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COMMISSION STAFF WORKING DOCUMENT

Country Report Croatia 2020

Accompanying the document

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE EUROPEAN COUNCIL, THE COUNCIL, THE EUROPEAN CENTRAL BANK AND THE EUROGROUP

2020 European Semester: Assessment of progress on structural reforms, prevention and correction of macroeconomic imbalances, and results of in-depth reviews under Regulation (EU) No 1176/2011

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EXECUTIVE SUMMARY

Addressing structural weaknesses with lasting effect would enable Croatia to converge faster to the rest of the EU. The forecast is for Croatia to enjoy sustained economic growth this year, before growth tapers off in 2021 in line with weakening global demand. Stable economic growth for five years, coupled with prudent macro-fiscal stabilisation policy, has enabled the country to progressively reduce its high levels of public, private and external debt, and in turn contain the vulnerabilities of the economy. The unemployment rate has continued to fall, thereby raising the disposable income of households. However, in 2018, Croatia's GDP per capita relative to the EU average was still at the same level as ten years earlier. Participation in the labour market and labour productivity remain low, and the business environment and the public administration are insufficiently supportive of faster economic convergence. Implementation of policy measures addressing these weaknesses is proceeding at an uneven pace. Stepping up and sustaining the momentum for reform while resisting policy reversals is particularly important in light of Croatia's firm ambition to join the exchange rate mechanism and adopt the euro.([1])

After five years of recovery, Croatia's economic output in real terms in 2019 finally exceeded its pre-crisis level. Real GDP is estimated to have risen by 3% in 2019 following a smaller rise by 2.7% in 2018. Growth in 2019 was fuelled by improvements in the labour market and rising wages, as well as a noticeable pick up in investment. The increase in exports of both goods and services rebounded after a rather weak performance in 2018, but imports increased even faster, restraining output growth.

Going forward, the pace of economic growth is expected to slow down. Real GDP is forecast to rise to by 2.6% in 2020 and by 2.3% in 2021. Despite having increased in recent years, potential growth remains relatively low, slowing the pace of economic convergence with the rest of the EU in real terms.

After contracting significantly during the recession, investment in Croatia has been recovering over the last five years. The recovery was due to the uptake of EU funds, while residual private and public investment remains low. Nonetheless, the investment rate remained slightly below that of its peer countries and below the EU average. Investment is expected to rise over the next few years. Identifying investment needs in green technologies and sustainable solutions, and securing adequate funding will be crucial if Croatia is to meet its climate and energy objectives and shape a new growth model. Croatia has also investment needs in transport. Investing more in skills, research and innovation would boost Croatia's comparatively low productivity.

Croatia has made limited progress in addressing the 2019 country-specific recommendations.

There has been some progress in the following areas:

- A new legal framework regulating agency-type institutions was adopted. However, the public administration remains highly fragmented at the local government level.
- The incremental implementation of the curricular reform has started in all primary and secondary schools. The authorities have also refocused active labour market policy measures to make them more effective.
- Electronic communication is being gradually extended to all courts and backlogs have been reduced in commercial court cases. A number of measures have been taken and action plans drawn up to lighten excessive product and services market regulations.
- Key railway projects have been set in motion, though there has been no significant progress in promoting sustainable urban transport.

There has been limited progress in the following areas:

([1]) This report assesses Croatia's economy in light of the European Commission's Annual Sustainable Growth Strategy, published on 17 December 2019. In this document, Commission sets out a new strategy on how to address not only the short-term economic challenges but also the economy's longer-term challenges. This new economic agenda of competitive sustainability rests on four dimensions: environmental sustainability, productivity gains, fairness and macroeconomic stability.

- The new Budget Act, which aims to improve the fiscal framework and better regulate the system of state guarantees, has still not been adopted.

- Improvements to the social benefit system are still at the preparatory phase, and the long-due legislation on civil and public service wages is at a standstill.

- A new legislation on whistle-blowers was adopted, but gaps remain in the framework to prevent and sanction corruption.

- There has been limited progress in reducing or scrapping non-tax parafiscal charges. The governance framework of majority owned state-owned enterprises has improved, but progress on selling off state-owned assets has been slow.

- Investment in R&D has increased substantially, but its efficiency remains low. Energy efficiency and investment in renewable energy are hampered by administrative and legislative hurdles.

- The administrative capacity to design and implement public projects and policies remains constrained, despite the establishment of an institutional framework for strategic planning.

Croatia still faces a number of employment and social challenges to deliver on the principles of the European Pillar of Social Rights. Despite improvements in the labour market, Croatia's employment rate remains low, especially for some categories of workers. The risk of poverty is still high and social transfers have limited capacity to reduce poverty. As regards education, the share of early leavers from education and training is one of the lowest in the EU. Croatia, however, lags behind on participation in early childhood education and care and quality of education.

Croatia has reached its national targets under the Europe 2020 strategy on renewables (except in transport), on energy efficiency, greenhouse gas emissions, the employment rate, early school leaving, and poverty and social exclusion. Croatia is still to implement the policies set out in the National Energy and Climate Plan to reach the 2030 target for greenhouse gas emissions not covered by the EU emissions trading system. Transport emissions have increased and are a key challenge in reaching the 2030 target for greenhouse emissions. Croatia is within reach of achieving its target on tertiary education attainment. The country is still below its target for investment in research and development.

Croatia performs well with regards to the United Nations Sustainable Development Goals (SDGs). Croatia has made significant progress in SDG 8 (decent work and economic growth) with a number of sub-indicators moving towards the EU average. However, in the area of peace, justice and strong institutions (SDG 16), there is room for progress, particularly regarding corruption. ([2])

The main findings of the in-depth review contained in this report and the related policy challenges are as follows.

The government debt ratio continues to fall and debt sustainability is improving. Thanks to budget surpluses and robust nominal GDP growth, the government debt ratio is estimated to have dropped to 71.3% in 2019. It is set to continue to fall despite further tax cuts and spending projected to grow faster than GDP. Having refinanced a large portion of its debt in recent years at record-low, fixed interest rates with longer maturities, Croatia has cut its spending on interest as a share of GDP to pre-crisis levels. Today, Croatia faces low fiscal sustainability risks in the short, medium and long term. The recent reversal of some key features of the 2018 pension reform may not significantly affect this assessment, but negatively affects inter-generational equity and future pension adequacy. The fiscal framework remains incomplete as the Fiscal Policy Commission is not fully functional and the Budget Act is not yet in place. The transparency of local budgets is improving, but smaller municipalities lag behind. In spite of increasing revenues, payment arrears

([2]) Within the scope of its legal basis, the European Semester can help drive national economic and employment policies towards the achievement of the United Nations Sustainable Development Goals (SDGs) by monitoring progress and ensuring closer coordination of national efforts. The present report contains reinforced analysis and monitoring on the SDGs. A new annex (ANNEX E) presents a statistical assessment of trends in relation to SDGs in Croatia during the past five years, based on Eurostat's EU SDG indicator set.

continued accumulating in the healthcare system indicating problems with its financial viability.

Thanks to the improved economic situation, Croatia has reduced private debt and associated vulnerabilities. The ratio of private sector debt to GDP continued to fall in 2019, primarily due to the rise of nominal GDP and the slow-down in new lending. An increased uptake of loans with fixed interest rates reduces exposure of households and companies to interest rate risk. The exposure of private sector debt to foreign exchange risk remains significant, but has fallen due to increased kuna lending in 2019.

Croatia further reduced its external imbalances thanks to its positive current account balances. Croatia's net international investment position has improved significantly since 2011, but remains below prudential levels and the levels indicated by relevant economic indicators. However, Croatia's external liabilities to foreign creditors and investors are mainly in the form of equity, which helps mitigate risks. The current account surplus narrowed in 2019 due to the worsening trade balance, and it is expected to continue decreasing in 2020 and 2021. Despite this, Croatia is set to make further progress in reducing its external imbalances, primarily thanks to GDP growth.

The unemployment rate continued falling in 2019 but participation in the labour market remains very low. Croatia's unemployment rate is at its lowest recorded level and projected to fall further. The improvement in the labour market has benefitted several categories of job seekers, including the long-term unemployed. However, the share of the working age population in work or looking for work remains among the lowest in the EU across all age categories, particularly older workers (55-64). This is largely related to early retirement and low skills as well care responsibilities in the case of women. The administrative capacity of labour market institutions and their cooperation with social services remain limited. Furthermore, Croatia's population is shrinking due to the negative natural increase rate and emigration flows, which particularly affect the less developed regions. These factors, together with skills gaps, combine to produce labour shortages, which are becoming more pronounced in a number of sectors.

Reforms to improve the business environment and boost competitiveness and productivity growth proceed but at a slow pace. The drivers of competitiveness are gradually improving, but the regulatory environment remains burdensome to business. Despite recent reforms, certain professions remain highly regulated. Stringent regulatory requirements limit firms access to capital, reduce economies of scale, and restrict competition. The length of court proceedings is also a burden on businesses, although Croatia has made progress in rolling out electronic communication and reducing court case backlogs. Several anti-corruption measures are pending, and perceptions of corruption continue to have negative effect on the investment climate.

Croatia has made slow progress in selling off its holdings in state-owned enterprises. State-owned enterprises continue to play an important role in the economy. Croatia is on track to meet its targets on divesting shares and stakes in non-strategic companies, though the targets are not ambitious. The recent adoption of the draft Law on Unvalued Construction Land, which is being discussed in the Parliament, opens up potential for future investments by providing clarity on land ownership. Initiatives are ongoing to strengthen and improve the governance of state owned enterprises.

The efficiency of the Croatian public administration remains low, also due to the high fragmentation at the local level. Weak public sector performance and inefficient coordination within the public administration hamper policy effectiveness. The new legal framework for the harmonisation of the state agencies has been adopted. Croatia has taken steps to modernise and improve the uptake of e-government services. However, the wage-setting framework still lacks consistency across the public administration and public services, and the long-due legislation on civil service wages is at a standstill. At local level, the financial and administrative resources of numerous small municipalities do not match their responsibilities and competencies. This contributes to uneven public service provision across the country and raises administrative costs.

Other key structural issues analysed in this report, which point to particular challenges for Croatia's economy, are as follows.

Banking sector key indicators continued to move in the right direction, thanks to the positive overall macroeconomic situation. The profitability and capital position of Croatian banks remain solid, and the share of non-performing loans continues to fall. However, legal uncertainty persists in the banking sector arising from court cases related to loans previously indexed to the Swiss franc.

Poverty in Croatia continues to fall but remains above the EU average. Improved conditions in the labour market have resulted in a further reduction in the share of the population at risk of poverty or social exclusion. However, lower income households are not benefitting as much from the improved economic conditions. The coverage of minimum income schemes is low, and Croatia's fragmented social protection system is ineffective in easing labour market and social distress.

The short average working life in Croatia often results in inadequate pensions. Early retirement continues to be widespread, with working lives in Croatia being among the shortest in the EU. This produces a considerably negative impact on pensions. People aged 65+ experience much higher risks of poverty or social exclusion compared to the rest of the population, and compared to the EU average. Croatia's reversal of some key features of the reformed pension system that lengthened working lives has not helped to address this challenge.

The reform is ongoing to raise the quality of education in Croatia but challenges remain. Participation in early childhood education and care has increased considerably, though it remains one of the lowest in the EU. The latest assessment of school pupils' performance on reading, science and mathematics confirms that there are quality gaps in the educational system. Croatia has started the incremental implementation of the curricular reform in all primary and secondary schools. The aim of the reform is to address the weaknesses in the quality of school education. Vocational education and training does not offer sufficient workplace training. Participation in adult education also remains very low.

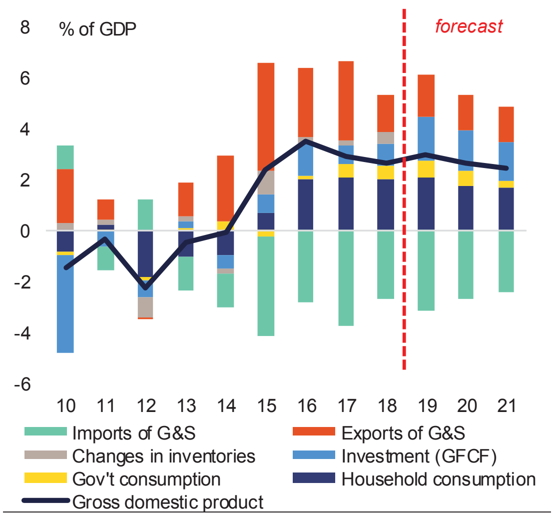
Environmental sustainability rests on improving waste and water management, enhancing rail transport and renewable energy use. Increased investments in waste and water infrastructure is essential to sustain Croatia's economic development. Moreover, an improved waste management would support the transition to a circular economy. In some regions, the environmental challenges are especially aggravated during the tourist season when population spikes. A modal shift from road transport to rail would help address the substantial negative externalities caused by accidents, congestion and pollution, benefitting labour productivity. While Croatia ranks well in terms of electricity production from renewable sources, there is still substantial unused potential, particularly in solar and wind energy. Removing regulatory barriers and developing a solid incentive framework would help Croatia in this regard. The Commission's proposal for a Just Transition Mechanism under the next multi-annual financial framework for the period 2021-2027, includes a Just Transition Fund, a dedicated just transition scheme under InvestEU, and a new public sector loan facility with the European Investment Bank. It is designed to ensure that the transition towards EU climate neutrality is fair by helping the most affected regions in Croatia to address the social and economic consequences. Key priorities for support by the Just Transition Fund, set up as part of the Just Transition Mechanism, are identified in Annex D, building on the analysis of the transition challenges outlined in this report.

1. ECONOMIC SITUATION AND OUTLOOK

GDP growth

GDP growth is estimated to have picked up to 3% in 2019, following the slowdown in 2018. Following the peak of 3.5% in 2016, real GDP growth gradually slowed to 2.7% in 2018. This slowdown was more pronounced than expected but appears to have been temporary. Based on the strong results in the first three quarters of 2019, growth picked up to an estimated 3% for the whole year. Household consumption remains the main driver of growth, followed by a strong increase in investment. Investment benefited from strong uptake of EU funds amid sluggish private investment growth, despite favourable financing conditions. Exports of goods picked up in 2019 following a weaker second half of 2018. The rise in exports of services slowed partly due to capacity constraints in the peak months of the tourist season. Import growth fell slightly compared to 2018 but still exceeded the rise in exports, leading to an overall deterioration in the trade balance.

Graph 1.1: Real GDP growth by segment of demand

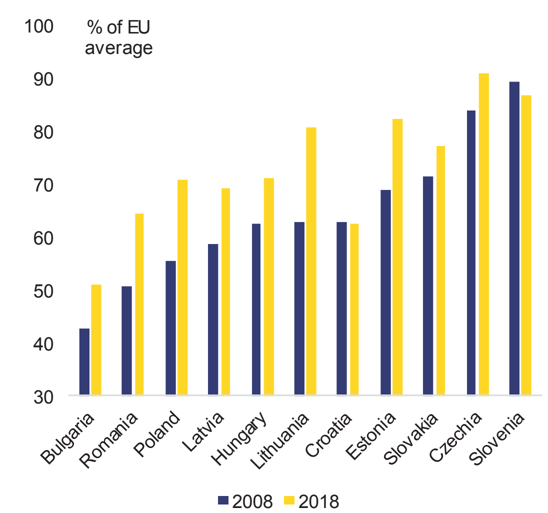


Source: European Commission

Economic growth is expected to slow down due to external pressure. Strong domestic demand is expected to remain the main driver of growth. Household disposable income should be boosted by the continued rise in employment, increases in public and private-sector wages and low inflation. Underpinning the rise in both public and private investment, more EU-funded projects, from the current programming period, should be reaching the implementation phase in 2020 and 2021. Following a period of rapid market share gains, Croatia's boom in exports is expected to slow down, partly due to uncertainties surrounding global trade and an economic slowdown in Croatia's main trading partners. Overall, real GDP growth is expected to slow to 2.6% and 2.3% in 2020 and 2021 respectively.

Croatia has experienced a lost decade in terms of economic catch up with the rest of the EU. Following a six-year recession and a moderate recovery, the volume of economic output only surpassed the pre-crisis level in 2019. Similarly, Croatia's GDP per capita in purchasing power standard was 63% of the EU average in 2018, the same value as in the last pre-crisis year (2008). Furthermore, Croatia fell further behind its more advanced peers (3) in central and eastern Europe and was surpassed by others. Despite stable growth, Croatia's still relatively low growth potential will continue to be a break on it catching up with the rest of the EU in real terms.

Graph 1.2: Real convergence of central and eastern European Member States



(1) Gross domestic product at current prices per head of population in PPS as a share of EU average
Source: Eurostat

Investment

Investment in Croatia remains weak and lower than investment in peer countries. Its investment

(3) Peer member states are Czechia, Hungary, Poland, Slovakia and Slovenia

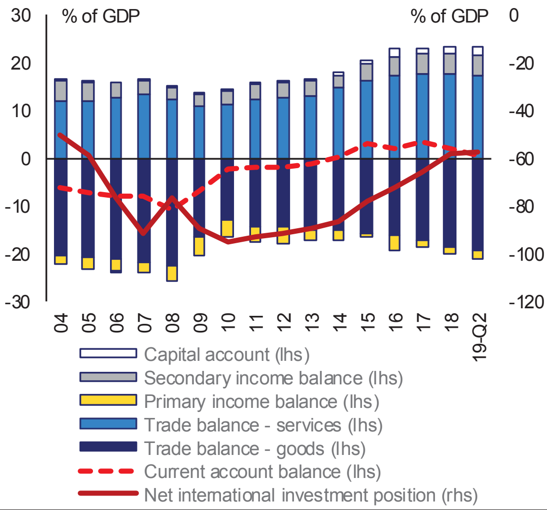
share of potential GDP has been lower than its peers every year bar two years since 2001. With the collapse of Croatia's pre-crisis growth model based on debt-financed consumption and public investment, gross fixed capital formation fell sharply. Since the start of the recovery, growth has primarily been driven by consumption and exports, with low investment due to the high private and public-sector debt overhang. In 2018, real gross fixed capital formation was still almost 20% below its peak in 2008. However, the injection of EU funds since Croatia's accession to the EU in 2013 has boosted investment. The take-up of funds is expected to peak in the next two years as more projects reach the implementation phase. Investment is expected to provide a higher contribution to growth in both 2020 and 2021.

External position

A weakening trade balance is forecast to reduce the current account surplus. After peaking in 2017 at 3.3% of GDP, the current account surplus started to narrow due to a progressively deteriorating trade balance. In 2018, the trade balance turned negative, as strong domestic demand drove an increase in imports. As a result, the current account surplus fell to 1.9% of GDP. However, when adjusted for cyclical effects, the current account surplus was 3.1% of GDP. The period of Croatia increasing strongly its export market share appears to have ended in 2018. It is expected to turn negative in 2019, due to a slowdown in Croatia's largest trading partners. Exports to central and eastern European Member States have increased steadily since 2012 and are projected to stimulate further increases in exports. Overall, the current account balance is forecast to continue declining in 2020 and 2021 as the trade balance is expected to further deteriorate.

Croatia has greatly reduced its external imbalances since 2010, thanks to sustained current account surpluses. The net international investment position was at -57.9% of GDP at the end of 2018, a 7.8 percentage point improvement since 2017 and around 42 percentage points above its record low. By September 2019, it had increased further to -49.7% owning to a particularly strong current account surplus in the third quarter of 2019. Gross external debt fell in 2018 by 6.2 percentage points, to 83% of GDP, mainly due to government and corporate deleveraging. External imbalances are projected to continue to fall, driven primarily by GDP growth.

Graph 1.3: **Current account and net international investment position**



Source: Eurostat

Inflation and interest rates

Headline inflation fell in 2019, despite rising disposable incomes and accelerating economic activity. HICP inflation fell to 0.8% in 2019 due to the full year effect of the 12-percentage point reduction in the VAT rate on some unprocessed foods. Compared to 2018, energy price inflation slowed, leading to a lower producer price inflation in 2019. Inflation is expected to pick up but remain moderate overall, at 1.5%, in 2020 and 1.7% in 2021. Core inflation, having remained stable in 2019, is projected to pick up in 2020 and 2021 to 1.8%. Low or negative energy price inflation and, to a lesser degree, a new 12-percentage points VAT reduction on food served in restaurants are likely to curb price increases throughout the forecasting period.

Interest rates fell amid high competition in the banking sector and improvements in Croatia's risk profile. Lending conditions for new loans to households and non-financial corporations continue to ease, across all currency denominations, purposes and maturities. Banks' net interest rate margins are thus being further squeezed, with deposit interest rates already close to zero. Given ample liquidity in the banking sector, moderate private-sector demand for credit and active debt reduction by the government, interest rates are likely to continue to fall. Stable growth and prudent fiscal policy contribute to a further improvement in Croatia's risk premium. The spread between yields on Croatia's sovereign debt and the German bund dropped to 94 basis points in October 2019, well below most of Croatia's peers and close to the EU average of 82 basis points.

Private indebtedness

Overall private-sector debt fell despite a moderate pick up in borrowing. In the first three quarters of 2019, consolidated household and corporate debt continued decreasing, reaching 34.3% and 58.4% of GDP respectively, some 8 and 24 percentage points below their peaks registered in 2010. This was facilitated by nominal GDP growth and a slight appreciation in the value of the kuna. Household borrowing accelerated, due to rising consumer lending. The corporate sector is still deleveraging, although new borrowing for investment purposes rose noticeably. Household borrowing is likely to increase further as consumer confidence remains high and improvements in the labour market increase people's disposable incomes. Corporate lending is set to remain low given the high levels of debt and the share of non-performing company loans.

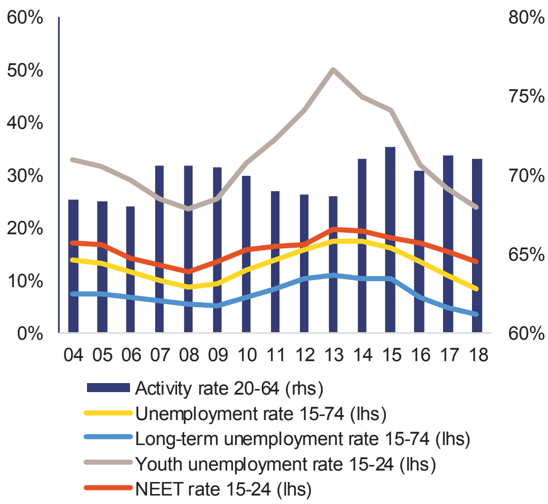
Public finances

The general government balance remains in surplus. Following its first ever-recorded surplus in 2017, the general government balance deteriorated somewhat in 2018, but remained positive at 0.3% of GDP. The deterioration was mainly due to the short-lived impact of the call of the government guarantees in the Uljanik and 3. Maj shipyards. As in the previous three years, Croatia achieved further savings in interest payments. A high portion of debt was refinanced at much lower rates, while revenue growth continued to exceed GDP growth, despite tax cuts. The deterioration of the structural balance was more pronounced (1% of GDP), as the economy continued expanding after the output gap was closed. In 2019, the general government surplus is expected to further narrow to 0.1% of GDP as expenditure growth picks up (mostly due to public sector wages) and tax and social contribution cuts curb from revenue growth. Government debt is projected at 71.2% of GDP in 2019. By 2021 it is expected to reach 64.4% of GDP, due to the increase in GDP and small surpluses.

Labour Market

Although labour market conditions continue to improve, employment levels remain low. After peaking in 2013, the unemployment rate has fallen continuously due to increased employment and to significant emigration. In 2018, unemployment rate fell to 8.4%, the lowest recorded level. However, employment and labour market participation rates remain low, well below the EU average. Some groups of workers remain particularly vulnerable, namely the low skilled, elderly and the disabled. The activity rate is expected to increase gradually in 2020 and 2021, as improved labour market outcomes start drawing people out of inactivity. Despite relatively high unemployment, labour shortages are becoming more apparent in some sectors. .

Graph 1.4: **Labour market trends**

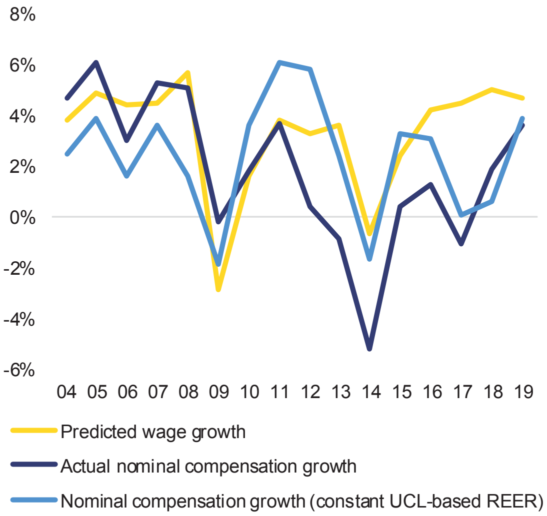


Source: Eurostat

Wages continue to grow amidst low inflation. It is still difficult to interpret trends in wages due to large discrepancies in the data reported by different sources. National accounts show that nominal compensation per employee increased by 1.9% in 2018, while administrative data show that average gross wages rose by a more sizeable 4.9% in the same year (and 3.5% year-on-year in the first nine months of 2019). Looking ahead, nominal compensation per employee is projected to increase by 3% on average in the 2019-2021. In real terms, compensation per employee rose by 0.3% in 2018 and is expected to rise by 1.7% in 2019 and 2.5% in 2020, before slowing to 1.1% in 2021, underpinned by strong labour demand, public sector salary increases([4]) and an increase in the minimum wage for 2020.

Despite rising wages, Croatia has broadly maintained its cost competitiveness. Wage growth measured on the basis of administrative data is consistent with economic fundamentals([5]). Nevertheless, in 2018, wage growth exceeded the rate consistent with preserving Croatia's cost competitiveness, even though real wages rose less than labour productivity.

Graph 1.5: **Nominal wage growth: actual and predicted based on economic fundamentals**



Source: Eurostat, Commission calculations

Social developments

The share of people at risk of poverty or social exclusion is approaching the EU average. The labour market recovery after the prolonged recession is lifting many people out of poverty or social exclusion. People excluded from the labour market, the low-skilled, older people and people with disabilities remain most exposed to the risk of poverty or social exclusion. In-work poverty, already below the EU average, has fallen further. Income inequality, as measured by the S80/S20 income quintile share ratio, was just below the EU average in 2018, even though Croatia has one of the least progressive labour income tax systems in the EU, measured by comparing the difference in tax levels between high-income and low-income earners ([6]). Gender inequality in Croatia is among the highest in Europe (European Institute for Gender Equality, 2019).

Potential growth

Croatia's potential for growth is increasing but remains insufficient to achieve closer economic convergence. Potential growth is estimated to have increased gradually since 2010, but it remains low compared to that in peer countries. After 10 years of being a drag on growth, the labour contribution to potential growth turned positive in 2019, as the employment rate recovered and the activity rate improved marginally. Nevertheless, labour participation remains chronically low in Croatia. This, together with negative demographic developments, is a drag on potential growth. The contribution of capital accumulation is in line with Croatia's peers but remains burdened by relatively high levels of corporate debt. Total factor productivity significantly lags behind peers due to poor allocative efficiency, weak goods and service market efficiency, insufficient competition in network industries, and weaknesses in public sector governance. Although Croatia's potential growth is forecast to continue increasing in 2020 and 2021, it is set to remain modest for a catching-up economy, at 2.5% on average over the 2019-2021 period, one of the lowest among its peers.

