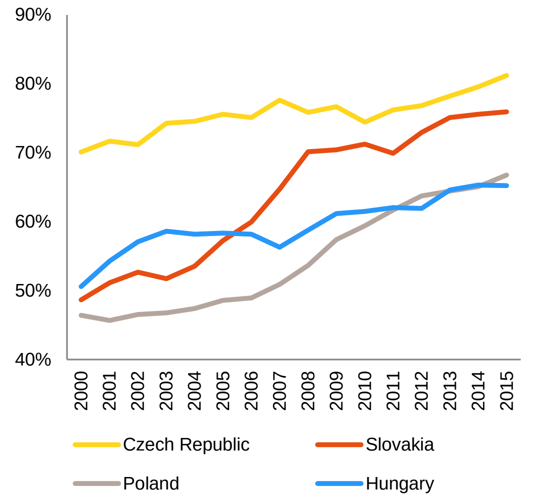
Graph 1.1: **Breakdown of real GDP growth**



Source: Eurostat, European Commission winter 2017 forecast

Economic growth has been stronger than in the EU as a whole in recent years, fostering continued economic convergence. Czech GDP per capita on a purchasing power basis stood at around 87 % of the EU level in 2015, up from 81 % in 2010. However the level of real convergence is weaker – 81 % of the EU level in 2015 (Graph 1.2) – when measured using gross national income (GNI) per capita on a purchasing power basis. This measure is probably more representative of households' purchasing power than GDP per capita in countries such as the Czech Republic, which have a significant presence of foreign-owned firms and associated dividend and profit outflows. The trend in GNI per capita in recent years has nonetheless been positive, albeit with a somewhat slower rate of convergence than for GDP per capita.

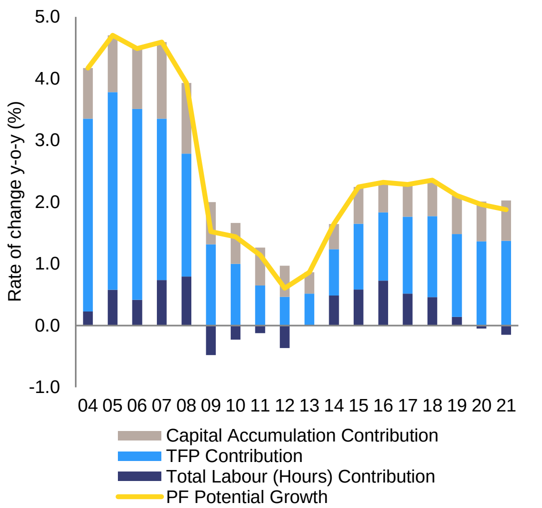
Graph 1.2: **Nominal GNI per capita as a percentage of EU-28**



(1) Adjusted for purchasing power parity
Source: Eurostat, European Commission calculations

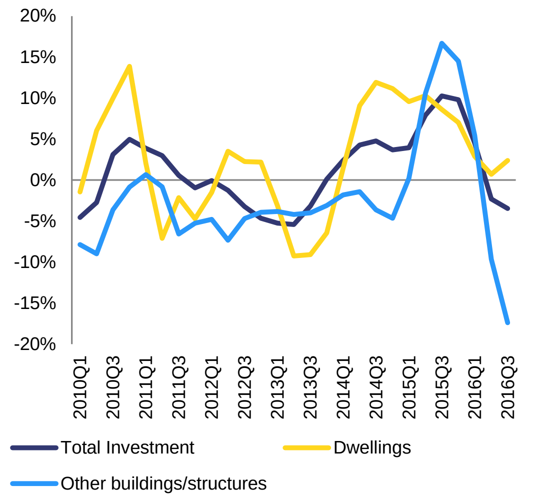
Potential GDP growth rose above 2 % in 2015 but is expected to fall somewhat in the medium term due to demographic constraints (Graph 1.3). Potential growth fell below 1 % in the post-crisis environment, with a substantial reduction in the contributions of all components. It has picked up significantly between 2012 and 2015, with growing contributions from all three components. This reflects strong investment growth, a sharp increase in labour market participation and stronger productivity growth. While these factors are expected to lead to sustained strength in potential growth in the short term, the emergence of demographic constraints is projected to weigh on potential growth in the years up to 2021. Indeed, as discussed below, emerging labour market shortages are already posing challenges to the Czech economy.

Graph 1.3: **Potential GDP growth & drivers**



Source: European Commission

Graph 1.4: **Year-on-year growth in real investment activity (selected categories)**



Note: 2010 prices, 2-quarter moving average
Source: Czech Statistical Office

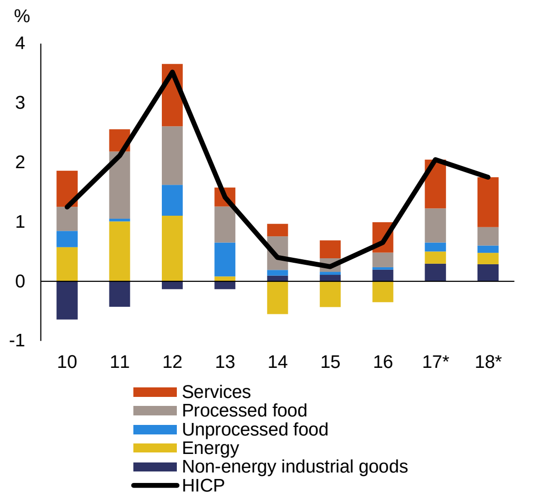
Investment

Following a spike in 2014 and 2015, there was a significant reduction in the level of investment in 2016 (Graph 1.4**).** Total investment rose by 9 % in real terms in 2015 amid accelerated drawdown of available funding from the European Structural and Investment Funds (ESIFs) at the end of the previous programming period. With the rate of drawdown of ESIFs having fallen quite substantially at the start of the new programming period, total investment is expected to have fallen by -1.6 % in real terms in 2016. This is primarily due to a sharp fall in public investment, which has mainly affected investment in buildings and structures other than housing. As discussed in the Czech National Bank's (CNB) Inflation Report (Q4-2016), private investment may also have been negatively affected by a lower drawdown of ESIF. The growth rate of investment in dwellings has also slowed in recent quarters, despite mounting demand pressures (see Section 3.3). Investment is expected to recover in the short-term, with projected growth rates of 2.5 % and 3.3 % in 2017 and 2018, respectively, according the Commission winter 2017 forecast. Risks to this outlook are on the downside, however, largely due to possibly weaker-than-expected drawdown of ESIFs.

Inflation

The inflation rate reached the CNB's target of 2 %. The annual inflation rate had remained below 1 % since 2014. This has mainly been due to falling energy prices (Graph 1.5). In contrast, domestic price pressures have been rising in recent quarters amid tight labour market conditions and a widening output gap. This has been most visible in rising service price inflation and recently in processed food. The headline inflation rate reached 2 % in December. In an environment of rising consumer price inflation, the CNB has signalled that it will not discontinue the use of the exchange rate as a monetary policy instrument before the second quarter of 2017. Under this policy, the CNB has maintained an exchange rate floor vis-à-vis the euro since November 2013. The exchange rate has remained very close to the floor value of CZK 27/EUR since July 2015 amid appreciation pressure on the koruna. In this context, the CNB has undertaken market interventions in order to defend the exchange rate floor. As a consequence, the foreign currency reserves of the CNB have risen from around 22 % of GDP in October 2013 to around 47 % of GDP in December 2016. Private-sector analysts are generally of the view that the expected exit of the CNB from its exchange rate policy will give rise to some degree of CZK appreciation, representing a downside risk to inflation.

Graph 1.5: **Harmonised index of consumer prices (HICP) & contributions**

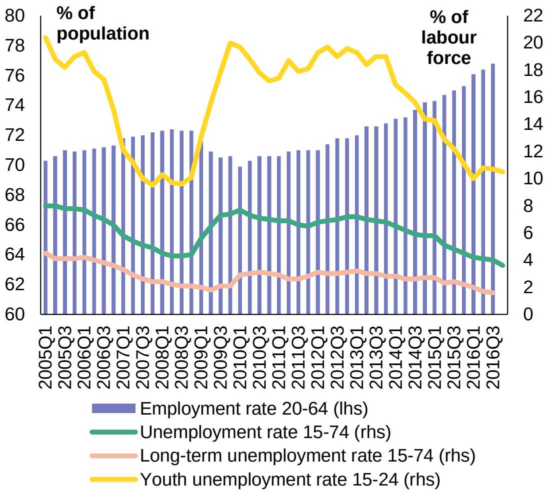


Source: Eurostat, European Commission winter 2017 forecast

Labour market

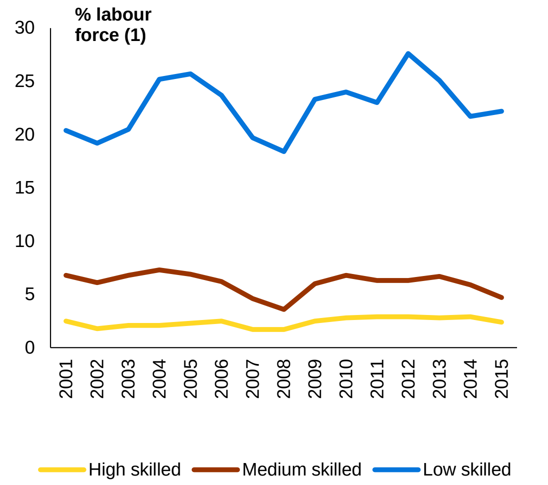
Labour market outcomes have improved considerably in recent years and there is a growing risk of labour market shortages. Over the past five years, the employment rate has risen steadily to reach 76.8 % in the third quarter of 2016 (Graph 1.6). Overall employment growth is expected to slow in the coming quarters amid reduced scope for further increases in the participation rate. The unemployment rate has fallen considerably, reaching an average of 4.0 % in 2016, and is currently the lowest in the EU. The youth unemployment rate (15-24) has also fallen quite significantly in recent years, reaching an average of 10.5 % in 2016. In the context of very low unemployment, labour shortages are becoming apparent in some sectors. However, labour market outcomes still remain significantly weaker for low-skilled workers, with unemployment disproportionally affecting those with primary and lower secondary education (Graph 1.7). This group, however, only represents 9.5 % of the working age population.

Graph 1.6: **Labour market developments**



Source: Eurostat

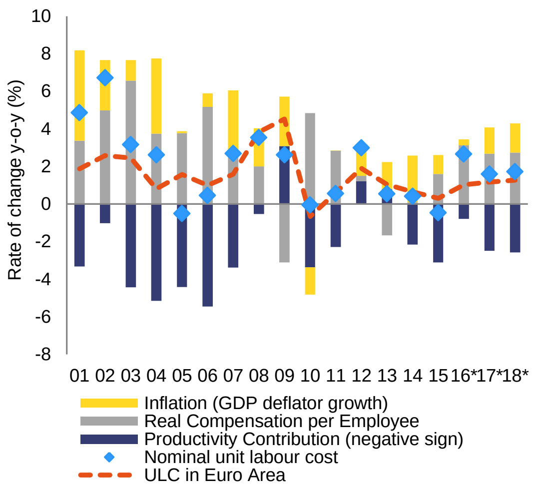
Graph 1.7: **Unemployment rate by educational attainment**



Note: Number of individuals between 20 and 64 in an economy who either are employed or are seeking employment.
Source: Eurostat

Wage growth has remained quite moderate, despite increasingly tight labour market conditions. Nominal compensation per employee is expected to have risen by 3.5 % in 2016, according to the Commission winter 2017 forecast. While this represents an acceleration compared to previous years, it is slightly below the growth rate that could be predicted based on economic fundamentals, such as the development in prices, unemployment and productivity ([1]). Growth of nominal compensation per employee is expected to accelerate in 2016 and the following years (reaching 4.6 % in 2018). Nominal unit labour costs have grown moderately in recent years, with a decline of 0.5 % in 2015 followed by an expected increase of 2.5 % in 2016 (Graph 1.8). However, these developments partly reflect the somewhat volatile pattern of GDP growth over the last two years. In the coming years, the growth of nominal unit labour costs is expected to stabilise at around 2.0 % in 2018.

Graph 1.8: **Determinants of change in unit labour costs**



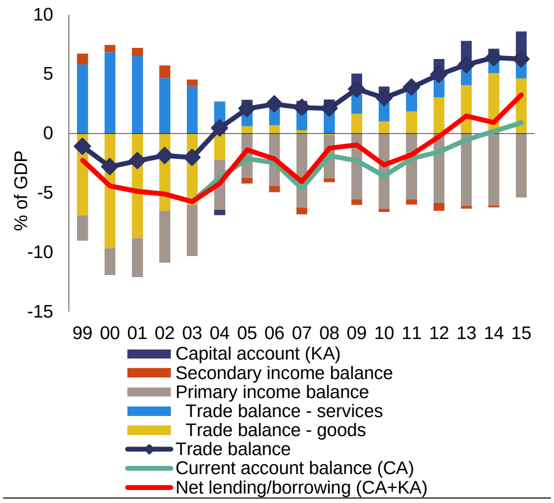
Source: AMECO, European Commission winter 2017 forecast

The Czech Republic has among the lowest levels of income inequality in the EU. The incomes of the richest 20 % of the population were around 3.5 times higher than the incomes of the poorest 20 % in 2015 and this ratio has remained stable since 2005 ([2]). Stability in the degree of inequality reflects the fact that real disposable household income has evolved relatively equally across the income distribution in recent years. Low inequality in the Czech Republic can be explained by relatively equally distributed market incomes, i.e. income received by households before taxes and social transfers. The gap between market income inequality and disposable income inequality (i.e. after taxes and transfers) is similar to the EU average, suggesting the Czech tax-benefit system performs in line with the EU average in terms of reducing inequality.

External trade

The Czech Republic continues to maintain a sizeable positive trade balance, with the surplus driven mainly by trade in goods (Graph 1.9**).** The trade balance has increased quite strongly in recent years and is expected to stay broadly constant in 2017 and 2018. Over the last decade, the positive trade balance has been counterbalanced by a large and negative primary income balance. This mainly reflects dividend and profit outflows by foreign-owned firms operating in the Czech Republic. The current account balance has nevertheless been improving in recent years and is expected to worsen slightly, according to the Commission winter 2017 forecast.

Graph 1.9: **Current and capital accounts**



Source: Eurostat

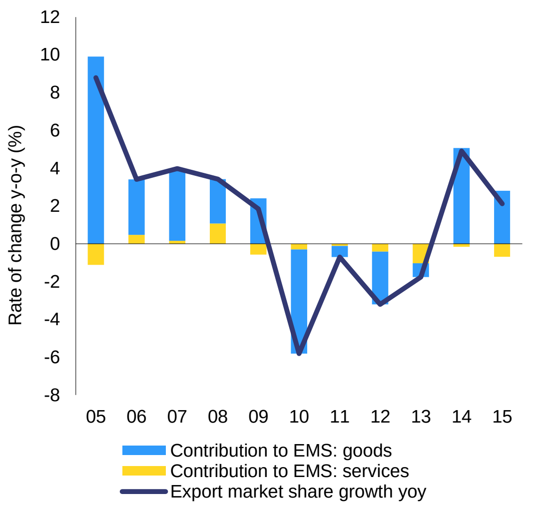
The Czech Republic gained export market share in 2014 and 2015, indicating competitiveness gains (Graph 1.10**).** The increase in export market share (EMS) has been driven by the export of goods, with the Czech Republic losing export market share in services in 2015. As discussed in the *2016 country report* on the Czech Republic, the initial gains in export market share in 2014 were partly driven by a depreciation of the real effective exchange rate (REER), following the

([1]) European Commission calculations based on an update of Arpaia and Kiss (2015).

([2]) As measured by the S 80/ S 20 income quintile share ratio. This is the ratio of total income received by the 20 % of the population with the highest income (top quintile) to that received by the 20 % of the population with the lowest income (lowest quintile). Income is measured by equivalised disposable income.

adoption of the exchange rate floor vis-à-vis the euro in November 2013 and the subsequent depreciation of the euro against the US dollar in 2014. There was a slight depreciation of the real effective exchange rate in 2015. Cost competitiveness gains during this period were also supported by falling unit labour costs. While unit labour costs are forecast to rise in 2017 and 2018, they are not expected to strongly outpace growth in the euro area.