Regional Disparities

A marked regional divide persists in Croatia. There are large differences in GDP levels between counties, and in particular between the capital and the rest of the country. In 2016, Zagreb accounted

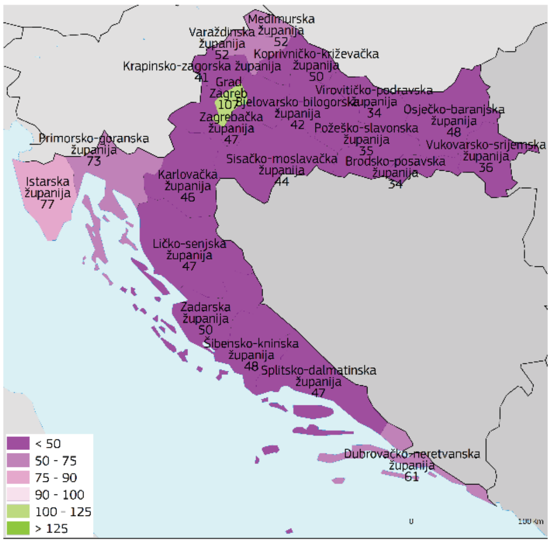
([4]) Wages for all civil and public servants will increase by 6.12% in 2020, 3 increments of 2%

([5]) This is a benchmark for wage growth consistent with internal and external labour market conditions. It is calculated as the wage growth predicted on the basis of changes in labour productivity, prices and the unemployment rate, and consistent with a constant real effective exchange rate adjusted by unit labour costs (see Labour market and wage developments in Europe, 2019; European Commission (2015): "Benchmarks for the assessment of wage developments: Spring 2015.")

([6]) Difference between the tax wedge for high (167% of the average wage) and low (50% of the average wage) for a variety of family compositions. The tax wedge includes personal income tax, social contributions, family allowances and benefits (European Commission 2020c).

for 34% of national GDP, though it is home to only 19% of country's population. Most of the population (65%) lived in areas with a GDP per capita below 55% of the EU average (2016). By contrast, GDP per capita in Zagreb was 107% of the EU average, and in four counties in eastern Croatia, it was but 34-36% of the EU average. These disparities reflect very diverse labour market outcomes. In 2018, the unemployment rate ranged from 4.7% in the City of Zagreb to 24.3% in the Sisak-Moslavina county. There is also a high correlation between labour market outcomes and demographic change. Although the population has decreased across the country since 2010, poorer regions, especially in eastern Croatia, have experienced much higher rates of decline driven by outmigration and ageing (see Section 4.3).

Graph 1.6: **GDP per capita in PPS as share of EU average (EU = 100) by county in 2016**



Source: Eurostat

Statistical issues

Croatia is working on improving the consistency, completeness and timeliness of its statistics, but major gaps remain. In particular, measures are being taken to strengthen institutional and methodological capacity to collect, produce and disseminate statistics. On 21 October 2019, the Croatian Bureau of Statistics released partly revised annual national accounts for 1995-2017, with improved cross-domain consistency of aggregate data. Data on non-financial sectoral accounts have yet to be published.

Sustainable Development Goals

Over the past five years, Croatia performed well in most areas covered by the United Nations Sustainable Development Goals (SDGs). Significant progress was achieved in SDG 8 (decent work and economic growth) with a number of sub-indicators converging towards the EU average. Croatia has also fared well in poverty reduction (SDG 1), where the percentage of the population at risk of poverty or social exclusion reduced substantially. However, as discussed in Section 4.3, Croatia ranks below the EU average in a number of labour market and social welfare indicators. Moderate progress was achieved in areas such as good health and well-being (SDG 3), quality education (SDG 4), affordable and clean energy (SDG 7), and industry, innovation and infrastructure (SDG 9). Areas where Croatia has made no progress include peace, justice and strong institutions (SDG 16) where a number of sub-indicators remain flat. Despite Croatia performing well in areas such as the gender pay gap and the gender employment gap vis-à-vis the EU average, gaps have widened from the objectives under SDG 5 (gender equality).

Table 1.1: **Key economic and financial indicators - Croatia**

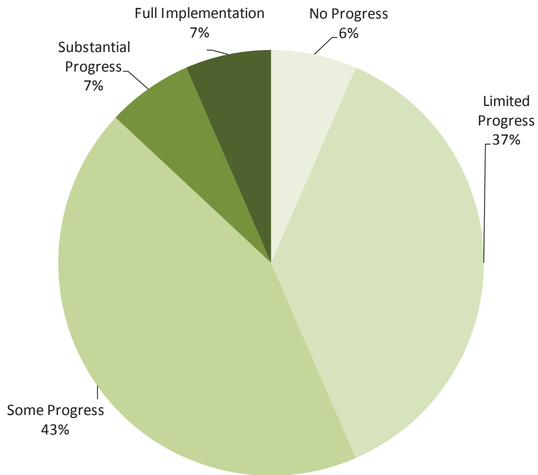
	2004-07	2008-12	2013-16	2017	2018	2019	2020	2021
Real GDP (y-o-y)	4.7	-2.0	1.3	3.1	2.7	3.0	2.6	2.3
Potential growth (y-o-y)	3.0	0.1	0.7	1.3	1.7	2.1	2.5	2.8
Private consumption (y-o-y)	3.9	-1.8	-0.1	3.1	3.2	.	.	.
Public consumption (y-o-y)	4.5	0.0	0.3	2.2	1.3	.	.	.
Gross fixed capital formation (y-o-y)	6.6	-5.7	2.2	5.1	4.1	.	.	.
Exports of goods and services (y-o-y)	6.2	-1.7	6.8	6.8	3.7	.	.	.
Imports of goods and services (y-o-y)	6.2	-4.3	5.6	8.4	7.5	.	.	.
Contribution to GDP growth:								
Domestic demand (y-o-y)	5.0	-2.5	0.4	3.3	3.0	.	.	.
Inventories (y-o-y)	0.3	-0.7	0.4	0.5	1.6	.	.	.
Net exports (y-o-y)	-0.6	1.1	0.5	-0.6	-1.8	.	.	.
Contribution to potential GDP growth:								
Total Labour (hours) (y-o-y)	0.5	-0.5	-0.6	-0.5	-0.2	0.1	0.4	0.7
Capital accumulation (y-o-y)	1.9	1.1	0.6	0.7	0.8	1.0	1.1	1.3
Total factor productivity (y-o-y)	0.6	-0.6	0.7	1.1	1.1	1.0	0.9	0.9
Output gap	3.4	-0.4	-3.5	0.3	1.2	2.0	2.2	1.9
Unemployment rate	12.1	11.8	16.0	11.0	8.4	6.9	5.8	4.9
GDP deflator (y-o-y)	3.7	2.5	0.2	1.2	1.8	1.9	2.4	2.5
Harmonised index of consumer prices (HICP, y-o-y)	2.8	2.9	0.4	1.3	1.6	0.8	1.5	1.7
Nominal compensation per employee (y-o-y)	4.7	2.0	-1.3	0.2	2.2	2.6	2.5	2.2
Labour productivity (real, person employed, y-o-y)	2.6	0.0	0.9	0.9	0.8	.	.	.
Unit labour costs (ULC, whole economy, y-o-y)	2.0	2.0	-2.2	-0.7	1.4	1.0	1.0	0.8
Real unit labour costs (y-o-y)	-1.6	-0.5	-2.5	-1.9	-0.4	-0.9	-1.4	-1.6
Real effective exchange rate (ULC, y-o-y)	1.6	-1.0	-3.1	-0.1	0.9	-2.1	-1.6	-1.0
Real effective exchange rate (HICP, y-o-y)	0.8	-0.7	0.3	0.6	2.5	-1.5	-1.1	-0.6
Net savings rate of households (net saving as percentage of net disposable income)	.	6.0	.	.	.	.	.	.
Private credit flow, consolidated (% of GDP)	14.8	3.6	-0.6	1.5	2.3	.	.	.
Private sector debt, consolidated (% of GDP)	86.7	118.6	112.6	97.8	93.9	.	.	.
of which household debt, consolidated (% of GDP)	32.5	40.7	38.5	34.1	34.1	.	.	.
of which non-financial corporate debt, consolidated (% of GDP)	54.2	77.8	74.1	63.7	59.9	.	.	.
Gross non-performing debt (% of total debt instruments and total loans and advances) (2)	.	.	11.8	8.4	7.0	.	.	.
Corporations, net lending (+) or net borrowing (-) (% of GDP)	.	-1.0	.	.	.	.	.	.
Corporations, gross operating surplus (% of GDP)	.	19.3	.	.	.	.	.	.
Households, net lending (+) or net borrowing (-) (% of GDP)	.	3.5	.	.	.	.	.	.
Deflated house price index (y-o-y)	9.8	-4.9	-2.6	2.9	4.6	.	.	.
Residential investment (% of GDP)	.	.	.	.	.	.	.	.
Current account balance (% of GDP), balance of payments	-7.3	-4.7	1.1	3.3	1.9	1.6	0.7	0.3
Trade balance (% of GDP), balance of payments	-8.6	-4.2	-0.3	0.6	-0.8	.	.	.
Terms of trade of goods and services (y-o-y)	1.4	0.6	0.5	0.3	0.7	0.7	1.1	1.2
Capital account balance (% of GDP)	0.0	0.1	0.7	1.1	1.4	.	.	.
Net international investment position (% of GDP)	-69.5	-89.3	-81.8	-65.6	-57.9	.	.	.
NENDI - NIIP excluding non-defaultable instruments (% of GDP) (1)	-32.4	-49.3	-40.2	-19.4	-13.7	.	.	.
IIP liabilities excluding non-defaultable instruments (% of GDP) (1)	74.8	94.0	94.1	75.8	70.7	.	.	.
Export performance vs. advanced countries (% change over 5 years)	30.7	-3.4	-7.3	19.8	20.5	.	.	.
Export market share, goods and services (y-o-y)	-0.1	-5.8	4.7	2.5	1.6	1.9	-0.4	-0.9
Net FDI flows (% of GDP)	-4.7	-2.9	-2.0	-2.3	-1.4	.	.	.
General government balance (% of GDP)	-3.5	-5.7	-3.8	0.8	0.3	0.1	0.0	0.0
Structural budget balance (% of GDP)	.	.	-2.3	0.7	-0.3	-0.8	-1.0	-0.8
General government gross debt (% of GDP)	39.5	56.0	82.8	78.0	74.8	71.2	67.7	64.4
Tax-to-GDP ratio (%) (3)	36.7	36.0	37.0	37.8	38.6	38.6	37.9	37.5
Tax rate for a single person earning the average wage (%) (4)	.	.	29.2	28.8	29.5	.	.	.
Tax rate for a single person earning 50% of the average wage (%) (4)	.	.	21.9	20.0	20.0	.	.	.

(1) NIIP excluding direct investment and portfolio equity shares.
(2) Domestic banking groups and stand-alone banks, EU and non-EU foreign-controlled subsidiaries and EU and non-EU foreign-controlled branches.
(3) The tax-to-GDP indicator includes imputed social contributions and hence differs from the tax-to-GDP indicator used in the section on taxation.
(4) Defined as the income tax on gross wage earnings plus the employee's social security contributions less universal cash benefits, expressed as a percentage of gross wage earnings.
Source: Eurostat and ECB as of 9-1-2020, where available; European Commission for forecast figures (Autumn forecast 2019)

2. PROGRESS WITH COUNTRY-SPECIFIC RECOMMENDATIONS

Since the start of the European Semester in 2014, 57% of all country-specific recommendations addressed to Croatia have recorded at least 'some progress' (7). 'Limited' or 'no progress' has been made in the remaining 43% of the recommendations (Graph 2.1). Implementation of the reform agenda has proceeded at an uneven pace in different policy areas. Most progress has been made on fiscal policy and labour market. There has been some backtracking on pensions.

Graph 2.1: **Overall multiannual implementation of 2014-2019 CSRs to date**



(1) The overall assessment of the country-specific recommendations related to fiscal policy excludes compliance with the Stability and Growth Pact.
(2) The multiannual CSR assessment looks at the implementation until 2020 Country Report since the CSRs were first adopted.
Source: European Commission

Croatia has pursued a responsible fiscal policy but gaps remain in its fiscal framework. After timely correcting its excessive deficit in 2016 (which allowed it to exit the Excessive Deficit Procedure in June 2017), Croatia continued to pursue a prudent fiscal policy. Since 2016, Croatia's structural balance remained consistently above its medium-term objective, in spite of some deterioration in 2018 and 2019. Regarding fiscal-structural reforms, the Fiscal Policy Commission is still not operational in line with the new Fiscal Responsibility Act. The new Budget Act, that aimed to improve the budgetary framework at central and local level and better regulated the system of government guarantees, has not been adopted.

Croatia has taken measures to improve the functioning of the labour market and to reform its education system. Two successive reforms, implemented in 2013 and 2014, facilitated the use of fixed-term contracts and flexible types of work (distance work, part-time work, seasonal work and agency work), and simplified the procedures for terminating permanent employment contracts. In 2015, the assessment of disability claims was harmonised and moved to a new single expert evaluation body. The long-due legislation on wage-setting for civil and public servants has still not been adopted by the government. In 2019, the incremental implementation of the curricular reform has started in all schools, and active labour market policies have been refocused to make them more effective.

Steps have been taken to improve the business environment, the justice system, and the resilience of the financial sector. Efforts to reduce the administrative burden and improve the competitiveness of the services' sectors are advancing, while a review of parafiscal charges is on-going. Measures continue to improve governance of state-owned enterprises, and Croatia is taking steps to reduce state ownership in companies. The reduction of court backlogs and the resolution of older cases is hindered by the inflow of new cases, although measures to improve efficiency in the justice system are progressing. Insolvency procedures have been thoroughly revised and the weaknesses identified in the banking sector have been addressed following the comprehensive portfolio screening in 2014. The Croatian Bank for Reconstruction and Development has undergone an asset quality review that identified areas for improvement, some of which are being addressed.

Reforms of the public administration, social benefits and healthcare systems, have progressed slowly. Measures to harmonise the regulation of state agencies are making progress, but the overall modernisation process of the public administration requires further policy action. Constrained administrative capacity and process complexity impair a more efficient implementation

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

of EU co-funded projects. Measures aimed at improving social benefits and tackling payment arrears in the healthcare system remain limited.

Key elements of the reformed pension system have been reversed. In December 2018, the parliament adopted an important pension reform package, which came into force in 2019. However, elements of the reform aimed at lengthening working lives were subsequently reversed in response to trade union demands.

Croatia has made limited ([8]) progress in addressing the 2019 country-specific recommendations (see Table 2.1). There has been some progress in the areas of education curricular reform and governance of state agencies. Some progress has also been made new package of active labour market policy measures. Croatia signed several contracts for key railway projects in 2019, thus making some progress in the area of sustainable transport. Extending the use of electronic communication in court proceedings and reducing backlogs in commercial court cases has led to some progress in the area of court proceedings. A number of measures aimed at the alleviation of excessive administrative obligations and the liberalisation of services were implemented, which led to some improvements in the business environment. Progress has been limited in other areas, such as reinforcing the budgetary framework, improving the social protection system, reforming wage setting frameworks, refocussing investment-related economic policy, improving corporate governance and intensifying the divestment of shares and stakes in state-owned enterprises, and in the prevention and sanctioning of corruption.

At the request of a Member State, the European Commission can provide tailor-made expertise via the Structural Reform Support Programme to help design and implement growth-enhancing reforms. Since 2016, the Commission has provided this support to Croatia for over 50 projects. In 2019, several projects were finalised. For example, the Commission supported the collection, classification and analysis of local social benefits with improved reporting requirements. It also provided support to help simplify the registration of private businesses through the on-line platform START, which was launched in November 2019. In 2019, work started on improving the quality of the budgetary process, creating a framework for assessing the performance of public polices and contributing to better strategic planning. Support will also be provided for improving financial supervision.

([8]) Information on the level of progress and actions taken to address the policy advice in each respective subpart of a CSR is presented in the Overview Table in Annex A.

Table 2.1: **Assessment of the 2019 country-specific recommendations (CSRs) assessment (*)**

Commitments	Summary assessment
CSR 1: *Reinforce the budgetary framework and monitoring of contingent liabilities at central and local level. Reduce the territorial fragmentation of the public administration and streamline the functional distribution of competencies. (MIP relevant)*	Croatia has made **Limited Progress** in addressing CSR 1: • Limited progress in reinforcing the budgetary framework • Some progress in streamlining the public administration
CSR 2: *Deliver on the education reform and improve both access to education and training at all levels and their quality and labour market relevance. Consolidate social benefits and improve their capacity to reduce poverty. Strengthen labour market measures and institutions and their coordination with social services. In consultation with the social partners, introduce harmonised wage-setting frameworks across the public administration and public services. (MIP relevant)*	Croatia has made **Some Progress** in addressing CSR 2: • Some progress in delivering on the education reform • Limited progress in consolidating social benefits • Some progress in strengthening labour market measures • Limited progress in harmonising wage-setting frameworks in the public sector
CSR 3: *Focus investment-related economic policy on research and innovation, sustainable urban and railway transport, energy efficiency, renewables and environmental infrastructure, taking into account regional disparities. Increase the administration's capacity to design and implement public projects and policies. (MIP relevant)*	Croatia has made **Limited Progress** in addressing CSR 3: • Limited progress in focussing investment in research and innovation • Some progress in urban and railway transport • Limited progress in energy and environmental infrastructure • Limited progress in increasing the administrative capacity to design and implement public policies
CSR 4: *Improve corporate governance in State-owned enterprises and intensify the sale of such enterprises and non-productive assets. Enhance the prevention and sanctioning of corruption, in particular at the local level. Reduce the duration of court proceedings and improve electronic communication in courts. Reduce the most burdensome parafiscal charges and excessive product and services market regulation. (MIP relevant)*	Croatia has made **Limted Progress** in addressing CSR 4: • Limited progress in state-owned enterprises governance and divestment • Limited progress in enhancing the prevention and sanctioning of corruption • Some progress in reducing court proceedings and improving electronic communication • Limited progress in reducing parafiscal charges • Some progress in reducing excessive product and services market regulation

(*)The assessment of CSR 3 does not take into account the contribution of the EU 2021-2027 cohesion policy funds. The regulatory framework underpinning the programming of the 2021-2027 EU cohesion policy funds has not yet been adopted by the co-legislators, pending inter alia an agreement on the multiannual financial framework (MFF).
Source: European Commission

Box 2.1: EU Funds and programmes to address structural challenges and fostering growth and competitiveness in Croatia

Croatia is one of the countries benefiting most from EU support. The financial allocation from the EU Cohesion Policy Funds ([1]) for Croatia amounts to EUR 9.9 billion in the current Multiannual Financial Framework, equivalent to around 2.9% of GDP annually. By the end of 2019, the entirety of this amount was allocated to specific projects, while EUR 2.8 billion was reported as spent by the selected projects ([2])([3]) showing a level of implementation well below the EU average.

While bringing about a more harmonious development through reducing economic, social and territorial disparities, EU Cohesion policy funding also contributes significantly to addressing structural challenges in Croatia. The Cohesion Policy programmes for Croatia have allocated EU funding of EUR 1.9 billion for smart growth, EUR 4.0 billion for sustainable growth and sustainable transport and EUR 2.2 billion for inclusive growth. In 2019, following a performance review ([4]) EUR 301.3 million have been made available within performing priorities.

EU Cohesion policy funding is contributing to major transformations of the Croatian economy. It promotes growth and employment via investments, among others, in research, technological development and innovation, competitiveness of enterprises, sustainable development (energy, environment and transport), employment and labour mobility. By 2019, investments driven by EU Funds have already supported 933 new enterprises as well as co-financed equipping 151 schools with IT equipment in order to increase skills of the students. With the objective of reducing greenhouse gas emissions, 4,287 households have improved their energy efficiency classification and 20 km of rail has been reconstructed or upgraded to promote the modal shift from the roads. Support allocated for improved wastewater treatment will benefit almost 1.6 million people. Support to 1,436 primary health care providers will improve access to healthcare, especially in remote and deprived areas. The European Social Fund has focused on supporting women by offering training and employment opportunities and skilling around 7,000 women, who will provide care services for nearly 30,000 elderly and disadvantaged people in their households. Within these interventions, women receive additional education for professions that are in high demand in their local community.

Agricultural and fisheries funds and other EU programmes also contribute to addressing investment needs. The European Agricultural Fund for Rural Development (EARDF) makes available in total of EUR 2.38 billion, and the European Maritime and Fisheries Fund (EMFF) in total of EUR 344 million (including the national co-financing for both). Croatia also benefits from other EU programmes, such as the Connecting Europe Facility, which allocated EUR 430.5 million to specific projects on strategic transport networks, Horizon 2020 allocated EU funding of EUR 84 million (including 40 SMEs with about EUR 15.2 million).

EU funding contributes to the mobilisation of important private investment. By the end of 2018, European Structural and Investment Funds (ESIF) supported programmes alone mobilised additional capital by committing about 553 million EUR in the form of loans, guarantees and equity ([5]), which is 5.6% of all decided allocations of the ESIF.

EU funds already invest substantial amounts on actions in line with the Sustainable Development Goals (SDGs). In Croatia, European Structural and Investment Funds support 13 out the 17 SDGs and up to 95% of the expenditure is contributing to those.

([1]) European Regional Development Fund, Cohesion Fund, European Social Fund, Youth Employment Initiative, including national co-financing.
([2]) Annual Implementation Report for Operational Programme Competitiveness and Cohesion 2014-2020 for 2018
([3]) Annual Implementation Report for Operational Programme Efficient Human Resources 2014-2020 for 2018
([4]) The performance review is regulated by Article 22 of the Regulation (EU) 1303/2013. 5-7% of resources allocated are released to performing priority axes of the operational programmes (amount includes national co-financing).
([5]) Member States' reporting on financial instruments based on Article 46 Regulation 1303/2013, 31/12/2018.

3. SUMMARY OF THE MAIN FINDINGS FROM THE MIP IN-DEPTH REVIEW

The 2020 Alert Mechanism Report concluded that a new in-depth review should be undertaken for Croatia to assess the persistence or unwinding of the imbalances (European Commission, 2019a). In spring 2019, Croatia was identified as having macroeconomic imbalances (European Commission, 2019b). The imbalances identified related to high levels of public, private and external debt, in a context of low potential growth. This chapter summarises the findings of the analyses in the context of the MIP in-depth review that is contained in various sections in this report ([9]).

Imbalances and their gravity

Public debt remains high, but is falling rapidly. High general government spending and a significant fall in revenue, due to a severe and protracted recession, contributed to the accumulation of public debt that peaked at 84.7% of GDP in 2014. Public finances have since improved, due to reined-in spending and a tax-rich economic recovery. Croatia recorded its first fiscal surplus in 2017, and its second in 2018, despite a non-negligible materialisation of contingent liabilities. Overall, public debt remains high at 74.8% of GDP in 2018. Nevertheless, thanks partially to improvements in public debt management, debt is being refinanced at record low and predominantly fixed rates, with extended maturities. The improvements in public finances were recognised by Fitch and S&P agencies as they upgraded Croatia's long-term sovereign credit rating to investment grade with a positive and stable outlook respectively, while Moody's upgraded its outlook to positive.

The private-sector debt profile continues to improve. The consolidated corporate and household debt levels for the third quarter of 2019 are estimated at 58.4% and 34.3% of GDP respectively, some 24 and 8 percentage points below the peak registered in 2010. Since 2017, both household and corporate debt levels have been below their respective prudential thresholds ([10]). However, despite a significant reduction, both debt levels remain high compared to their thresholds based on fundamentals. Corporate debt also remains high relative to gross financial assets or equity, signalling a persistently high debt overhang and solvency risks for the corporate sector. The private-sector debt profile has also continued to improve. The share of foreign exchange risk exposed debt fell from 65.7% in 2018 to 63.1% in Q3 2019. The reduction reflects the increasing propensity of both businesses and households to borrow in domestic currency and repay their foreign-currency-denominated debt. Businesses and households are also benefiting from high competition in the domestic banking sector to refinance their loans with lower interest rates and longer periods of fixed interest rates.

Although the current account surplus is shrinking, it is still helping to curb external imbalances. After peaking at 3.3% of GDP in 2017, the current account surplus narrowed to 1.9% of GDP in 2018, as the increase in imports of goods turned the trade balance negative. The current account surplus rebounded in the first three quarters of 2019 to 2.2% of GDP ([11]) largely due to growing tourist receipts. Revised data on external liabilities, using improved methodology and standards, published by the Croatian National Bank in September 2019, show higher levels of gross external debt and a lower net international investment position (NIIP). However, the external imbalances continued to abate in 2018 and in the first three quarters of 2019. By September 2019, the NIIP stood at -49.7% of GDP, almost 50 percentage points above its record low, while the gross external debt was 81% of GDP, almost 40 percentage points below its peak in Q1-2015. Nevertheless, compared to the prudential and

([9]) Analyses relevant for the in-depth review can be found in the following sections: Government debt (Section 4.1; Private sector debt and the financial sector (Section 4.2); Labour market (Section 4.3); and Business environment, investment and public sector governance (Section 4.4). An asterisk indicates that the analysis in that section contributes to the in-depth review under the MIP.

([10]) Fundamentals-based benchmarks are derived from regressions capturing the main determinants of credit growth and taking into account a given initial stock of debt. Prudential thresholds represent the debt threshold beyond which the probability of a banking crisis is relatively high, minimising the probability of missed crisis and that of false alerts. Methodologies are described in European Commission (2017) and updates to the methodology have been subsequently proposed in European Commission (2018a).

([11]) Four quarter moving average

fundamentals-based benchmarks (see section 4.2), Croatia continues to have very high external liabilities. Its net external position excluding non-defaultable instruments (NENDI) was estimated at only -5.6% of GDP, significantly above the benchmarks, indicating a less problematic composition of external liabilities.

Low potential growth remains an obstacle to Croatia catching up with the rest of the EU more rapidly. After reaching a low point in 2010, potential output growth has since increased significantly, estimated at 2.1% in 2019. Although this is higher than the EU average, it is the lowest among peer countries([12]), indicating to Croatia's limited convergence capacity, and explaining its relative falling behind. The labour contribution to potential growth turned positive in 2019, due to a gradual recovery of employment, though it remains one of the lowest among peers. Demographic trends and a chronically low activity rate are a drag on labour contribution to growth for future years. Capital accumulation makes a positive contribution to growth, though it, is held back somewhat by high levels of debt of the corporate sector and a cumbersome business environment. Total factor productivity contribution to potential growth remains low for a catching up economy and when compared to peers. Low efficiency of goods and services markets, insufficient competition in network industries, poor public sector governance, and a widespread influence of state-owned enterprises in the economy continue to depress productivity growth.

Evolution, prospects, and policy responses

Public-debt reduction is set to continue. The headline general government balance is expected to remain stable and close to balance throughout the period 2019-2021. Buoyant revenue and savings from refinancing the public debt at lower interest rates are offset by the agreed wage increases and the government's commitment to cut taxes in 2019 and 2020. This is driving down the government balance in those years. Public debt is expected to continue to fall to 64.4% of GDP in 2021. The new Fiscal Responsibility Act brought in new and improved numerical fiscal rules. It also strengthened the role of and allocated more resources to the Fiscal Policy Commission. However, lacking an appointed chair it is not yet fully functional. The new Budget Act has yet to be adopted.

Although moderate, credit recovery is slowing the reduction in the overall debt ratio. Nominal GDP growth and a moderate appreciation of the kuna contributed to a further reduction, although at a slower pace, of the overall private-sector indebtedness, in 2018 and the first three quarters of 2019. Deleveraging in the corporate sector continued while net borrowing remained low (although 2019 saw a noticeable pickup in new borrowing for investment purposes). Lending to corporations is likely to remain at moderate levels, given persistently high levels of debt and high, though decreasing, levels of non-performing corporate loans (16.3% in the second quarter of 2019), especially in the construction sector. Borrowing by the household sector picked up, driven by strong consumer confidence and rising income, with the bulk of new lending being general-purpose cash lending. To prevent an unsustainable accumulation of new household debt, the Croatian National Bank recommended tightening banks-lending conditions.

Despite the current account surplus closing, external imbalances should continue to fall. Due to the expected further deterioration of the trade balance, the current account surplus is projected to gradually decrease in 2020 and 2021([13]). Strong domestic demand is set to drive an increase in imports while it is becoming increasingly difficult to increase share of exports. Although declining, the current account balance will aid the reduction of external imbalances above the level suggested by fundamentals, estimated at around −0.9% of GDP in 2019. The net international investment position is expected to increase to above −50% of GDP already in 2020 and to continue improving in 2021. Nevertheless, it will still remain below the levels suggested by prudential and fundamentals-based benchmarks (−40% and −24% of GDP in 2019 respectively).