Graph 1.10: **Developments in export market share**

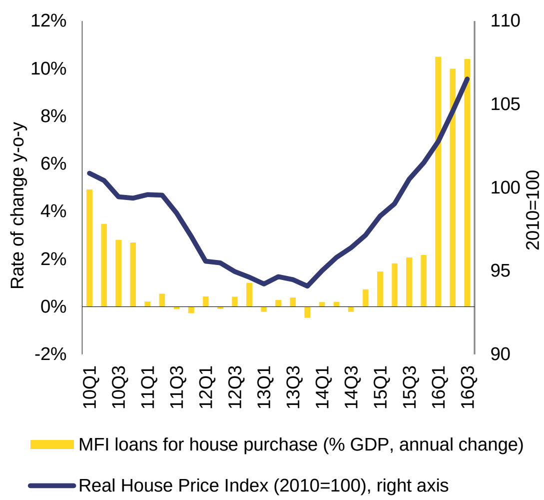


Source: Eurostat

Financial sector

The predominantly foreign-owned banking system is well capitalised and resilient to short-term liquidity risks, according to the most recent stress tests undertaken by the CNB. Data from June 2016 show that the Czech banking system is well capitalised overall, with a system-wide Tier 1 ratio of 15.9 %. Domestically-owned banks, which account for around 12 % of total banking sector assets (2014 data), display a slightly lower Tier 1 ratio ([3]) of 13.2 %. Non-performing loans are low (4.2 %) compared to other countries in the region and provisioning seems appropriate (48.8 %). Foreign currency loans in the household sector are almost non-existent (1 % of total lending). In contrast to many other Member States, the Czech banking system has remained profitable in the past 10 years, although profitability is falling on the back of a lower intermediation margin. The cost-to-income ratio stood at 43.7 % in September 2016, one of the lowest in the EU.

Graph 1.11: **Real house price index and credit growth**



Source: ECB, Eurostat

Mortgage lending to households has accelerated in recent years and real house prices have risen from their 2013 post-crisis low (Graph 1.11)**.** Real house price growth accelerated to 3.9 % in 2015, compared to 1.8 % in 2014. Quarterly data suggest a further increase, reaching growth of 6 % in the third quarter of 2016. Rising house prices reflect higher confidence on the part of households to enter the housing market, amid low long-term interest rates and higher wage growth. However, supply constraints in the housing market, particularly in key urban centres, may also be contributing to rising house prices (see Section 3.3). As discussed above, the growth rate of investment in housing has fallen since the start of 2014 but increased by around 2 % year-on-year in the third quarter of 2016.

The recent acceleration in house price growth has prompted the CNB to introduce new macroprudential measures in an effort to curb excessive credit growth in the sector. Household indebtedness continues to rise, reaching 30.4 % of GDP in November 2016, still far below the EU average (50.4 %). However, an easing of credit standards, historically low interest rates and accelerating property price growth represent potential sources of systematic risk for the Czech

([3]) The Tier 1 capital ratio is the comparison between a bank's core capital and its total risk-weighted assets measuring a bank's financial health.

banking sector. For this reason, the CNB has strengthened macroprudential measures in recent quarters, with a tightening of loan-to-value limits in 2015 and 2016. The Czech Republic is one of the first EU Member States to increase its countercyclical capital buffer, which has risen to 0.5 % in since January 2017.

Public finances

The Czech Republic's headline balance is forecast to have reached surplus in 2016. According to the Commission winter 2017 forecast, the general government balance is expected to have improved to 0.3 % of GDP in 2016, from -0.6 % in 2015. The improvement is driven by a combination of better tax collection and weaker public investment at the start of the new programming period for EU funds. Continued strong growth in government consumption – mainly due to rising wages in state administration and for teachers and medical staff — should partly offset the effect of the slump in investment. In 2017, the headline balance is projected to worsen slightly to 0.1 % of GDP. Tax revenues are set to be bolstered by measures aimed at fighting non-compliance. The expected recovery of spending on infrastructure projects is the main driver of increasing public investment. Furthermore, government consumption is expected to continue growing strongly in 2017, after which upward pressure on current expenditure is expected to abate. Owing to expected budgetary surpluses and healthy economic growth, the debt-to-GDP ratio is forecast to remain on a downward path, dropping from around 40 % of GDP in 2015 to 35.6 % of GDP in 2018.

Table 1.1: **Key economic, financial and social indicators - Czech Republic**

	2004-2008	2009	2010	2011	2012	2013	2014	2015	forecast 2016	 2017	 2018
Real GDP (y-o-y)	5.3	-4.8	2.3	2.0	-0.8	-0.5	2.7	4.5	2.4	2.6	2.7
Private consumption (y-o-y)	4.2	-0.7	1.0	0.3	-1.2	0.5	1.8	3.0	2.6	2.4	2.4
Public consumption (y-o-y)	0.2	3.0	0.4	-2.2	-2.0	2.5	1.1	2.0	2.2	2.6	2.1
Gross fixed capital formation (y-o-y)	6.5	-10.1	1.3	0.9	-3.1	-2.5	3.9	9.0	-1.6	2.5	3.3
Exports of goods and services (y-o-y)	15.5	-9.8	14.8	9.2	4.3	0.2	8.7	7.7	3.3	4.5	4.4
Imports of goods and services (y-o-y)	13.3	-11.0	14.9	6.7	2.7	0.1	10.1	8.2	2.5	4.4	4.4
Output gap	3.7	-2.0	-1.2	-0.4	-1.8	-3.1	-2.1	0.0	0.2	0.5	0.7
Potential growth (y-o-y)	4.4	1.5	1.4	1.2	0.6	0.9	1.7	2.3	2.3	2.3	2.4
Contribution to GDP growth:											
Domestic demand (y-o-y)	3.6	-2.7	0.9	-0.1	-1.8	0.1	2.1	4.1	1.2	2.2	2.4
Inventories (y-o-y)	0.4	-2.7	0.8	0.3	-0.2	-0.7	1.1	0.3	0.3	0.0	0.0
Net exports (y-o-y)	1.3	0.5	0.5	1.8	1.3	0.1	-0.5	0.1	0.8	0.4	0.3
Contribution to potential GDP growth:											
Total Labour (hours) (y-o-y)	0.6	-0.5	-0.2	-0.1	-0.4	0.0	0.5	0.6	0.7	0.5	0.4
Capital accumulation (y-o-y)	1.0	0.7	0.7	0.6	0.5	0.3	0.4	0.6	0.5	0.5	0.6
Total factor productivity (y-o-y)	2.8	1.3	1.0	0.7	0.5	0.5	0.8	1.1	1.1	1.3	1.3
Current account balance (% of GDP), balance of payments	-3.0	-2.3	-3.6	-2.1	-1.6	-0.5	0.2	0.9	.	.	.
Trade balance (% of GDP), balance of payments	1.9	3.7	3.0	3.9	5.0	5.8	6.4	6.3	.	.	.
Terms of trade of goods and services (y-o-y)	-0.7	2.0	-2.0	-1.5	-0.6	1.2	1.5	0.1	1.0	-0.6	0.0
Capital account balance (% of GDP)	0.4	1.3	1.0	0.3	1.3	2.0	0.7	2.3	.	.	.
Net international investment position (% of GDP)	-30.0	-44.0	-46.1	-45.2	-45.9	-41.4	-36.6	-30.7	.	.	.
Net marketable external debt (% of GDP) (1)	16.2	9.0	7.9	8.1	9.6	12.7	15.2	17.4	.	.	.
Gross marketable external debt (% of GDP) (1)	30.6	36.7	39.8	41.3	43.0	49.3	49.5	51.7	.	.	.
Export performance vs. advanced countries (% change over 5 years)	75.8	37.9	20.9	17.3	7.0	-1.1	1.4	2.26	.	.	.
Export market share, goods and services (y-o-y)	10.4	1.0	-5.0	-0.1	-3.9	-1.4	4.8	0.9	.	.	.
Net FDI flows (% of GDP)	-4.0	-1.0	-2.4	-1.2	-3.0	0.2	-1.9	0.6	.	.	.
Savings rate of households (net saving as percentage of net disposable income)	6.4	8.5	7.6	6.0	6.0	5.6	6.6	6.6	.	.	.
Private credit flow, consolidated (% of GDP)	7.4	0.8	2.6	2.1	3.0	4.3	1.6	0.9	.	.	.
Private sector debt, consolidated (% of GDP)	53.9	66.0	68.1	68.3	70.6	73.7	71.6	68.6	.	.	.
of which household debt, consolidated (% of GDP)	19.7	28.6	29.0	30.0	30.9	31.7	30.5	30.6	.	.	.
of which non-financial corporate debt, consolidated (% of GDP)	34.1	37.4	39.1	38.3	39.7	42.0	41.1	38.0	.	.	.
Corporations, net lending (+) or net borrowing (-) (% of GDP)	-3.0	1.0	-0.7	-2.0	-0.8	0.5	-0.1	0.6	-1.2	-0.8	-0.6
Corporations, gross operating surplus (% of GDP)	29.6	29.1	28.9	28.7	28.3	28.4	30.7	30.8	29.9	30.1	30.2
Households, net lending (+) or net borrowing (-) (% of GDP)	1.5	2.7	1.9	1.8	3.6	1.9	2.5	1.7	2.6	2.6	2.5
Deflated house price index (y-o-y)	5.4	-4.7	-2.3	-1.3	-3.5	-0.8	1.8	3.9	.	.	.
Residential investment (% of GDP)	3.7	3.8	4.1	3.7	3.7	3.2	3.4	3.4	.	.	.
GDP deflator (y-o-y)	2.1	2.6	-1.5	0.0	1.5	1.4	2.5	1.0	1.1	1.2	1.6
Harmonised index of consumer prices (HICP, y-o-y)	3.1	0.6	1.2	2.2	3.5	1.4	0.4	0.3	0.6	2.0	1.8
Nominal compensation per employee (y-o-y)	5.6	-0.6	3.3	2.9	1.7	-0.3	2.6	2.6	3.5	4.5	4.6
Labour productivity (real, person employed, y-o-y)	3.8	-3.1	3.4	2.3	-1.2	-0.8	2.2	3.1	.	.	.
Unit labour costs (ULC, whole economy, y-o-y)	1.8	2.6	0.0	0.6	3.0	0.5	0.4	-0.5	2.5	2.0	2.0
Real unit labour costs (y-o-y)	-0.3	0.0	1.4	0.5	1.5	-0.9	-2.0	-1.5	1.3	0.7	0.4
Real effective exchange rate (ULC, y-o-y)	5.3	-5.4	3.0	2.8	-2.6	-2.6	-6.0	-2.1	2.9	0.9	0.2
Real effective exchange rate (HICP, y-o-y)	5.5	-3.7	1.2	2.1	-2.8	-2.3	-5.2	-0.6	2.5	-0.7	.
Tax rate for a single person earning the average wage (%)	23.3	22.3	22.5	23.0	22.9	22.9	23.1	23.3	.	.	.
Tax rate for a single person earning 50% of the average wage (%)	17.8*	13.5	13.9	14.8	14.7	14.6	15.0	15.5	.	.	.
Total Financial sector liabilities, non-consolidated (y-o-y)	9.7	1.4	4.0	2.9	7.3	7.4	7.2	6.2	.	.	.
Tier 1 ratio (%) (2)	.	17.2	19.1	18.4	15.9	14.9	15.4	12.0	.	.	.
Return on equity (%) (3)	.	14.4	11.5	8.5	8.6	3.6	7.7	1.3	.	.	.
Gross non-performing debt (% of total debt instruments and total loans and advances) (4)	.	.	.	.	.	.	.	.	.	.	.
Unemployment rate	6.6	6.7	7.3	6.7	7.0	7.0	6.1	5.1	4.0	3.9	3.8
Long-term unemployment rate (% of active population)	3.5	2.0	3.0	2.7	3.0	3.0	2.7	2.4	.	.	.
Youth unemployment rate (% of active population in the same age group)	15.6	16.6	18.3	18.1	19.5	18.9	15.9	12.6	10.5	.	.
Activity rate (15-64 year-olds)	70.0	70.1	70.2	70.5	71.6	72.9	73.5	74.0	.	.	.
People at risk of poverty or social exclusion (% total population)	17.2	14.0	14.4	15.3	15.4	14.6	14.8	14.0	.	.	.
Persons living in households with very low work intensity (% of total population aged below 60)	8.4	6.0	6.4	6.6	6.8	6.9	7.6	6.8	.	.	.
General government balance (% of GDP)	-2.2	-5.5	-4.4	-2.7	-3.9	-1.2	-1.9	-0.6	0.3	0.1	0.2
Tax-to-GDP ratio (%)	34.0	32.1	32.6	33.8	34.3	34.8	33.9	34.3	34.7	34.8	34.9
Structural budget balance (% of GDP)	.	.	-4.1	-2.6	-1.4	0.2	-0.8	-0.7	0.2	-0.1	-0.1
General government gross debt (% of GDP)	28.2	34.1	38.2	39.8	44.5	44.9	42.2	40.3	37.8	36.7	35.6

(1) Sum of portfolio debt instruments, other investment and reserve assets.

(2,3) domestic banking groups and stand-alone banks.

(4) domestic banking groups and stand-alone banks, EU and non-EU foreign-controlled subsidiaries and EU and non-EU foreign-controlled branches.

(*) Indicates BPM5 and/or ESA95

Source: European Commission, ECB

2. PROGRESS WITH COUNTRY-SPECIFIC RECOMMENDATIONS

The Czech Republic's progress in implementing the recommendations addressed to it in 2016 ([4]) has to be seen in a longer-term perspective, which started with the introduction of the European Semester in 2011. The Czech Republic reduced its fiscal deficit and exited the excessive deficit procedure in 2013. Furthermore, it achieved its medium-term budgetary objective in 2015. However, the authorities have made limited progress in addressing the long-term sustainability of public finances, particularly with regard to the health and pension systems. An accelerated increase of the statutory retirement age has been recommended several times (2011-2014) but an explicit link to life expectancy has not been implemented. The recommendation (in 2014 and 2016) to strengthen the fiscal framework have been addressed by approving the fiscal responsibility law in January 2017.

Some progress can be observed in the fight against tax evasion (recommendations in 2011, 2012 and 2015), thanks to the implementation of measures such as the VAT control statements and electronic evidence of sales. The level of labour taxation remains high, particularly for low-income earners (recommendations from 2011-2015). Gradual increases in excise taxes and taxation on gambling have helped to shift taxation to consumption, which is considered less detrimental to growth.

The labour market participation of under-represented groups, in particular women, has improved slightly in recent years, but remains subdued (recommendations from 2011-2016).

The Civil Service Act (recommendations from 2011-2014) entered into force in 2014 with the aim of enhancing the quality of public employment and promoting public administration effectiveness and stability. There is still room for improving the effectiveness of the public employment service. Substantial progress was made in the area of education with the adoption of the higher education reform in 2016 but the reform of the funding system for higher education is still to be adopted.

([4]) For the assessment of other reforms implemented in the past, see in particular Section 3.

The efficiency and transparency of public procurement practices has (recommendations from 2012-2016) remains out of line with EU best practices. Some progress has been achieved in implementing the anti-corruption plan (recommendations from 2011-2016) but key measures have not yet translated into significant results. Although some measures to improve the management of EU funds have been adopted, deficiencies in managing the funds are still common (recommendations from 2012-2014).

Overall, the Czech Republic has made some progress in addressing the 2016 country-specific recommendations. The authorities have made limited progress in improving the long-term sustainability of public finances. The fiscal framework legislation was approved. To reduce regulatory and administrative barriers to investment, the government has presented a draft amendment to the Construction Act, with the aim of achieving a higher degree of simplification and integrating the environmental impact assessment into the procedure for approving building permits. There was limited progress towards increasing the availability of e-government services. The Czech parliament has adopted several of the measures contained in the anti-corruption plan, but other measures are still pending. A new Act on public procurement entered into force in October 2016, although it is still too early to assess its impact. Limited progress has been achieved on strengthening the governance of the R&D system. Some progress has been achieved in increasing the participation of women in the labour market, particularly by increasing the number of 'child groups', although there is still insufficient childcare provision for children under the age of three. Teachers' salaries have been increased, while a reform aimed at making education more inclusive was instituted in September 2016. The idea is to gradually increase the participation of pupils with special needs including disadvantaged children, but only a small number of them have benefited to date.

Table 2.1: **Summary table on 2016 CSR assessment**

The Czech Republic	**Overall assessment of progress: some progress**
CSR 1: *Take measures to ensure the long-term sustainability of public finances, in light of future risks in the area of healthcare. Adopt legislation to strengthen the fiscal framework.*	**Some progress** • Limited progress in addressing long-term sustainability of public finances • Substantial progress in strengthening the fiscal framework
CSR 2: *Reduce regulatory and administrative barriers to investment, in particular in transport and energy, and increase the availability of e-government services. Adopt the outstanding anti-corruption reforms and improve public procurement practices.*	**Limited progress** • Limited progress in addressing shortcomings in the construction permit procedure • Limited progress on e-government services • Some progress in adopting anti-corruption reforms • Limited progress in improving public procurement practices
CSR 3: *Strengthen governance in the R & D system and facilitate the links between academia and enterprises. Raise the attractiveness of the teaching profession and take measures to increase the inclusion of disadvantaged children, including Roma, in mainstream schools and pre-schools. Remove the obstacles to greater labour market participation by under-represented groups, in particular women.*	**Some progress** • Limited progress in strengthening governance in the R&D system • Substantial progress in improving the attractiveness of the teaching profession • Some progress on increasing the inclusion of disadvantaged children • Some progress in removing obstacles to greater labour market participation by some underrepresented groups

Source: European Commission

Box 2.1: Contribution of the EU budget to structural change in the Czech Republic

The Czech Republic is the fifth largest beneficiary of the European Structural and Investment Funds (ESI funds) with an allocation of up to EUR 24 billion until 2020. This is equivalent to around 2 % of GDP annually (over 2014-2017) and 40 % of national public investment ([1]). Out of the EU financing, EUR 0.5 billion is planned to be delivered via financial instruments. By 31 December 2016, an estimated EUR 3.3 billion, which represents about 14 % of the total allocation for ESI funds, have already been allocated to concrete projects. The contribution of the ESI funds to the development of public investment is discussed in Section 3.3.