Significant structural reforms will be necessary to increase Croatia's relatively low potential growth. Potential growth is projected to remain the lowest among Croatia's peers throughout the 2019-2021 period. Although growth is expected to

([12]) Slovenia, Hungary, the Czech Republic, Slovakia, Poland

([13]) According to the Commission 2018 Autumn forecast reach 2.8% in 2021, contributions from labour and total factor productivity growth remain relatively low. The unemployment rate is already at an all-time low (6.9% estimated in 2019), projected to fall further to 4.9% by 2021. Increasing the labour contribution to potential growth will thus require increasing Croatia's persistently low activity rate. This may become increasingly difficult given Croatia's demographic challenges, the complete reversal of the recent pension reform, which reduces the retirement age to 65, and low take-up of active labour market policy measures. Low allocative efficiency, the cumbersome business environment and an inefficient public sector continue to depress the total factor productivity contribution to potential growth. Overall, due to pro-cyclical wage increases, tax cuts and a pickup in public investment, the output gap is expected to widen further in 2019 and 2020 before narrowing in 2021.

Overall assessment

Moderate growth in Croatia continues to bring down the debt imbalances. Household and corporate debt remain high, despite significant improvements over the last few years. Household debt reduction slowed due to a strong recovery in lending, while businesses continue to reduce its debt, burdened by persistently high non-performing loans. Both households and businesses are improving their risk profiles by taking up ample liquidity available and competition in the banking sector to refinance their old debt obligations. Public debt remains high, although prudent fiscal policy over the last two years has brought it down considerably. Similarly, Croatia's external liabilities have fallen, thanks to sustained current account surpluses.

Croatia's low growth potential remains an obstacle to it catching up with the rest of the EU and to correcting macroeconomic imbalances with a lasting effect. Despite improvements in labour market outcomes, increasing the labour contribution to potential growth will require raising the low activity rate, which is set to be difficult especially given Croatia's demographic challenges. Productivity growth remains curtailed by weak allocative efficiency, a cumbersome business environment, and an inefficient public sector.

Policy implementation has been uneven and has even backtracked on pensions. Reforms in the education system and the business environment are progressing, with more action needed on public administration and the governance of state-owned enterprises. The authorities' firm commitment to join the ERM II provides an impetus to reforms in important policy areas. Key aspects of the recent pension reform that aimed at lengthening working lives have been reversed (even before they were implemented), with no credible offsetting measures announced. The new pension law sets the general retirement age at 65 as of 2030, even lower than what was planned before the abandoned reform.

Table 3.1: **MIP matrix**

	Gravity of the challenge	Evolution and prospects	Policy response
Imbalances (unsustainable trends, vulnerabilities and associated risks)			
Public debt	In 2018 the government debt ratio decreased to 74.8% of GDP, which is still above the Treaty reference value of 60%. Debt sustainability analysis, not yet taking into account the impact of the latest measures on pensions, indicates low risks in the short, medium and long term, not taking into account the reversal of the pension reform.	Public debt that peaked at 84.7% of GDP in 2014. Public finances have since improved, due to reigned-in spending and a strong cyclical recovery in revenues, both supported by the recovering GDP growth. Credit rating agencies Fitch and S&P upgraded Croatia's long-term sovereign credit rating to investment grade with positive and stable outlook respectively, while Moody's upgraded its outlook to positive. The headline general government balance is expected to remain close to balance throughout 2019-2021. The Commission 2019 autumn forecast expects the debt-to-GDP ratio to decline to 64.4% of GDP in 2021.	Also due to improvements in public debt management, maturing debt is being refinanced at record low and dominantly fixed rates. This has yielded significant savings on interest payments already in 2019, but its full effect is expected in 2020.
Household and corporate debt and the financial sector	In 2018, consolidated corporate and household debt stood at 59.9% and 34.1% of GDP. Corporate debt decreased further in the first half of 2019 to 58.7% of GDP, while household debt slightly increased to 34.6% of GDP. Both stand below prudential thresholds, but remain above the levels suggested by fundamentals. Still high shares of household and corporate debt are exposed to foreign currency risk, as 45% and 74% of their respective debt is denominated in foreign currency (mainly EUR). In the second quarter of 2019, the NPL rate in the Croatian banking sector reached 6.9%, down from 8.7% one year earlier and slightly below 7.3% in the previous quarter. The rate is still relatively high, especially for corporations, 16.3%.	The reduction in private sector debt appears to have slowed in 2018 and the first half of 2019. While the corporate sector continued deleveraging, borrowing of the household sector picked up driven by strong consumer confidence and rising incomes. Private debt should nonetheless continue decreasing driven by moderate nominal GDP growth. Both corporations and households are starting to increase their borrowing in domestic currency and repay their foreign currency denominated debt. Furthermore, they are taking advantage of high competition in the domestic banking sector to refinance their loans under more favourable terms.	The CNB issued recommendations to all credit institutions urging caution in granting general-purpose cash loans to households, in view of the strong increase in this category of loans over the past four years. In particular, CNB recommended taking account of the minimum cost of living when assessing consumers' creditworthiness for non-housing loans with an initial maturity equal to or exceeding five years.
External liabilities and trade performance	Revised data, based on improved methodology and standards, published by the Croatian National Bank in September 2019, show higher levels of gross external debt and a lower net international investment position (NIIP). However, the trend of narrowing external imbalances was preserved both in 2018 and in the first half of 2019. The NIIP stood at -58% of GDP in 2018, well below its fundamental level and prudential thresholds. However, the stock of foreign liabilities net of less risky financial instruments (NENDI) stood at only -14% of GDP in 2018. The current	The NIIP improved slightly in the first half of 2019, rising to -57.5% of GDP, more than 40 pps above its record low in 2010. Driven by GDP growth, the NIIP is projected to keep improving despite a steady deterioration of the current account balance. After peaking at 3.3% of GDP in 2017, the current account surplus is expected to deteriorate in 2020 and 2021. Croatia's goods exports grew significantly less in 2018, thus ending a period of rapid market share gains. Exports of services, dominated by the tourism sector, are also expected to grow more	Boosting exports will require significant reforms to address weaknesses in the business environment, namely the high costs of doing business, slow judiciary, and weak public governance.

(Continued on the next page)

Table (continued)

	account balance narrowed to 1.9% of GDP in 2018. Gross external debt declined to 81% of GDP by September 2018.	moderately going forward as capacity constraints limit further expansion in the peak months of the tourist season.	
Potential output	The unemployment rate has contracted to 6.8% in 2019. However, at 71.4% and 67.6% in Q3 2019, activity and employment rates remain among the lowest in the EU. Although it turned positive in 2013, the contribution of total factor productivity to potential growth remains low for a catching-up economy. Potential growth remains low relative to that of peer countries, and weighs on the long-term durability of Croatia's adjustment process.	The unemployment rate is already at an all-time low (6.9% estimated in 2019) and projected to further decrease to 4.9% by 2021. However, demographic trends and chronically low participation in the labour market weigh on labour input. Low allocative efficiency, a cumbersome business environment and an inefficient public sector continue to depress the total factor productivity contribution to potential growth.	Policy implementation has been uneven across policy areas, with also some backtracking in the area of pensions. Progress is being made in reforming the education system, while public administration and SOE governance require more effort. Lengthening working lives remains a challenge, further aggravated by the reversal of the key elements of the pension reform. Take-up of ALMPs and the use of re- and up-skilling programs for working age people remains low.

Conclusions from IDR analysis

- The public debt ratio remains on a downward trend due to continued GDP growth and sustained general government surpluses. Furthermore, sovereign risk perception improved as sustainability risks declined. While household borrowing picked up, non-financial corporations continued deleveraging, contributing to further reduction in private sector debt. Despite a narrowing of the current account surplus, the net international investment position continued improving. Potential growth is still low due to low total factor productivity; this weighs on Croatia's capacity of adjustment.
- Debt stocks are expected to continue to narrow, underpinned by moderate GDP growth. Public debt should come down due to balanced budgets. Private sector borrowing is expected to pick up further, and household borrowing in particular. Corporate net lending, although still negative, is showing some signs of picking up. The current account balance, is expected to continue deteriorating. However, external imbalances should continue narrowing due to GDP growth.
- Raising the labour contribution to growth remains challenging. The backtracking of the recent pension measures designed to promote longer working lives aggravated thi challenge. In other areas, policy implementation has been uneven. Policies in the field of fiscal framework, civil service wage setting and the judiciary are stalling. Some progress was made in education and in improving the business environment. Measures need to be stepped up to address issues in the areas of public administration and SOE governance.

Source: European Commission

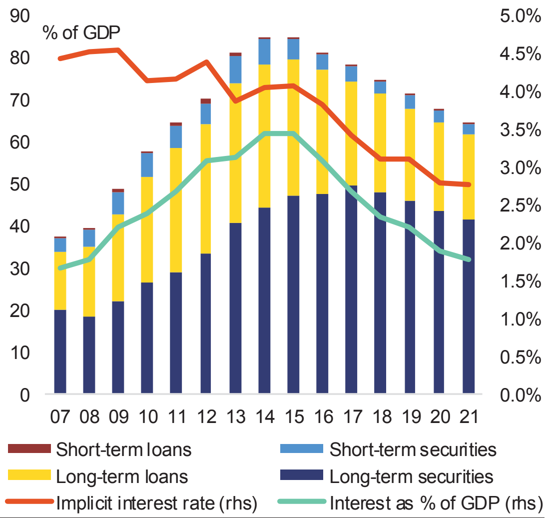
4. REFORM PRIORITIES

4.1. PUBLIC FINANCES AND TAXATION*

Debt developments and sustainability

Croatia's government debt continues to decrease rapidly. The gross general government debt ratio is projected to have dropped from a peak of 84.7% in 2014 to 71.3% in 2019, and set to continue decreasing sharply in the following years. The decrease has been driven by a combination of the strong improvement in the government balance and robust GDP growth. Following the sizeable amount of guarantee calls in 2018-2019, the stock of remaining government guarantees also decreased from 2.7% of GDP in 2017 to 1.2% of GDP in September 2019, leaving Croatia's level of contingent liabilities comparatively low.

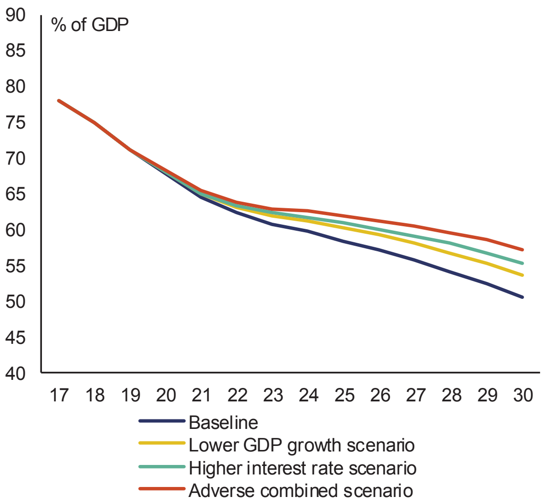
Graph 4.1.1: **Maastricht debt and interest developments**



Source: Eurostat, ECFIN calculations

Over the last four years, the sustainability of Croatia's public debt improved substantially. Croatia has made extensive use of the low interest rates and its improved ratings to refinance maturing debt at record-low, fixed interest rates with longer maturities.([14]) As a result, Croatia's interest spending in proportion debt-to-GDP is projected to have already dropped below its 2009 level, when the debt ratio was below 50%. The spread between the interest rates on Croatia's long-term bonds and the German bund dropped to 89 basis points by the end of 2019, well below most of Croatia's peers and close to the EU average of 84 basis points – underlining the structural nature of the improvement. Further savings on debt servicing costs are expected in 2020-2021, as another HRK 30 billion of the most expensive outstanding debt (with interest rates averaging at 6.5%) matures.

Graph 4.1.2: **Debt sustainability scenarios**



(1) Lower growth scenario: -0.5 pp above baseline
(2) Higher interest rate: +1 pp above baseline
(3) Adverse combined scenario: (1) and (2) combined
Source: European Commission, Debt Sustainability Monitor 2020

Croatia faces low fiscal sustainability risks in the short, medium and long term. Based on the 2019 Autumn Forecast, the Commission early-detection indicator of short-term fiscal stress (S0) and the long-term sustainability indicator (S2) indicate low risk, unchanged from the assessment in the 2019 country report. The S1 indicator of medium-term fiscal risks has dropped substantially and now also indicates low risk. This assessment is confirmed by a debt sustainability analysis that points to low risk on account of decreasing debt across projection scenarios (see graph 4.1.2). It is important to note that this assessment does not account for the recent reversal of the 2018 pension reform. However, preliminary Commission

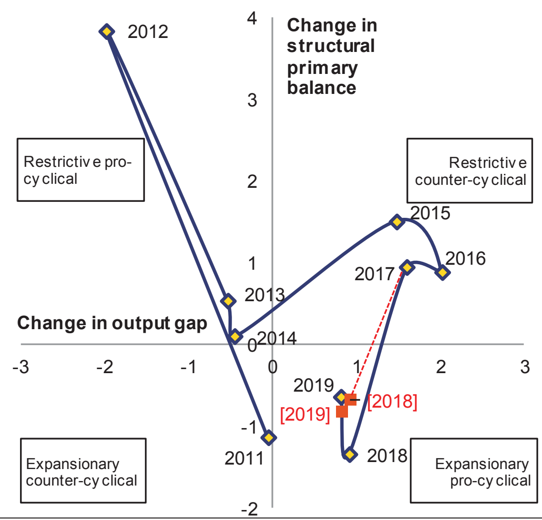
([14]) In 2019 alone, Croatia issued bonds worth HRK 25.8 billion (almost 10% of the current debt) at an average interest rate of 0.9%. Overall in the period 2016-2019, Croatia issued bonds worth HRK 89.1 billion (almost a third of the current stock of debt) at an average rate of 2.1%. The average bond maturity at end-2019 was 7 years and 9 months, compared to 5 years and 8 months at end-2015.

estimates assess the long-term budgetary impact of the reform reversal as relatively limited, at 0.4% of GDP. While this means that public pension expenditure would remain on a downward trajectory over the long term, it also limits the potential to address the low level of pension adequacy (see Section 4.3.). For a detailed overview of the debt sustainability analysis, see the DSA standard statistical annex.

Fiscal policy

Following several years of prudent fiscal policy, Croatia's fiscal policy stance is turning slightly pro-cyclical. Over the period 2015-2017, the structural primary balance improved in parallel with improving economic conditions, which was particularly important given the still high public debt at the time. In 2018-2019, expenditure restraint weakened and some tax cuts were introduced, turning the fiscal stance into pro-cyclical, although this was partly due to the materialisation of contingent liabilities in shipyards. Going forward, the fiscal stance is expected to remain pro-cyclical as tax cuts curb revenue growth and expenditure growth remains robust, driven by public sector wage increases.

Graph 4.1.3: **Fiscal stance 2011-2019**



(1) The red dashed line and the years in brackets indicate the alternative scenario without the materialisation of contingent liabilities in 2018-2019.
Source: Eurostat, ECFIN forecast

Fiscal framework

The Fiscal Policy Commission is still not fully functional and the planned reform of the budgetary framework is not yet in place. The Fiscal Responsibility Act, introducing new and improved numerical fiscal rules and strengthening the independent status of the national Fiscal Policy Commission, was finally adopted in 2018. However, the Commission is still not operating in line with its new provisions. Namely, attempts to appoint the chair of this body were unsuccessful. In addition, the new Budget Act, which should improve both the short and medium term budgetary framework at central and local level and address vulnerabilities in the system of government guarantees, has still not been adopted.

The transparency of local budgets is improving, though smaller municipalities lag behind. The average transparency score of municipality budgets (developed by the Croatian Institute of Public Finance ([15])) rose substantially between 2015 and 2018. However, there are visible differences in the scores of small and large municipalities. The 42 municipalities with a population below 1,000 earned an average score of 2.5 in 2018, compared with 3.8 for the 42 most populous municipalities (with 5,000 inhabitants and more). The median size of the municipalities with the most transparent budgets (18 municipalities with a score of 4 or 5) is 2.5 times that of the municipalities with the least transparent budgets (24 municipalities with a score of zero). Smaller local government units also tend to have more irregularities detected by audits: in 2016-2017, only 35% of the local government units with less than 5,000 residents received an unqualified positive opinion from the State Audit Office, compared to 47% of government units with 5,000 residents or more. These findings are in line with the identified inefficiencies of Croatia's highly fragmented system of local government, characterised by the difficulties of smaller municipalities to deliver quality services to their citizens (see Section 4.4.).

([15]) Developed by the Institute of Public Finance in Zagreb, the Transparency score can range from 0 to 5, depending on how many of the key budgetary documents are published on the web. Available at: http://www.ijf.hr/transparency-2019/map/.

Taxation

Croatia's taxation system is strongly skewed towards indirect taxation. Croatia is among the Member States which collect the least revenue from direct taxes. This is partly a consequence of very low property taxes, which are considered to be among the most growth-friendly taxes. The low share of direct taxation is also a reflection of low taxes on capital as well as successive cuts in the personal income tax implemented over the past 4 years. Aimed at reducing the tax burden on labour, the cuts have resulted in more than half of persons in employment not being liable for any personal income tax. Still, Croatia ranks around the EU average when it comes to revenue from social contributions in proportion to GDP, despite having the third lowest employment rate in the EU. At the same time, Croatia collects the highest share of VAT revenue in proportion to GDP of all EU Member States. At 3.6% of GDP in 2018, Croatia's revenues from environmental taxes were above the EU average of 2.4%. However, there is scope to improve the use of environmental taxation to better support environment and climate policy objectives. Croatia is one of the few Member States that does not have a landfill tax nor an incineration tax for waste management (EEA, 2016).

In 2020, the personal income tax is being cut again, this time for young people. A new tax break for young people fully exempts people under the age of 25 from personal income tax liability, whereas those aged 26-30 will pay 50% of their standard liability. The measure will likely result in taxation spikes when turning 26 and 31, while its overall budgetary effects are expected to be small due to the already low share of persons in employment who pay personal income tax, in particular among young people.

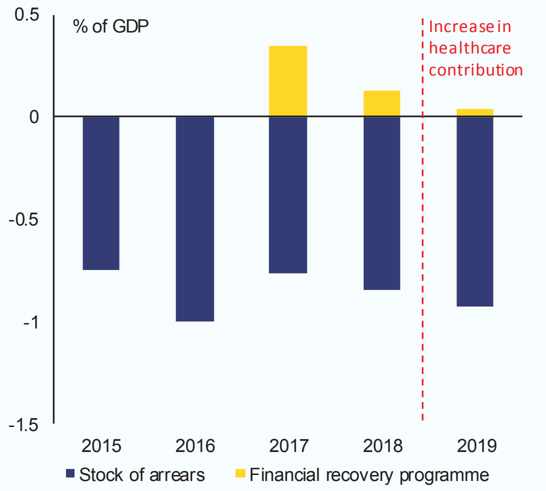
The reduction of the standard VAT rate is being reversed and the scope of the reduced rate broadened. A reduction of the standard VAT rate (which at 25% is the second highest in the EU) was legislated in 2018, but was later reverted before taking effect, while the 13% reduced rate is being applied to more commodities. After several key foods were shifted to the reduced rate regime as of 2019, from 2020 food served in restaurants will also be taxed at the reduced rate. This measure is primarily intended to address labour shortages in the tourism sector. Restaurant services had already been taxed at a reduced VAT rate of 10% in 2013 and 13% in the period 2014-2016, with the aim of increasing the international competitiveness of Croatia's tourism. However, the VAT rate was then brought back to the standard one in view of the observed limited impact of the cuts on prices. The above mentioned changes of policy course and reversals of already legislated tax cuts negatively affect the stability of tax policy. In 2018, it took medium-sized companies an average of 206 hours to comply with their main tax requirements, significantly above the EU average of 172 hours per year (World Bank, 2019b).

Box 4.1.2: Croatia's healthcare system and its financial sustainability

Despite the strong increase in revenue from health contributions, the healthcare sector continues to accumulate arrears. As of 1 January 2019, the health contribution rate was raised by 1.5 percentage points. Coupled with growing employment and wages, this is estimated to have increased the revenue of the Croatian Health Insurance Fund (CHIF) by 11% (year-on-year) in 2019. In spite of this, payment arrears to suppliers of goods and services are estimated to have grown by over 15%. Furthermore, expenditure is expected to grow strongly in 2020 on the back of wage increases in the sector agreed in September 2019 and the Supreme Court ruling from December 2019 which upheld doctors' claims on unpaid overtime.

Arrears are mostly generated in hospitals, particularly those owned by counties. The hospitals' revenues are largely comprised of transfers from the CHIF, which are based on diagnosis-related groups and upper limits set by the CHIF. This combination of payment methods aims at reducing hospitals' costs and increasing their efficiency. With some of the county hospitals' budgets barely covering personnel costs, arrears quickly pile up. Faced with the prospect of suppliers suspending deliveries, the central government settles such arrears through ad hoc financial recovery programmes. There have been 12 such interventions since 2000, ranging from 0.1 to 0.6 per cent of GDP in a given year. There are several factors that contribute to the piling up of arrears in hospitals. Service is maintained in some hospitals in close proximity to each other where this is not justified by population size, and moral hazard often arises from the combination of local governments as owners of most hospitals and the central government as their source of financing. Furthermore, there is a lack of mechanisms and incentives for ensuring financial accountability of hospital managers. Functional integration of hospitals (six pairs for the time being) is aimed to rationalise the hospital network by modifying their functioning to respond to the needs of populations they serve.

Graph 1: **Healthcare sector: arrears and financial recovery programmes**



(1) The data on arrears for 2019 is preliminary, not based on finalized financial statements. The data based on quarterly financial statements for 2019-3Q shows arrear growth in excess of 28% (year-on-year).
Source: Ministry of finance, Ministry of health

Several initiatives were taken to improve the functioning of the health system, which remains focused on acute care. Around 45% of all hospital purchases are procured centrally, up from 8% in 2016, enabling substantial savings. However, while centralised procurement is mandatory for all state owned hospitals, many health institutions owned by counties opt to purchase individually. In September 2018, the government adopted the National Hospital Development Plan 2018-2020, the implementation of which should address some of the problems of hospital sector, namely rationalisation of the hospital network and reducing the reliance on acute care. Croatia is preparing its e-Health Strategic Development Plan 2020-2025 and aims to launch a national mobile application allowing patients to schedule appointments. Additionally, preparatory work has been done to link up hospitals to a central calendar to manage waiting lists more effectively, but implementation may take longer than planned due to interoperability issues. Referrals from general practitioners to specialists were substantially reduced in the last decade. Still, the system remains focused on acute care provided in hospitals, while integration of preventive, chronic and long-term care remains low (OECD & European Observatory on Health Systems and Policies, 2019).

Access to health care in Croatia is relatively good, with a low level of unmet needs for healthcare. At 1.4%, the share of people who declare unmet medical needs in Croatia is below the EU average of 2%. However, unmet needs due to geographical distance are higher in Croatia than in any other EU Member

State. The geographical distribution of health care infrastructure and human resources varies considerably and there are a number of hospitals close to each other offering the same types of services (OECD, 2019). Also, unmet medical needs affect 4.1% of people aged 65 and above, well above the EU average of 2.5%. At 4.5 percentage points, the difference in unmet needs between the poorest and the wealthiest 20% of the population is also considerably above the EU average. Sickness and health care benefits are designed to help bridge this gap for the poorest. However, while they are well targeted, they are low. Only 4% of households are affected by out-of-pocket health expenditure exceeding 40% of their total spending net of subsistence needs (so-called ‘catastrophic health expenditure’), which can be considered low.

The health status of the Croatian population is improving, but vaccination rates are dropping. Life expectancy has increased from 74.6 years in 2000 to 78 in 2017, in line with the overall EU trend (from 77.3 to 80.9 in the same period) and the life expectancy gender gap (6.1 years) exceeds the EU average. However, both preventable and treatable mortalities, which are proxies for effectiveness of health care system, are well above the EU average. The prevalent preventable causes are lung cancer, heart disease, alcohol use and accidents. High mortality from treatable diseases is primarily a result of cardiovascular diseases and colorectal and breast cancers. This owes in part to underdeveloped preventive medicine initiatives like awareness-raising, disincentives to smoking and alcohol consumption and promotion of healthy diet and lifestyle. Vaccination rates are dropping below levels which ensure a population’s immunity (95%): for the first time in 20 years, coverage with the first dose of the measles-mumps-rubella (MMR) vaccine dropped below 90% in 2016, whereas for diseases like measles, diphtheria, tetanus and pertussis the coverage was 93%. At 21%, the rate of influenza vaccinations of people older than 65 years is less than half of EU average. This situation owes largely to the anti-vaccination movement gaining popularity in the country. During 2019, the Croatian authorities have taken educational initiatives aimed at fostering vaccination rates, especially in paediatric and school medicine.

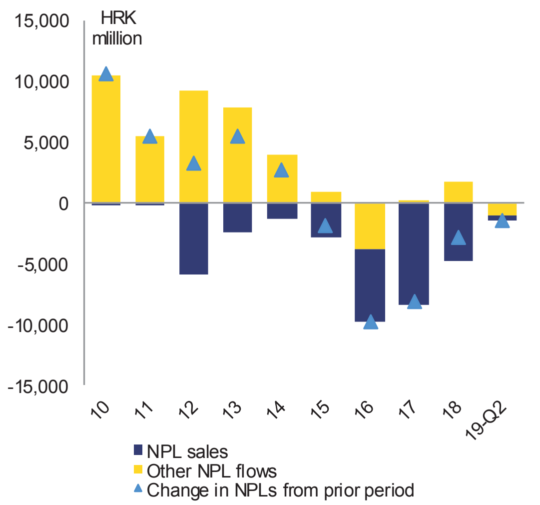
4.2. FINANCIAL SECTOR*

4.2.1. FINANCIAL SECTOR

Croatian banks have a healthy level of profitability and capital. With a return on equity of 11.3% (EU average: 6.4%) in the first half of 2019, profitability remains relatively high (see Table 4.2.1). This has largely been due to significantly lower provisioning levels than in the past few years. The total capital ratio fell slightly to 20.7% in mid-2019, due to the increase in general-purpose cash loans, which carry relatively high risk weights. The impact of the higher risk weights for non-kuna government bonds, which reduced the regulatory capital ratios in 2018, was offset by the sovereign rating upgrades in early 2019. Croatian banks remain well capitalised, with a CET1 ratio of 19.9% (EU average: 15.0%). Croatian banks are not expected to encounter problems in meeting the minimum requirement for own funds and eligible liabilities (MREL) given their current capital levels.

The volume of non-performing loans (NPLs) continues to fall, albeit at a slow pace. The headline NPL ratio for the Croatian banking sector dropped to 6.9% (ECB figures) in June 2019, down from 8.7% a year ago. In absolute terms, annual NPL reduction has slowed down over the past year. This is largely due to an increase in the inflow of NPLs and to the lower volume of loans sold (Graph 4.2.1). The increased inflow of defaults are due to the write-downs arising from the Agrokor settlement in the second half of 2018. The slowdown in sales can be explained by a combination of demand factors (i.e. lower investor interest in remaining assets) and supply factors (i.e. banks' willingness to hold NPLs). Nearly two-thirds of this stock remains concentrated in the non-financial corporate sector (NFC), resulting in an NPL ratio of 16.3% of all NFC loans, down from 20.7% a year ago. The construction sector continues to account for a significant proportion of the NPL stock, with an NPL ratio of 39.1% (local data) ([16]), down from 53.5% a year ago. It is much smaller in the household sector at 5.9% in June 2019, down from 7.6% a year ago.

Graph 4.2.1: **NPL flows**



Local NPL definition is used.
Source: Croatian National Bank (CNB)

([16]) Two NPL definitions are used in the text: for data up to 2017 provided by the Croatian National Bank, the NPL definition was based on local loan classification rules. As from 2018, local dual reporting was discontinued and all local data was fully aligned with EBA reporting requirements for non-performing loans, (Commission Implementing Regulation (EU) 2015/227).

Table 4.2.1: **Financial soundness indicators, all domestic and foreign banks in Croatia**

	2014	2015	2016	2017	2018-Q1	2018-Q2	2018-Q3	2018-Q4	2019-Q1	2019-Q2
Non-performing loans	13.6	13.0	10.7	8.8	8.9	8.7	7.9	7.3	7.3	6.9
o/w foreign entities	13.1	12.4	10.5	8.3	8.4	8.1	7.2	6.7	6.6	6.2
o/w NFC & HH sectors	20.0	19.1	16.0	13.6	13.6	13.3	12.3	11.5	11.2	10.3
o/w NFC sector	31.2	29.9	24.2	21.2	21.1	20.7	19.0	18.5	18.1	16.3
o/w HH sector	12.0	11.8	9.7	7.7	8.0	7.6	7.2	6.5	6.2	5.9
Coverage ratio(1)	54.3	59.1	65.8	62.6	61.2	61.9	62.3	60.9	62.2	59.6
Return on equity(2)	3.9	-6.8	8.9	5.9	11.0	11.1	10.9	8.8	10.0	11.3
Return on assets(2)	0.5	-0.9	1.2	0.8	1.5	1.5	1.5	1.2	1.4	1.5
Total capital ratio	20.4	19.2	20.8	21.4	20.7	20.3	20.0	21.1	20.6	20.7
CET 1 ratio	19.4	17.7	19.4	20.2	19.6	19.4	19.1	20.2	19.7	19.9
Tier 1 ratio	19.4	17.7	19.4	20.2	19.6	19.4	19.1	20.2	19.8	20.0
Loan to deposit ratio	92.0	89.2	85.3	82.1	82.4	83.1	83.7	82.1	82.7	82.2

(1) Defined as accumulated impairments / NPLs.
(2) For comparability reasons, annualised values are presented.
Source: ECB Consolidated Banking Data

There is a significant amount of excess liquidity in the banking system. All banks meet the liquidity requirements with relative ease, (liquidity coverage ratio (LCR): 165% and net stable funding ratio (NSFR): 148%). This is thanks to the substantial amount of liquid assets on their balance sheets. In mid-2019, nearly 45% of the total assets of the Croatian banking system were held in low interest-yielding liquid assets such as government bonds, currency and central bank deposits.

The closure of the credit registry (HROK) has had a negative impact on credit risk assessment. Credit information reported to the registry stopped for individual reports in May 2018 due to legal risks emanating from the entry into force of the General Data Protection Regulation (GDPR). Over the past year, several banks experienced difficulties in determining the overall level of debt of a borrower, information that is necessary for making appropriate credit decisions, including new creditworthiness assessments. The register partially resumed operations for delinquent loans in August 2019 and reporting on the remaining items (i.e. positive, non-default information) is expected to recommence by May 2020.

The Croatian Bank for Reconstruction and Development (HBOR) is implementing recommendations from the 2017 Asset Quality Review. A number of projects are being carried out with support from the Structural Reform Support Programme (SRSP) including support for development of HBOR's medium-term strategy improving credit rating and scoring models, as well as upgrading HBOR's IT infrastructure. While the authorities may setup a working group to evaluate the different approaches to supervising HBOR, they have not committed to strengthening its supervisory framework. Since January 2018, HBOR has implemented IFRS9 along with all banks in Croatia. The new reporting framework resulted in shifting a portion of HBOR's portfolio into higher risk categories, including guaranteed loans provided to Croatian shipyards. The implementation of IFRS9 rules resulted in a non-performing loan ratio of 18.5%, broadly unchanged from 2017 (if the same standards were applied). .

The main challenges for the non-bank financial sector are low interest rates and the limited depth of capital markets. The concentration of investment in debt securities, primarily sovereign bonds, puts pressure on profits of all financial institutions. This applies particularly to life insurers, which face severe difficulties in generating sufficient returns to meet their obligations. More generally, low rates expose insurers, pension funds and investment funds to the risk of asset revaluations due to changes in the base interest rate and risk premium. With no alternative high yielding investment opportunities, real estate investments are becoming increasingly attractive to financial institutions. Although the real estate market is not experiencing excessive growth, the concentration of exposures is a source of systemic risk. Low interest rates also reduce compliance costs as insurers step into the new international financial reporting standard under IFRS 17.

Joining the Euro area could alleviate some risks in the banking sector. A greater use of fixed-rate loans has shifted the interest rate risk to banks. However, hedging instruments remain costly due to the low availability of interest rate derivatives in local currency. In addition, the indirect credit risk stemming from currency mismatches, which is significant for non-financial corporations (see section 4.2.2), will largely disappear if Croatia joins the Euro area.

Legal uncertainty persists in the banking sector, arising from Swiss franc foreign-currency-indexed loans, including loans that have matured. A September 2019 judgment by the Supreme Court effectively confirms the June 2018 High Commercial Court decision that upheld the legal nullity of Swiss franc (CHF) foreign-currency clauses. The Supreme Court found that banks had breached the collective interests and consumer rights of borrowers by extending CHF-denominated or -indexed loans, without properly informing the customers of all the conditions for making an informed decision. This decision paved the way for individual borrowers, including borrowers whose loans have matured, to seek compensation from banks for overpayment and other damages.

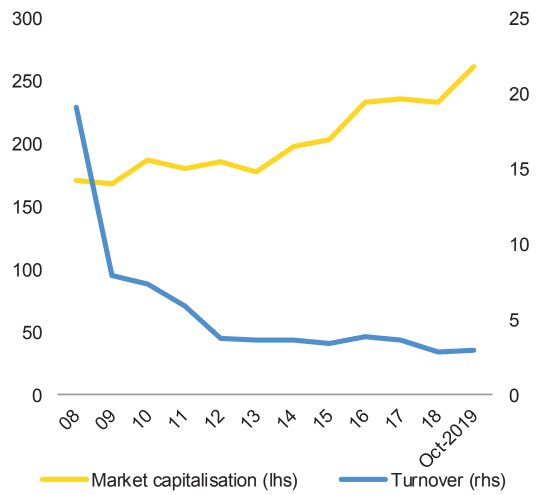
Access to finance

Several EU funding programmes have been put in place to boost funding to companies with a high growth potential. Support from European

Structural and Investment Funds (ESIF), and in particular the European Regional Development Fund (ERDF), helped fund over €1 billion of investment since 2014. Nearly half that amount was made up of favourable loans and guarantees, promoted by The Croatian Agency for SMEs, Innovation and Investment (HAMAG-BICRO). ESIF loans for growth and development targeting SMEs operating for at least two years took the lion's share of funding. The Croatian Venture Capital Initiative was established in June 2018 to kick-start risk capital investments in start-ups. It has raised €12.2 million of private-sector funding, on top of the original €35 million injection from the European Investment Fund (EIF) ([17]). In January 2019, the EIF and the Croatian Bank for Reconstruction and Development launched the Croatian growth investment programme, a €70 million co-investment programme to support fast-growing SMEs. In July 2019, a grant scheme targeting innovative SMEs ('Innovations in S3 areas') was launched with funding of €85 million.

The Croatian securities markets remain highly underdeveloped with a relatively low turnover. The corporate bond market remains very small, limited to a few large issuers. As of June 2019, only nine active corporate issuers, including two foreign-owned banks, had active bond listings on the Zagreb Stock Exchange, with an average market capitalisation of less than 1.5% of GDP. Outstanding government bonds had a domestic market capitalisation of around 30% of GDP. The average market capitalisation of the local stock exchange was HRK 261.9 billion as of October 2019 (Graph 4.2.2), or 61.2% of GDP. This represents an improvement since end-2018 figures, when several Agrokor related losses were recorded. Ever since the global financial crisis of 2008-9, turnover on the stock market has been very low at around 1% of total market capitalisation ([18]) per year.

Graph 4.2.2: **Zagreb stock market activity, HRK billion**



Turnover figures are annualised for 2019, using the 10-month data available.
Source: Zagreb Stock Exchange (ZSE)

Other sources of equity financing for companies are being developed. In January 2019, the Zagreb Stock Exchange launched the progress market, a new 'SME Growth Market' ([19]) with support from the European Bank for Reconstruction and Development. This aims to encourage start-ups and SMEs to issue securities with less restrictive listing and reporting requirements. As at end-October 2019, five companies have issued equity on the progress market, with a market capitalisation of HRK 1.0 billion. As in the prime market, turnover on the progress market is extremely low for the moment (0.7% of market capitalisation). However, recent amendments to the Mandatory Pension Funds Act could increase interest and liquidity in this market ([20]). Another recent initiative is the Adria Prime Index, which consists of five Croatian and nine Slovenian companies listed on the ZSE. Although still at an early stage, this initiative could help attract interest from international investors to the region.

([17]) As of September 2019, 24 start-ups have already secured an investment of €50,000, on top of the 9 venture capital investments of over €3.75 million over late summer 2019. Of these, 17 aim to bring start-ups to Croatia.

([18]) Croatia had one of the lowest turnover ratio of domestic shares in the EU, after Luxembourg and alongside Cyprus.

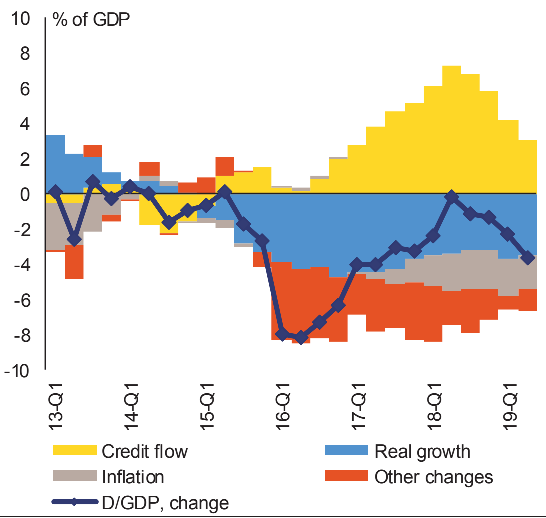
([19]) An 'SME Growth Market' is a category of multilateral trading facility (MTF) created under the Markets in Financial Instruments II 2014/65/EU (MiFID II). Among other simplification measures taken, firms aiming to list on such facilities can use a simplified admission document.

([20]) The Mandatory Pension Funds Act of 2018 recognised investment in start-ups and SME stocks that are listed on a regulated market, which can be defined by the local financial market regulator, HANFA. In October 2019, HANFA adopted guidelines that effectively explicitly recognised all multilateral trading facility (MTF), including the ZSE progress market, as regulated markets.

4.2.2. PRIVATE-SECTOR DEBT

The private-sector debt-to-GDP ratio continued to fall in 2019. Since joining the EU in 2013, private-sector debt has fallen by 23 percentage points to 93% of GDP. The main reasons for the lower debt since the beginning of 2018 were nominal GDP growth (Graph 4.2.3) and the exchange rate appreciation against the euro. The increase in new lending has slowed, driven by a slow-down in lending to the corporate sector. Credit growth to the private sector rose at an annual rate of 3.1% in the first half of 2019. High levels of kuna liquidity in the banking sector continued to grow, supporting the favourable financing environment. The exposure of private-sector debt to foreign exchange risk remains significant, despite falling due to increased kuna lending in 2019.

Graph 4.2.3: **Decomposition of y-o-y changes in private debt-to-GDP ratios**

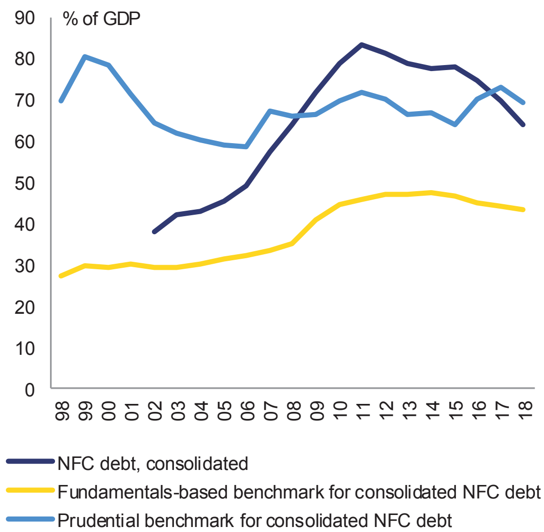


Source: Eurostat

Corporate debt

Consolidated non-financial corporate sector debt fell by 1.9 percentage points in the first three quarters of 2019 to 58.4% of GDP. This came on the back of GDP growth and the appreciation of the kuna. Total loans to the corporate sector fell by 3.0% on an annualised basis in September 2019, due to several one-off effects such as the renegotiated or restructured loans in the Agrokor settlement and loans to troubled shipyards. In 2018, the corporate debt ratio was 6 percentage points below the prudential threshold estimated for Croatia, but almost 21 percentage points above the fundamental-based benchmark (Graph 4.2.4), indicating scope for further debt reduction ([21]). New lending to non-financial corporations slowed in late 2018 and in early 2019 (Graph 4.2.5). New lending to corporations continued to be skewed towards large corporations.

Graph 4.2.4: **Corporate debt and its fundamentals-based and prudential benchmarks**



Source: European Commission

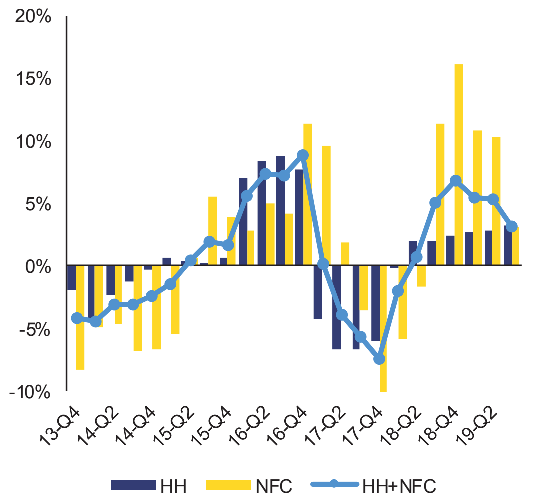
The favourable macroeconomic environment helped reduce vulnerabilities in the corporate sector. Given the favourable environment for debt refinancing, corporates optimised their funding by reducing interest rate risk. The share of loans with a fixed interest rate increased by 3 percentage points in 2018. Interest rates on new bank loans to the corporate sector decreased in 2019, especially the interest rates on working capital loans indexed to a foreign currency.

The exposure of the corporate sector to currency risk is increasing for new business loans. The share of foreign currency loans and

([21]) Fundamentals-based benchmarks are derived from regressions capturing the main determinants of credit growth and taking into account a given initial stock of debt. Prudential thresholds represent the debt threshold beyond which the probability of a banking crisis is relatively high, minimising the probability of missed crisis and that of false alerts. The methodologies are described in European Commission (2017) and updates to the methodology have been proposed in European Commission (2018).

loans indexed to a foreign currency in total new loans decreased to 42% in 2019, from 48% the year before. This contrasts with foreign-currency (denominated and indexed) corporate deposits, represented only 12% of foreign-currency loans in September 2019.

Graph 4.2.5: **New lending (% year-on-year growth in annual volumes)**



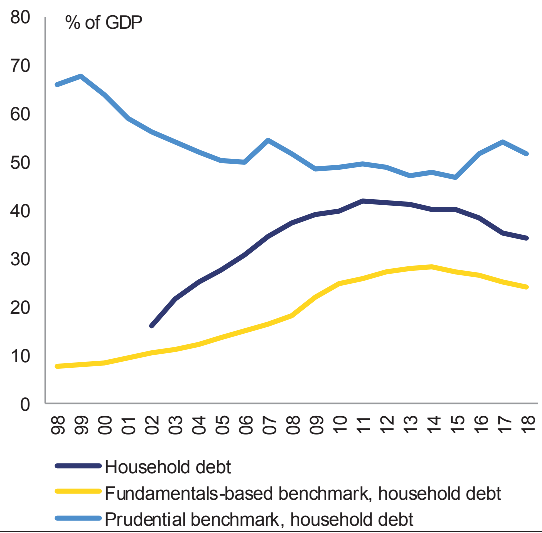
HH: Households; NFC: non-financial corporations.
New business loans cover all contracts that specify for the first time the interest rate of the loan, including renegotiations of the terms and conditions of existing loan contracts. The data covers all loans other than revolving loans, overdrafts, and credit card claims.
Source: Croatian National Bank (CNB)

Household debt

The stock of household debt increased slightly to 34.3% of GDP in the third quarter of 2019 from 34.2% at the end of 2018. The growth in mortgages reached an annualised rate of 4.8% in August 2019. In 2018, the household debt ratio remained almost 18 percentage points below the prudential threshold for Croatia (52%), but 10 percentage points above the fundamentals-based benchmark (24%) (Graph 4.2.6).

Loans to households increased by 7% annually in September 2019, driven mainly by the increase in general-purpose cash loans. A higher take-up of these loans, which are innately riskier, seems to be largely due to the tighter lending requirements for housing loans, partly due to local implementation of European Banking Authority (EBA) guidelines on creditworthiness assessments ([22]). In February 2019, the CNB recommended that banks level out the conditions for assessing the creditworthiness of housing and non-housing loans with longer maturities.

Graph 4.2.6: **Household debt and its fundamental-based and prudential benchmarks**



Source: European Commission

The interest rate exposure of households remains high, but continues to fall as fixed-rate loans become increasingly common. The share of loans granted with fixed rates is increasing. At the end of 2018, 38.3% of total outstanding loans were with fixed interest rates, up from 33.7% a year earlier. This is in line with recommendations published by the CNB in October 2017 to mitigate consumer exposure to interest rate risk by offering the option to switch to fixed-rate loans.

([22]) EBA/GL/2015/11.

Box 4.2.3: **Affordable and sustainable housing**

Affordable and quality housing in a safe environment is a fundamental human need and forms part of the UN Sustainable Development Goals. Providing for this need that helps alleviate poverty and social exclusion is still a significant challenge in a number of European countries. Despite suffering from net outmigration, Croatia is experiencing a surge in real house prices in some areas (see Section 4.2.2), with rental prices rising steeply above inflation and GDP growth. These trends make housing less affordable and merit monitoring.

Only 5.8% of Croatians live in households that spend 40% or more of their disposable income on housing (European Commission 2019c). This compares favourably to the EU average (10.4%). This could be related to the relatively high proportion of the population living in households with no outstanding mortgage (83.6% compared to 42.8% in the EU).

Housing affordability differs considerably in Croatia according to type of household. Despite only 1.5% of Croatians being tenants with market-price rents, almost half of this population's housing costs exceed 40% of their disposable income. This is considerably higher than the EU average (26.3%) and significantly higher than in Croatia's neighbouring countries. A very high cost of housing relative to income may lead to housing deprivation, such as living in dwellings that are not adapted to the size of their household or that have serious structural flaws.

Croatia has a number of government housing schemes and incentives. 8.0% of Croatians are tenants renting at reduced or no rent. In addition, a government scheme introduced in 2017 subsidises people aged up to 45 years buying a house. However, this subsidy is neither means-tested nor targeted at those areas where affordability is lowest. Ensuring the availability of affordable housing will remain a challenge particularly in some areas.

The currency structure of debt has changed as the share of kuna-denominated debt in total household loans continued to rise. In September 2019, 45% of households' outstanding loans ([23]) were denominated in or indexed to a foreign currency, down from a peak of 80% in March 2012. Households hold significant foreign-currency deposits, representing nearly 80% of total outstanding deposits, which, if matched, could significantly mitigate risk.

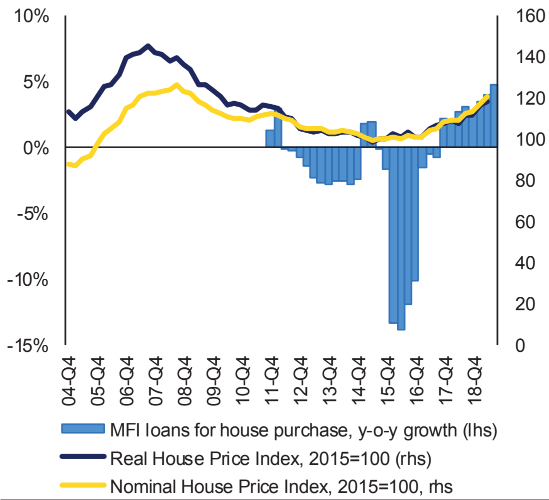
Housing market

In 2019 house prices in Croatia experienced double digit growth for the first time since the financial crisis. A favourable macroeconomic environment, with increasing employment and low interest rates fuelled the surge in property prices. House prices started to pick up in step with the rise in mortgages after having fallen for much of the past decade (Graph 4.2.7). House prices rose at an annual average rate of 10.4% in the second quarter of 2019. However, this masks significant regional disparities. House prices in Zagreb surged by 14.5%, well above the rise on the Adriatic coast (9.1%) and in the rest of the country, where prices rose by 3.3%. Housing rents are also increasing. In the year to October 2019, rents increased 5.3%. This is considerable, coming on top of the 2.6% increase in 2018. Rising house prices coupled with steep increases in rents could create affordability issues that merit close monitoring (Box 4.2.1).

Despite the surge in property prices, prices are still below peak levels recorded before the financial crisis. Nevertheless, there is currently no sign of overvaluation, given the well-established benchmarks such as price-to-rent ratios, which show that house prices are still below their long-term average in Croatia.

([23]) These figures exclude revolving loans, overdrafts, credit card credit, and general-purpose cash loans.

Graph 4.2.7: **House price (2015=100) and mortgage growth**



Source: European Commission, ECB

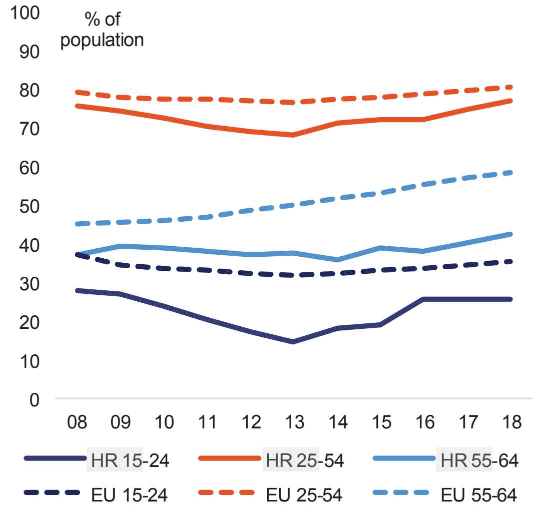
Measures to improve the collection of real estate data continue. In August 2019, the European Systemic Risk Board (ESRB) strengthened the data requirements for the assessment and monitoring of risks to financial stability associated with real estate markets. In response, the Croatian National Bank (CNB) is setting up a new system to collect granular data on consumer lending conditions, which will enable the monitoring of risks associated with the residential real estate market.

4.3. LABOUR MARKET, EDUCATION AND SOCIAL POLICIES*

4.3.1. LABOUR MARKET DEVELOPMENTS

Unemployment continued to fall, but labour participation remains very low. At 8.4% in 2018, Croatia's unemployment rate is at its lowest recorded level and projected to continue falling. The employment rate (20-64) reached 65.2% in 2018, 1.6 percentage points up from the previous year. However, this Social Scoreboard indicator remains among the lowest in the EU. The activity rate (15-64) dropped to 66.3% in 2018, pushing Croatia further down the EU country ranking for this metric. The improvements in the labour market benefited different categories of workers and jobseekers, including the long-term unemployed. However, across all age categories, employment rates are below the EU average, with the biggest gap recorded for older workers (55-64) (Graph 4.3.1).

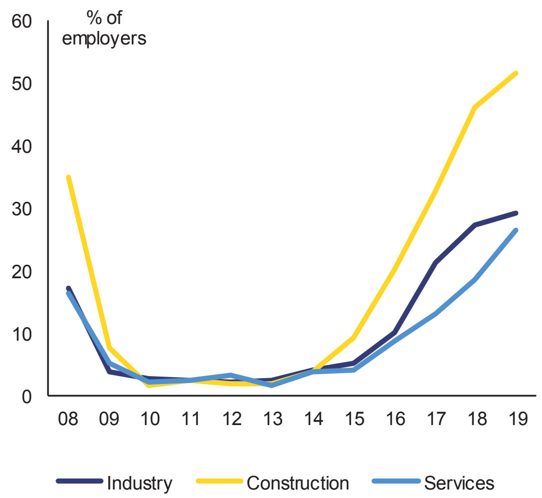
Graph 4.3.1: **Employment rate by age group in Croatia and the EU**



Source: Eurostat

Labour shortages have become more pronounced across sectors. The share of employers reporting labour shortages as measured by the European Business Survey (EBS) has increased substantially. In 2018, 23.5% of employers in the industry, construction and services sectors ([24]) reported labour shortages, up from 16.9% in 2017 (Graph 4.3.2). The shortages are most pronounced in the construction sector, where half of the employers (51.3%) reported labour shortages as a factor limiting building activity, while the highest increase between 2018 and 2019 (7.1 percentage points) was recorded in the services sector. In response, targeted scholarships have been made available in vocational secondary schools to support training in 62 occupations in high demand. In addition, the authorities decided to facilitate access to the labour market for foreign workers by significantly increasing the number of work permits in construction, tourism and hospitality for 2018 and 2019, and simplifying the procedure to recognise foreign professionals' qualifications.

Graph 4.3.2: **Labour shortages in Croatia as reported by employers, 2008-2019(Q3)**



(1) Seasonally adjusted figures.
Source: Business and Consumer Survey, European Commission.

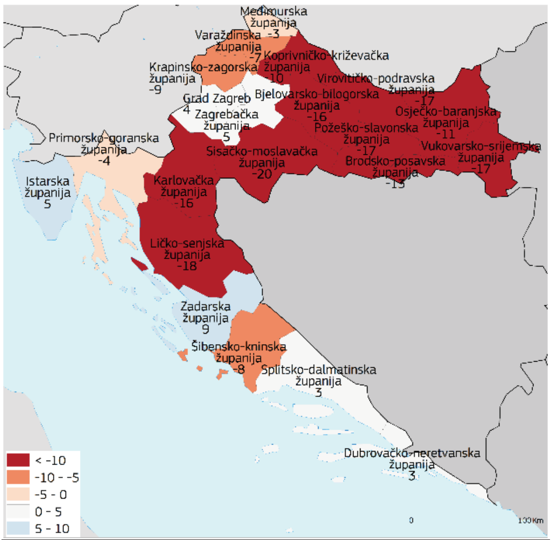
Croatia's population is shrinking due to the natural decrease and to emigration flows. In 2018, the country's population was 4.1 million, projected to fall to 3.4 million by 2050. The natural increase rate ([25]) has been negative since 2009, as births have fallen by 17% in ten years. The projected increase of the median age of the resident population (from 43.7 in 2018 to 51.3 in 2050) is set to amplify the existing challenges in the labour market and the social protection system. Population decline was also driven by negative net migration flows in 2018, even though the flows seem to have ebbed since 2017. To address the

([24]) Average of the three sectors, weighted by their share in the overall rate of employment.

([25]) The difference between the number of live births and the number of deaths per 1000 inhabitants during the year. In 2018, it stood at -3.9, down by 101% since 2009.

demographic challenge, the authorities have implemented measures aimed at improving the material conditions of young families and their children, including increased maternity benefits and birth grants, as well as subsidies for housing.

Graph 4.3.3: **Population change (%) by county, 2001-2017**



Source: Croatian Bureau of Statistics

The less-developed regions in Croatia are experiencing depopulation. Between 2000 and 2017, Croatia lost 5.4% of its overall population, but the picture is very mixed across counties (Graph 4.3.3). Only five counties with large urban centres recorded population growth, whereas nine out of the fourteen counties in continental Croatia saw their population fall by between 10 and 20%. The population of Lika-Senj county dropped by almost one-fifth (18%) to reach 8.5 inhabitants per square km (almost as low as the sparsely populated northern areas of Finland). In eastern Croatia, the five counties in Slavonia and Baranja are experiencing chronic depopulation due to migration, especially of young people, as well as low birth rates. This, combined with high rates of unemployment and inactivity, contributes to the economic stagnation and low growth potential of this part of the country. In 2017, only 51% of the working-age population in Slavonia and Baranja was employed, compared to 61% in the rest of Croatia (World Bank, 2019a).