Financing under the European Fund for Strategic Investments, Horizon 2020, the Connecting Europe Facility and other directly managed EU funds is additional to the ESI funds. By end 2016, the Czech Republic has signed agreements for EUR 842 million for projects under the Connecting Europe Facility. The EIB Group approved financing under EFSI amounts to EUR 378 million, which is expected to trigger nearly EUR 1.9 billion in total investments (as of end 2016).

ESI funds helped progress on a number of structural reforms in 2015 and 2016 via ex-ante conditionalities ([2]) and targeted investment. Examples include improving investments in R&D&I, improving the availability of broadband through the adoption of a national strategy for the development of a next generation of networks, the strengthening of drinking and waste water tariff policy, social inclusion through improving the collection of information on Roma, and education through the introduction of an action plan on structured inclusive reform. The reforms prepared the ground for better implementation of public investment projects in general, including those financed from national sources and the other EU instruments mentioned above. Administrative reforms support is available through targeted financing under the European Social Fund, advice from the Structural Reform Support Service and, indirectly, through technical assistance.

The relevant CSRs focusing on structural issues were taken into account when designing the 2014-2020 programmes. These include providing more places in nurseries and kindergartens, improving the inclusiveness of education system, enhancing the attractiveness of the teaching profession, reducing corruption, improving e-government and improving the application of public procurement ([3]).

In addition to challenges identified in the past CSRs, **ESI funds address wider structural obstacles to growth and competitiveness**. These include improving the coverage of fast broadband (target 500 000 households in 2023); addressing bottlenecks in infrastructure via improving accessibility by 1 010 km of newly build or modernised roads; 1 040 km of railway lines will be upgraded and made more safe; incentivising innovation and private investments; supporting 19 800 enterprises and 4 580 agricultural enterprises for the modernisation of processing and marketing as well as supporting short supply chains and local markets; more than 57 000 jobs were created; and additionally 5 600 jobs for the most disadvantaged and 90 % of schools were supported; additional capacity of waste recycling of 700 000 tonnes/year; improved water supply for 150 000 and; provision of adequate waste water treatment to 60 000 population equivalent; and enhancing competitiveness of aquaculture and processing sector by modernising and diversifying production, supporting innovation in aquaculture and increasing productivity through renovation and construction of new farms, recirculation systems and processing facilities.

https://cohesiondata.ec.europa.eu/countries/CZ

([1]) National public investment is defined as gross capital formation + investment grants + national expenditure on agriculture and fisheries.
([2]) Before programmes are adopted, Member States are required to comply with a number of ex-ante conditionalities, which aim at improving framework and conditions for the majority of public investments areas. For Members States that did not fulfil all the ex-ante conditionalities by the end 2016, the Commission has the possibility to propose the temporary suspension of all or part of interim payments.
([3]) The Commission may request Member States to review and propose amendments to its Partnership Agreement and relevant programmes where this is necessary to support the implementation of relevant CSRs.

3. REFORM PRIORITIES

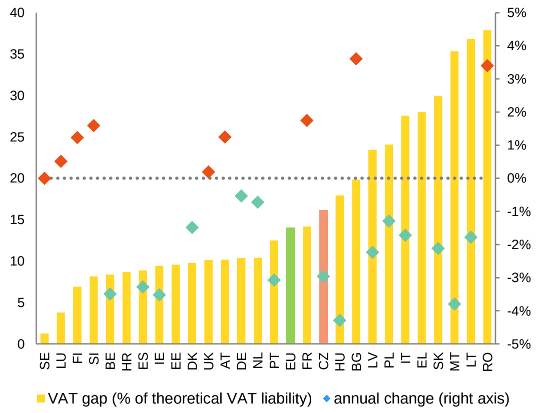
3.1. PUBLIC FINANCES AND TAXATION

Taxation

The Czech Republic has a relatively low tax-to-GDP ratio. Total tax revenues as a proportion of GDP stood at 34.4 % in 2015, compared with an EU average of 40.0 %. Indirect taxes represent a higher proportion of total revenues than direct taxes. In comparison with the EU average for 2014, direct taxes are relatively low (7.2 % compared to 13.1 % of GDP), while social security contributions are rather high (15.6 % compared to 13.6 % of GDP). Revenues from labour taxes have been slightly increasing as a proportion of GDP in recent years, reaching 17.5 % in 2014 (19.6 % in the EU). There has been no recent shift from labour taxation towards other taxes (see *2016 country report*). Revenues from recurrent property taxes (0.2 % of GDP vs an average of 1.6 % in 2014) and environmental taxes remain low.

The incidence of tax non-compliance in the area of VAT has fallen in recent years and further improvement in this area remains a priority for the Czech government. The occurrence of tax evasion, as measured by the VAT compliance gap ([5]), declined by 3 pps. in 2014 (to 16 %) and is now quite close to the unweighted EU average of 14 % (Graph 3.1.1). Furthermore, available data do not incorporate the effect of recent measures aimed at curbing VAT fraud, which are likely to have contributed to a further reduction in the VAT gap in the Czech Republic. These include two measures that entered into effect in 2016, namely the VAT control statement and the electronic recording of sales (see *2016 country report*). While it is still too early to determine the specific impact of these measures on the public finances, they are expected to give rise to an increase in revenues. In the area of corporate taxation, the tax authorities have reportedly performed controls focused on transfer pricing, but the gap in respect of corporate income tax is estimated at up to 0.3 % of GDP or 10 % of total corporate tax receipts ([6]).

Graph 3.1.1: **VAT compliance gap (2014 and annual change)**



Note: Cyprus is not included due to national accounts data availability.
Red dots represent an annual worsening of the indicator compared to 2013, green an improvement.
Source: CASE and CPB (2016)

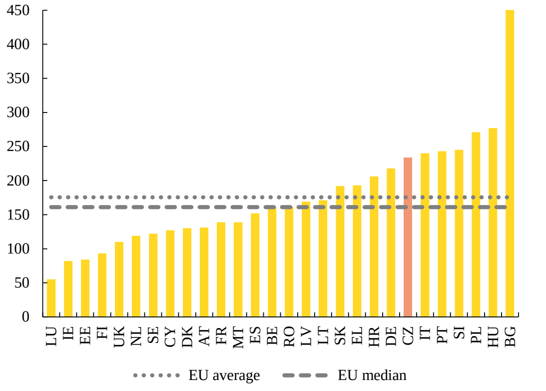
Tax compliance costs for businesses are above the EU average. According to the 2017 Doing Business Report (World Bank, 2016), the time needed to pay and file taxes in the Czech Republic totalled 234 hours in 2015, the same as in the previous year (Graph 3.1.2). The previous Doing Business reports singled out the Czech Republic as an outlier in comparison to other countries with comparable tax systems. However, even taking into account the revised methodology of the most-recent report ([7]), the Czech Republic still ranks at the higher end of the distribution.

([5]) The VAT compliance gap has two components: i) the assessment gap captures the difference between the potential tax and the assessed amount of tax due while; ii) the collection gap estimates the difference between the amount of tax assessed as due and the tax actually collected.

([6]) OECD (2015) and the Ministry of Finance estimate the scale of international corporate tax avoidance to be between 0.1 % and 0.3 % of GDP. Jansky (2016) reports a median estimate of 0.3 % of GDP.

([7]) The revision takes better account of the use of payroll and accounting software.

Graph 3.1.2: **Time to comply with tax requirements (2015, in hours)**

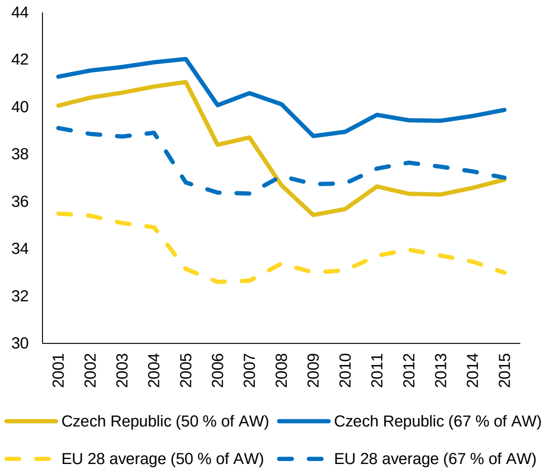


Note: The unweighted EU average is 176 hours. The EU median of 161 takes better into account outliers.
Source: World Bank / PwC Paying Taxes 2017 Report

The Czech authorities are planning to introduce some steps to simplify the tax system. The Ministry of Finance is in the process of drafting a new income tax law, to be presented in 2017. According to preliminary information, envisaged changes will include an integrated tax and social security administration, greater digitalisation of the tax administration and a shift towards self-assessment of tax obligations. The aim is to simplify the tax code while tackling other shortcomings in parallel. These include frequent amendments to the tax code, the negative perception of tax regulation (World Economic Forum, 2016b) and low but increasing use of e-government services ([8]).

The taxation of labour remains high for both low- and average-wage earners. This is primarily due to high employers' social contributions (the highest in the EU-28 for single low-wage earners). A high tax burden on labour can act as a disincentive to low-wage earners and reduce their labour market participation. This is of particular importance, given the growing risks of labour market shortages, as discussed in Section 3.2. The tax wedge ([9]) for low-income earners, particularly at the level of 50 % of the average wage, has persistently been higher than the EU average ([10]). Following a converging trend between 2005 and 2009, the tax wedge for low-income earners has started to diverge again from the EU average since 2013 (Graph 3.1.3). While there have been renewed discussions about social security reform recently, there are currently no concrete proposals for reforms targeted at low-wage earners (Section 3.2).

Graph 3.1.3: **Tax wedge on labour**



Note: Refers to single earners without children at 50 %/ 67 % of average wage.
Source: European Commission (2016b), Tax and Benefit Indicators

Fiscal framework

The fiscal framework in the Czech Republic has been evaluated among the weakest in the EU. Expenditure ceilings have been subject to frequent revisions and have applied only to bodies within central government, mainly line ministries and state funds. The macroeconomic forecasts of the Ministry of Finance are compared with key institutions and this comparison offers a useful benchmark for independent scrutiny. However, this has not guaranteed fiscal planning based on prudent macroeconomic and budgetary forecasts. Furthermore, the framework has not included appropriate coordination mechanisms across sub-sectors of general government and, therefore, does not provide comprehensive and consistent coverage of all sectors for multiannual fiscal planning and for the assessment of fiscal rules. The

([8]) According to the authorities, the overall ratio of tax returns submitted electronically increased from around 6 % in 2013 to 44 % in 2015. This was mainly due to progress on VAT e-filing.

([9]) The tax wedge shows the proportional difference between the costs of a worker to their employer and the employee's net earnings.

([10]) Social policies for families include refundable child allowances, which reduce the tax wedge for people with children.

Czech Republic does not have a fully-fledged independent fiscal council with responsibility for assessing compliance with fiscal rules and strengthening the transparency and credibility of public finances. The transparency of budget execution has been significantly affected by uneven drawdown of EU funds over time.

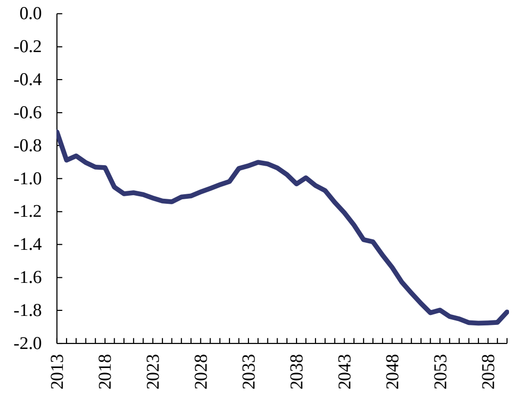
The fiscal responsibility law, which was approved in January 2017, aims to address the identified shortcomings. The main features of the adopted legislative package were already outlined in the *2016 country report.* Moreover, a new expert panel will be set up to evaluate macroeconomic and revenue forecasts used for budgetary planning, with members representing independent institutions producing forecasts and nominated by the fiscal council. The most important aspects of the reform were originally supposed to be enshrined in a constitutional law, which was meant to strengthen effectiveness and stability. However, the parliament opted for an ordinary law.

Long-term sustainability of public finance

Age-related expenditure in the Czech Republic pose a risk to the long-term sustainability of public finances. According to the Commission winter 2017 forecast, the long-term fiscal sustainability indicator (S2 indicator ([11])) improved from 3.2 pps. in the Commission winter 2016 forecast to 2.0 pps. This improvement is mainly due to better budgetary forecasts, while the contribution of ageing-related costs to the long-term sustainability gap remains substantial. Risks to long-term sustainability are considered to be medium. Age-related spending for healthcare and pensions is the largest contributing factor. Public expenditure on healthcare is projected to increase by 1.0 pp, slightly above the average increase of 0.9 pps. for the EU over the horizon until 2060 (European Commission, 2015a). The balance of the pension system remains in deficit and is projected to remain stable at around -1.0 % of GDP until 2040, after which the negative drag from demographics will start to weigh more on expenditure (Graph 3.1.4).

([11]) The S2 long-term sustainability indicator gives the upfront structural adjustment required to stabilise the debt-to-GDP ratio over the infinite horizon. If the value of the indicator is between 2 and 6, it is assessed as medium risk.

Graph 3.1.4: **Projections of the pension balance (% of GDP)**



Source: European Commission, Eurostat, Ministry of Finance

Recently-adopted measures on pensions further contribute to a deterioration of the long-term budgetary outlook. In September 2016 the government approved a cap on the retirement age at 65 from around 2030, thus cancelling the previous approach of continuously increasing the retirement age with no upper limit ([12]). The new cap is to be reviewed every five years, with the aim being to allow workers to spend around a quarter of their lives in retirement. A second change to the pension system, gives the government leeway to increase pensions on an ad hoc basis by a maximum of 2.7 % annually, if the system of pension indexation foresees a lower increase. The precise impact of these changes has not yet been verified and hence they are not reflected in the calculation of the sustainability indicators. However, these measures reduce the predictability of the system and can worsen the long-term sustainability of public finances via an increase in pension expenditure. With regard to the pension cap, the authorities expect a negative impact on the long-term sustainability indicator (S2) of up to 1.5 pps., depending on whether the cap is revised regularly based on the basis of life expectancy or remains set at 65 years.

([12]) The law is due to enter into force on 1 January 2018, with the cap affecting people born after 1971.

Healthcare

Current healthcare expenditure and health outcomes are lower than the EU average. Public healthcare expenditure stood at 6.3 % of GDP in 2014 (compared to the EU average of 7.8 %). With regard to specific health outcomes, female life expectancy in 2014 was 82 years and male life expectancy 75.8 years, below the EU averages of 83.6 and 78.1 years respectively. Both indicators have been improving for over a decade but they have not outpaced the improvement at the aggregate EU level. The mortality rates of Czech citizens are particularly high (compared to other Member States) with regard to preventable and cancer-related deaths and deaths caused by diseases of the circulatory system. In addition, respiratory and perinatal mortality trends have worsened recently ([13]).

The Czech Republic faces substantial challenges in improving the cost effectiveness of healthcare spending. The main challenges, highlighted in the Joint Report on Health Care (European Commission, 2016c), include the need to improve primary care, reduce the excessive use of specialist and hospital care, and improve the cost efficiency of hospitals. Additional challenges are posed by the lack of a human resource strategy, the need to improve equitable financing for health insurers and the need for better health technology assessments ([14]).

Structural inefficiencies in the healthcare sector relate mainly to the over-use of hospital care, but also to potentially excessive use of resources in outpatient care. In particular, the number of curative beds per 1 000 inhabitants and the number of inpatient care discharges are above the EU average, indicating that there is potential to benefit from restructuring hospital bed capacity. Bed occupancy rates rose significantly between 2011 and 2014 but remain lower than the EU average. The length of stay in hospitals suggests that services such as rehabilitative, long-term and palliative care are provided in hospitals more often than in the EU as a whole. The very high number of outpatient doctors' consultations per capita (11.1 versus 6.7 in the EU in 2013) indicates high health care utilisation and possible inefficiencies in terms of duplicate diagnoses and unnecessary treatments. Based on indicators of unmet care needs, access to healthcare in the Czech Republic is better than the EU average ([15]).

Ongoing reform efforts are headed in the right direction but progress is rather slow. The parliament is currently discussing a new system for a more equitable distribution of funds among health insurance companies. The aim is to move away from a purely demographic model towards one implicitly accounting for parameters such as costs of chronic conditions (e.g. pharmacy cost-based groups). The reform aims to tackle the existing bias, whereby it is not financially attractive to insure patients suffering from chronic illnesses. There are also signs that the revamped financing of hospitals based on diagnosis-related groups (DRG) is slowly taking off. A pilot in data collection was due to be concluded in 2016. Tangible outcomes from the project, particularly in terms of implementing DRGs and improving the cost effectiveness of hospitals, are to be phased in throughout 2018 and 2019.

To counter possible shortages of medical staff, the authorities approved a 10 % salary increase from January 2017 and a fixed salary increase for nurses from mid-2017. Work is also being carried out to improve health workforce planning and to counterbalance the ageing of health workers. The authorities also intend to make changes to the education system for healthcare professionals, e.g. by making it easier for medical school graduates to pursue further specialist training or by shortening the required education of nurses. There have been no specific proposals to shift inpatient care towards more cost-effective outpatient care services. While implementation of Directive 2014/24/EU on public procurement aims at making the healthcare system more transparent, central procurement is still not widely used (Section 3.5 on public procurement).

([13]) European Commission's services' calculations based on EUROSTAT data and WHO-NFA data.

([14]) For a detailed analysis of challenges, see European Commission (2016c), Joint Report on Health Care and Long-Term Care Systems & Fiscal Sustainability.

([15]) In 2014 EU-SILC surveys, 1.1 % of Czechs citizens reported that during the last 12 months they had not received health services when really needed, compared to 3.6 % in the EU as a whole.

3.2. LABOUR MARKET, EDUCATION AND SOCIAL POLICIES

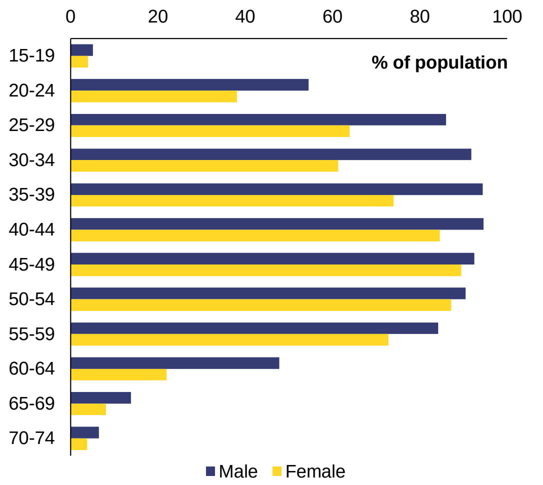
Labour market

With the unemployment rate falling to very low levels and participation rising quite rapidly, Czech labour market outcomes have improved in recent years, getting closer to full employment levels. The Czech Republic is among the best performers in the EU according to the scoreboard on employment and social indicators. The tightening of labour market conditions is making it increasingly difficult for employers to recruit workers. The ratio of job vacancies to total posts (i.e. the job vacancy rate) has been rising steadily for over two years, reaching 3.1 % in the third quarter of 2016, one of the highest levels in the EU. There were fewer than two unemployed persons for every advertised job vacancy, with the number of vacancies rising across almost all occupational levels. The trends in these indicators suggest that market efficiency in terms of matching workers to vacancies might be decreasing. Indeed, Czech employers point to staff shortages as an obstacle to growth potential.

There is still some potential to offset labour shortages by mobilising groups that are most underrepresented on the labour market. In particular, mothers with young children, the low-skilled, members of the Roma community and disabled workers remain underrepresented on the labour market. Increasing labour mobility, both from EU and non-EU countries, could also help offset the shortages.

Female employment remains strongly affected by motherhood. As extensively discussed in previous country reports, young female cohorts are much less active on the labour market than men of the same age, despite a generally high level of female employment (Graph 3.2.1). This 'motherhood penalty' is one of the highest in the EU and the employment gap between women with a child below the age of six and women (aged 20-49) without children was 34.8 pps. in 2015, four times more than the EU average. After parental leave, women generally return to employment but remain particularly vulnerable on the labour market. Indeed women with young children (aged from 3-5 years) have, on average, a greater chance of being unemployed than other women. The probability depends on the educational level and is higher for women with low and medium levels of education (80 % higher chance of being unemployed) than for those who are highly educated (45 % higher chance of being unemployed) [16].

Graph 3.2.1: **Employment by detailed age group**



Source: Eurostat

The low labour market participation of women of childbearing age is due to an acute lack of childcare facilities (in particular for children under the age of three), long parental leave entitlement and low uptake of flexible working arrangements. In 2014, only up to 5 % of children under the age of three were in any form of formal childcare, which is far below the EU average of 28% and the EU Barcelona target of 33 %, and not in line with the 2013 Commission Recommendation on investing in children. Women are nearly always the main carers of young children and the principal users of parental leave. In 2014 only 1.8 % of men used any kind of parental leave available to them. Inactivity among women aged 25-49 because of looking after children or incapacitated adults reached 74.4 % in 2015, the highest figure in the EU.

The Czech labour market does not fully use women's potential and skills. Inequalities remain substantial, as shown by the large difference in average earnings between men and women, which amounted to 40.5 % in 2014. Although women are more likely to hold a tertiary degree, their employment rate is much lower than that of men.

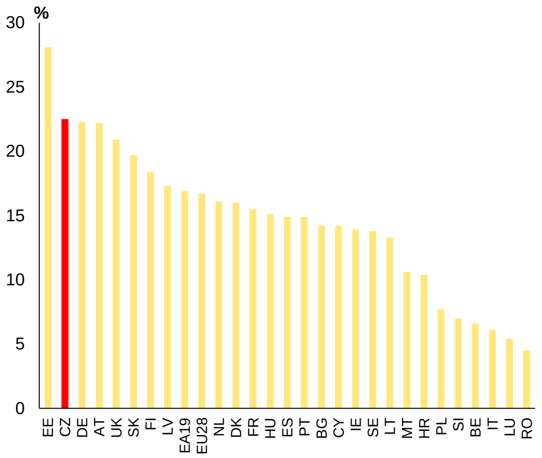
([16]) Educational attainment comprises three categories: low-educated (ISCED 0-2), medium-educated (ISCED 3-4) and high-educated (ISCED 5-8).

Gender inequalities are also apparent in salary levels, with the unadjusted pay gap amounting to 22.5 % in 2014, one of the highest in the EU (Graph 3.2.2). About a third of the gender pay gap can be explained by gender segregation in the labour market, i.e. women are more often employed in occupations and industries which pay comparatively lower salaries ([17]). Various other factors account for the remainder of the gap, including low transparency of wage negotiations in the private sector, low awareness of salary levels on the part of female employees, or discrimination.

Several amendments have been proposed to support the labour market participation of women. The Czech government has recently presented amendments to the Labour Code with the aim of offering more flexible labour arrangements and better protection for employees. The new provisions include greater availability of home working arrangements. In addition, a new paternity leave allowance (a week of paternity leave within the first six weeks after the birth of the child) is currently being discussed in the parliament. An amendment to the law on social support was proposed to make drawing of the parental allowance more flexible and independent of childcare facility attendance. The Family Policy Concept, currently under discussion, includes measures to increase the employment rate of women, such as the increased job sharing and abolition of the tax deduction for non-working spouses. EU funds continue to co-finance projects on 'child groups' to be delivered by firms, NGOs and other providers. New 'micro-nurseries' for children aged from six months to four years are being piloted, with the support of the European Social Fund. Measures to guarantee places in kindergartens also aim to bring about a faster return of mothers to the labour market. This guarantee is already approved for children of four years of age as of September 2017, three years of age as of 2018 and two years of age in 2020.

([17]) Commission calculations based on the 2014 SES data. The analysis is based on the average difference in the hourly wages between male and female employees with similar characteristics in terms of age, occupation, education, sector, contract type and type of employment (full-time vs. part-time). Boll et al. (2016) also find that a substantial part of the wage gap remains unexplained.

Graph 3.2.2: **Gender pay gap (difference in male and female hourly earnings as percentage of male earnings), unadjusted (2014)**



Source: Eurostat

The labour market performance of the low-skilled remains a concern. While they represent only a small part of the population, their activity rate ([18]) (52 %) and employment rate ([19]) (40 %) are far below the EU averages in 2015 (64 % and 53 % respectively). Their unemployment and long-term unemployment are also much higher than average Czech levels, standing at 22.2 % and 14.4 % respectively in 2015 ([20]). However, there is a demand for low-skilled workers for whom the job vacancy rate reached 6.5 % in 2015.

Tax disincentives for low-wage earners and the limited outreach capacity of the public employment services hinder the labour market participation of low-skilled workers. The tax wedge and inactivity trap for low-wage earners is high, creating potentially work disincentives for low-skilled workers (see Section 3.1). Public employment services do not have the sufficient capacity to provide relevant low-skilled-oriented interventions and individualised services consistently across all regions. Labour mobility is low, therefore a new measure to support regional mobility was recently introduced in several

([18]) The activity rate is the percentage of economically active population aged 15-64 on the total population of the same age.

([19]) The employment rate of the total population is calculated by dividing the number of people aged 20 to 64 in employment by the total population of the same age group.

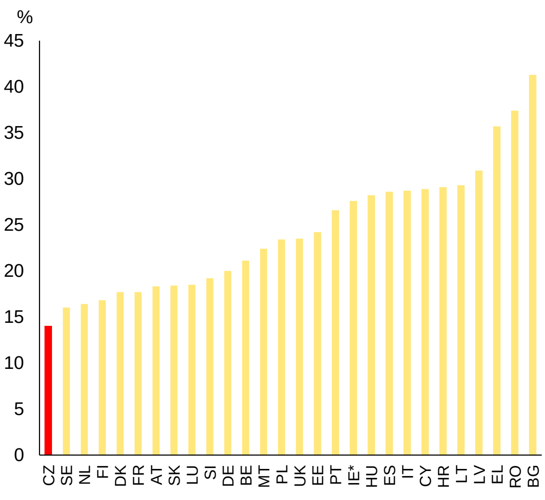
([20]) Figure for long-term unemployment based on the average of the first two quarters of 2015.

regions. It covers commuting costs to a new job in another region for job seekers who have been registered as unemployed for over five months. A state scheme attracting labour force from Ukraine was introduced in 2016.

Social policy (poverty, social aspects of social security systems)

The Czech Republic scores very well on indicators of poverty and social exclusion which remain among the lowest in the EU (Graph 3.2.3). The EU 2020 target on the reduction of the population at risk of poverty or social exclusion was upgraded in 2015. The revised target foresees a reduction of this segment of the population by 100 000 by 2020. The target has, in fact, already been reached, with the number of people at risk of poverty or social exclusion having fallen by 122 000 since 2008, reaching 1 444 000 in 2015.

Graph 3.2.3: **People at risk of poverty or social exclusion (% of population), 2015**



Source: Eurostat

Some challenges remain regarding the social exclusion of certain disadvantaged groups, notably disabled people and members of the Roma community. Persons with disabilities remain significantly disadvantaged on the labour market and, for that reason are at much greater risk of poverty or social exclusion: 12.4 pps. more than for the overall population. Members of the Roma community are largely under-represented on the labour market ([21]). It results in the at-risk-of poverty rate for Roma being around six times higher than for non-Roma. In other Member States with a sizable Roma minority (BG, HU, SK and RO) the rate of poverty for Roma is estimated to be between three to more than six times higher than for the general population (FRA, 2016) ([22]).

Housing exclusion and homelessness are an emerging problem, particularly among lower income groups, despite general positive poverty indicators. The absence of a quality framework for social services and the lack of affordable quality rental housing pose a growing challenge. In 2015, the housing cost overburden ([23]) of people below the poverty line reached 48 % compared to an EU average of 40 %. Rental costs reached an average of 47.7 % of the income of the poor, compared to an EU average of 37.6 %. Between 100 000 and 120 000 households are estimated to have been in housing need in 2013. Between 50 000 and 55 000 of them lived in rented dwellings, where the living costs exceeded 65 % of disposable income. The number of socially-excluded localities ([24]), inhabited mainly by the Roma population, nearly doubled in recent years (from around 330 to around 606) and the number of inhabitants increased by a third (reaching approx. 95 000 to 115 000) between 2006 and 2015. The total number of homeless people and at risk of losing housing was estimated at around 187 000 in 2015 and the estimated need for homeless shelters is double the current available capacity.

Some initial steps have been taken in 2015 to address housing exclusion, homelessness and to

([21]) Based on Fundamental Rights Agency (FRA) survey results for 2016, only around 38 % of Roma aged 20-64 reported to have been in 'paid work' at the time of the survey or in the four weeks before, while 5 % of the population reported to be unemployed.

([22]) The 2016 survey by the FRA improved the sampling and weighting methods developed for the 2011 survey, thus the results are a more accurate representation of the situation of Roma in the countries covered. Indicators used are a close approximation to those applied in standard European surveys (EU SILC, EU LFS) but full comparability was not intended. See FRA 2016.

([23]) The percentage of the population living in households where the total housing costs ('net' of housing allowances) represent more than 40 % of disposable income ('net' of housing allowances).

([24]) Socially excluded locality is defined as a space (house, street, part of the city) where people presenting common socially excluded features are concentrated.

strengthen the social services framework. In 2015, the national social housing concept for 2015-2025 was adopted. The Act on social housing is currently being prepared with the aim of ensuring the right to 'decent housing' for those in need, together with defining disadvantaged groups and creating a register of social housing. Difficulties in the financing and organisation of social services have been exacerbated by the de-centralisation process that has taken place in the last two years. This has caused difficulties in linking the provision of services with clear quality standards. There are plans to start to address this issue through the amendment to the Act on social services, which is currently under discussion.

Education and skills

Basic skills levels have deteriorated in the Czech Republic, while the impact of the socioeconomic background of students on performance remains strong. The proportion of 15-year-old low achievers in the 2015 OECD Programme for International Student Assessment (PISA) (OECD, 2016a) is around the EU average in science (21 %) and mathematics (22 %) and somewhat higher in reading (22 %). Compared to 2012, the proportion of low achievers increased significantly in science (+6.9 pps. compared to the EU average of +4 pps. in the EU) and reading (+5.1% compared to the EU average of +1.9 pps. in the EU) and slightly in mathematics (+0.7 pps. compared to the EU average of +0.1 pps.). The performance in science at national level showed one of the strongest deteriorations among participating countries, together with one of the largest differences in performance between schools on the basis of socioeconomic status. This may be linked to the selective nature of the school system.

The relationship between socioeconomic background and student performance remains strong. The Czech Republic shows one of the largest gaps in the proportion of low achievers in science between the lower and upper quarters on the socioeconomic index of the PISA student population (30.5 pps. compared to an EU average gap of 26.2 pps.). At the same time, the rate of low achievers among students from the higher social quarter is very low.

The early school leaving rate remains among the lowest in the EU ([25]), but regional disparities are significant and the rate has been increasing steadily since 2010. It currently exceeds the 5.5 % national target for 2020. Regional disparities are significant, ranging from 2.7 % to 14.5 %. Of particular concern is the high estimated proportion of Roma children who leave school early, which significantly impacts their future labour market performance (FRA, 2016).

The implementation of reform measures aimed at improving the inclusiveness of compulsory education started in September 2016. The reform aims at gradually increasing the participation of children with special needs (including socially disadvantaged children) in mainstream education, by granting them a legal right to individual support measures. According to the latest data published by the European Agency for Fundamental Rights and data from the Czech School Inspectorate, the proportion of Roma pupils attending special (or 'practical') schools has declined in recent years. Although lower than in most neighbouring countries with high proportions of Roma in the population, school segregation still remains high ([26]). Only a limited number of pupils have benefited from the reform to date. Aside from the absence of a piloting period, this may be partly due to the fact that the reform is being implemented gradually over a period of two years. The reform is largely co-financed by EU funds. Its long-term success will depend on sustainable national funding for the support measures in mainstream schools, in order to ensure high quality standards of education for all learners as well as systematic initial and continuing professional development opportunities for teachers. Ensuring a good understanding among the wider public on the societal benefits of inclusive education is also essential.