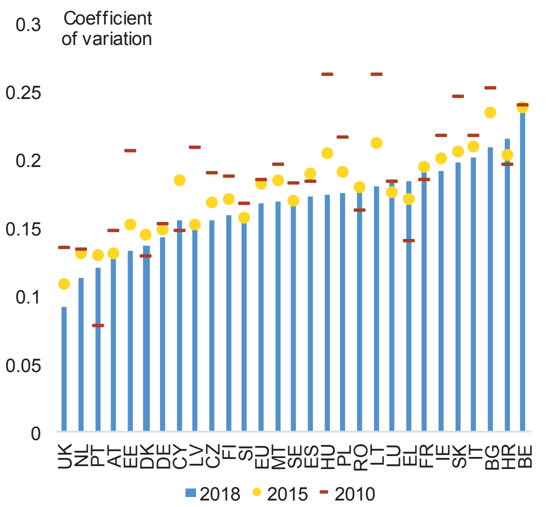
Employment rates differ widely across educational attainment groups. In 2018, the aggregate skills mismatch rate ([26]), measured on the basis of the three educational attainment levels (low, medium and high), was high in Croatia, and higher than in 2015 (Graph 4.3.4). In particular, the employment rates of low-skilled workers (37.2% in 2018 vs EU 56.1%) and medium-skilled workers (65.1% vs EU 73.4%) considerably lag behind the rate of high-skilled workers (81.5% vs EU 84.5%). This is compounded by the fact that the composition of the Croatian labour force is skewed towards the medium skilled (62% vs EU 48%), with a lower share of low-skilled (8% vs EU 16%). The low activity rate of the latter group is due to the fact that the older cohort are over-represented in it (the activity rate of low-skilled workers aged 55-64 is 24.7% vs EU 48.2%). As a result, Croatia's employment rate gap to the EU average is driven by the medium-educated. This indicates the need to tackle all the drivers behind low employment, including the lack of the skills needed on the labour market (across all educational attainment levels), and other factors such as job attractiveness and obstacles to geographic mobility.

Future jobs will increase the demand for higher skills and qualifications. Due to technological change, the demand for skills is shifting to higher skills and qualifications. According to CEDEFOP's (2018) forecast of skills needs up to 2030, 36% of all job openings in Croatia will require high-level qualifications (EU average 43%) over the forecast period. In particular, increases are expected for professionals in teaching, legal, social and cultural areas, business, administration and health. By contrast, the study projects that only 4% of all job openings will require low-level qualifications (EU average 11%), as agricultural and fishery jobs will fall substantially with only a small number of new jobs likely to be created to replace current workers. As regards medium-

([26]) The macroeconomic skills mismatch shows the relative dispersion of employment rates across population groups with different educational attainment: low (ISCED 0-2), medium (ISCED 3-5) and high (ISCED 6 and above). It compares the composition of employment (as a proxy for labour demand) with that of the population of working age (as a proxy for supply) in terms of educational qualifications. Macroeconomic skills mismatches are high if the employment rates of low- and/or medium-skilled workers are low compared to those of high-skilled workers, while the former also make out a substantial share of the working age population.

skilled workers, there is projected to remain a surplus on the supply side.

Graph 4.3.4: **Relative dispersion of employment rates of different educational attainment groups in the EU**



(1) Annual indicator based on the average of four quarters.
(2) The relative dispersion of employment rates is equal to the ratio of the absolute dispersion and the overall employment rate. The absolute dispersion of employment rates is measured as the sum of the differences of employment rates for each skill group from the overall employment rate, weighted by the size of each group.
Source: Eurostat, own calculations.

Implementation of active labour market policy measures has improved, but some concerns remain. In 2018, employment and self-employment subsidies covered the largest share of beneficiaries of active labour market policy measures. Results have been good in terms of increasing employability, including for the long-term unemployed. The youth programme "occupational training for work without commencing employment", is exceeding the initial coverage targets set by the authorities ([27]), though too few jobseekers are starting education or reskilling programmes (Ministry of Labour, 2019). As regards passive support, in 2019 unemployment benefits covered only 23% of unemployed people. This could be due to demanding eligibility conditions, including strict availability-to-work conditions and job-search requirements, and the relatively low level of the benefit (European Commission, 2019d).

The outreach to the unemployed and inactive youth is still underdeveloped. The rate of young people not in employment, education or training (NEET) and the youth unemployment rate are fast -decreasing (down to 13.6% and 23.7% in 2018, respectively), but remain well above the EU average. Even though the rate of registration of jobseekers at the Public Employment Service is one of the highest in the EU, measures provided under the Youth Guarantee scheme in 2018 reached only 39% of young people (15-24) with the NEET status. The low and progressive decline in coverage is in part linked to the increasing population of non-registered NEETs (from 4.8% in 2017 to 6% in 2018). Around two thirds of those who received support in 2018 were in employment, education or training six months after the end of the measure ([28]), above the EU average of 50.4%.

Temporary involuntary work is still prominent in Croatia. The share of temporary workers amongst employees (15-64) is one of the highest in the EU (19.9% vs EU average 14.2% in 2018), of which 86.6% are involuntary temporary workers (EU average 52.8%). Part-time work is not a common practice in Croatia, totalling only 4.9%.

The incidence of undeclared work is estimated to remain high. Undeclared work may take the form of partly undeclared pay (envelope wages) and fully undeclared employment. There are various factors contributing to this phenomenon, including the low quality of job offers, also reflected in the high number of discouraged job seekers, and the overall perception of inefficient public institutions and regulatory systems ([29]). Measures implemented so far have not yet resulted in effective preventive and penalty mechanisms. The establishment in April 2019 of a centralised State Inspectorate, which took over the inspection role previously carried out by sectoral inspectorates, and the announced preparation of a

([27]) In 2018, 16% of all ALMP young beneficiaries were included is this measure, whereas 5.5% received traineeship offers.

([28]) With the caveat of the high proportion of unknown destinations in the data in follow-up six months after the exit (22.8%).

([29]) Based on the analysis of following indicators: regulatory environment for businesses, the Rule of Law indicator, Corruption Perception Index and Government Effectiveness Indicator.

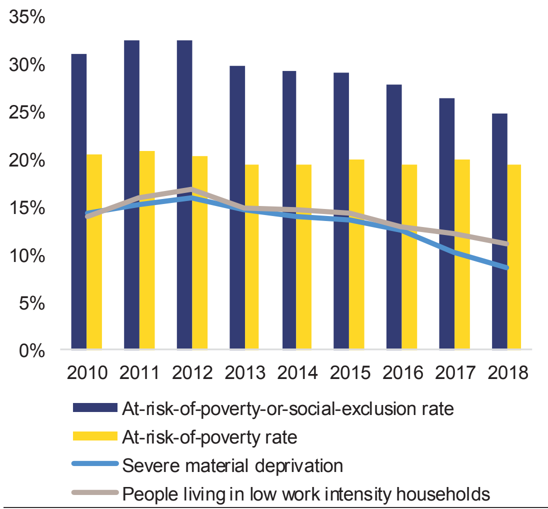
national programme to combat undeclared work may lead to improvements on this front.

4.3.2. SOCIAL PROTECTION SYSTEM

Poverty levels in Croatia are falling but remain above the EU average. In 2018, the at-risk-of poverty or social exclusion rate decreased, following improvements in all its sub-indicators, but remained above the EU average (at 24.8% vs EU 21.9%) (Graph 4.3.5). The improvements contribute towards the achievement of the UN Sustainable Goal 1 (No Poverty). A decrease of 1.6 percentage points from the previous year was mainly related to improved conditions on the labour market, rather than to changes in the social protection system. In 2013, social benefits reduced the at-risk-of-poverty rate by around one third and the poverty gap by more than one half; the impact of the benefits on reducing poverty fell during the recovery. Despite these improvements, in 2018, the poverty gap remained high and increased (from 26% in 2017 to 28.4% in 2018) ([30]), as did the persistent at-risk-of-poverty rate ([31]) (from 14.7% in 2016 to 17% in 2017), indicating that lower-income households are not benefiting from the improved economic conditions. The coverage of minimum income benefits is very low and their level is below the EU average (European Commission, 2019). The targeting accuracy of family benefits ([32]) (representing 8.6% of social protection expenditure in 2017) is also relatively low, mainly due to the lack of means testing (e.g. for maternity benefits and lump sum birth grants). Overall, the purchasing power of Croatian households is among the lowest in the EU (63% in 2018), up by only 3 percentage points since 2008, indicating high costs of living.

Due to low participation in the labour market, women face a high risk of poverty. The employment rate of both men and women in Croatia are among the lowest in the EU (70.3% and 60.1%, respectively, vs EU average 79% and 67.4%). The factors keeping women out of the labour market include caring responsibilities and domestic work. This is reflected in the low participation rate of children in early childhood education and care (see Section 4.3.3) and the low take-up of paternity and parental leave by fathers ([33]) (Ombudsperson for gender equality, 2019). Data from 2015 show that one third of Croatian women provided care for older people or disabled relatives several days a week, one of the highest proportions in the EU. Bringing more women into the labour market will require developing efficient services providing care to children and older people. Furthermore, due to short working lives, the risk of poverty for women aged 65+ is much higher than the EU average, which negatively affects Croatia's achievement of the UN Sustainable Development Goal 5 (Gender Equality). In view of the large gap in life expectancy between women and men, the lower standard retirement age for women relative to men does not help address the challenge of pension adequacy for women.

Graph 4.3.5: **At-risk-of-poverty or social exclusion rate and its components (AROP, SMD, LWI)**



(1) Detailed definitions of the indicator and its components are available in Annex C.
Source: Eurostat

Croatia reversed key elements of the reformed pension system aimed at lengthening working lives. In December 2018, parliament adopted a

([30]) The poverty gap measures 'how poor' the poor actually are. It is calculated as the difference between the median equalised disposable income of people below the at-risk-of-poverty threshold and the at-risk-of-poverty threshold.
([31]) Share of people who are currently poor and were in poverty for two out of the three previous years.
([32]) Encompasses maternity, parental and child benefits.
([33]) In 2018, 0.28% of men took paternity leave and 7.55% took parental leave. Statutory paternity leave still does not exist.

major pension reform package ([34]), which came into force in 2019. The pension reform was met by strong resistance from the trade unions, who collected enough signatures to call for a referendum on the stipulated elements aimed at lengthening working lives. In October 2019, the government accepted to withdraw those contested elements. Parliament adopted amendments to the pension law via urgent procedure, including bringing the retirement age back to 65, decreasing penalisation for early retirement and stopping the acceleration of the equalisation of retirement age for men and women that was brought in under the 2018 reform. These changes, which entered into force as of January 2020, reversed features of the most recent reform and the 2014 reform, which had first increased the retirement age to 67. The changes refer to the retirement age, penalisation and acceleration of the equalisation. Other measures implemented in the recent pension reform are still in force (for the budgetary impact, see section 4.1).

Early retirement remains a key cause of the low participation of older workers in the labour market. Although the employment rate of older workers (55-64) increased by 2.5 percentage points to 42.8% in 2018 from the year before, it remains the second lowest in the EU (which averages 58.7%) (Graph 4.3.1). Early old-age pensioners represent more than a quarter (28% in 2016) of all old-age pensioners in Croatia ([35]). Including disability pensioners, 39% of all pensioners in Croatia in 2016 were early retirees ([36]). Their share has increased during the economic crisis. The self-reported reasons for early retirement include inadequate skills, poor health, available financial incentives for retirement and low quality of working life (Bađun and Smolić, 2018). Due to their short working lives, people aged 65+ experience much higher risks of poverty or social exclusion (32% vs EU average 18.6%).

People with disabilities face particular challenges on the labour market. In 2017, the employment rate of people with disabilities was 33.8%. Although the employment gap compared with the overall population narrowed, it remained one of the largest in the EU (32.2% vs EU average 24.2%). Employability is hampered by the lack of skills, highlighted by the completion rate of tertiary education for people with disabilities remaining one of the lowest in the EU (21.9% in 2017). As a consequence, many are at risk of poverty or social exclusion (37.1% vs 28.7% in the EU in 2018) and dependent on the social protection system. Government spending on disability benefits is higher in Croatia than in other EU countries, but skewed towards disability pensions.

Croatia has brought in policies that aim to improve the employment prospects of people with disabilities. A quota system requires all private and public-sector entities with more than 20 employees to hire a specified number of people with a disability. However, 54% of entities, including government departments, have opted out of the quota system and instead pay a compensatory fee (Ministry of Demographics, Family, Youth and Social Policy, 2016). As regards active support, the percentage of beneficiaries with disabilities reached by active labour market programmes has fallen since 2014. This also reflects a reduction in the number of registered unemployed people with disabilities (down by nine percentage points between 2015 and 2017), though their share increased by 0.5% due to an overall decrease in the total number of unemployed people. There is a large pool of inactive people with disabilities, pointing to obstacles in the labour market and ineffective legal provisions.

Family- and community-based care for children and people with disabilities remains underdeveloped. In 2017, 72% of children and young adults without parents or adequate parental care lived outside institutional care, which is an improvement since 2010. Expected improvements following the adoption of the Law on Foster Care

([34]) The main objectives of the reform were threefold: i) to address design inconsistencies, which had resulted in unfair treatment of certain groups of pensioners; ii) to accelerate the planned increase in the statutory retirement age to 67 and increase penalties for early-retirement; and iii) to strengthen the institutional setup and performance of the second pension pillar.

([35]) Duration of working life indicator (32.5) iswell below the EU average. AWG assumption on the effective labour market exit age (61.5 in 2017) is also well below the EU average.

([36]) The proportion of retired people receiving a disability pension is much higher in Croatia than the EU average (HR 25% vs EU 14%).

in January 2019 are yet to materialise ([37]). The shift away from a model based on institutional care requires the development of new and different services offered to the community ([38]). However, out of thirteen homes for children aged 6-18, so far only four have completed the transition to the new model of community-based care. Over 60% of people in other vulnerable groups, including children and young adults with behavioural problems and adults with mental disabilities, still lived in institutions in 2017.

Formal long-term care is underdeveloped and ineffective. Croatia lacks a strategy for the provision of long-term care and the system is fragmented across different health and social welfare institutions. Long-term care spending made up only 3.1% of health care expenditure, much lower than the EU average of 16.3%. Only 13% of dependent people ([39]) receive institutional care and 14% receive formal home care (EU average 23% and 31% respectively). By contrast, 72% of people dependent on care receive cash benefits. Public social protection covers a mere 10% of homecare costs for moderate needs and 20% for severe needs, regardless of the income of the recipient, less than in countries with similar public expenditure on long-term care . As a result, out-of-pocket costs are particularly high – almost 100% of the disposable income of median income earners to cover moderate needs and as much as 150% to cover severe needs (OECD, 2019a). Simulation from the same study shows that the social protection system is much less effective in reducing the poverty risk caused by long-term care costs([40]) than many other EU Member States. Additional challenges relate to the lack of long-term care workers (one per 50 people aged 65+ in need of care, one of the lowest ratios in the EU) and their below-average working conditions.

Employment and social services are still not sufficiently integrated. Cooperation between the various institutional bodies (e.g. employment, social, physical and mental health and housing support services) remains limited, despite some steps taken ([41]), in part due to data protection issues. The Public Employment Service encourages employers to hire long-term unemployed by providing employment and training subsidies. While employment subsidies are used, participation rate in training measures are low. Negative perceptions towards long-term unemployed persists among employers, as well as lack of post-placement support services (European Commission, 2019e). The lack of integrated support is particularly evident in some regions and local government units, reflecting limited administrative and financial capacity, especially in the rural areas.

Overall, progress with policy measures addressing the social benefits system remains limited. A fragmented social protection system – dependent on the fiscal capacity of local government units – remains unable to address the marked regional disparities in terms of risk of poverty. The authorities are establishing regular reporting mechanisms from local to central government level on all benefits paid out, following the European System of Integrated Social Protection Statistics (ESSPROS) classification. However, the data collected has not yet been analysed. The new Social Welfare Act aimed at improving the provision of social benefits and services has not yet been adopted.

4.3.3. EDUCATION, TRAINING AND SKILLS

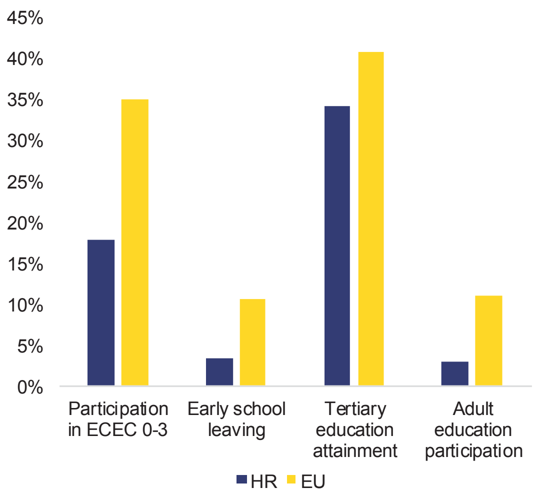
Participation in early childhood education and care (ECEC) has increased considerably but remains one of the lowest in the EU. In 2017, 82.8% of children aged 4 years until compulsory school age participated in ECEC, well below the EU average of 95.4%. However, this share has

([37]) On the contrary, the number of foster parents in August 2019 (1400) has fallen since January 2018 (1496). The number of children returned from foster families back to the institutions increased.
([38]) According to the Social Welfare Act, for children and young people, these would be day care, counselling and support to individuals and families, counselling and support to adoptive families, early intervention for children with disabilities, supported living, adoption etc.
([39]) People unable to perform daily personal care tasks. Often referred to as 'ADL-dependency' i.e. difficulties in performing at least one Activity of Daily Living (ADL).
([40]) The proportion of older people at risk of poverty after paying the out-of-pocket costs of home care would be at 50% for low needs, 80% for moderate needs and 90% for severe needs.
([41]) For example, development of a case management approach or stronger information sharing mechanisms between the PES and social services to provide support to long-term unemployed people.

risen sharply, by 7.7 percentage points since 2016 (European Commission, 2019f). For children under the age of three, the participation rate was particularly low at 17.8% in 2018 (EU average 35.1%, Barcelona target 33%). The ECEC participation rate for children at risk of poverty or social exclusion (from 3 years onwards) is four times lower than for children not at risk ([42]). Factors influencing the low ECEC participation rates include insufficient number of places, teacher shortages (Dobrotić et al., 2018) and the low activity rate of women (see Section 4.3.2). Financing of ECEC infrastructure is decentralised, which leads to significant regional disparities in terms of availability, quality and affordability of care, with the lowest coverage in the poorest counties. Children of employed parents take priority over those of unemployed and inactive ones in access to ECEC. The authorities are drawing on EU structural funds ([43]) to substantially expand and modernise the network, and taking measures to address the shortage of pre-school teachers. Lastly, the working hours of kindergartens have been extended and many local governments are reducing attendance fees.

The quality of education remains a challenge. The rate of early leavers from education and training is one of the lowest in the EU, at 3.3% in year. At the same time, the OECD's Programme for International Skills Assessment (PISA) 2018 results show that pupils perform below the EU average in reading, science and in particular mathematics (OECD, 2019b). The rates of underperformance in science (25.4% compared to the EU average of 21.6%) and maths (31.2%, EU average 22.4%), are among the highest in the EU, and the proportion of top performers in all three subjects is among the lowest (around 5%). The low annual teaching time in primary and lower secondary education (275 and 240 hours less than the EU average, respectively) affects the quality of education (European Commission, 2019f). Many schools operate in two shifts, with pupils attending school one week in the morning and one week in the afternoon, due to school infrastructure gaps ([44]). Moreover, Croatia has among the shortest compulsory schooling cycles in the EU (8 years).

Graph 4.3.6: **Selected education indicators for Croatia and the EU (2018)**



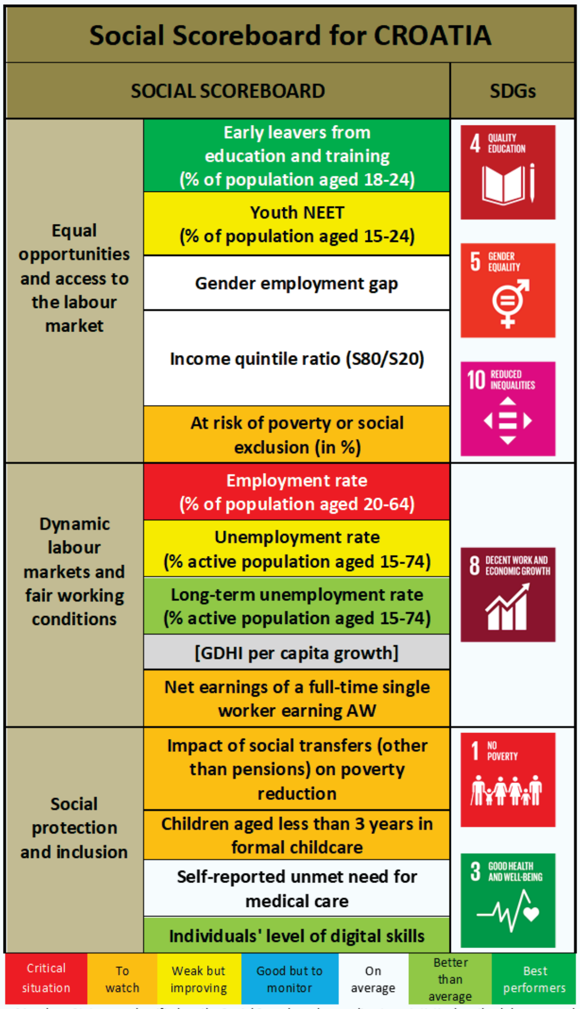
Source: Eurostat

The general education curricular reform has been rolled out in all schools. Reformed curricula aimed at introducing a learning outcomes approach and improving the quality of education and teaching are being gradually rolled out to all primary and secondary schools, with a view to completing implementation of the reform by 2022. Progress with the reform would further support achieving SDG 4 (Quality of Education). To this purpose, teacher training and mentoring is ongoing and new methods have been introduced to assess teaching and pupils' learning outcomes. Nevertheless, there are concerns about the quality of teaching of the new curricula ([45]) and the scope of the reform ([46]).

([42]) Based on JRC calculations on 2016 EU-SILC
([43]) 110 million EUR out of 120 million total investment in ECEC.
([44]) The World Bank is working with authorities on this challenge.
([45]) An assessment by the National Centre for External Evaluation of Education of pupils that participated in the pilot implementation of the curricular reform gave disappointing results
([46]) Report of the Ombudsman's office (Ombudsperson for gender equality, 2019)

Box 4.3.4: **Monitoring performance in light of the European Pillar of Social Rights**

The European Pillar of Social Rights is a compass for a renewed process of upward convergence towards better working and living conditions in the European Union. It sets out twenty essential principles and rights in the areas of equal opportunities and access to the labour market; fair working conditions; and social protection and inclusion.



Members States are classified on the Social Scoreboard according to a statistical methodology agreed with the EMCO and SPC Committees. It looks jointly at levels and changes of the indicators in comparison with the respective EU averages and classifies Member States in seven categories. For methodological details, please consult the proposal for a Joint Employment Report 2020, COM(2019) 653 final; NEET: neither in employment nor in education and training; GDHI: gross disposable household income. Update of January 2020.

The Social Scoreboard, which supports the European Pillar of Social Rights, identifies a number of employment and social challenges in Croatia. Despite overall improvements in the labour market, including the reduction of the rate of long-term unemployment and of young people not in employment, education or training, some challenges remain related to labour markets, as well as social protection and inclusion. The employment rate is still critically low, in particular among young people, older workers, the low skilled and people with disabilities. There are concerns regarding the effectiveness of active labour market policies and the remaining pathways to early retirement. The share of early school leavers in Croatia is well below the EU average. Nonetheless, access to and the quality of education, both for young people and adults, remain a challenge.

The impact of social transfers on poverty reduction remains limited. The share of people at risk of poverty or social exclusion in Croatia has approached the EU average, while the share of people persistently exposed to poverty is increasing. Following the overall improvements in the labour market, the poverty reduction capacity of social benefits has deteriorated.

Croatia has started the incremental implementation of the curricular reform in all schools. The aim of the reformed curricula is to increase the overall quality of education. The new teaching approaches are being gradually adopted in all primary and secondary schools, with a view to implementing the reform for all grades by 2022. The reform also aims to improve digital education, through training of both teachers and pupils in digital skills. The reform also envisages the provision of training and mentoring for teachers.

There are shortages of certain categories of teachers. In 2017, education spending, both as a share of GDP (4.7%) and as a proportion of general government expenditure (10.5%), was slightly above the EU average. According to the OECD's TALIS Survey, only 9.2% of Croatian teachers believe that teaching is a valued profession in society (compared to an EU average of 17.7%), one of the lowest percentages in all OECD countries (OECD, 2019c). In remote areas, there are shortages of teachers of science, technology, engineering and mathematics (STEM), and of information and communications technology (ICT). In 2019, the authorities increased the salary levels of teachers and a new scholarship scheme was introduced for people studying to become teachers in subjects where shortages were identified (mathematics, physics, informatics and English language).

Meeting the demand for digital skills on the labour market remains difficult. In 2019, 53% of people aged between 16 and 74 years had basic digital skills, and 35% had advanced digital skills (against an EU average of 58% and 33% respectively). The reformed general curriculum includes compulsory education and training for both teachers and pupils in digital skills. It focuses on equipping schools with specialised computer labs, providing personal tablets to pupils and rolling out digital textbooks and interactive applications in learning and teaching. The aim of these measures is to address the difficulties with meeting the demand for digital skills on the labour market. The shortage is especially visible in the ICT sector, where 62% of Croatian enterprises in the IT sector reported difficulties in filling the vacancies in 2019, well above the EU average of 51% (European Commission, 2020a).

Croatia is reforming vocational education and training. The share of students enrolled in formal VET programmes in 2019 was at 68.5%. However, vocational education is considered a less attractive option (Buković and Matković, 2018). To address this, the Croatian Agency for VET and Adult Education is promoting VET through skills competitions and job fairs for students. In 2018, the employability of VET graduates improved significantly (to 68.8% from 59.4% in 2017), but remains below the EU average (79.5%). Over half of registered unemployed people in 2018 were VET graduates. VET programmes in Croatia do not offer sufficient workplace training. Only about 23% of Croatian VET participants reported spending half or more of their secondary education in the workplace for training purposes, significantly behind the EU average of 32%. The experimental programme 'Dual Education in VET', launched in 2018 to provide more opportunities for work-based learning, has been expanded to 20 VET schools for the 2019/2020 school year. The quality of VET education in Croatia is also affected by the slow pace of adoption of occupation and qualification standards as part of Croatian Qualification Framework (CROQF), the reduced availability and quality of equipment for VET programmes and inadequate teacher training (particularly of vocational subjects).

The tertiary attainment rate has risen sharply over the past year, but participation in adult education remains very low. In 2018, 34.1% of the population aged 30-34 had a tertiary education, up 5.4 percentage points since 2017. Croatia could therefore still reach its national EU2020 target of 35%, though it remains below the EU average of 40.7%. The proportion of STEM graduates is one of the highest in the EU, at 27% of tertiary graduates in 2017. At the same time, Croatia has a very low participation rate in adult education: 2.9% vs EU the average of 11.1%. The adult education policy framework remains outdated and a new version of the Adult Education Act is still to be adopted.

Targeted scholarships aim at increasing equity. According to the latest PISA survey, disparities related to socioeconomic status and migrant background are relatively small, and academic resilience ([47]) is the second best in the EU. In higher education, dedicated scholarships support students coming from lower socioeconomic background. The 2018-2021 National Plan for Enhancing the Social Dimension of Higher Education, adopted in January 2019, aims to further increase equity. Croatia is also using EU funds to double the number of scholarships for students from a lower socio-economic background and students with disabilities, including transport subsidies (European Commission, 2019f).