PISA 2015 results confirm the negative impact of low participation in early childhood education and care on future educational

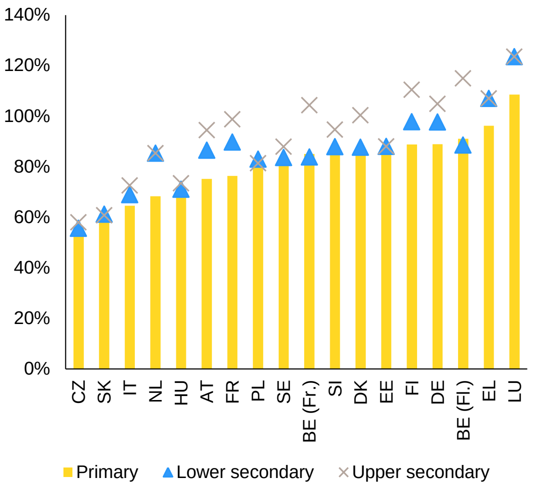
([25]) 6.2 % in 2015 compared to an EU average of 11 %.
([26]) The 2016 survey of the Fundamental Rights Agency indicates that 5 % of Roma children in the Czech Republic attend a school where all children are Roma and 25 % attend a school where most of the pupils are Roma (FRA, 2016). Using a different methodology, the Roma Inclusion Index 2015 estimated that 40 % of Roma children receive education in segregated schools (Decade of Roma, 2015).

outcomes. Against this background, the low participation of Roma children (estimated at 34 %) is problematic. Legislation was amended in 2016 to extend compulsory education to the last year of pre-school education from September 2017 and to ensure that places are available for all the children concerned, in order to boost participation. The extension of compulsory education is also likely to improve the inclusion of Roma children in mainstream education and their outcomes if implemented in inclusive settings.

The attractiveness of the teaching profession has improved slightly but remains weak. Teachers' salaries have been low for a long period, both in comparison to other countries and to the salaries of employees with similar levels of qualification (Graph 3.2.4). Teachers' salaries increased by 8 % in September 2016. The Ministry of Education intends to bring teachers' salaries up to 130 % of the national average wage in the coming years, in line with the request of teachers' unions. A draft new career system for teachers and pedagogical staff has been adopted by the government, with a planned implementation from September 2017. The aim is to link professional development, career and remuneration. The OECD recommends designing highly selective entry pathways to teaching in order to raise the social status of the profession.

Low labour market relevance of vocational education and training (VET) education is criticised by some employers. The evidence provided by the Czech School Inspection indicating low performance in mathematics and reading by VET students (ISCED 3) also suggests room for improvement. However, in the context of full employment and lack of evidence of skills mismatches, the employment outcomes of VET students are good, so the macroeconomic impact of the limitations is marginal. The current plans for further involvement of employers in designing curricula and increasing the number of apprenticeships (supported by the European Social Fund) can help strengthen links between education and the labour market.

Graph 3.2.4: **Salary of teachers, relative to earnings for full-time, full-year workers with tertiary education (ISCED 5 to 8), 2014**



(1) Data for Finland, France and Sweden for 2013; secondary education refers to general programmes
Source: OECD (2016b), Education at a Glance.

The tertiary education attainment rate continued its rapid rise, reaching 30.1 % in 2015 compared with an EU average of 38.7 %. It is likely that the 32 % national target will be attained by 2020. Czech adults with tertiary education qualifications earn 92 % more than those who did not continue beyond upper secondary education. The Czech Republic is currently implementing the higher education reform adopted in 2016. The aim of the reform is to raise the standards of accreditation and internal quality assurance and to give institutions more autonomy. A new independent National Accreditation Authority has been set up and the government has adopted new standards for accreditation. Another objective is to support the diversification of programmes offered, with a view to increasing profession-oriented programmes. Grants to students in need will be increased, which is likely to help increase the social diversity of tertiary education graduates. The reform is also likely to increase the number of programmes that are professionally accredited and employers' representatives are positive about closer links between academia and employers.

3.3. INVESTMENT

Investment in transport infrastructure

The Czech Republic continues to perform below the EU averages in respect of transport infrastructure. This is particularly apparent in regard to the road network, with a motorway network density of 9.8 km per 1 000 km^2 in 2014 compared to an EU average of 16.8 km ([27]). User satisfaction with the road network is also quite low, standing at 4.1 in the 2016/17 World Economic Forum's quality of road infrastructure index, compared to an EU average of 4.8. Nevertheless, this represents an improvement compared to the 2013/14 score of 3.6, probably thanks to a significant increase in both total investment and road maintenance expenditure in 2014 and 2015 ([28]). The density of the rail network is very high (120 km per 1 000 km^2 compared with 49 km in the EU in 2014) but the network requires substantial modernisation, with just 34 % of lines electrified in 2014, compared with 52 % in the EU overall. There is also a lack of high-speed railway connections, and cross-border connections are poor.

Investment in transport infrastructure has been inadequate in recent years. European Commission (2014) estimates point to significant underinvestment in transport infrastructure during the period 2010-2013 (see *2016 country report*), particularly for the road network. While overall investment increased in 2014 and 2015, a high investment level would need to be maintained in the future to address the infrastructure gap in the Czech Republic. The rise in total investment expenditures in transport infrastructure from CZK 30 billion in 2014 to CZK 57 billion in 2015 (current prices) was largely a result of a substantial increase in EU co-financed public investment in that year, which in turn was a consequence of closing of the 2007-2013 programming period. A similar trend can be observed in rail transport infrastructure, where investment and maintenance expenditure also increased in 2014 and 2015. The Transport Policy of the Czech Republic (2014-2020) estimates the total annual expenditure required at 2.5 % of GDP to ensure adequate funding to operate, maintain and develop the country's transport infrastructure ([29]).

The delayed implementation of transport infrastructure projects is due to wider structural deficiencies in the preparation and implementation of such projects including outdated environmental impact assessments (EIAs). The multiple layers of administrative approval required for these projects mean that it can take up to 15 years between the adoption of the initial impact assessments and the completion of the project. This gives rise to the risk that these assessments, including the EIA, can become invalid in the meantime due to legislative changes or new societal priorities. Non-compliant EIAs ([30]) pose in particular a significant risk to the timely implementation of transport infrastructure projects to be co-financed by the Operational Programme 'Transport' ([31]). Furthermore, the lack of proper strategic planning in the application of the Strategic Environmental Assessment Directive leads to difficulties in completing complex projects, such as the Prague ring road. Investment in transport infrastructure also suffers from general problems related to public procurement transparency and corruption (see Section 3.5). Road construction is especially problematic in this regard, with many projects exceeding the initial budget specified in the tender, experiencing significant delays in completion or being of questionable quality and safety. Indeed, deadline extensions for motorway and other infrastructure projects often reach up to seven years, and projects are often changed to include additional works after

([27]) While these figures do not take into account population density, the density of the road network per million habitants is also very low, at 74 km vs an EU average of 148 km.

([28]) Transport Yearbook Czech Republic 2015.

([29]) It stood at 1.4 % and 2.1 % of GDP in 2014 and 2015 respectively.

([30]) Over the last 10 years, Czech legislation has been the subject of infringement procedures on a number of occasions due to incorrect transposition of the EIA Directive. This calls into question the legality of some ongoing transport projects that fall under the EIA Directive. An amendment to the EIA Act came into force in April 2015.

([31]) Nine of these projects, which are considered strategic and have a total budget of around EUR 2.1 bn and an estimated EU contribution of EUR 1.3 bn, will be subject to an accelerated EIA procedure to ensure timely implementation. To this end, an ad hoc amendment of the EIA Act was adopted in a fast-track procedure and entered into force in August 2016. These projects are expected to be submitted for EU co-financing as from the second quarter of 2017. A further 90 projects will undergo an updated EIA in accordance with the 2015 amendment of the relevant national law.

the contracts are signed, resulting in considerable extra costs.

To simplify and accelerate the procedure for granting building permits, the Czech government approved an amendment to the Construction Act and related legislation in September 2016. The Construction Act is the main legal regulation in the construction sector. It deals with the duties and responsibilities of the participants in the construction process, territorial planning, construction permits and other necessary rules and actions needed to carry out construction works. The aim of the proposed amendment is to simplify existing procedures to grant permits, while limiting the construction of illegal structures. Moreover, the new draft integrates the EIA into the current permit procedure. However, the draft amendment is not exempt from criticism. Stakeholders including the Confederation of Industry consider the reform to be less far-reaching than expected, particularly as there will be no one-stop-shop for construction permits. Although the amendment allows for expropriation under certain circumstances, lengthy procedures are still very likely. Moreover, the amendment is currently being discussed in the parliament and there are risks that it will be further weakened.

EU funds

There was a significant decrease in investments co-financed from EU funds in 2016 due to the closure of the 2007-2013 programming period in 2015 and the slow launch of the 2014-2020 programming period. Concerning the 2007-2013 programming period, the overall rate of payment of EU funds increased from 85 % in December 2015 to the threshold of 95 % set for pre-financing and interim payments by August 2016. However, the amount of funds paid to the project beneficiaries remains below 100 % for several operational programmes due to interrupted payments caused by irregularities. The implementation of the 2014-2020 programming period has been slow to date, although it is picking up. The factors driving the delay are, in particular, the late adoption of operational programmes, the lengthy preparation of selection criteria and the adaptation to the new implementation framework. The total amount of contracted assistance from ESI funds reached, by the 31 December 2016, only 12 % of the overall allocation for the operational programmes. Further details on EU co-financed investment are provided in Box 2.1.

Irregularities in managing EU funds are still common and cause substantial financial corrections to be applied by the EU. Shortcomings remain in controls performed by managing authorities, as illustrated by implementation error rates above the acceptable rate of 2 % for several of the operational programmes. The insertion of upfront conditions on the use of EU funds in the area of public procurement should, however, help improve matters.

Investment in housing

While demand for housing has risen in recent years, supply has been lagging behind. Rising demand reflects a number of factors. Firstly, mortgage interest rates fell to a historical low in 2016 with, for example, the average rate for a five-to-ten-year loan standing at 2.1 % ([32]), compared to 5.1 % in 2010. Secondly, household income has increased, with the nominal median net income rising by 22.3 % between 2008 and 2015. Thirdly, the number of households has increased by a total of 19.7 % between 2000 and 2015, well in excess of the population growth rate of 2.6 % over the same period. Consequently, the average household size has decreased from 2.7 members in 2000 to 2.3 in 2015. However, the overcrowding rate remains above the EU average (19.9 in 2014 vs 16.9 for the EU), At the same time, the number of building permits granted annually for residential buildings fell by 41.7 % between 2008 and 2015 (40.3 % for one-dwelling buildings and 43.9 % for two and more dwelling buildings). This downward trend seemed to have reached a turning point in 2014, however, and the number of permits granted started to recover in 2015 (annual growth of 2.7 %).

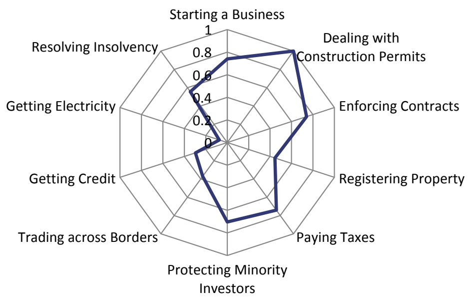
Business environment

The business environment in the Czech Republic is characterised by a heavy regulatory burden and numerous administrative barriers, which act as an impediment to both private- and public-sector investment. The Small Business Act factsheet (European Commission,

([32]) ECB interest rates statistics for households.

2016c) highlights a number of administrative hurdles faced by small and medium-sized enterprises (SMEs). SMEs are particularly affected by the burden of regulations, the complexity of administrative procedures and the impact of a rapidly changing legislation. In the area of ‘responsive administration’, the performance of the Czech Republic deteriorated slightly compared to the year before. In the 2017 Doing Business Report, the World Bank highlights dealing with construction permits (130th place) as significantly contributing to inefficiencies in the business environment (Graph 3.3.1). Moreover, inefficiencies in government bureaucracy and tax regulations were flagged in the World Economic Forum Executive Survey as most problematic areas for doing business. The European Commission’s Consumer Conditions Scoreboard data also show difficulties complying with consumer legislation (European Commission, 2017b).

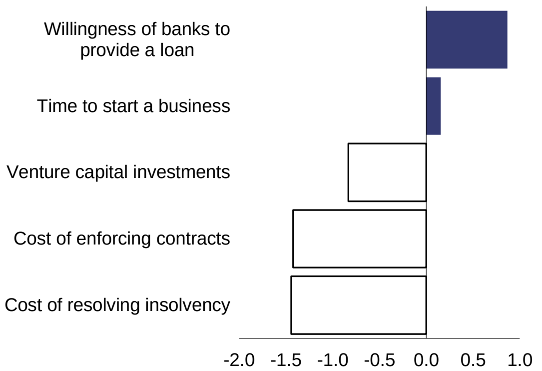
Graph 3.3.1: **Indicators of ease of doing business (2016)**



(1) For each indicator, the Czech Republic is ranked against other EU Member States (0 = best performer; 1 = worst performer).
Source: World Bank (2016a) and Commission calculations

The Czech authorities are making an effort to reduce the administrative burden on businesses, and further progress was achieved in 2016. The Ministry of Industry and Trade conducts an annual consultation with stakeholders to identify key administrative barriers and prepares an action plan to address these concerns. Under the most recently concluded action plan (Ministry of Industry and Trade, 2016a), a large number of simplification measures (60) were implemented. Progress can be observed in a number of areas. For example, measures have made it easier to start a business by reducing the cost and the time required to register a company in commercial courts, in particular by allowing notaries to directly register companies through an online system. Furthermore, minimum capital requirements for limited partnership companies have been reduced. In its Doing Business Report, the World Bank estimates that the time needed to start a business has fallen by around 40 % since 2015, and the Czech Republic’s ranking in this area has improved in 2016. Overall, stakeholders agree that this process helps to reduce the administrative burden. However, they cite the digitalisation of public services as a critical area where improvement is needed. Many administrative actions are not available online or still require physical contact. Furthermore, authorities often do not communicate among themselves, which results in the need to resubmit documents several times (see Section 3.5).

Graph 3.3.2: **Small Business Act factsheet (2016)**



(1) Variation from the EU average, as measured in standard deviations (EU average =0) (2) Data bars pointing to the right show better performance than the EU average.
Source: European Commission (2016d)

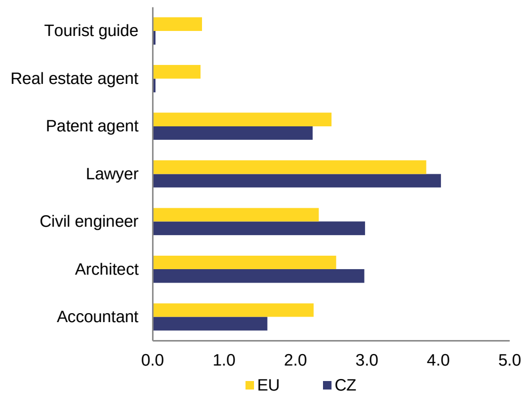
While the costs associated with insolvency remain high compared to the EU average ([33]), the Czech authorities have made considerable efforts to reduce them in recent years. In particular, the time needed to resolve insolvency fell from 6.5 years in 2008 to 2.1 years in 2016, according to the Doing Business Report, and recovery rates have improved significantly (McCormack, G. et al., 2016). The insolvency law has been amended to make it possible for smaller businesses to use the legal possibility of corporate reorganisation. However, even the new enterprise size threshold excludes the majority of firms, so most insolvency is still settled through bankruptcy. Moreover, the system remains focused on preserving creditor claims, making it difficult for

([33]) According to the 2016 SBA factsheet, the cost of recovery is 17 % of the debtor’s estate; the EU average is 10.3 %.

entrepreneurs to start a new venture after a business failure. However, an amendment to the Insolvency Act, which was passed by the parliament of the Czech Republic, is aimed at limiting the powers of creditors and strengthening the protection of debtors against unjustified requests to open insolvency proceedings. Another amendment that seeks to increase the possibility of a second chance by expanding accessibility to debt adjustment was approved by the government of the Czech Republic.

Regulatory barriers to entry remain high for a number of professions, although a review of professional qualifications has been carried out in the context of the transposition of the Directive on the recognition of professional qualifications (2013/55/EU) (European Commission, 2017c). According to a new indicator developed by the European Commission ([34]), the level of restrictiveness in the Czech Republic is lower than the EU average only for patent agents, accountants, real estate agents and tourist guides, while it is higher than the EU average for civil engineers, architects and lawyers (Graph 3.3.3). Simulations suggest that lowering the restrictiveness indicator for lawyers to the EU average would boost the number of firms (+0.4 %) while lowering profitability (-1 %). Furthermore, for legal, architectural activities and accountancy the business churn (or turnover) rates are lower than the overall rate for the Czech economy, and the EU average. This points to relatively low dynamism and possibly low competition in these sectors. However, the churn rate in the real estate and tourist guides profession is higher than in the EU as a whole. In its national action plan resulting from the mutual evaluation of regulated professions, no major reforms of existing professions have been announced by the Czech authorities. On the other hand, in the case of real estate agents and tourist guides, new mandatory qualifications have been established.