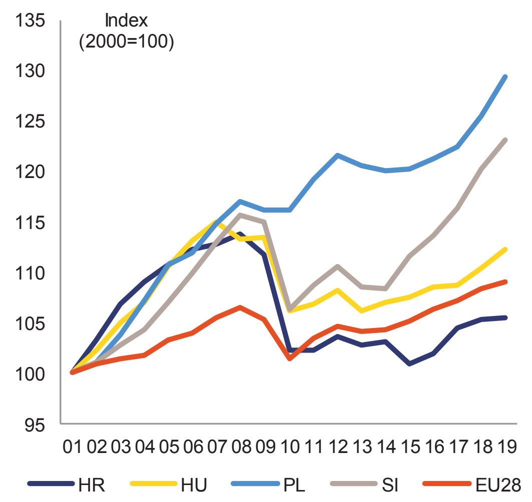
([47]) Academic resilience is measured as the percentage of disadvantaged students who scored in the top quarter of the reading performance in PISA tests in 2018.

4.4. COMPETITIVENESS REFORMS AND INVESTMENT*

4.4.1. PRODUCTIVITY

Total factor productivity growth in Croatia lags behind that of its peers and remains below pre-crisis levels. Low allocative efficiency, a cumbersome business environment and an inefficient public sector continue to weigh on total factor productivity and its convergence towards the EU average. Over the past decade, subdued growth in total factor productivity has left Croatia underperforming its peers in Central and Eastern Europe, thus stalling Croatia's catch-up with the EU average (Graph 4.4.1).

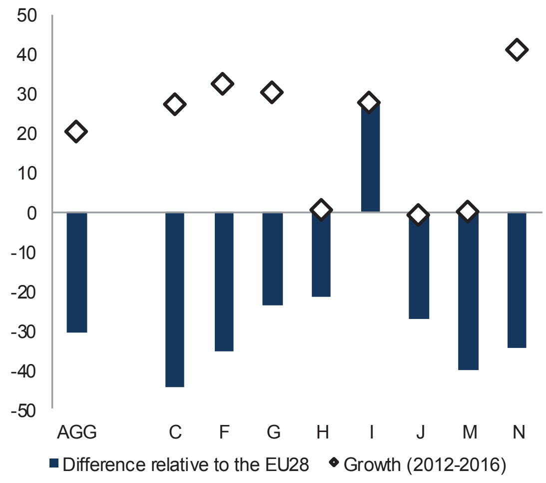
Graph 4.4.1: **Total factor productivity developments: Croatia and its peers**



Source: European Commission

Labour productivity in Croatia remains below the EU average. The lower aggregate labour productivity is mainly due to the fact that firms' labour productivity in Croatia is on average (for a given firm size in a given sector) 26% lower than the EU average (Bauer et al., 2020). When considering the sectoral components of labour productivity in Croatia, 'accommodation and food service' activities are more productive that the EU average (Graph 4.4.2). However, productivity in all other sectors lag substantially below the EU average. Labour productivity growth in sectors 'transportation and storage', 'information and communication' and 'professional, scientific and technical activities' remained flat over the period 2012-2016, which slowed the convergence of aggregate productivity towards the EU average.

Graph 4.4.2: **Percentage difference in labour productivity at the aggregate and sectoral levels relative to the EU28 (2016) and percentage change (2012-2016)**



AGG - Aggregate productivity
C - Manufacturing
F - Construction
G - Wholesale and retail trade; repair of motor vehicles and motorcycles
H - Transportation and storage
I - Accommodation and food service activities
J - Information and communication
M - Professional, scientific and technical activities
N - Administrative and support service activities
Source: European Commission

Labour productivity differs widely across the regions within Croatia. In 2016, labour productivity ([48]) in all counties in continental Croatia (except for Zagreb) was at or below 60% of the EU average. Counties in the Adriatic part of Croatia performed better, and the city of Zagreb recorded the smallest gap to the EU average, with a level of productivity at 80% of the EU average, almost double that of Virovitica-Podravina county, at 43% of the EU average. In regions facing depopulation (see Section 4.3), productivity growth of local firms is more challenging due to skills gaps and the distance from both suppliers and customers. Sluggish productivity coupled with a falling population in those regions, particularly in continental Croatia will amplify the productivity gap, thus hampering convergence between them and the City of Zagreb.

Exporting firms are about twice as productive as non-exporting firms. Analysis based on Compnet data shows that the most productive

([48]) Measures as gross value added per person employed, in purchasing power standard.

firms (top 10%) were 12 times more productive in 2016 than the least productive (bottom 10%) in terms of total factor productivity. This ratio is still somewhat higher than the ratio recorded by other countries for which data are available. A high and/or increasing gap between front-running and lagging firms may signal issues of inefficient resource allocation and/or technology take-up.

Skills shortages, low R&D investment, rigidities in the business environment and weaknesses in public administration are key drivers of Croatia's productivity gap. Employers find it increasingly difficult to find employees with the right skills (see section 4.3.1), while low activity rates and low participation of the workforce in lifelong learning hamper skill activation (CEDEFOP, 2018). At 0.5% of GDP, business R&D expenditure is among the lowest in the EU. Croatia is among the worst performers in the EU on several aspects of the business environment, including starting a business, paying taxes and dealing with construction permits. As a result, business dynamism is also below the EU average. Significant weaknesses remain in several aspects of the public administration and governance framework, including the burden of government regulation and the perceived quality of public services.

Business environment

A cumbersome business environment hinders competitiveness and productivity growth. Croatia has committed to reducing the administrative and financial burden of companies by reducing the number and overall burden of para-fiscal charges. These actions form part of Croatia’s prior commitments to joining ERM II. Initiatives are ongoing to lighten the burden of administrative obligations for entrepreneurs, as are measures to liberalise selected professional services.

The reduction of the administrative and financial burden on the business sector is progressing. Further consultations with stakeholders have been carried out, also via a new dedicated website (boljipropisi.hr/), which has helped identify the administrative processes, obligations and red tape that put the highest burden on business and that need to be simplified. In 2019, 314 administrative processes and obligations were singled out to be cut or simplified, leading to estimated savings to business of 0.16% of GDP per year. Up to October 2019, 94 of these measures have been implemented, thus reducing the administrative burden by approximately 0.1% of GDP. The estimated financial burden on companies and citizens stemming from parafiscal charges stands at approximately 2.3% of GDP. A review of such charges is on-going and a decision on the reduction/abolition of these charges is expected in the first quarter of 2020.

Competitiveness is gradually improving, but Croatia still ranks poorly compared to its peers. In the latest World Economic Forum Global Competitiveness Index, Croatia recorded the biggest improvement in the region, but its performance remains below both the EU average and of its peer countries. The improved performance due to increased macro-economic stability. Nevertheless, Croatia lost competitiveness in the “product market” category. According to the 2020 Doing Business report (World Bank, 2019b) Croatia improved its performance and now ranks somewhat more favourably in EU comparison but still below the EU average.

Over the past five years, Croatia reduced the restrictiveness of its product and services market regulation. Croatia’s score in the 2018

Table 4.4.1: **OECD Product Market Regulation (PMR) Indicators**

2018 PMR	HR	EU	Difference	2013 PMR	HR	EU	Difference
Total	1.43	1.40	-2%	Total	2.08	1.44	-31%
Public Ownership	2.80	2.10	-25%	Public Ownership	3.01	2.72	-10%
Involvement in Business Operations	0.85	1.20	41%	Involvement in Business Operations	2.06	1.63	-21%
Simplification and Evaluation of Regulations	1.80	1.52	-16%	Admin. Burden on Start-ups	2.98	2.08	-30%
Admin. Burden on Start-ups	1.00	0.95	-5%	Complexity of regulatory procedures	2.00	1.85	-8%
Barriers in Service & Network sectors	1.64	1.74	6%	Regulatory protection of incumbents	0.97	1.13	16%
Barriers to Trade and Investment	0.51	0.48	-6%	Barriers to Trade and Investment	1.71	0.47	-73%

(1) PMR index range from 0 - 6 from the most to the least competition-friendly regulation
(2) EU score for 2018 includes the UK and excludes Estonia.
(3) Due to methodological changes in the PMR methodology between 2013 and 2018, comparisons can be drawn across countries within the same edition and not necessarily between the same country across editions.
Source: OECD

version of the Product Market Regulation indicators (OECD, 2020) shows that the restrictiveness of Croatia's regulations was close to the EU average, which is a big improvement compared to 2013, when Croatia was found to have substantially more restrictive regulation (see Table 4.4.1). A breakdown by components shows that Croatia's 'barriers to trade and investment' are least restrictive, followed by 'involvement in business operations' and 'administrative burden on start-ups'. On the other hand, Croatia still has the least competition-friendly regulation for 'public ownership' (see Section 4.4.2 on state-owned enterprises), 'simplification and evaluation of regulations' and 'barriers in services sector'.

Despite recent reforms, several professions face high regulatory restrictions. This is particularly acute for lawyers, architects, engineers and tax advisers ([49]). While some positive steps have been taken to reduce restrictions for architects and engineers, such as the opening up of interior design and landscaping activities, restrictions remain high. This is due, among other factors, to costly mandatory professional chamber membership (including an obligation to register separately for each specialisation), the sitting of an additional professional exam after graduation, the setting of recommended prices as well as significant fragmentation of exclusive rights across engineering professions. For tax advisory services, Croatia removed the residency restrictions for certified tax advisers but shareholding restrictions and limits on multidisciplinary practices continue to apply. Excessive restrictions also continue to apply to lawyers, one of these being a 100% shareholding requirement as well as a total prohibition on multidisciplinary practice. Following support by the Structural Reform Support Programme, Croatia adopted a first action plan containing 20 deregulation measures for seven professions, which should be implemented by the second quarter of 2020. A second action plan with measures covering another 13 professions is expected to follow. In addition, a law abolishing mandatory chamber membership for construction site managers and works managers was adopted in October 2019. Several significant restrictions still remain though, undermining the productivity and competitiveness of the professional services' sector.

Croatia issues a low volume of notifications of national draft technical regulations under the Single Market Transparency Directive ([50]). Croatia is obliged to notify the European Commission of any draft legislation it intends to table that concerns products or services. The aim of the notification procedure is to detect and prevent obstacles to the EU internal market being created before they materialise. Croatia notified just seven draft laws in 2018, which is 1% of total notifications to the European Commission. To improve Croatia's integration in the EU internal market, it is necessary to address any potential issues in order to increase the number of notifications of draft technical regulations under the Single Market Transparency Directive.

Lack of data does not allow for a comprehensive assessment of the insolvency framework and the impact of the 2015 reform. Data on recovery rates in pre-insolvency settlements and insolvency procedures are not publicly available. According to the 2020 Doing Business report, which uses set cases, recovery rates have not significantly improved since 2016 (World Bank 2019). Monitoring systems need to be put in place to assess the effectiveness of the new insolvency framework.

Digitalisation of business

Croatian enterprises are slowly taking up digital technologies. On the integration of digital technology within businesses, Croatia scores below EU average. With 15.5% of enterprises at a high and very high level of digital intensity, Croatia lags behind the EU average of 18%. Fewer than 20% of small businesses are highly digitised, compared to 47% of large companies (European Commission, 2020a). Croatian SMEs have made modest progress in process/product innovations (European Commission, 2019g). In 2019, most large Croatian companies (62%) engaged in ICT up-skilling / re-skilling the workforce with specialised training (against 22% of SMEs) (European Commission, 2020a). The provision of specialised ICT trainings and workshops is

([49]) See the European Commission's restrictiveness indicator (COM(2016) 820 final) showing that regulatory restrictiveness in Croatia is higher than the EU average for six out of seven analysed professions.

([50]) Directive (EU) 2015/1535.

particularly limited for micro and small companies due to costs, low availability of personnel or on account of pressures for subsequent wage rises. With the Croatian Industry 4.0 strategy, the National Plan for Digital Transformation of the Economy and the National Plan for Artificial Intelligence, Croatia aims to further digitise business and production processes, while reducing production costs.

Croatia made limited progress in broadband connectivity. Delays in rolling out broadband access and backhaul networks will influence the performance of SMEs' progress in digital skills and in providing a range of services. While the fee reduction for using radio spectrum is a positive development, Croatia still lacks a focused strategy for the management of the radio spectrum and a roadmap needed to swiftly assign the 5G pioneer spectrum bands (700 MHz, 3.6 GHz and 26 GHz) and 5G deployment.

Research, development and innovation

Investment in R&D increased substantially, but largely thanks to ESIF funds, while efficiency of spending is low. In 2018, overall investment in R&D jumped to 0.97% of GDP, up from 0.86% in 2017. Public expenditure on R&D rose to 0.51% of GDP, while business investment expenditure increased to 0.47% of GDP. Stronger public investment on fundamental R&D would play a key role in boosting the innovation system.

The research and innovation system produces scientific output of modest quality and struggles to attract talent. The legal autonomy enjoyed by university faculties can lead to low cooperation across universities (both within and outside the country, as well as with the business sector) and hinder interdisciplinary research. Croatia stands out compared to other countries in terms of its overproduction of low-quality publications, as measured by the number of uncited publications per full-time equivalent R&D personnel, where Croatia scores highest in Europe (World Bank 2019c). A draft law on science and higher education in Croatia aims to reform the system by introducing measures to recognise and reward research excellence: an efficient promotion system for researchers, tenure track employment for young scientists and higher salaries for project work, and rewards for international cooperation. The draft law would bring in a new system of university governance, expand performance-based funding to include science-business cooperation as an assessment criterion and spell out guidelines for research ethics. If adopted and properly implemented, this law has the potential to kick-start a modernisation process of the Croatian research and innovation system.

Croatian companies are concentrated in low- to medium-tech sectors, and government support to R&D-based innovative firms is lacking. According to the European Innovation Scoreboard, Croatia is a moderate innovator. Croatia's best scores are on non-R&D innovation and its weakest points are in knowledge-intensive service exports and venture capital expenditure. Companies are concentrated in low and medium-tech sectors, notably in trade and tourism, which affects the current low level of investment in R&D. The structure of the economy has remained broadly unchanged over the past 15 years, with no shift towards more knowledge-intensive sectors (European Commission 2018b). State-owned enterprises, which contribute around one fifth of the national economy turnover, lack incentives for competition through innovation and research (Račić, et al., 2020). Croatian firms, especially smaller and younger companies, indicate a positive link between R&D-based innovation and productivity growth. Nonetheless, government support programmes are heavily skewed towards helping mature and larger companies, with less support given to diversification and new ventures (World Bank 2019c). In addition, many support programmes are overcomplicated and poorly adapted to business needs.

Croatia is unlocking its innovation potential and performance through smart specialisation. Through its Smart Specialisation Strategy, Croatia aims to overcome the fragmentation of the innovation system to boost productivity and innovation. An inter-ministerial National Innovation Council and Thematic Innovation Councils have been set-up to oversee its implementation. These initiatives are showing signs of improvement in the governance and coordination of innovation policies. However, their impact will depend on whether these Councils will be used as platforms for regular, structured discussions on innovation policy under the Smart Specialisation Strategy.

Network industries

Competition in Croatia's electricity and gas wholesale markets is still limited. Wholesale gas prices in Croatia are still highly regulated and thus discourage market entry and competition. Inefficiencies in electricity markets affect the deployment of renewable energy sources, the environment and raise costs for consumers.

The opening of Croatia's gas market is proceeding slowly. Regional suppliers of gas to households and district heating units (public service suppliers) enjoy preferred allocation of gas storage and trade gas at regulated prices. In addition, public service suppliers are able to purchase gas from the wholesale market supplier and the supplier of last resort at regulated prices. Despite the adoption of a new Gas Market Act in 2018, these provisions will only be phased out by March 2021. The opening of Croatia's gas market is further impeded by the incomplete process for certification of the gas transmission system operator by the national regulator.

4.4.2. PUBLIC SECTOR GOVERNANCE

State-owned enterprises

State-owned enterprises continue to play an important role in the economy. In October 2019, the government adopted the State Assets Management Strategy, a strategic plan for the management of state assets over the period 2019-2025. Despite progress to improve governance, SOEs are still beset by low profitability and productivity relative to their privately owned peers, which hampers allocative efficiency and overall productivity (European Commission, 2018c).

State ownership in companies is slowly reducing. Croatia has committed to selling shares and stakes in 90 companies as part of its ERM II prior-commitments. Despite intentions to accelerate the divestment of shares and stakes in companies owned by the Republic of Croatia, divestiture sales in 2019 were lower than in previous years. On-going work to define the criteria for classifying 'legal entities of special interest' is due to be finalised by April 2020. At present, 39 entities are listed as being strategically important.

The adoption of a law on unvalued construction land opens up scope for future investments. The proposal for a law on unvalued construction land has been prepared and agreed upon by the authorities and is due to become law in early 2020. This law will provide a clear legal framework for settling property rights between the Republic of Croatia and private companies, originating from the conversion and privatisation of land property in the 1990s. The law will provide clarity on ownership and should lead to the activation of unused assets (tourism land, land in camps and other building land) and new investments (mainly in the tourism sector).

Progress continues on enhancing and improving the governance of state owned enterprises. By the end of 2019, government representatives on supervisory and audit committees will have an obligation to attend training sessions. This follows the obligation on financial and strategic reporting (quarterly financial statements, annual plans, annual reports, mid-term plans and mid-term statements) brought in in 2018. In October 2019, the government adopted a decision bringing in the obligation of all state majority owned SOEs to create a compliance function in the organisational structure within six months. This initiative should improve governance and strengthen the corporate culture of SOEs.

Box 4.4.5: **Investment challenges and reforms in Croatia**

Section 1. Macroeconomic perspective

The Croatian economy continues to grow steadily, with an upswing in investment driven by the rising uptake of EU funds by both the public and private sectors. Nevertheless, overall investment remains low for a country with catch-up potential and in comparison to its peers. The capacity to increase private-sector investment is curtailed by persistently high levels of indebtedness in the business sector and by a cumbersome business environment. The low quality and weakness of its institutions, coupled with a high share of state-owned enterprises (SOEs), also hinders the effective flow of investment in Croatia.

Section 2. Assessment of barriers to investment and ongoing reforms

Public administration/ Business environment	Regulatory/ administrative burden	CSR	Financial Sector / Taxation	Taxation	
	Public administration	CSR		Access to finance	
	Public procurement /PPPs	CSR	R&D&I	Cooperation btw academia, research and business	
	Judicial system	CSR		Financing of R&D&I	CSR
	Insolvency framework		Sector specific regulation	Business services / Regulated professions	CSR
	Competition and regulatory framework			Retail	
Labour market/ Education	EPL & framework for labour contracts			Construction	
	Wages & wage setting	CSR		Digital Economy / Telecom	
	Education, skills, lifelong learning	CSR		Energy	CSR
				Transport	CSR

Legend:

	No barrier to investment identified
CSR	Investment barriers that are also subject to a CSR
	No progress
	Limited progress
	Some progress
	Substantial progress
	Fully addressed

Several factors are at play that hold back investment and productivity growth in Croatia. Weak administrative capacity remains a barrier to investment and hinders the design and implementation of strategic policies. An underdeveloped capital market and over-reliance on bank credit limits access to finance, especially for smaller and innovative firms (see section 4.2). Implementing the reforms outlined in this report do, however, have the potential to give a boost to growth and investment.

Selected barriers to investment and priority actions underway

1. The business environment in Croatia is overly restrictive and burdened by excessive regulation, limiting competition and holding back investment. Croatia has committed to reducing the administrative and financial burden on business by cutting the number and overall volume of para-fiscal charges, the administrative obligations for entrepreneurs and by liberalising selected professional services (see section 4.4).

2. SOEs play an important role in Croatia's economy due to their size and presence across different sectors. However, they are beset with weak corporate governance, low productivity and inefficient resource allocation, which curbs investment and productivity growth. Croatia has committed to reducing the state's holdings of shares and stakes companies that are not of strategic state interest and to improving corporate governance practices in SOEs (see section 4.4).

The EU supports investment in Croatia also via the European Fund for Strategic Investments (EFSI). By September 2019 total financing under the EFSI amounted to EUR 284 million, intended to trigger EUR 1,134 million in additional investments.

The current experience with the EU financial instruments and the EFSI budgetary guarantee demonstrated a need for simplification, streamlining and better coordination of the EU's investment support instruments during the next 2021-27 programming period. By the end of 2020, EFSI and other EU financial instruments will come under the roof of the new InvestEU programme that promotes a more coherent approach to financing EU policy objectives and increases the choice of policy implementation options and implementing partners to tackle country specific market failures and investment gaps. In addition, under InvestEU, Member States can set-up a national compartment by allocating up to 5% of their structural funds to underpin additional guarantee instruments supporting the financing of investments with a higher level of local specificities. InvestEU will be policy-driven and focus on: Sustainable Infrastructure, Research, Innovation, and Digitisation, Small Businesses, and Social Investment and Skills.

Public administration

Public administration efficiency in Croatia underperforms the EU average. A number of indicators highlight weak public-sector performance in service delivery, which in turn affects the level of trust in the government (European Commission, 2019h). A constrained capacity to design and implement policies and projects and inefficient coordination between ministries hamper policy implementation, including in the area of Cohesion. Strategic planning capacities have deteriorated over the past years (Koprić, 2019), causing recurring delays in the preparation of strategic documents. A new strategic planning system – established by the Act on System of Strategic Planning and Managing Development – together with the announced National Development Strategy, are expected to yield better performance as of 2020. There has been progress since 2014 on improved access to government information (European Commission, 2019i).

Continuous action has been taken to modernise and improve the uptake of e-government services. The share of online users actively embracing a digital public administration decreased to only 75% in 2019. The e-Citizens platform increased the number of services provided and the authorities are working on a one-stop-shop to facilitate and enable access to e-services for citizens who do not use digital technologies. The availability of online services for businesses has also improved (European Commission, 2019j). A Shared Service Centre, set up to consolidate information infrastructure and pool the use of ICT resources across all public sector bodies, became operational in late 2019.

The public administration remains highly fragmented at local level. As highlighted by analyses contained in previous country reports, one of the main weaknesses of the Croatian public administration is at municipal level. Numerous small municipalities are granted responsibilities and competences in providing public services that they cannot fulfil for lack of adequate financial, administrative and personnel resources. This in turn creates large disparities in public-service provision between financially and administratively strong and weak local units across the country. It also raises administrative costs and undermines the efficiency of resource utilisation. In June 2019, the parliament adopted legislation to entrust competences and staff from branch offices of the central administration (e.g. ministries) to the county-level administration. However, it remains unclear to what extent this measure will bring efficiency gains. No significant measures have been taken to address fragmentation of the public administration at municipality level.

Measures to de-politicise the public administration and harmonise the regulation of state agencies are making progress. In June 2019, the parliament adopted a law with the aim of de-politicising and professionalising the central government administration by reducing the number of politically appointed state officials. In particular, within ministries, certain functions performed by politically appointed officials (such as assistant ministers) will soon be carried out by senior civil servants selected through open competition. The stated aim of the measure is to ensure in the medium-long term increased continuity in the work of the government administration and strengthen the competence of the civil service. The process to streamline the cumbersome state agencies system, initiated last year, is making progress: 35 out of the 54 selected state agency-type institutions have either been closed or merged with other agencies or into line ministries, without staff cuts. A new legal framework ([51]) regulating the remaining agencies and bringing in a higher degree of consistency across the system was adopted in December 2019. These measures form part of Croatia's prior commitment in the process of ERM II accession and eventually euro adoption.

New legislation on wage setting in the civil service was postponed several times. Authorities are currently carrying out an independent in-depth analysis of the wage system, amid demands for wage increases from several parts of the public sector. The aim of the law is to achieve greater harmonisation of wage setting across the central public administration (and at a later stage in the wider public sector) by introducing common wage grids and job complexity coefficients. Social dialogue, though showing positive developments, needs improvement in terms of working methods and procedure to have a genuine impact on policy preparation and implementation.

The institutional setup for public procurement is improving, albeit slowly. A 2018 State Audit report indicated that staff capacity constraints, especially in the area of ESIF, are being slowly overcome. However, the sharp increases in the number of procurement contracts (e.g. +400% annual rise in ESIF contracts in 2018) poses challenges. The Central Finance and Contracting Agency and other intermediate bodies providing non-obligatory checks and input to draft tender documents have reported modest improvements in staffing numbers and better quality of documentation. Robust workload analysis should be undertaken to ensure sufficient resources are available in future.

Further improvements to the appeal system are envisaged including possible mandatory e-appeals and online-fee payments. Strengthening the e-procurement system and all related digital databases with a view of boosting the capacity to collect and analyse public procurement data would be very helpful in developing tailored and efficient policies in public procurement and in addressing integrity issues.

Justice system

Despite progress in expanding electronic communication in courts, the quality and efficiency of the justice system remains a challenge. While efforts to resolve the oldest pending cases (10 years and older) continued with solid results, the 2020 EU Justice Scoreboard (forthcoming) still shows that backlogs and length of court proceedings remain among the highest in the EU. Average length of proceedings in the first instance remains among the longest in the EU at around 855 and 735 days for litigious civil and commercial cases, respectively). Backlogs in commercial cases continued to decrease, mainly due to improved business processes initiated by the High Commercial Court and now partially extended to the first instance commercial courts. Further progress in reducing backlogs was also achieved in civil cases at all instances, but the first instance civil courts are currently facing an exceptional influx of cases concerning CHF-linked loans and personal insolvencies.

Electronic communication and centralised postal delivery of court documents are gradually advancing, which could bring savings in financial and human resources. In 2019, electronic communication with court users exceeded 90,000 exchanges in Commercial and 17,000 in some Municipal courts (mostly from lawyers, and insolvency cases from insolvency administrators and the Financial Agency (FINA), and less from notaries and court experts). Centralised postal delivery of court documents through the Croatian Post increased to nearly 100,000 (about 25% of all paper post). Nevertheless, room for improvement remains, particularly in County and remaining Municipal courts, and in communication with the tax authority. Online publication of 1st and 2nd instance court judgments remains very limited (European Commission, 2020b), despite the improved ICT system. The collection of court fees remains a considerable burden for the administration, despite offering a 50% discount in case of immediate online payment.

The quality and efficiency of the criminal justice system remain a challenge. Backlogs and

([51]) The new framework would define uniform criteria concerning the establishment, legal status of employees, sources of funding, responsibility and supervision of agency-like public institutions.

length of proceedings increased in first instance cases at Municipal and County courts (to 678 and 930 days on average, respectively), also due to focusing on resolving old cases. A reported lack of procedural discipline by lawyers in court proceedings for approving indictments often leads to considerable delays, but amendments to criminal procedure, which entered into force in January 2020, are expected to bring improvements. The administrative capacity of the State Attorney's Council, with only a few employees, remains low. Despite increased resources in the States Attorney's Office, the lack of specialised financial investigators could hamper the effective fight against economic and financial crime. In 2018, the prosecution service processed more criminal charges than it received (a clearance rate of 104%) (SAO, 2018), which lowered the backlogs. More than 90% of investigations led by prosecutors take up to 6 months to complete.

The perception of judicial independence, both among business and among the general public, remains very low. Surveys among businesses show that the perceived judicial independence decreased even further from an already low level (European Commission, 2020b). The State Judicial Council is exploring ways to improve the reasoning in its decisions and opinions, following successful challenges by candidate judges before the Constitutional Court. The publication of assets of judges and prosecutors is now expected in 2020 due to adopted legislative amendments, which addressed data protection requirements. However, the assets database is not connected with the tax authority and the land registry. This would enable the State Judicial Council and the State Attorney's Council to verify the declarations already prior to their publication.

Fight against corruption

Corruption remains an area of concern. Following the implementation of previous Actions Plans, for 2015 and 2016, as well as 2017 and 2018, efforts to implement the measures of the national strategic documents in the field of corruption prevention are ongoing. This is indicated by the results of the implementation of the Action Plan 2017-2018. According to the authorities, 83% of the activities were implemented or partially implemented. Implementation of the Action Plan for 2019 and 2020 is currently underway. National assessments on the results of the implementation of the activities foreseen for 2019 show that 70% of the activities were implemented or partially implemented. Further efforts are needed to address corruption issues more effectively, as the perception of corruption remains high.

Control and sanction mechanisms remain weak, in particular at the local level. Although there is a considerable number of investigations and indictments in cases related to organised crime and corruption, the inefficiencies of the justice system, such as lengthy court proceedings, often impede closure. Official statistics also show that a significant proportion of corruption offences are recorded at local level. The Law on Local and Regional Self-Governance, which gives elected local officials considerable discretion in decision-making without subjecting them to asset declarations or other forms of oversight, remains a concern. The discretionary powers to decide on disposing of assets and finances of up to HRK 1 million and to appoint board members of public local companies create scope for corruption. It would be important that measures to increase transparency and the framework for the functioning of local government units are accompanied by enhanced corruption oversight at the local level.