Graph 3.3.3: **Summary restrictiveness indicator for regulated professions (2015)**



Note: The higher the score, the higher the restrictiveness.
Source: European Commission

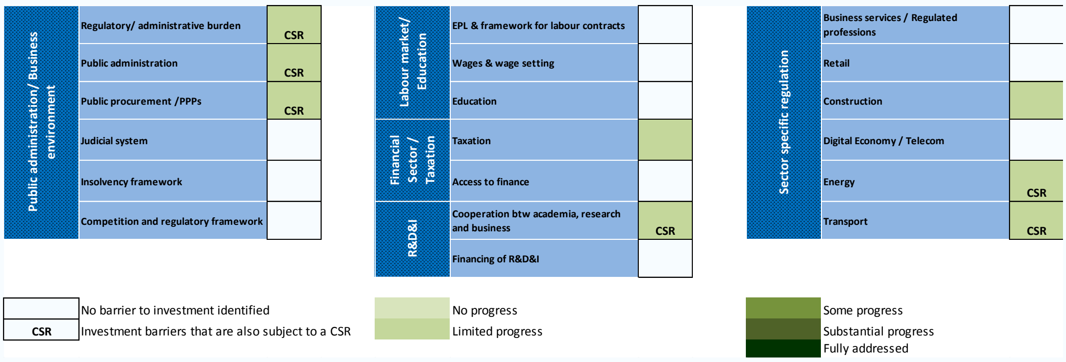
([34]) This composite indicator on restrictiveness of regulated professions is based on data collected from Member States, complemented by research undertaken by European Commission (2017c) staff. This new indicator has many similarities with the Commission's indicator assessing the barriers in business services published in 2015, but also differs from it in certain respects. More details are provided in the staff working document COM (2016) 820.

Box 3.3.1: Investment challenges and reforms in the Czech Republic

Macroeconomic perspective

While remaining above the EU average as a percentage of GDP, total investment in the Czech Republic (measured as gross fixed capital formation) fell in the period following the onset of the financial crisis. This was mainly driven by lower public investment, which fell by nearly 30 % in nominal terms between 2009 and 2013 as the government undertook fiscal consolidation. Private investment grew by 3.4 % during this period, with a large fall in 2009 compensated by subsequent growth. Public investment increased in 2014-15, as the authorities accelerated drawdown of ESI funding, but is expected to have fallen significantly in 2016 (see Box 2.1). Lower drawdown of ESI funds also contributed to weak private-sector investment growth in 2016 (see Section 1).

Assessment of barriers to investment and ongoing reforms



Barriers to investment in the Czech Republic are high, as confirmed by the European Commission assessment. Limited reforms have been adopted to reduce the administrative burden and improve the efficiency of the business environment. Similarly, limited efforts have been undertaken to address problems related to public procurement, governance of the R&D sector and implementation of transport infrastructure projects.

Main barriers to investment and priority actions underway

1. Administrative and regulatory burdens remain a key barrier to public and private investment. Lengthy procedures to obtain land and building permits impede the rollout of transport infrastructure projects and hinder private sector investment. The absence of a one-stop shop for granting transport infrastructure permits lengthens procedures unnecessarily. Inefficiencies in public administration, including the complexity of the tax system and of administrative procedures, the impact of a rapidly-changing legislation and a low use of e-government services, weigh on private-sector investment, particularly for SMEs. The Czech authorities have made progress in this area, notably by significantly reducing costs associated with starting a business and by strengthening insolvency procedures.

2. Public investment is hampered by inefficient public procurement procedures (see Section 3.5). While the Czech authorities have adopted some reforms, progress is still lacking in areas such as centralised purchasing and the incidence of corruption in public tender procedures.

3. While total investment in R&D is at the EU average, this is largely driven by the public sector, EU funds and large, foreign-owned enterprises (see Section 3.4). Proposed reforms of the governance system remain unimplemented and efforts to boost cooperation between research centres and enterprises have not been sufficiently enforced.

While access to finance does not appear to pose a problem for Czech firms, markets for non-bank sources of finance remain underdeveloped. According to the ECB's most recent survey on the enterprises' access to finance (European Central Bank, 2016), the success rate of applications for credit lines or overdrafts in the country is the highest of all Member States. Czech SMEs also reported the smallest net increase in collateral requirements since the previous survey. However, based on the OECD Finance Policy Brief (OECD, 2016c), equity financing is less relevant in the Czech Republic compared to the EU average (2 % vs 9 %). Furthermore, private equity investment remains weak, even compared to other central and eastern European countries, with venture capital playing a negligible role in firms' total funding. Total venture capital stood at only 0.001 % of GDP in 2015, significantly less than the EU average of 0.024 % (Invest Europe, 2016). Plans to boost the access to venture capital through public-private seed funds have so far failed. However, the government has established a National Innovation Fund, with funding from the Operational Programme for Enterprises and Innovation for Competitiveness, although it remains to be seen how quickly the initiative will become operational. This consists of a EUR 45 million investment platform dedicated to SMEs, seed project financing and mobilising private-sector participation in equity financing.

The large number of small firms and their relatively low level of productivity point to weaknesses in allocative efficiency in the Czech Republic. Indicators of firm dynamics are largely in line with EU averages. However, there is a higher proportion of micro-enterprises (i.e. those with up to nine employees) than in the EU (96.1 % vs 92.8 % in 2013). Furthermore, there is a considerable gap between the productivity of micro-enterprises and large firms (firms with 250+ employees), with productivity of the former standing at around 34 % of the latter in the industrial sector and 59 % in the services sector. Such a productivity gap points to weaknesses in allocative efficiency in the Czech Republic. OECD (2016d) attributes this phenomenon to the low mobility of workers, cumbersome bankruptcy rules and difficulties faced by seed and start-up enterprises in accessing finance.

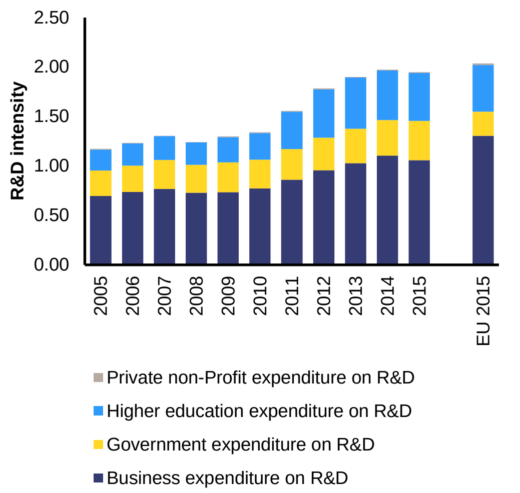
3.4. SECTORAL POLICIES

Research & development

R&D intensity has increased significantly in recent years, reaching 1.95 % of GDP in 2015, nearly at par with the EU average of 2 %. Reaching an R&D intensity of 2.5 % of GDP in 2020 will only be possible if the overall trend observed over the 2007-2015 period is maintained. Yet the national target for public R&D expenditure (1 % of GDP in 2020) will be attained (Office of the Government of the Czech Republic, 2015a). As discussed in the *2016 country report*, the increase in R&D intensity since 2010 has largely been financed by ESI funds and foreign-owned firms, indicating a lack of dynamism in R&D expenditure of the domestic sector. Sustaining the current level of R&D intensity after the end of the programming period for ESI funds by 2020 would require a compensating increase in business R&D (OECD, 2016d). In particular due to ESI funds, the government sector accounts for a relatively high proportion of total R&D intensity compared to the EU average (20.5 % of total R&D expenditure in 2015 vs an EU average of 11.8 %, see Graph 3.4.1).

The strong increase in R&D intensity since 2005 is not being matched by corresponding improvements in the quality of outcomes. While progress has been made, the Czech Republic still fares significantly below the average EU performance in terms of openness and excellence of its research system and intellectual assets according to the 2016 European Innovation Scoreboard (European Commission, 2016e). The Czech Republic also faces challenges in venture capital investment (see Section 3.3), patent applications, attracting non-EU doctorate students and undertaking public-private co-publications. Moreover, the innovation output indicators of the scoreboard that capture SME's product and process innovations, as well as marketing and organisational innovation, are below or close to the EU averages and have declined over time. In contrast, there has been an improvement in the human resources available to the R&D sector, with the Eurostat indicator for new graduates in science and engineering improving in recent years (from 10.7 per thousand of population aged 25-34 in 2007 to 15.1 in 2014 vs the EU average of 17.6 in 2014).

Graph 3.4.1: **R&D intensity by sector, Czech Republic**



Source: Eurostat

The Czech authorities have set out a list of priorities for the R&D sector, in line with the recently-adopted European Research Area Roadmap (2016-2020). The priorities of the domestic R&D agenda are the streamlining of governance, the implementation of the new evaluation framework, the development of a base for applied research and an improvement in the research and innovation capabilities of the business sector. In September 2016 the updated National Research and Innovation Strategy for Smart Specialisation was approved by the Commission. Furthermore, a number of operational programmes are being also put into place to support R&D, innovation and competitiveness.

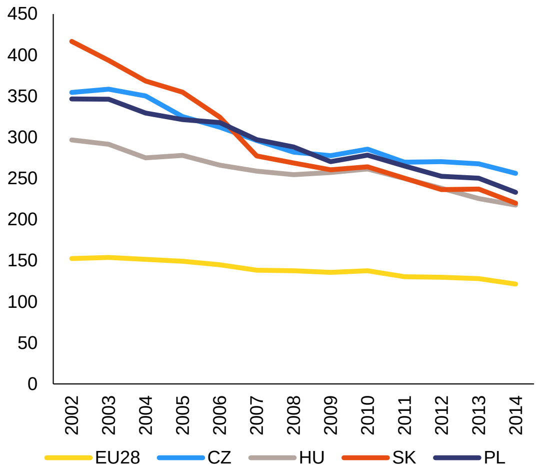
Proposed reforms to the governance of the R&D system are being pursued. The new evaluation methodology (Metodika 17+), which intends to strengthen the steering and structure of responsibilities related to the evaluation and allocation of research funding was approved by the government in February 2017. To create a bridge for the performance–based funding system that existed until 2010 (Good, B. et al., 2015), an interim system was introduced to stabilise funding flows and to allow for a transition to the new methodology in 2017. During the gradual phasing in of Metodika 17+, the information system for R&D will be further developed to improve the contribution of qualitative aspects to the methodology. These include research excellence, international research cooperation and the relevance and impact of research with regards to society.

A series of measures are being taken to improve cooperation between businesses and research institutes, and the Czech authorities intend to introduce clear rules for this collaboration. The Technological Agency currently runs a number of programmes aimed at enhancing cooperation between businesses and public research institutes. These include the establishment of competence centres, which aim to support research, development and innovation in advanced fields with an emphasis on the commercial application of outputs. However, these programmes have not yet undergone a thorough international and peer-reviewed evaluation process. Two new measures to support research for industry are in the process of being launched, namely the EPSILON and TRIO programmes. The former aims to support applied research, while the latter targets projects in industrial research. Finally, the tax credit system was recently extended to include the purchase of R&D services from research organisations (Srholec, M. et al, 2017 f.). Whilst predominately used by large firms ([35]), no specific support instruments for SMEs are currently in place.

Energy and resource efficiency

The energy and carbon intensity of the Czech economy is slowly decreasing but remains high compared to the EU average. The Czech Republic used 2.1 times more energy per unit of GDP and 1.2 times more energy per capita in 2014 than the EU average (Graph 3.4.2). This is due to the relatively large role that industry and, in particular, manufacturing plays in the economy ([36]). In addition, the industrial sector is more energy-intensive than in neighbouring countries. However, after a decrease in 2014 primary and final energy consumption have risen again in 2015. Primary energy consumption in the Czech Republic reached 39.9 Mtoe and final energy consumption 24.1 Mtoe in 2015. The primary energy consumption increased thus above the 2020 target, whilst the current final energy consumption still remains below the 2020 target.

Graph 3.4.2: **Energy intensity (gross inland consumption divided by GDP)**



Source: European Commission calculations based on Eurostat

In contrast to the generally positive trend in energy consumption, energy efficiency measures appear, as yet, not to have progressed in line with the National Energy Efficiency Action Plan of the Czech Republic. Indeed, these measures are unlikely to deliver the intended energy savings in the absence of a faster rollout of projects aimed at encouraging further investment in energy efficiency. In particular, the absence of a harmonised rollout of flexible financial instruments hinders the support of energy efficiency measures in medium and long-term. The national arrangements for congestion management and bidding zone definition in central Europe do not necessarily reflect actual congestion, reducing possibilities to trade electricity across borders. A joint regional solution would help all affected neighbours.

The Czech Republic has already met its 2020 targets for renewable energy, primarily due to large investments in this area in recent years, but also because of the low level of the targets. Renewable energy accounted for 13.4 % of final energy consumption in 2014, above the 2020 target of 13 %. Although the renewable energy share continues to grow, changes to renewables support

([35]) In 2013, around 70 % of the total allocation was used by large firms (Office of the Government of the Czech Republic, 2015a).
([36]) Manufacturing accounted in 2014 for some 25 % of the total value added, compared to the EU average of 15 %.

schemes (37) in the energy sector have negatively impacted their potential. The Czech Republic is well on track to deliver on the greenhouse gas emissions target in sectors outside the emission trading system (ETS). Taking into account existing measures, emissions are expected to decrease by 8 % between 2005 and 2020.

The Czech Republic still faces significant environmental challenges, particularly in the areas of landfilling and air pollution (38). Landfilling remains the predominant option for treating municipal waste, accounting for 52 % of its treatment in 2015, twice the EU average of 25 %. Air quality does not meet the requirements of national and European legislation, with negative effects on the population's health outcomes and on the environment in the long term. In 2014, breaches of EU air quality standards were registered for particle pollution and for nitrogen dioxide in densely populated areas.

The recycling rate has slowly increased in recent years but remains substantially below the EU average. The recycling rate stood at 29.7 % in 2015, representing an increase from the 2014 rate, but still well below the EU average of 45 %. A more rapid increase in the recycling rate is hampered by the current system of waste management, which is not fully in line with the principles of circular economy and with the EU's waste hierarchy (39). The revised Waste Act (No. 229/2014) requires separate collection of biodegradable waste and a ban on the landfilling of recyclable waste from 2024. These changes are expected to give rise to a shift away from landfilling and towards treatments that are higher in the waste hierarchy (40). Next to the national waste management plan adopted at the very end of 2015, regional waste management plans were adopted in 2016. Though also the latter include policy measures arising from the Waste Framework Directive that should help achieve recycling targets (41), these plans, in contrast to the national one, are less elaborated with conditional waste infrastructure planning, thus not providing a full and clear picture on capacity planning for energy recovery.

(37) The guaranteed support in the form of renewable energy payments was reduced in late 2013.

(38) A full assessment of the challenges and opportunities of environmental policies in the Czech Republic can be found in the European Commission (2017d), Environmental Implementation Review 2016, Country report Czech Republic, forthcoming.

(39) The Waste Framework Directive provides for the following priorities: prevention, re-use, recycling, other recovery (e.g. energy recovery) and disposal.

(40) An objective assessment of progress in the area of municipal waste management is hampered by significant differences in statistics for municipal waste generation between the Ministry of Environment and the Czech Statistical Office. The institutions have agreed to work on reducing these discrepancies.

(41) By 2020, the preparation for re-use and the recycling of waste materials from households (such as paper, metal, plastic and glass) is to be increased to a minimum of overall 50 % by weight.

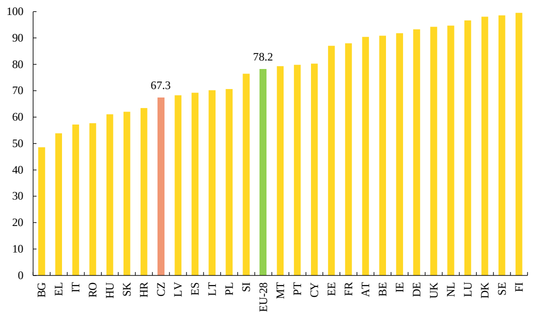
3.5. PUBLIC ADMINISTRATION

Corruption

Corruption continues to be perceived by citizens and enterprises as a major ongoing problem but an improvement has been observed in recent years. According to Transparency International's Corruption Perception Index, the Czech Republic's score improved by 15 points between 2013 and 2016 but remains below the EU average (55 vs 65 in the EU in 2016). Furthermore, according to the World Economic Forum 2016/2017 ([42]), corruption is seen as the third most problematic factor for doing business in the Czech Republic after inefficient government bureaucracy and tax regulations (see Section 3.1). The 2016/17 Global Competitiveness Index flags up the low ranking of the Czech Republic in relation to the diversion of public funds (105th rank of 138 countries surveyed). The World Bank's World Governance Indicators also underscore the Czech Republic's weak performance as regards corruption (Graph 3.5.1), although it scores above most of its peers in the region.

Challenges in corruption control and transparency are evident, particularly in relation to prosecution and public tendering. Survey evidence shows that 41 % of managers (vs. 34 % in the EU) considered corruption to have prevented them from winning a public tender or contract in the Czech Republic in the three preceding years (European Commission, 2015b) (see subsection on public procurement below). The prosecution of illegal practices in public procurement and of bribery cases is rare (European Commission, 2016g). Although cases that reach the courts generally lead to conviction and a suspended prison sentence, the number of cases was relatively low at less than 100 per year ([43]) between 2011 and 2013. There are indications that European structural funds and other public funds have been channelled to private companies whose ultimate beneficiary was not known (Centrum of Excellence for Good Governance, 2016).