For businesses, issues of corruption and conflicts of interest remain widespread in public procurement. 67% of businesses consider conflicts of interest in the evaluation of bids to be widespread and 71% consider tailor made specification for particular companies, and collusive bidding to be common. At the local level, 74% consider corruption widespread in public procurement managed by regional or local authorities, an 11 point increase since 2013. These concerns are further increased by numerous complaints causing delays, and a decline in the average number of tenderers from 3.5 in 2017 to 2.8 in 2018, which further increases corruption risks.

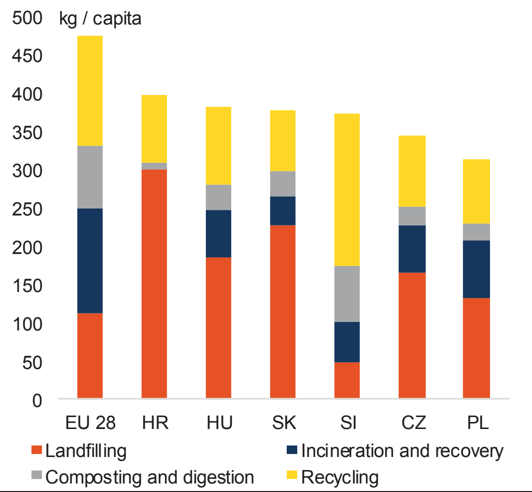
4.5. ENVIRONMENTAL SUSTAINABILITY

Developing a coherent, long-term vision for improving environmental sustainability is of crucial importance for Croatia's socio-economic development in the coming years. Croatia has made good progress in improving public finances since the crisis and unemployment rate continues to drop, which contributes to raising the living standards of its citizens. Croatia is expected to meet the Europa 2020 targets in renewables (except in transport) and energy efficiency and is on track to reaching its target for lowering greenhouse gas emissions. Still, the Croatian economy faces important sustainability challenges, affecting its future competitiveness as well as social cohesion. A broad political consensus around a coherent set of decisive policy measures, involving different stakeholders including civil society organisations would be important to tackle these challenges. It would be key to put measures in place which aim to direct public and private investments into areas and sectors that will help transform Croatia into a climate neutral and circular economy. New legislative measures and economic incentives, but also aligning education and upskilling with the future labour market needs would be important.

There is still a long way to go in the transition from a linear to a circular economy in Croatia. Resource productivity ([52]) in Croatia (EUR 1.14/kg in 2018) is significantly below the EU average (EUR 2.24/kg). Given the low resource productivity and low recycling rates in Croatia, promoting a circular economy and improving resource efficiency could stimulate investment and reduce the losses from stranded assets. Nevertheless, besides some isolated initiatives, Croatia has no comprehensive circular economy strategy.

([52]) Resource productivity is defined as the ratio between gross domestic product (GDP) and domestic material consumption (DMC).

Graph 4.5.1: **Municipal waste treatment: Croatia and peers**



Source: Eurostat

Despite some progress, shifting waste from landfilling towards recycling remains a priority. In line with the Sustainable Development Goals, the EU has set up ambitious recycling targets and policy instruments in the recast Waste Framework Directive as well as through the Circular Economy Action Plan. In Croatia, 25% of municipal waste was recycled in 2018 – a big improvement from 4% in 2010, but still substantially below the EU average of 47%. Landfilling of municipal waste remains high at 66% (EU average 22%). A continued strong effort would help Croatia to converge to the EU average and ultimately contribute to achieving the European target of zero pollution. Around EUR 193 million of EU funds are already committed for projects supporting sustainable production and consumption (12th Sustainable Development Goal). Nonetheless, further efficient and targeted investments in waste management and a focus towards prevention, reuse and recycling are essential in a transition towards a more circular economy. Croatia's investment needs required to reach the EU recycling targets for municipal and packaging waste are estimated at EUR 222 million in 2021-2035 (Eumonia, 2019).

Recent policy developments are promising, but governance challenges in waste management remain. Although a national Waste Management Plan has been in place since 2017, its implementation varies substantially across numerous local levels. The island of Krk and the city of Prelog remain rare examples of successful waste management focused on quality collection services, including door-to-door collection. The recently adopted decision on the closure of landfills, which prescribes the dynamics of the closure of non-hazardous waste landfills, should provide an impetus to the shift away from landfilling towards separate collection and recycling. Additionally, the latest amendments to the Municipal Waste Management Regulation encourage the local government units to implement measures to reduce the amount of mixed municipal waste generated in their area ([53]).

Air pollution continues to have a significant impact on health. For the year 2016, the European Environment Agency estimated that around 12.2 years of life lost per 1,000 inhabitants were attributable to exposure to fine particulate matter (PM2.5) in Croatia, substantially above the EU average of 8 years. Reducing air pollutant emissions and concentrations requires a further reduction of emissions from electricity production and heat generation using solid fuels, promotion of efficient and clean heating and increase in the efficiency and uptake of public transport.

Sewage systems are underdeveloped and the water supply networks face high leakage rates. Only 54.6% of the population is connected to the sewage system and 86% are connected to the public water supply, which has a leakage rate of 44% (almost double the EU average of 23%). Much of the collected wastewater is discharged without appropriate treatment. This can become an issue particularly when infrastructure use peaks during summer months. In effect, the poor state of the sewage systems harms the ecosystems on which Croatia's tourism depends on. As regards drinking water, in addition to high leakage rates, quality requirements are still not met in some areas, most notably Eastern Slavonia.

The water sector lags considerably behind EU standards. The estimated total investment gap in the water utility sector is HRK 28 billion, almost 7% of Croatia's 2019 GDP (OECD, forthcoming). Almost one quarter concerns investments in public water supply, with more than three quarters related to public sewage system and wastewater treatment. A significant share of necessary funding is eligible under the European Structural and Investment Funds. The long-awaited reorganisation of the water utility sector is expected to speed up the implementation of projects in the water sector and resolve budget constraints of smaller municipalities. The recently adopted Water Service Act lays down the foundation for this reorganisation, while the forthcoming Regulation of Service Areas will delineate water service areas, reducing the number of water utility companies from almost 200 to 40. Improved efficiency in the water sector, including through more cost-effective measures, as well as increased consolidation could help reduce the financing gap. An ambitious update of the national water investment plan is expected to guide the prioritisation of investments.

Croatia's economy and in particular tourism are relatively dependent on a preserved natural environment. One third of Croatia's land area is included in the Natura 2000 network, reflecting not only the country's strong commitment to nature conservation but also its biodiversity. Biological and landscape diversity are the foundations of Croatian tourism attractiveness and its comparative advantage on the global market (Carić, 2018). Croatia is currently finalising its Priority Action Framework, the key programming document for nature and wider biodiversity for the next Multiannual Financial Framework. This document is expected to enable strategic long-term planning by establishing a well defined project pipeline and facilitating dialogue between authorities responsible for nature, agriculture, fisheries and other relevant sectors.

Croatia's decarbonisation depends on ambitious energy efficiency and renewable energy measures. Investing in renewable energy and energy efficiency will enable the country to contribute to the UN Sustainable Development Goals, and achieve the EU's collective targets, as set out in Croatia's National Energy and Climate Plan (NECP) ([54]). , Investing in green energy will also tap new potential for economic growth, job creation and innovation. The recent assessment of

([53]) The "incentive fee" is paid by local government units to the Fund for environment protection and energy efficiency. The per-tonne rate applicable to a given unit is inversely proportional to the amount of separately collected municipal waste in that unit.

([54]) Croatia submitted its NECP on 30 December 2019. The Commission will assess, in the course of 2020, the final national energy and climate plans submitted by the Member States.

the impacts of compliance with the Paris Climate Agreement (European Commission (2019l), Eurofound (2019)) shows a positive effect on employment in Croatia (up to 0.4% increase in employment rate) by 2030.

Croatia is set to meet its 2020 greenhouse gas emissions target with ease, while additional measures would be needed to meet the 2030 target. Preliminary data shows that Croatia overachieved its target in 2018 by 10 percentage points. It is projected to fall a little short of its 2030 target if no new measures are taken, but with additional measures it is projected to continue over-achieving. The new Energy development Strategy highlights two scenarios: a ‘moderate’ and an ‘accelerated’ energy transition, identifies key priorities and projects effects of the energy transition. The draft Climate Adaptation strategy and Law on Climate Change and Ozone Layer Protection have been adopted d in December 2019. In the period 2005-2018, the emission intensity of Croatia’s economy has dropped by a quarter, but is still 70% above the EU average. Transport remains the sector contributing the most to greenhouse gas emissions (30%), followed by industry (23%) and agriculture (13%).

Croatia risks missingits energy savings targets for the period 2014-2020, as legislation gaps are unaddressed. Energy consumption has risen every year since 2015, especially in transport, services and industry. In 2018, Croatia consumed 8.2 Mtoe of primary energy and 6.9 Mtoe of final energy. Therefore, the country is likely to achieve its indicative national energy efficiency targets for 2020, which were set at 10.7 Mtoe primary energy and 7.0 Mtoe final energy consumption, respectively. However, in the period 2014-2017, Croatia achieved only 38% of the cumulative energy savings required under the Energy Efficiency Directive for the period 2014-2020. The observed delays in adopting the needed legislation in the field of energy efficiency, and to operationalise the energy efficiency obligation scheme are in part responsible for this limited progress. Moreover, to meet its contribution to the EU energy efficiency target of 32.5% by 2030, it would be important to significantly increase Croatia’s investments in energy efficiency, as focusing on greening the energy supply will not be sufficient.

The share of renewable energy sources stagnates as Croatia adopts a more ambitious target. The share of renewable energy sources in the total mix was 28.0% in 2018. Meanwhile, in its National Energy and Climate Plan (NECP), Croatia set an ambitious objective of 36.4% share of renewable energy sources in 2030. In order to achieve this, additional efforts are needed in heating and cooling, but also in the transport sector, where Croatia is set to miss its 2020 and 2030 targets. The “Clean Energy for EU Islands Initiative" was launched in May 2017 with the aim of helping islands and their inhabitants to generate their own sustainable low-cost energy, to embrace renewable energy, create jobs and economic growth and reduce greenhouse gas emissions. Four island communities in Croatia (Cres/Lošinj, Hvar, Korčula and Brač) were selected to participate in a pilot project. For these unique territories investing in renewable sources would reduce the island's energy dependency from the mainland, especially in summer months when consumption is highest.

Hydropower is well developed, while regulatory obstacles stifle new investments in renewables. Hydropower accounts for the bulk of renewable energy in Croatia, whereas the share of solar and wind energy in the total installed electricity generation capacity is 12.8% in 2017, less than half of EU average of 27.5%. At the same time, there is vast untapped cost-competitive potential in wind and solar: depending on the cost of capital up to 11.8 and 3.2 GW, respectively, (together about three times the installed capacity) (IRENA, 2017). Realising this potential would benefit the security of energy supply, employment, industrial production and the trade balance of Croatia, which is a net importer of energy. This rests on removing regulatory and administrative hurdles. The often excessively rigid regulations or the interpretation thereof by local energy distributors and authorities have been creating obstacles for deployment of small-scale projects. In 2018, requirements were somewhat eased through new rules for connecting households to the grid. However, bigger projects remain more affected by both restrictive regulations and the gap left by the phasing out of the old feed-in tariffs system, which has not yet been succeeded by the planned premium system.

The share of renewable energy sources in transport is low as incentives are limited. At 3.9% in 2018, the share of renewables in Croatia is one of the lowest among EU Member States and well below the 2020 target of 10%. Although the number of electric vehicle charging points in Croatia is above the EU average, the market share of newly registered electric passenger cars remains the lowest in the EU, at 0.05% in 2017, compared to the EU average of 1.5%. In order to increase the share of renewable energy sources in transport, significant obstacles need to be addressed. The funding of incentives for purchasing electric vehicles is limited. Incentives are prone to budget constraints and the timing of funding calls is unpredictable. In addition, currently there is no market for used alternative fuel vehicles.

High external costs of transport negatively affect the environment, productivity and health spending. A recent study (European Commission, 2019m) estimated the total external costs of transport for road, rail and inland waterways in Croatia at 6.9% of GDP in purchasing power parity terms, compared to 5.7% at the level of EU. Almost half of the external costs are related to accidents, which are well above EU average. Improving road safety would reduce lives lost in traffic accidents, but also economic losses and healthcare costs, benefitting labour productivity. It would also help improve the sustainability of Croatia's cities and communities (SDG 11, see Annex E). Shifting some of the passenger and freight transport volume from road to rail would have a similar effect through the reduction of air pollution and congestion (see Dechezleprêtre et al., 2019).

The modernisation and upgrading of the Croatian rail network is progressing slowly. Even though investments in rail infrastructure have been increasing in recent years, there is still a clear investment backlog, which slows the modal shift. A lack of any substantial progress in the restructuring of the sector's state owned companies further hinders the progress. Removing regulatory restrictions and facilitating cooperation between the state-owned railway companies, private operators and infrastructure managers would improve competitiveness and quality of services ([55]) in the railway sector.

There is no particular regional concentration of carbon dependent industries in Croatia. However, two NUT3 level regions stand out in the GHG emissions: Istria ([56]) County (coal power plant Plomin and cement industry) and Sisak – Moslavina County (oil refinery and fertilisers production). The latter is among the most deprived NUTS3 level regions in Croatia, with GDP per capita at 43.9% of EU average in 2016 and the highest unemployment rate of 24.3% in 2018. Therefore, Sisak-Moslavina County could benefit from the approach adopted in the catching-up region of Slavonia, where a thorough analysis of the challenges/potential and targeted investments was carried out. This approach would promote economic diversification and the reskilling of the labour force in line with the Smart Specialisation Strategy. This would be necessary in order to anticipate the negative economic and social consequences that could arise on account of the greening of carbon intensive industries. This would be particularly important given the important share they hold in the region's economy and considering the employment structure. The Commission's proposal for a Just Transition Mechanism will also help ensure that the transition towards climate neutrality is fair by helping most affected regions address the social and economic consequences (see Annex D).

([55]) Although consumer satisfaction with rail transport in Croatia has increased since 2013, according to the 2018 Consumer Market Scoreboard Croatia remains among the five lowest ranking Member States.

([56]) Istria is one of the most prosperous NUTS3 regions in Croatia with 77% of the average EU GDP per capita in 2016 and 4.9% unemployment in 2018

ANNEX A: OVERVIEW TABLE

CSR 1: Reinforce the budgetary framework and monitoring of contingent liabilities at central and local level. Reduce the territorial fragmentation of the public administration and streamline the functional distribution of competencies.	Croatia has made **limited progress** in addressing CSR 1.
Reinforce the budgetary framework and monitoring of contingent liabilities at central and local level.	**Limited progress.** The new Budget Act should improve both the short and medium term budgetary framework at central and local level and address vulnerabilities in the system of government guarantees, but it has still not been adopted.
Reduce the territorial fragmentation of the public administration and streamline the functional distribution of competencies.	**Some progress.** In December 2019, the Croatian parliament adopted a new legal framework regulating agency-type institutions and introducing a higher degree of homogeneity across the system. Territorial fragmentation at local government level remains a challenge.
CSR 2: Deliver on the education reform and improve both access to education and training at all levels and their quality and labour market relevance. Consolidate social benefits and improve their capacity to reduce poverty. Strengthen labour market measures and institutions and their coordination with social services. In consultation with the social partners, introduce harmonised wage-setting frameworks across the public administration and public services.	Croatia has made **some progress** in addressing CSR 2.
Deliver on the education reform and improve both access to education and training at all levels and their quality and labour market relevance.	**Some progress.** Croatia has started the incremental implementation of the curricular reform in all primary and secondary schools. In VET, the experimental programme ‘Dual Education in VET’ is being expanded. The adoption of occupation and qualification standards is proceeding slowly. Ongoing investments in Early Childhood Education and Care aims to increase availability and access.
Consolidate social benefits and improve their capacity to reduce poverty.	**Limited progress.** The authorities are in the process of establishing a categorisation and regular reporting mechanisms for the social benefits granted by the local government level. However, most policy measures are still at the preparatory stage.

Strengthen labour market measures and institutions and their coordination with social services.	**Some progress.** The package of Active Labour Market Policy measures has been refocused to make them more effective. The Croatian Employment Service has developed and is testing new IT tools aimed at improving the mediation and referrals. It will be crucial to establish good monitoring system in order to evaluate the outcomes.
In consultation with the social partners, introduce harmonised wage-setting frameworks across the public administration and public services.	**Limited progress.** The long-due legislation on civil-service wages, which aims to further harmonise wage setting across the central public administration (and at a later stage in the wider public sector) has been postponed, pending further analysis from an independent body.
CSR 3: Focus investment-related economic policy on research and innovation, sustainable urban and railway transport, energy efficiency, renewables and environmental infrastructure, taking into account regional disparities. Increase the administration's capacity to design and implement public projects and policies.	Croatia has made **limited progress** in addressing CSR 3.
Focus investment-related economic policy on research and innovation,	**Limited progress.** Investment in R&D increased substantially, but its efficiency remains low and highly dependent on EU funds. Investment is focused towards ‘close–to-market’ initiatives run by bigger companies, leaving research activities underfunded.
sustainable urban and railway transport,	**Some progress**. Croatia signed several contracts for key railway projects in 2019 and opened the first new railway line in over 50 years. It made progress on expanding the TEN-T rail network but no significant progress on sustainable urban transport.
energy efficiency, renewables and environmental infrastructure, taking into account regional disparities.	**Limited progress**. Energy efficiency of private and public buildings improved in 2019. However, there have been delays in adopting the necessary legislation and the energy efficiency obligation scheme is not yet fully operational. Despite advanced project selection, progress in the implementation of the water and waste infrastructural projects remains limited. Investment in wind and solar energy is hampered by administrative hurdles and by delays in putting in place the premium support scheme.

Increase the administration's capacity to design and implement public projects and policies.	**Limited progress.** The authorities established an institutional framework for strategic planning, also at the local level. However, it has not yet been implemented. The overarching National Development Strategy for 2030 has not yet been adopted. Inefficiencies resulting in limited administrative capacities have not been properly addressed either.
CSR 4: Improve corporate governance in State-owned enterprises and intensify the sale of such enterprises and non-productive assets. Enhance the prevention and sanctioning of corruption, in particular at the local level. Reduce the duration of court proceedings and improve electronic communication in courts. Reduce the most burdensome parafiscal charges and excessive product and services market regulation.	Croatia has made **limited progress** in addressing CSR.
Improve corporate governance in State-owned enterprises and intensify the sale of such enterprises and non-productive assets.	**Limited progress.** Croatia adopted an obligation to introduce a compliance function in all majority-owned state-owned enterprises was adopted. The disposal of state assets is slowly progressing.
Enhance the prevention and sanctioning of corruption, in particular at the local level.	**Limited progress.** Although Croatia adopted legislation on the protection of whistle-blowers (effective from July 2019) the resources allocated to the Ombudsman's office, in charge of whistle-blower protection, are insufficient. No clear progress was made on other initiatives needed to prevent and penalise corruption, at national and local level.
Reduce the duration of court proceedings and improve electronic communication in courts.	**Some progress.** Croatia is gradually extending the use of electronic communication and has reduced backlogs in commercial courts.
Reduce the most burdensome parafiscal charges.	**Limited progress.** There has been limited progress in reducing or removing parafiscal charges. The register of parafiscal charges was updated in 2019.
and excessive product and services market regulation.	**Some progress.** A number of action plans and measures aimed at the alleviation of excessive administrative obligations for entrepreneurs were adopted, as well as liberalisation measures in selected professional services.

(1) The following categories are used to assess progress in implementing the country-specific recommendations (CSRs):

No progress: The Member State has not credibly announced nor adopted any measures to address the CSR. This category covers a number of typical situations to be interpreted on a case by case basis taking into account country-specific conditions. They include the following:

- no legal, administrative, or budgetary measures have been announced
- in the national reform programme,
- in any other official communication to the national Parliament/relevant parliamentary committees or the European Commission,
- publicly (e.g. in a press statement or on the government's website);
- no non-legislative acts have been presented by the governing or legislative 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 to be taken (unless the CSR explicitly asks for orientations or exploratory actions). However, it has not proposed any clearly-specified measure(s) to address the CSR.

Limited progress: The Member State has:

- announced certain measures but these address the CSR only to a limited extent; and/or
- presented legislative acts in the governing or legislative body but these have not been adopted yet and substantial further, non-legislative work is needed before the CSR is implemented;
- presented non-legislative acts, but has not followed these up with the implementation needed to address the CSR.

Some progress: The Member State has adopted measures:

- that partly address the CSR; and/or
- that address the CSR, but a fair amount of work is still needed to fully address the CSR fully as only a few of the measures have been implemented. For instance, a measure or measures have been adopted by the national Parliament or by ministerial decision but no implementing decisions are in place.

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

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

Europe 2020 (national targets and progress)

Employment rate (age group 20 – 64) target set in the NRP: 65.2%	The employment rate in Croatia has slowly but steadily increased (from 57.2% in 2013 to 65.2% in 2018). Croatia has achieved its national target, but the employment rate is still among the lowest in the EU, and well below the EU average.
R&D target set in the NRP: 1.4% of GDP	Investment in R&D equals 0.97%. Croatia is not on track to meet the target.

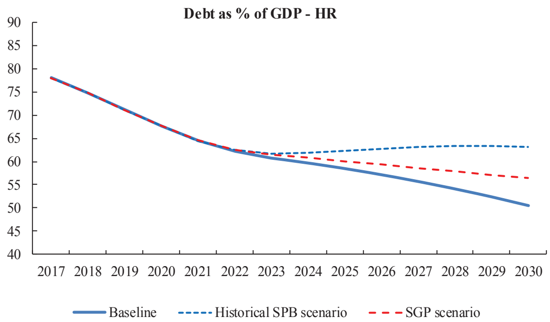
Table continued

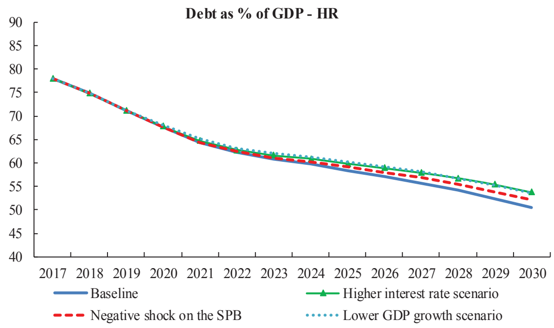
Greenhouse gas emissions, national target: +11% between 2005 and 2020	Croatia reduced its total greenhouse gas emissions by 22.5% from 1990 to 2018. Based on the latest national projections submitted to the Commission, and taking into account existing measures, Croatia is on track to meet its greenhouse gas emission target by a wide margin.
2020 renewable energy target: 20% 2020 renewable energy source (RES) in transport target: 10%	With a renewable energy share of 28% in 2018, Croatia is well above its target for 2020. With a 3.9% share of renewable energy in transport in 2018, Croatia is well below its 2020 target.
Energy efficiency, 2020 energy consumption targets: • 11.2 Mtoe (primary energy consumption); • 7 Mtoe (final energy consumption).	Croatia's primary and final energy consumption remains below its 2020 energy efficiency targets. • 8.2 Mtoe (primary energy consumption, 2018) • 6.9 Mtoe (final energy consumption, 2018)
Early school leaving (ESL) target: 4%	With a rate of 3.3%, Croatia remained among the leading EU Member States in ensuring that its young people complete secondary education. It comfortably met both the national target of 4% and the EU-level target of 10%.
Tertiary education target: 35%	Croatia's tertiary education attainment rate has risen to 34.1% in 2018. The national target could therefore be reached in 2020.
Target for reducing the number of people at risk of poverty or social exclusion, expressed as an absolute number of people: by 150 000.	The number of people at risk of poverty or social exclusion fell from 1.384 million in 2011 to 1.008 million in 2018. Croatia has already met its national target.

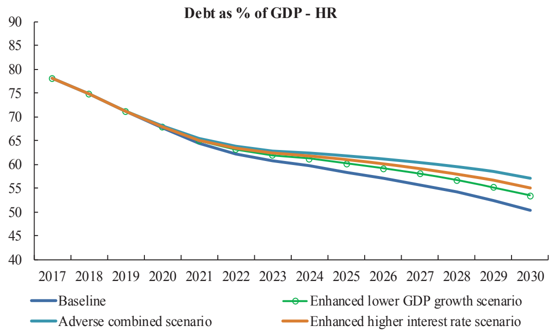
ANNEX B: COMMISSION DEBT SUSTAINABILITY ANALYSIS AND FISCAL RISKS

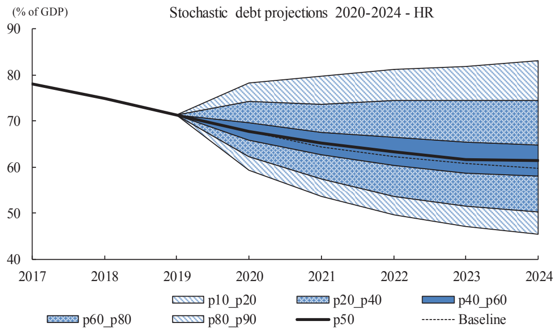
General government debt projections under baseline, alternative scenarios and sensitivity tests

HR - Debt projections baseline scenario	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Gross debt ratio	**74.8**	**71.2**	**67.7**	**64.4**	**62.2**	**60.7**	**59.7**	**58.4**	**57.1**	**55.7**	**54.1**	**52.4**	**50.4**
Changes in the ratio (-1+2+3)	*-3.2*	*-3.6*	*-3.5*	*-3.3*	*-2.2*	*-1.5*	*-1.0*	*-1.3*	*-1.3*	*-1.4*	*-1.6*	*-1.7*	*-2.0*
of which													
(1) Primary balance (1.1+1.2+1.3)	**2.6**	**2.3**	**1.9**	**1.8**	**1.5**	**1.2**	**0.9**	**0.8**	**0.8**	**0.8**	**0.9**	**1.0**	**1.1**
(1.1) Structural primary balance *(1.1.1-1.1.2+1.1.3)*	***2.1***	***1.4***	***0.9***	***1.0***	***1.0***	***0.9***	***0.9***	***0.8***	***0.8***	***0.8***	***0.9***	***1.0***	***1.1***
(1.1.1) Structural primary balance (bef. CoA)	*2.1*	*1.4*	*0.9*	*1.0*	*1.0*	*1.0*	*1.0*	*1.0*	*1.0*	*1.0*	*1.0*	*1.0*	*1.0*
(1.1.2) Cost of ageing					*0.0*	*0.1*	*0.1*	*0.2*	*0.2*	*0.2*	*0.0*	*-0.1*	*-0.2*
(1.1.3) Others (taxes and property incomes)					*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*-0.1*
(1.2) Cyclical component	***0.5***	***0.9***	***1.0***	***0.8***	***0.6***	***0.3***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***
(1.3) One-off and other temporary measures	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***
(2) Snowball effect (2.1+2.2+2.3)	**-1.0**	**-1.3**	**-1.6**	**-1.4**	**-0.7**	**-0.3**	**-0.2**	**-0.5**	**-0.5**	**-0.6**	**-0.7**	**-0.7**	**-0.8**
(2.1) Interest expenditure	*2.3*	*2.2*	*1.9*	*1.8*	*1.6*	*1.4*	*1.3*	*1.2*	*1.1*	*1.0*	*0.9*	*0.8*	*0.7*
(2.2) Growth effect	*-2.0*	*-2.1*	*-1.8*	*-1.6*	*-0.8*	*-0.4*	*-0.3*	*-0.5*	*-0.5*	*-0.5*	*-0.5*	*-0.5*	*-0.5*
(2.3) Inflation effect	*-1.4*	*-1.4*	*-1.7*	*-1.6*	*-1.5*	*-1.3*	*-1.2*	*-1.2*	*-1.1*	*-1.1*	*-1.1*	*-1.1*	*-1.0*
(3) Stock-flow adjustments	**0.3**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**









Short term	Medium term	S1	Debt sustainability analysis (detail)	Baseline	Historical SPB	Lower GDP growth	Higher interest rate	Negative shock on SPB	Stochastic projections	DSA	S2	Long term
LOW (S0 = 0.2)	LOW	LOW (S1 = -2)	Risk category	LOW	MEDIUM	LOW	LOW	LOW	MEDIUM	LOW	LOW (S2 = -2.1)	LOW
			Debt level (2030)	50.4	63.1	53.6	53.8	52.1				
			Debt peak year	2019	2019	2019	2019	2019				
			Percentile rank	39.0%	66.0%							
			Probability debt higher						26.3%			
			Dif. between percentiles						37.7			

Note: For further information, see the European Commission Debt Sustainability Monitor (DSM) 2019.