Graph 3.5.1: **Control of corruption — global percentile rank (2015)**



Note: The score indicates the perceived level of public sector corruption on a scale of 0 (highly corrupt) to 100 (very clean).
Source: World Bank (2016b), World Governance Indicators

Progress has been achieved in implementing the 2016 anti-corruption plan (Office of the Government of the Czech Republic, 2015b) but several reforms are still pending. The Czech parliament adopted various pieces of legislation to tackle corruption in 2016 ([44]). Nevertheless, other important measures in the anti-corruption plan still have not been addressed, in particular the protection of whistleblowers, and the draft law on state representatives' appointments to state-controlled trading companies. The newly-adopted rules on political party financing still do not cover some areas, in particular a full disclosure of party and electoral campaign expenditure, and the establishment of effective and impartial supervision has not yet been achieved. Meanwhile, the implementation of relevant legislation is still pending. This legislation includes the Internal Management and Financial Control in Public Administration Act and the Act broadening the powers of the Supreme Audit Office.

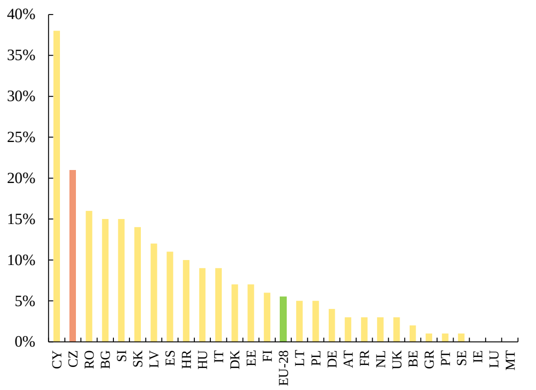
Public procurement

Sufficient transparency and competition in public procurement have not yet been achieved. In 2016, Czech contracting authorities awarded an average of 16 % of contracts without publishing a call for tender, the second highest proportion in the EU (5 % median value in the EU, see

([42]) World Economic Forum (2016b), *Global Competitiveness Report 2016-17*, p. 160.
([43]) Statistics for passive and active bribery, and all foreign bribery cases combined; number of convictions in 2011, 2012 and 2013 are 64, 87 and 91.
([44]) These include the Act on Political Party Financing, the Conflict of Interest Law, the Act on Declaring the Origin of Property, and the Public Procurement Act. The government also adopted a Bill on Public Prosecution. Furthermore, an electronic library of legislative proposals will gives users access to all legal proposals prior to their adoption by government.

Graph 3.5.2). Furthermore, the Czech Republic was among the lowest-ranked Member States for contracts awarded with only a single bidder (41 %), highlighting a lack of competition in public procurement procedures.

Graph 3.5.2: **Negotiated contracts without prior publication (2016)**



Note: EU-28 refers to median of the listed countries.
Source: European Commission based on Tenders Electronic Daily (TED)/OJ

Public procurement falls short of EU best practices due to low levels of professionalisation among procurement officers. In 2016, the Czech Republic made use of the 'most economically advantageous tender' (MEAT) principle in only 18 % of contracts compared to 45 % in the EU as a whole. In response to this, the authorities have launched specialised training programmes, including those focused on relevant elements in the new Public Procurement Act. The main areas of improvement concern the use of quality criteria (e.g. MEAT) instead of the lowest price criterion. Another area where shortcomings were identified concerns the formulation of technical specifications which, if broadened, could open up competition across various technologies and suppliers.

The Public Procurement and Concession Directives were transposed with a minor delay. The revised Public Procurement Act entered into force on 1 October 2016. While its impact can be ascertained only in the light of actual implementation, the law aims to address previous shortcomings, including by increasing the use of quality criteria, cutting down on negotiated procedures and enhancing the degree of competition. Public procurement review procedures have been shortened thanks to the increased efforts of the Public Procurement Review Body (Office for Protection of Competition).

The digitisation of public procurement is making progress. The Public Procurement Digitisation Strategy for 2016-2020 ([45]) foresees the national electronic tool (NET) to become compulsory by 2018, potentially making public procurement more efficient and transparent. Concerns have been raised by the review body regarding contracts that were used for updating the NET system but which were not in line with legislative requirements and contained undue amendments of delivery terms. Decisions on fines were issued and appeals are pending.

The Czech authorities have made progress in joining up and centralising purchasing activities, but challenges persist in the healthcare sector. Progress can be seen in some ministries that already act as central purchasing bodies. Centralised procurement, amounting to some 4 % in the Czech Republic, is well below the EU average of 9 %. At local government level, the Association of Towns and Municipalities announced the establishment of competence centres to assist municipalities with technically demanding public procurement procedures. A push to introduce centralised procurement practices in the healthcare sector was met with scepticism on the part of hospitals due to concerns about losing autonomy in procurement processes. The relevant authorities appear to have addressed the major shortcomings of the past, such as the bundling of procedures to limit competition. However, the use of the lowest price criterion (85 % in 2015) and single-bid procedures (55 % in 2015) remains high in health sector procurement (see Section 3.1 on healthcare).

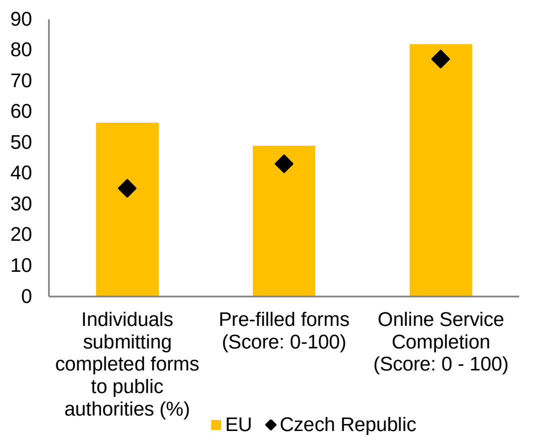
e-government services

The use of e-government services in Czech Republic is one of the lowest in the EU, but has increased from the previous year. In 2016, 35 % of internet users who needed to submit official forms to authorities sent forms online, up from 24 % in 2015. The figure is however still low,

([45]) Ministry of Regional Development (2016), Digitisation Strategy of Public Procurement for 2016-2020.

compared with an EU average of 56 % ([46]) (Graph 3.5.3). The above data suggests a positive impact of measures taken to improve supply of e-government services: the availability of pre-filled forms and the level of online service completion have also increased from 2015, although they are still below the EU average.

Graph 3.5.3: **Selected indicators of digital skills (2016)**



Note: The indicator of individuals submitting forms is calculated as the % of individuals who need to submit official forms to public authorities.
Source: European Commission (2017e), Digital Scoreboard

The Czech authorities have adopted an updated action plan for the development of the digital market, which includes details on the launch of the 'Initiative 202020'. The aim of this initiative — jointly run by the private sector and the Czech authorities — is to make the Czech Republic one of the top 20 countries in Europe for the use of e-government services by 2020. The initiative focuses on the promotion of existing e-government services, including a mapping of the 750 services that are currently available, and support for the development of new services. The platform also allows users to propose new services and to suggest improvements to existing services. Increased availability of e-government services is also one of the objectives of the Strategic Framework for the Development of Public Administration for 2014-2020. The evaluation report ([47]) indicated that some individual measures are not yet initiated and most are still 'work in progress'. For example, work is ongoing on fully electronic submission of forms to the public administration and on a Citizen Portal where all the services would be available. The national e-ID, which should serve as key enabler for e-government services, is planned to be introduced in January 2018.

Responsibility for the roll-out of e-government services lies with three Ministries (Ministry of the Interior, Ministry of Finance and Ministry of Industry and Trade) and since 2015 a Government Council for Information Society is in place to improve coordination. Stakeholders, including the Confederation of Industry and the Association of Towns and Municipalities, have however signalled that formats and procedures can vary across different services and there is limited use of forms 'pre-filled' with information already supplied by users to other government services. This indicates that cross-sector cooperation is limited.

While a significant amount of ESIF funding (EUR 300 million) has been allocated for the development of e-government services and cyber security during the 2014-2020 programming period, the rollout of projects has so far been slow. The Czech authorities have launched several tenders for new projects since late 2015. However, the number of projects ready to be implemented is currently quite low. Although important steps have been taken to speed up the implementation of the available funds, it is likely that the impact of these measures will mostly be felt only in the medium term (Section 3.3 on EU funds).

([46]) An alternative indicator compares individually submitted forms to public authorities as a % of internet users. Based on this, 15 % of internet users sent forms to the public administration online in 2016, compared with an EU average of 34 %.
([47]) Ministry of the Interior, June 2016.

ANNEX A

Overview Table

2016 Country-specific recommendations (CSRs)	
Commitments	**Summary assessment ([48])**
CSR 1:	The Czech Republic has made **some progress** in addressing CSR 1:
• Take measures to ensure the long-term sustainability of public finances, in light of future risks in the area of healthcare.	**Limited progress** has been made in ensuring the long-term sustainability of public finance. Some measures in the healthcare sector are at various stages of adoption, including a draft law on using Pharmacy Cost-Based Groups to provide for a more equitable distribution of funds among health insurance companies. On the other hand, the government has approved a proposal to cap the retirement age at 65 after around 2030, which is likely to worsen the long-term sustainability of pensions.
• Adopt legislation to strengthen the fiscal framework.	**Substantial progress** has been made on the adoption of the legislation to strengthen the fiscal framework. The proposed fiscal legislation to implement Directive 2011/85/EU on budgetary frameworks was approved by the parliament in January 2017.

([48]) The following categories are used to assess progress in implementing the 2016 country-specific recommendations:

No progress: The Member State has not credibly announced nor adopted any measures to address the CSR. Below a number of non-exhaustive typical situations that could be covered under this, to be interpreted on a case by case basis taking into account country-specific conditions:

• no legal, administrative, or budgetary measures have been announced in the National Reform Programme or in other official communication to the national parliament / relevant parliamentary committees, the European Commission, or announced in public (e.g. in a press statement, information on government's website);

• no non-legislative acts have been presented by the governing or legislator body;

• the Member State has taken initial steps in addressing the CSR, such as commissioning a study or setting up a study group to analyse possible measures that would need to be taken (unless the CSR explicitly asks for orientations or exploratory actions), while clearly-specified measure(s) to address the CSR has not been proposed.

Limited progress: The Member State has:

• announced certain measures but these only address the CSR to a limited extent;

and/or

• presented legislative acts in the governing or legislator body but these have not been adopted yet and substantial non-legislative further work is needed before the CSR will be implemented;

• presented non-legislative acts, yet with no further follow-up in terms of implementation which is needed to address the CSR.

Some progress: The Member State has adopted measures that partly address the CSR and/or the Member State has adopted measures that address the CSR, but a fair amount of work is still needed to fully address the CSR as only a few of the adopted measures have been implemented. For instance: adopted by national parliament; by ministerial decision; but no implementing decisions are in place.

Substantial progress: The Member State has adopted measures that go a long way in addressing the CSR and most of which have been implemented.

Full implementation: The Member State has implemented all measures needed to address the CSR appropriately.

CSR 2: • Reduce regulatory and administrative barriers to investment, in particular in transport and energy,	The Czech Republic has made **limited progress** in addressing CSR 2: **Limited progress** has been achieved in reducing regulatory and administrative barriers to investment. With regards to energy investment, the use of EU funds for energy efficiency projects has been delayed. The administration of the related Operational Programmes is fragmented. To simplify and accelerate the permit procedure, the government has presented a draft amendment of the Construction Act, which is currently under discussion in the parliament.
• and increase the availability of e-government services.	**Limited progress** has been achieved towards increasing the availability of e-government services. The measures taken are showing some results but most are still at an early stage of implementation or not yet initiated. Responsibility for the rollout of e-government services is spread over several ministries. Stakeholders perceive limited cross-sector cooperation.
• Adopt the outstanding anti-corruption reforms	**Some progress** has been made towards adopting the outstanding anti-corruption reforms. The parliament adopted several laws, in particular the Act on Political Party Financing, the Conflict of Interest Law, the Act on Declaring the Origin of Property and the Public Procurement Act. However, several important measures from the anti-corruption plan for 2016 remain unimplemented.
• and improve public procurement practices.	**Limited progress** has been made in improving public procurement practices. Despite the slightly delayed transposition of the modernised public procurement directives, no specific measures were announced to cope with the systemic shortcomings in the application of the public procurement legislation, in particular low use of quality criteria in tenders, unprofessionally prepared tender specifications, excessive use of negotiated procedures without prior publication and low use of aggregated procurement.
CSR 3: • Strengthen governance in the R&D system and facilitate the links between academia and enterprises.	The Czech Republic has made **some progress** in addressing CSR 3: **Limited progress** has been made in strengthening governance in the R&D system and facilitating the links between academia and enterprises. While progress has been observed in terms of developing a more comprehensive funding methodology,

	governance in the sense of a separate function to be provided by the government to all R&D bodies has not yet been sufficiently addressed. Further, cooperation between academia and enterprises has not yet been incorporated into the funding and evaluation framework.
• Raise the attractiveness of the teaching profession	**Substantial progress** has been made in raising the attractiveness of the teaching profession by increasing teachers' salary by 8 % in September 2016. The government also adopted a new draft career system for teachers and pedagogical staff, the aim of which is to link professional development, career and remuneration.
• and take measures to increase the inclusion of disadvantaged children, including Roma, in mainstream schools and pre-schools.	**Some progress** has been made towards increasing the inclusion of disadvantaged children. The reform on inclusive education got underway in September 2016 which makes it too early to assess the impact. It aims to gradually increase the participation of pupils with special needs — including socially disadvantaged pupils — in mainstream education by granting them a legal right to individual support measures. Only a limited number of pupils have benefited from the reform to date. Aside from the absence of a piloting period, this may be partly due to the fact that the reform is being implemented gradually over a period of two years
• Remove the obstacles to greater labour market participation by under-represented groups, in particular women.	**Some progress** has been made in removing obstacles to greater labour market participation by under-represented groups, in particular women. Labour market participation of women improved in 2015, climbing up to 66.4 %. Proposed amendments to the Labour Code are aimed at strengthening both the flexibility of labour arrangements and the protection of employees. A proposed amendment to the law on social support makes the drawing of parental allowance more flexible. The implementation of ESF-supported projects creating new places in childcare facilities continues — almost 10 000 places have been created to date, while new 'micro-nurseries' are being piloted. A pilot project supporting job-related mobility of the long-term unemployed is being implemented.

Europe 2020 (national targets and progress)	
Employment:	The employment rate has risen steadily over the past five years, reaching [76.8 %] in the third

75 %	quarter of 2016 (Eurostat).
R&D: 1 % (only public expenditure)	Public R&D investment has increased in recent years, reaching 0.88 % of GDP in 2015 (Eurostat).
Greenhouse gas emissions: + 9 % (compared with 2005 emissions, emissions trading target).	According to the latest national projections and taking into account existing measures, greenhouse gas emissions from sectors not included in the EU ETS are expected to decrease by 8 % between 2005 and 2020. Therefore, the target is expected to be achieved with a margin of 17 pps.
Renewable energy target: 13 %	With a renewable energy share of 13.6 % in 2015 ([1]), the Czech Republic is on track to meet its target for 2020.
Energy efficiency: The Czech Republic's 2020 energy efficiency target is 39.6 Mtoe expressed in primary energy consumption (25.3 Mtoe expressed in final energy consumption).	Czech Republic increased its primary energy consumption by 2% from 39.29 Mtoe in 2014 to 39.93 Mtoe in 2015. Final energy consumption increased by 3 % from 23.49 Mtoe in 2014 to 24.13 Mtoe in 2015.
Early school leaving: 5.5 %	While early school leaving remains among the lowest in the EU — it was 6.2 % in 2015 (Eurostat) — it has increased over the past years and is particularly high among Roma. Regional disparities are significant, ranging between 2.7 % and 14.5 %.
Tertiary education: 32 %	The tertiary attainment rate rose to 30.1 % in 2015 (Eurostat), reflecting a sharp increase in recent years.
Poverty/social exclusion: Reduction of 100 000 persons between 2008 and 2020.	The number of people at risk of poverty or social exclusion has fallen by 122 000 since 2008 (Eurostat), reaching 1 444 000 in 2015.

([1]) Renewable energy shares for 2015 are approximations and not official data, reflecting the available data (04.10.2016). See the Öko-Institut Report: Study on Technical Assistance in Realisation of the 2016 Report on Renewable Energy, http://ec.europa.eu/energy/en/studies.

ANNEX B
MIP Scoreboard

Table B.1: **The MIP scoreboard for the Czech Republic**

			Thresholds	2010	2011	2012	2013	2014	2015
External imbalances and competitiveness	Current account balance, (% of GDP)	3 year average	-4%/6%	-2.6	-2.7	-2.4	-1.4	-0.6	0.2
	Net international investment position (% of GDP)		-35%	-46.1	-45.2	-45.9	-41.4	-36.6	-30.7
	Real effective exchange rate - 42 trading partners, HICP deflator	3 years % change	±5% & ±11%	12.0	-0.6	0.4	-3.1	-10.0	-8.0
	Export market share - % of world exports	5 years % change	-6%	11.7	7.9	-3.8	-9.1	-5.7	0.1
	Nominal unit labour cost index (2010=100)	3 years % change	9% & 12%	6.2	3.2	3.5	4.2	4.0	0.5
Internal imbalances	Deflated house prices (% y-o-y change)		6%	-2.3	-1.3	-3.5	-0.8	1.8	3.9p
	Private sector credit flow as % of GDP, consolidated		14%	2.7	2.1	2.9	4.4	1.7	0.9
	Private sector debt as % of GDP, consolidated		133%	68.1	68.3	70.7	73.7	71.5	68.6
	General government sector debt as % of GDP		60%	38.2	39.8	44.5	44.9	42.2	40.3
	Unemployment rate	3 year average	10%	6.1	6.9	7.0	6.9	6.7	6.1
	Total financial sector liabilities (% y-o-y change)		16.5%	3.1	3.5	5.2	11.4	5.2	7.7
New employment indicators	Activity rate - % of total population aged 15-64 (3 years change in p.p)		-0.2%	0.3	0.8b	1.5	2.7	3.0	2.4
	Long-term unemployment rate - % of active population aged 15-74 (3 years change in p.p)		0.5%	0.2	0.5	1.0	0.0	0.0	-0.6
	Youth unemployment rate - % of active population aged 15-24 (3 years change in p.p)		2%	7.6	8.2	2.9	0.6	-2.2	-6.9

Flags: b: break in time series. e: estimated. p: provisional.

(1) House price index e = NSI estimates
Source: European Commission, Eurostat and Directorate General for Economic and Financial Affairs (for real effective exchange rate), and International Monetary Fund.

ANNEX C
Standard Tables

Table C.1: **Financial market indicators**

	2011	2012	2013	2014	2015	2016
Total assets of the banking sector (% of GDP)	110.0	118.7	121.0	124.8	123.8	133.2
Share of assets of the five largest banks (% of total assets)	61.8	61.5	62.8	61.3	63.3	-
Foreign ownership of banking system (% of total assets)	92.3	86.3	94.1	87.8	88.4	-
Financial soundness indicators:1)						
- non-performing loans (% of total loans)	-	-	-	-	-	4.2
- capital adequacy ratio (%)	15.0	15.6	16.6	17.0	16.7	16.3
- return on equity (%)2)	13.0	13.7	11.4	11.4	10.3	6.5
Bank loans to the private sector (year-on-year % change)	5.9	3.4	3.8	4.5	7.1	9.4
Lending for house purchase (year-on-year % change)	7.6	5.6	5.7	5.7	8.2	9.4
Loan to deposit ratio	75.4	73.8	72.6	72.0	71.8	73.4
Central Bank liquidity as % of liabilities	0.1	0.0	0.0	0.0	0.0	0.0
Private debt (% of GDP)	68.3	70.7	73.7	71.5	68.6	-
Gross external debt (% of GDP)1) - public	11.2	13.5	14.4	13.3	15.7	17.3
- private	21.9	24.1	34.4	36.9	33.5	32.3
Long-term interest rate spread versus Bund (basis points)*	109.9	128.7	54.2	41.3	7.9	34.3
Credit default swap spreads for sovereign securities (5-year)*	97.9	103.8	55.7	47.2	44.9	38.7

1) Latest data Q2 2016.
2) Quarterly values are not annualised.
* Measured in basis points.
Source: European Commission (long-term interest rates); World Bank (gross external debt); Eurostat (private debt); ECB (all other indicators).

Table C.2: **Labour market and social indicators**

Table II. Labour market and social indicators

	2011	2012	2013	2014	2015	2016 [4]
Employment rate (% of population aged 20-64)	70.9	71.5	72.5	73.5	74.8	76.4
Employment growth (% change from previous year)	-0.3	0.4	0.3	0.6	1.4	1.7
Employment rate of women (% of female population aged 20-64)	61.7	62.5	63.8	64.7	66.4	68.2
Employment rate of men (% of male population aged 20-64)	79.9	80.2	81.0	82.2	83.0	84.4
Employment rate of older workers (% of population aged 55-64)	47.7	49.3	51.6	54.0	55.5	57.9
Part-time employment (% of total employment, aged 15-64)	4.7	5.0	5.8	5.5	5.3	5.6
Fixed-term employment (% of employees with a fixed term contract, aged 15-64)	8.0	8.3	9.1	9.7	10.0	9.7
Transitions from temporary to permanent employment	38.4	32.6	33.1	34.9	37.3	:
Unemployment rate[1] (% active population, age group 15-74)	6.7	7.0	7.0	6.1	5.1	4.1
Long-term unemployment rate[2] (% of labour force)	2.7	3.0	3.0	2.7	2.4	1.8
Youth unemployment rate (% active population aged 15-24)	18.1	19.5	18.9	15.9	12.6	10.6
Youth NEET[3] rate (% of population aged 15-24)	8.3	8.9	9.1	8.1	7.5	:
Early leavers from education and training (% of pop. aged 18-24 with at most lower sec. educ. and not in further education or training)	4.9	5.5	5.4	5.5	6.2	:
Tertiary educational attainment (% of population aged 30-34 having successfully completed tertiary education)	23.7	25.6	26.7	28.2	30.1	:
Formal childcare (30 hours or over; % of population aged less than 3 years)	1.0	1.0	1.0	2.0	:	:

1) The unemployed persons are all those who were not employed but had actively sought work and were ready to begin working immediately or within 2 weeks.
2) Long-term unemployed are those who have been unemployed for at least 12 months.
3) Not in education employment or training.
4) Average of first three quarters of 2016. Data for total unemployment and youth unemployment rates are seasonally adjusted.
Source: European Commission (EU Labour Force Survey).

Table C.3: **Labour market and social indicators (continued)**

Expenditure on social protection benefits (% of GDP)	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Sickness/healthcare	6,0	6,0	6,0	6,0	6,0	:
Disability	1,5	1,4	1,4	1,3	1,3	:
Old age and survivors	8,8	9,2	9,5	9,3	9,0	:
Family/children	2,0	1,8	1,8	1,8	1,7	:
Unemployment	0,8	0,7	0,6	0,7	0,6	:
Housing	0,1	0,1	0,2	0,3	0,3	:
Social exclusion n.e.c.	0,2	0,3	0,3	0,3	0,3	:
Total	19,5	19,5	19,8	19,6	19,1	:
of which: means-tested benefits	0,4	0,4	0,4	0,5	0,5	:
Social inclusion indicators	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
People at risk of poverty or social exclusion[1] (% of total population)	14,4	15,3	15,4	14,6	14,8	14,0
Children at risk of poverty or social exclusion (% of people aged 0-17)	18,9	20,0	18,8	16,4	19,5	18,5
At-risk-of-poverty rate[2] (% of total population)	9,0	9,8	9,6	8,6	9,7	9,7
Severe material deprivation rate[3] (% of total population)	6,2	6,1	6,6	6,6	6,7	5,6
Proportion of people living in low work intensity households[4] (% of people aged 0-59)	6,4	6,6	6,8	6,9	7,6	6,8
In-work at-risk-of-poverty rate (% of persons employed)	3,7	4,0	4,5	4,0	3,6	4,0
Impact of social transfers (excluding pensions) on reducing poverty	50,3	45,6	45,5	48,2	43,6	42,3
Poverty thresholds, expressed in national currency at constant prices[5]	101798	101565	101100	98561	99553	102238
Gross disposable income (households; growth %)	0,7	0,1	1,0	0,1	3,5	3,3
Inequality of income distribution (S80/S20 income quintile share ratio)	3,5	3,5	3,5	3,4	3,5	3,5
GINI coefficient before taxes and transfers	45,2	45,8	46,3	46,0	46,9	:
GINI coefficient after taxes and transfers	24,9	25,2	24,9	24,6	25,1	:

1) People at risk of poverty or social exclusion : individuals who are at risk of poverty and/or suffering from severe material deprivation and/or living in households with zero or very low work intensity.
2) At-risk-of-poverty rate : proportion of people with an equivalised disposable income below 60 % of the national equivalised median income.
3) Proportion of people who experience at least four of the following forms of deprivation: not being able to afford to i) pay their rent or utility bills, ii) keep their home adequately warm, iii) face unexpected expenses, iv) eat meat, fish or a protein equivalent every second day, v) enjoy a week of holiday away from home once a year, vi) have a car, vii) have a washing machine, viii) have a colour TV, or ix) have a telephone.
4) People living in households with very low work intensity: proportion of people aged 0-59 living in households where the adults (excluding dependent children) worked less than 20 % of their total work-time potential in the previous 12 months.
5) For EE, CY, MT, SI and SK, thresholds in nominal values in euros; harmonised index of consumer prices = 100 in 2006 (2007 survey refers to 2006 incomes).
Source: For expenditure for social protection benefits ESSPROS; for social inclusion EU-SILC.

Table C.4: **Product market performance and policy indicators**

Performance indicators	2010	2011	2012	2013	2014	2015
Labour productivity (real, per person employed, year-on-year % change)						
Labour productivity in industry	5.82	3.45	-2.77	-4.09	3.38	1.94
Labour productivity in construction	2.19	-2.58	0.17	4.78	5.11	6.46
Labour productivity in market services	3.04	2.38	1.11	1.39	2.08	4.79
Unit labour costs (ULC) (whole economy, year-on-year % change)						
ULC in industry	-5.92	0.39	5.70	5.25	-0.64	1.63
ULC in construction	-3.96	3.43	0.06	-8.68	-4.42	-2.01
ULC in market services	0.63	-0.34	2.83	-0.88	0.01	-0.30
Business environment	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Time needed to enforce contracts[1] (days)	611.0	611.0	611.0	611.0	611.0	611.0
Time needed to start a business[1] (days)	17.0	15.5	15.5	15.5	15.5	15.0
Outcome of applications by SMEs for bank loans[2]	na	0.70	na	0.73	0.33	0.43
Research and innovation	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
R&D intensity	1.34	1.56	1.78	1.90	1.97	1.95
Total public expenditure on education as % of GDP, for all levels of education combined	4.25	4.51	4.33	4.16	na	na
Number of science & technology people employed as % of total employment	38	36	36	37	38	37
Population having completed tertiary education[3]	15	16	17	18	19	20
Young people with upper secondary education[4]	92	92	91	91	91	90
Trade balance of high technology products as % of GDP	-1.32	0.14	0.65	0.40	0.26	-0.64
Product and service markets and competition				**2003**	**2008**	**2013**
OECD product market regulation (PMR)[5], overall				na	1.50	1.39
OECD PMR[5], retail				1.03	1.23	1.56
OECD PMR[5], professional services				2.77	2.48	2.36
OECD PMR[5], network industries[6]				2.96	2.45	2.01

1) The methodologies, including the assumptions, for this indicator are shown in detail at : http://www.doingbusiness.org/methodology.
2) Average of the answer to question Q7B_a. '[Bank loan]: If you applied and tried to negotiate for this type of financing over the past six months, what was the outcome?'. Answers were scored as follows: zero if received everything, one if received most of it, two if only received a limited part of it, three if refused or rejected and treated as missing values if the application is still pending or if the outcome is not known.
3) Percentage population aged 15-64 having completed tertiary education.
4) Percentage population aged 20-24 having attained at least upper secondary education.
5) Index: 0 = not regulated; 6 = most regulated. The methodologies of the OECD product market regulation indicators are shown in detail at: http://www.oecd.org/competition/reform/indicatorsofproductmarketregulationhomepage.htm
6) Aggregate OECD indicators of regulation in energy, transport and communications.
Source: European Commission; World Bank — Doing Business (for enforcing contracts and time to start a business); OECD (for the product market regulation indicators); SAFE (for outcome of SMEs' applications for bank loans).

Table C.5: **Green Growth**

Green growth performance		2010	2011	2012	2013	2014	2015
Macroeconomic							
Energy intensity	kgoe / €	0,29	0,27	0,27	0,28	0,26	0,25
Carbon intensity	kg / €	1,12	1,08	1,06	1,03	0,97	-
Resource intensity (reciprocal of resource productivity)	kg / €	1,36	1,41	1,26	1,25	1,25	1,24
Waste intensity	kg / €	0,19	-	0,19	-	0,18	-
Energy balance of trade	% GDP	-3,3	-3,9	-4,1	-4,1	-3,7	-
Weighting of energy in HICP	%	13,40	14,04	14,22	14,06	14,36	14,42
Difference between energy price change and inflation	%	-1,9	3,7	5,0	-0,1	-5,7	0,8
Real unit of energy cost	% of value added	18,9	20,1	20,7	20,1	19,4	-
Ratio of environmental taxes to labour taxes	ratio	0,14	0,14	0,13	0,12	0,12	-
Environmental taxes	% GDP	2,3	2,3	2,2	2,1	2,1	-
Sectoral							
Industry energy intensity	kgoe / €	0,20	0,19	0,19	0,20	0,18	-
Real unit energy cost for manufacturing industry excl. refining	% of value added	19,1	19,0	19,0	18,6	17,4	-
Share of energy-intensive industries in the economy	% GDP	14,44	14,23	14,00	13,64	14,06	-
Electricity prices for medium-sized industrial users	€ / kWh	0,11	0,11	0,10	0,10	0,08	0,08
Gas prices for medium-sized industrial users	€ / kWh	0,03	0,03	0,03	0,03	0,03	0,03
Public R&D for energy	% GDP	0,02	0,02	0,02	0,02	0,03	0,02
Public R&D for environmental protection	% GDP	0,02	0,01	0,01	0,01	0,01	0,01
Municipal waste recycling rate	%	15,8	17,0	23,2	24,2	25,4	29,7
Share of GHG emissions covered by ETS*	%	56,0	55,5	53,6	51,8	53,0	54,1
Transport energy intensity	kgoe / €	1,00	1,07	1,08	1,08	1,16	-
Transport carbon intensity	kg / €	2,78	2,94	2,98	2,99	3,20	-
Security of energy supply							
Energy import dependency	%	25,5	28,8	25,4	27,7	30,3	31,9
Aggregated supplier concentration index	HHI	25,1	31,5	29,1	34,4	27,3	-
Diversification of energy mix	HHI	0,27	0,28	0,27	0,26	0,26	-

All macro intensity indicators are expressed as a ratio of a physical quantity to GDP (in 2005 prices).
Energy intensity: gross inland energy consumption (in kgoe) divided by GDP (in EUR).
Carbon intensity: greenhouse gas emissions (in kg CO2 equivalents) divided by GDP (in EUR).
Resource intensity: domestic material consumption (in kg) divided by GDP (in EUR).
Waste intensity: waste (in kg) divided by GDP (in EUR).
Energy balance of trade: the balance of energy exports and imports, expressed as % of GDP.
Weighting of energy in HICP: the proportion of 'energy' items in the consumption basket used for the construction of the HICP.
Difference between energy price change and inflation: energy component of HICP, and total HICP inflation (annual % change).
Real unit energy cost: real energy costs as a percentage of total value added for the economy.
Environmental taxes over labour taxes and GDP: from European Commission's database, 'Taxation trends in the European Union'.
Industry energy intensity: final energy consumption of industry (in kgoe) divided by gross value added of industry (in 2005 EUR).
Real unit energy costs for manufacturing industry excluding refining: real costs as a percentage of value added for manufacturing sectors.
Share of energy-intensive industries in the economy: share of gross value added of the energy-intensive industries in GDP.
Electricity and gas prices for medium-sized industrial users: consumption band 500–20 00MWh and 10 000–100 000 GJ; figures excl. VAT.
Recycling rate of municipal waste: ratio of recycled and composted municipal waste to total municipal waste.
Public R&D for energy or for the environment: government spending on R&D for these categories as % of GDP
Proportion of GHG emissions covered by EU Emissions Trading System (ETS) (excluding aviation): based on greenhouse gas emissions (excl. land use, land use change and forestry) as reported by Member States to the European Environment Agency.
Transport energy intensity: final energy consumption of transport activity (kgoe) divided by transport industry gross value added (in 2005 EUR).
Transport carbon intensity: GHG emissions in transport activity divided by gross value added of the transport sector.
Energy import dependency: net energy imports divided by gross inland energy consumption incl. consumption of international bunker fuels.
Aggregated supplier concentration index: covers oil, gas and coal. Smaller values indicate larger diversification and hence lower risk.
Diversification of the energy mix: Herfindahl index over natural gas, total petrol products, nuclear heat, renewable energies and solid fuels.
* European Commission and European Environment Agency.
Source: European Commission (Eurostat) unless indicated otherwise.

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