[1] The first table presents the baseline no-fiscal policy change scenario projections. It shows the projected government debt dynamics and its decomposition between the primary balance, snowball effects and stock-flow adjustments. Snowball effects measure the net impact of the counteracting effects of interest rates, inflation, real GDP growth (and exchange rates in some countries). Stock-flow adjustments include differences in cash and accrual accounting, net accumulation of assets, as well as valuation and other residual effects.

[2] The charts present a series of sensitivity tests around the baseline scenario, as well as alternative policy scenarios, in particular: the historical structural primary balance (SPB) scenario (where the SPB is set at its historical average), the Stability and Growth Pact (SGP) scenario (where fiscal policy is assumed to evolve in line with the main provisions of the SGP), a higher interest rate scenario (+1 pp. compared to the baseline), a lower GDP growth scenario (-0.5 pp. compared to the baseline) and a negative shock on the SPB (calibrated on the basis of the forecasted change). An adverse combined scenario and enhanced sensitivity tests (on the interest rate and growth) are also included, as well as stochastic projections. Detailed information on the design of these projections can be found in the FSR 2018 and the DSM 2019.

[3] The second table presents the overall fiscal risk classification over the short, medium and long term.

a. For the short-term, the risk category (low/high) is based on the S0 indicator. S0 is an early-detection indicator of fiscal stress in the upcoming year, based on 25 fiscal and financial-competitiveness variables that have proven in the past to be leading indicators of fiscal stress. The critical threshold beyond which fiscal distress is signalled is 0.46.

b. For the medium term, the risk category (low/medium/high) is based on the joint use of the S1 indicator and of the DSA results. The S1 indicator measures the fiscal adjustment required (cumulated over the 5 years following the forecast horizon and sustained after that) to bring the debt-to-GDP ratio to 60 % by 2034. The critical values used are 0 and 2.5 pps of GDP. The DSA classification is based on the results of five deterministic scenarios (baseline, historical SPB, higher interest rate, lower GDP growth and negative shock on the SPB scenarios) and the stochastic projections. Different criteria are used such as the projected debt level, the debt path, the realism of fiscal assumptions, the probability of debt stabilisation, and the size of uncertainties.

c. For the long term, the risk category (low/medium/high) is based on the joint use of the S2 indicator and the DSA results. The S2 indicator measures the upfront and permanent fiscal adjustment required to stabilise the debt-to-GDP ratio over the infinite horizon, including the costs of ageing. The critical values used are 2 and 6 pps of GDP. The DSA results are used to further qualify the long term risk classification, in particular in cases when debt vulnerabilities are identified (a medium / high DSA risk category).

ANNEX C: STANDARD TABLES

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

	2014	2015	2016	2017	2018	2019
Total assets of the banking sector (% of GDP)(1)	133.1	129.8	124.6	119.2	117.0	112.0
Share of assets of the five largest banks (% of total assets)	72.3	72.7	73.0	72.8	79.4	-
Foreign ownership of banking system (% of total assets)(2)	90.2	90.5	90.1	90.8	90.6	91.0
Financial soundness indicators:(2)						
- non-performing loans (% of total loans)	13.6	13.0	10.7	8.8	7.3	6.9
- capital adequacy ratio (%)	20.4	19.2	20.8	21.4	21.1	20.7
- return on equity (%)(3)	3.9	-6.8	8.9	5.9	8.8	11.3
Bank loans to the private sector (year-on-year % change)(1)	-1.7	-2.4	0.5	4.5	4.4	3.6
Lending for house purchase (year-on-year % change)(1)	-2.8	-1.9	-2.1	2.7	2.9	4.7
Loan-to-deposit ratio(2)	92.0	89.2	85.3	82.1	82.1	82.2
Central bank liquidity as % of liabilities(1)	0.0	0.1	0.3	0.4	0.6	0.6
Private debt (% of GDP)	117.2	111.9	104.1	97.8	93.9	-
Gross external debt (% of GDP)(2) - public	36.1	36.4	32.5	30.1	27.2	26.9
- private	57.3	54.4	50.6	47.1	44.8	42.9
Long-term interest rate spread versus Bund (basis points)*	288.8	305.5	339.6	245.0	177.6	159.9
Credit default swap spreads for sovereign securities (5-year)*	276.1	273.1	240.1	148.4	94.5	88.1

(1) Latest data Q3 - 2019. Includes not only banks but all monetary financial institutions excluding central banks.
(2) Latest data Q2 - 2019.
(3) Quarterly values are annualised.
Source: European Commission (long-term interest rates); World Bank (gross external debt); Eurostat (private debt); ECB (all other indicators).

Table C.2: **Headline Social Scoreboard indicators**

	2014	2015	2016	2017	2018	2019 [5]
Equal opportunities and access to the labour market						
Early leavers from education and training (% of population aged 18-24)	2.8	2.8	2.8	3.1	3.3	:
Gender employment gap (pps)	10.0	9.5	9.6	10.6	10.2	11.0
Income inequality, measured as quintile share ratio (S80/S20)	5.1	5.2	5.0	5.0	5.0	:
At-risk-of-poverty or social exclusion rate(1) (AROPE)	29.3	29.1	27.9	26.4	24.8	:
Young people neither in employment nor in education and training (% of population aged 15-24)	19.3	18.1	16.9	15.4	13.6	:
Dynamic labour markets and fair working conditions						
Employment rate (20-64 years)	59.2	60.6	61.4	63.6	65.2	66.6
Unemployment rate(2) (15-74 years)	17.2	16.1	13.4	11.0	8.4	7.0
Long-term unemployment rate (as % of active population)	10.1	10.2	6.6	4.6	3.4	2.6
Gross disposable income of households in real terms per capita(3) (Index 2008=100)	:	:	:	:	:	:
Annual net earnings of a full-time single worker without children earning an average wage (levels in PPS, three-year average)	:	12789	13113	:	:	:
Annual net earnings of a full-time single worker without children earning an average wage (percentage change, real terms, three-year average)	:	:	2.30	:	:	:
Public support / Social protection and inclusion						
Impact of social transfers (excluding pensions) on poverty reduction(4)	35.1	35.5	28.6	24.8	24.9	:
Children aged less than 3 years in formal childcare	17.1	11.8	15.7	15.9	17.8	:
Self-reported unmet need for medical care	3.3	1.9	1.7	1.6	1.4	:
Individuals who have basic or above basic overall digital skills (% of population aged 16-74)	:	51.0	55.0	41.0	:	:

(1) People at risk of poverty or social exclusion (AROPE): individuals who are at risk of poverty (AROP) and/or suffering from severe material deprivation and/or living in households with zero or very low work intensity.
(2) Unemployed persons are all those who were not employed but had actively sought work and were ready to begin working immediately or within two weeks.
(3) Gross disposable household income is defined in unadjusted terms, according to the draft 2019 joint employment report.
(4) Reduction in percentage of the risk-of-poverty rate, due to social transfers (calculated comparing at-risk-of-poverty rates before social transfers with those after transfers; pensions are not considered as social transfers in the calculation).
(5) Average of first three quarters of 2019 for the employment rate, unemployment rate and gender employment gap.
Source: Eurostat

Table C.3: **Labour market and education indicators**

Labour market indicators	**2014**	**2015**	**2016**	**2017**	**2018**	**2019 [5]**
Activity rate (15-64)	66.1	66.9	65.6	66.4	66.3	66.3
Employment in current job by duration						
From 0 to 11 months	11.6	11.5	14.1	14.2	13.8	:
From 12 to 23 months	6.0	7.5	8.8	9.0	9.6	:
From 24 to 59 months	14.1	12.9	13.6	14.8	16.1	:
60 months or over	68.3	68.0	62.4	60.7	58.7	:
Employment growth* (% change from previous year)	2.7	1.2	0.3	2.2	1.8	1.5
Employment rate of women (% of female population aged 20-64)	54.2	55.9	56.6	58.3	60.1	61.1
Employment rate of men (% of male population aged 20-64)	64.2	65.4	66.2	68.9	70.3	72.2
Employment rate of older workers* (% of population aged 55-64)	36.2	39.2	38.1	40.3	42.8	44.0
Part-time employment* (% of total employment, aged 15-64)	5.3	6.0	5.6	4.8	5.2	5.2
Fixed-term employment* (% of employees with a fixed term contract, aged 15-64)	16.9	20.2	22.2	20.7	19.9	18.1
Transition rate from temporary to permanent employment (3-year average)	29.8	29.4	32.2	34.1	34.9	:
Youth unemployment rate (% active population aged 15-24)	44.9	42.3	31.8	27.2	23.4	19.0
Gender gap in part-time employment	2.7	2.6	2.7	2.2	3.2	3.7
Gender pay gap[(2)] (in undadjusted form)	8.7	:	11.1	11.6	:	:
Education and training indicators	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Adult participation in learning (% of people aged 25-64 participating in education and training)	2.8	3.1	3.0	2.3	2.9	:
Underachievement in education[(3)]	:	32.0	:	:	:	:
Tertiary educational attainment (% of population aged 30-34 having successfully completed tertiary education)	32.1	30.8	29.3	28.7	34.1	:
Variation in performance explained by students' socio-economic status[(4)]	:	12.1	:	:	:	:

* Non-scoreboard indicator
(1) Long-term unemployed are people who have been unemployed for at least 12 months.
(2) Difference between the average gross hourly earnings of male paid employees and of female paid employees as a percentage of average gross hourly earnings of male paid employees. It is defined as "unadjusted", as it does not correct for the distribution of individual characteristics (and thus gives an overall picture of gender inequalities in terms of pay). All employees working in firms with 10 or more employees, without restrictions for age and hours worked, are included.
(3) PISA (OECD) results for low achievement in mathematics for 15 year-olds.
(4) Impact of socio-economic and cultural status on PISA (OECD) scores. Values for 2015 refer to mathematics and those for 2018 refer to reading.
(5) Average of first three quarters of 2019. Data for youth unemployment rate is seasonally adjusted.
Source: Eurostat, OECD

Table C.4: **Social inclusion and health indicators**

	2013	2014	2015	2016	2017	2018
Expenditure on social protection benefits* (% of GDP)						
Sickness/healthcare	6.9	6.8	7.1	7.0	6.9	:
Disability	2.7	2.6	2.5	2.3	2.2	:
Old age and survivors	9.0	9.3	9.1	9.0	8.9	:
Family/children	1.6	1.9	1.9	1.8	1.8	:
Unemployment	0.5	0.5	0.6	0.5	0.4	:
Housing	0.0	0.0	0.0	0.0	0.0	:
Social exclusion n.e.c.	0.2	0.3	0.3	0.3	0.3	:
Total	21.0	21.4	21.4	20.9	20.5	:
of which: means-tested benefits	1.1	1.1	1.1	1.0	0.9	:
General government expenditure by function (% of GDP)						
Social protection	15.2	15.6	15.7	14.6	14.3	:
Health	6.4	6.6	6.5	6.4	6.3	:
Education	5.0	4.8	4.8	4.8	4.7	:
Out-of-pocket expenditure on healthcare	8.8	11.3	11.0	11.0	11.0	:
Children at risk of poverty or social exclusion (% of people aged 0-17)*	29.3	29.0	28.2	26.6	25.8	23.7
At-risk-of-poverty rate(1) (% of total population)	19.5	19.4	20.0	19.5	20.0	19.3
In-work at-risk-of-poverty rate (% of persons employed)	6.2	5.7	5.9	5.6	5.8	5.2
Severe material deprivation rate(2) (% of total population)	14.7	13.9	13.7	12.5	10.3	8.6
Severe housing deprivation rate(3), by tenure status						
Owner, with mortgage or loan	5.8	2.3	6.1	5.4	6.2	5.2
Tenant, rent at market price	7.1	16.0	15.0	7.6	5.5	7.5
Proportion of people living in low work intensity households(4) (% of people aged 0-59)	14.8	14.7	14.4	13.0	12.2	11.2
Poverty thresholds, expressed in national currency at constant prices*	19330	19585	20544	21568	23293	24426
Healthy life years						
Females	5.9	5.8	4.5	4.9	4.8	:
Males	5.5	6.0	4.7	5.2	5.0	:
Aggregate replacement ratio for pensions(5)	0.4	0.4	0.4	0.4	0.4	0.4
Connectivity dimension of the Digital Economy and Society Index (DESI)(6)	:	29.9	35.4	42.0	45.0	:
GINI coefficient before taxes and transfers*	50.8	50.1	51.0	49.9	49.4	:
GINI coefficient after taxes and transfers*	30.9	30.2	30.6	29.8	29.9	:

* Non-scoreboard indicator
(1) At-risk-of-poverty rate (AROP): proportion of people with an equivalised disposable income below 60 % of the national equivalised median income.
(2) 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.
(3) Percentage of total population living in overcrowded dwellings and exhibiting housing deprivation.
(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) Ratio of the median individual gross pensions of people aged 65-74 relative to the median individual gross earnings of people aged 50-59.
(6) Fixed broadband take up (33%), mobile broadband take up (22%), speed (33%) and affordability (11%), from the Digital Scoreboard.
Source: Eurostat, OECD

Table C.5: **Product market performance and policy indicators**

Performance indicators	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Labour productivity per person[1] growth (t/t-1) in %						
Labour productivity growth in industry	3.44	1.16	3.61	4.88	-0.07	-5.47
Labour productivity growth in construction	-2.42	1.04	-2.22	0.03	7.49	-2.49
Labour productivity growth in market services	1.74	-4.23	0.06	-0.44	-1.93	2.66
Unit Labour Cost (ULC) index[2] growth (t/t-1) in %						
ULC growth in industry	0.18	-2.53	-0.97	-4.04	1.78	3.91
ULC growth in construction	-1.85	-3.04	4.26	-2.19	5.47	1.93
ULC growth in market services	-1.02	1.58	-0.90	0.03	0.80	1.91
Business environment	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Time needed to enforce contracts[3] (days)	650	650	650	650	650	650
Time needed to start a business[3] (days)	22.5	22.5	22.5	22.5	22.5	22.5
Outcome of applications by SMEs for bank loans[4]	0.19	0.88	0.31	0.60	0.10	0.36
Research and innovation	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
R&D intensity	0.81	0.78	0.84	0.86	0.86	0.97
General government expenditure on education as % of GDP	5.00	4.80	4.80	4.80	4.70	:
Employed people with tertiary education and/or people employed in S&T as % of total employment	36	37	38	38	38	39
Population having completed tertiary education[5]	17	19	20	20	21	22
Young people with upper secondary education[6]	94	96	96	96	96	96
Trade balance of high technology products as % of GDP	-1.49	-1.52	-1.75	-1.85	-1.19	-1.71
Product and service markets and competition	**2003**	**2008**	**2013**			**2018***
OECD product market regulation (PMR)[7], overall	:	:	2.08			1.43
OECD PMR[7], retail	:	:	1.42			1.22
OECD PMR[7], professional services[8]	:	:	3.70			1.60
OECD PMR[7], network industries[9]	:	:	2.75			1.53

*While the indicator values from 2003 to 2013 are comparable, the methodology has considerably changed in 2018. As a result, past vintages cannot be compared with the 2018 PMR indicators.
(1) Value added in constant prices divided by the number of persons employed.
(2) Compensation of employees in current prices divided by value added in constant prices.
(3) The methodologies, including the assumptions, for this indicator are shown in detail here: http://www.doingbusiness.org/methodology.
(4) 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 codified as follows: zero if received everything, one if received 75% and above, two if received below 75%, three if refused or rejected and treated as missing values if the application is still pending or don't know.
(5) Percentage population aged 15-64 having completed tertiary education.
(6) Percentage population aged 20-24 having attained at least upper secondary education.
(7) Index: 0 = not regulated; 6 = most regulated. The methodologies of the OECD product market regulation indicators are shown in detail here: http://www.oecd.org/competition/reform/indicatorsofproductmarketregulationhomepage.htm
(8) Simple average of the indicators of regulation for lawyers, accountants, architects and engineers.
(9) Aggregate OECD indicators of regulation in energy, transport and communications (ETCR).
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.6: **Green growth**

Green growth performance		2013	2014	2015	2016	2017	2018
Macroeconomic							
Energy intensity	kgoe / €	0.20	0.19	0.19	0.18	0.19	0.18
Carbon intensity	kg / €	0.56	0.54	0.54	0.53	0.52	-
Resource intensity (reciprocal of resource productivity)	kg / €	0.97	0.88	0.92	0.91	0.86	0.92
Waste intensity	kg / €	-	0.09	-	0.11	-	-
Energy balance of trade	% GDP	-5.1	-4.0	-3.4	-2.7	-2.9	-3.2
Weighting of energy in HICP	%	15.74	16.49	14.87	10.78	11.51	12.12
Difference between energy price change and inflation	p.p.	2.6	-0.2	-2.7	-4.4	-5.3	3.0
Real unit of energy cost	% of value added	9.0	8.7	9.0	9.3	-	-
Ratio of environmental taxes to labour taxes	ratio	0.14	0.14	0.15	0.16	0.17	-
Environmental taxes	% GDP	2.9	3.2	3.4	3.5	3.5	3.6
Sectoral							
Industry energy intensity	kgoe / €	0.12	0.12	0.12	0.11	0.12	-
Real unit energy cost for manufacturing industry excl. refining	% of value added	5.5	5.4	5.5	5.6	-	-
Share of energy-intensive industries in the economy	% GDP	9.29	9.33	9.42	9.70	9.59	-
Electricity prices for medium-sized industrial users	€ / kWh	0.09	0.09	0.09	0.09	0.09	0.10
Gas prices for medium-sized industrial users	€ / kWh	0.04	0.04	0.04	0.03	0.02	0.03
Public R&D for energy	% GDP	0.00	0.00	0.00	0.00	0.00	0.00
Public R&D for environmental protection	% GDP	0.00	0.00	0.00	0.01	0.01	0.01
Municipal waste recycling rate	%	14.9	16.5	18.0	21.0	23.6	25.3
Share of GHG emissions covered by ETS*	%	36.7	36.4	35.0	34.1	33.4	30.2
Transport energy intensity	kgoe / €	1.36	1.38	1.44	1.40	1.43	-
Transport carbon intensity	kg / €	0.79	0.73	0.73	0.74	0.71	-
Security of energy supply							
Energy import dependency	%	47.5	44.3	48.9	48.5	53.3	-
Aggregated supplier concentration index	HHI	28.1	19.5	14.6	12.6	11.2	-
Diversification of energy mix	HHI	27.4	27.5	26.5	26.9	28.0	28.4

(1) All macro intensity indicators are expressed as a ratio of a physical quantity to GDP (in 2010 prices)
(2) Energy intensity: gross inland energy consumption (in kgoe) divided by GDP (in EUR)
(3) Carbon intensity: greenhouse gas emissions (in kg CO2 equivalents) divided by GDP (in EUR)
(4) Resource intensity: domestic material consumption (in kg) divided by GDP (in EUR)
(5) Waste intensity: waste (in kg) divided by GDP (in EUR)
(6) Energy balance of trade: the balance of energy exports and imports, expressed as % of GDP.
(7) Weighting of energy in HICP: the proportion of 'energy' items in the consumption basket used for the construction of the HICP.
(8) Difference between energy price change and inflation: energy component of HICP, and total HICP inflation (annual % change).
(9) Real unit energy cost: real energy costs as % of total value added for the economy.
(10) Industry energy intensity: final energy consumption of industry (in kgoe) divided by gross value added of industry (in 2010 EUR).
(11) Real unit energy costs for manufacturing industry excluding refining: real costs as % of value added for manufacturing sectors.
(12) Share of energy-intensive industries in the economy: share of gross value added of the energy-intensive industries in GDP.
(13) Electricity and gas prices for medium-sized industrial users: consumption band 500–20 00MWh and 10 000 -100 000 GJ; figures excl. VAT.
(14) Recycling rate of municipal waste: ratio of recycled and composted municipal waste to total municipal waste.
(15) Public R&D for energy or for the environment: government spending on R&D for these categories as % of GDP.
(16) Proportion of GHG emissions covered by EU emissions trading system (ETS) (excluding aviation): based on GHG emissions (excl. land use, land use change and forestry) as reported by Member States to the European Environment Agency.
(17) Transport energy intensity: final energy consumption of transport activity including international aviation (kgoe) divided by gross value added in transportation and storage sector (in 2010 EUR).
(18) Transport carbon intensity: GHG emissions in transportation and storage sector divided by gross value added in transportation and storage sector (in 2010 EUR).
(19) Energy import dependency: net energy imports divided by gross inland energy consumption incl. consumption of international bunker fuels.
(20) Aggregated supplier concentration index: Herfindahl index covering oil, gas and coal. Smaller values indicate larger diversification and hence lower risk.
(21) Diversification of the energy mix: Herfindahl index covering natural gas, total petrol products, nuclear heat, renewable energies and solid fuels. Smaller values indicate larger diversification.
Source: European Commission and European Environment Agency (Share of GHG emissions covered by ETS); European Commission (Environmental taxes over labour taxes and GDP); Eurostat (all other indicators).

ANNEX D: INVESTMENT GUIDANCE ON JUST TRANSITION FUND 2021-2027 FOR CROATIA

Building on the Commission proposal, this Annex presents the preliminary Commission services' views on priority investment areas and framework conditions for effective delivery for the 2021-2027 Just Transition Fund investments in Croatia.([57])

These priority investment areas are derived from the broader analysis of territories facing serious socio-economic challenges deriving from the transition process towards a climate-neutral economy of the Union by 2050 in Croatia, assessed in the report. This Annex provides the basis for a dialogue between Croatia and the Commission services as well as the relevant guidance for the Member States in preparing their territorial just transition plans, which will form the basis for programming the Just Transition Fund. The Just Transition Fund investments complement those under Cohesion Policy funding for which guidance in the form of Annex D was given in the 2019 Country Report for Croatia[58].

In Croatia, two regions were identified on the basis of greenhouse gas (GHG) emissions intensity: Sisak–Moslavina and Istria county. GHG emissions in Sisak-Moslavina county are generated mostly due to chemical industries and refined petroleum products, as a result. These energy intensive industrial value chains employ a significant number of people. The carbon intensity of local industry highlights scale of decarbonisation challenge, which requires reorientation of long-term investments towards innovative, climate-neutral technologies, while tapping into potential of local workforce. Based on this preliminary assessment, it appears warranted that the Just Transition Fund concentrates its intervention on these regions.

In Istria county environmental challenges are closely linked with electricity production and cement industry. Being one of the most prosperous region in the country it has a coal power plant, which produces 6% of energy output for the whole country. On the other hand, Sisak-Moslavina county is among one of the most deprived regions. It hosts, among others, a chemical company and refinery, which is currently undergoing shift from a loss-making crude oil towards more sustainable alternative industrial activities. It is estimated that this transition will affect around 7% of total population employed in Sisak-Moslavina county.

Significant skills mismatches observed at the labour market in Croatia could become one of the most acute transition obstacles. This may become particularly challenging for Sisak-Moslavina county with the highest unemployment rate (24.3%) registered in Croatia (2018 data).

Challenges towards accomplishing climate neutral transition of local economy would require creation of new businesses and job opportunities, while addressing the demand for higher skills and qualifications needed for just transition of highly emitting industrial sectors.

Investment needs have been identified to tackle these challenges, while alleviating the socio-economic costs of transition and improving environmental sustainability and resource efficiency. Key actions of the Just Transition Fund could target in particular:

- productive investments in SMEs, including start-ups, leading to economic diversification and reconversion;
- investments in research and innovation activities and fostering transfer of advanced technologies;

([57]) This Annex is to be considered in conjunction with the EC proposal for a Regulation of the European Parliament and of the Council on the Just Transition Fund 2021-2027 (COM(2020) 22) and the EC proposal for a Regulation of the European Parliament and of the Council laying down common provisions on the European Regional Development Fund, the European Social Fund Plus, the Cohesion Fund, and the European Maritime and Fisheries Fund and financial rules for those and for the Asylum and Migration Fund, the Internal Security Fund and the Border Management and Visa Instrument (COM(2020) 23)

[58] SWD(2019) 1001 final

- investments in the deployment of technology and infrastructures for affordable clean energy and in greenhouse gas emission reduction;
- investments in digitalisation;
- investments in enhancing the circular economy;
- upskilling and reskilling of workers.

Sisak–Moslavina and Istria county industrial sites, performing activities listed in Annex I to Directive 2003/87/EC, employ a substantial number of workers and their activity is at risk due to their high greenhouse gas emissions. Support to investments to reduce the emissions could be considered, provided that they achieve a substantial reduction of emissions (going substantially below the relevant benchmarks used for free allocation under Directive 2003/87/EC) and on the condition that the investments are compatible with the European Green Deal.

ANNEX E: PROGRESS TOWARDS THE SUSTAINABLE DEVELOPMENT GOALS (SDGS)

Assessment of Croatia's short-term progress towards the SDGs ([59])

Table E.1 shows the data for Croatia and the EU-28 for the indicators included in the EU SDG indicator set used by Eurostat for monitoring progress towards the SDGs in an EU context ([60]). As the short-term trend at EU-level is assessed over a 5-year period, both the value at the beginning of the period and the latest available value is presented. The indicators are regularly updated on the SDI dedicated section of the Eurostat website.

Table E.1: **Indicators measuring Croatia's progress towards the SDGs**

SDG / Sub-theme	Indicator	Unit	Croatia				EU-28			
			Starting		Latest		Starting		Latest	
			year	value	year	value	year	value	year	value
SDG 1 – No poverty										
Multidimensional poverty	People at risk of poverty or social exclusion	% of population	2013	29.9	2018	24.8	2013	24.6	2018	21.9
	People at risk of income poverty after social transfers	% of population	2013	19.5	2018	19.3	2013	16.7	2018	17.1
	Severely materially deprived people	% of population	2013	14.7	2018	8.6	2013	9.6	2018	5.8
	People living in households with very low work intensity	% of population aged 0 to 59	2013	14.8	2018	11.2	2013	11.0	2018	8.8
	In-work at-risk-of-poverty rate	% of population aged 18 or over	2013	6.2	2018	5.2	2013	9.0	2018	9.5
Basic needs	Population living in a dwelling with a leaking roof, damp walls, floors or foundation or rot in window frames or floor	% of population	2013	13.1	2018	11.2	2013	15.6	2018	13.9
	Self-reported unmet need for medical care	% of population aged 16 or over	2013	3.3	2018	1.4	2013	3.7	2018	2.0
	Population having neither a bath, nor a shower, nor indoor flushing toilet in their household	% of population	2013	1.5	2018	1.1	2013	2.2	2018	1.7
	Population unable to keep home adequately warm	% of population	2013	9.9	2018	7.7	2013	10.7	2018	7.3
	Overcrowding rate	% of population	2013	42.8	2018	39.3	2013	17.0	2018	15.5
SDG 2 – Zero hunger										
Malnutrition	Obesity rate	% of population aged 18 or over	2014	18.7	2017	18.2	2014	15.9	2017	15.2
Sustainable agricultural production	Agricultural factor income per annual work unit (AWU)	EUR, chain linked volumes (2010)	2012	4 128	2017	5 961	2012	14 865	2017	17 304
	Government support to agricultural research and development	million EUR	2014	6.5	2019	12.1	2013	3 048.6	2018	3 242.5
	Area under organic farming	% of utilised agricultural area	2013	3.1	2018	6.9	2013	5.7	2018	7.5
	Gross nitrogen balance on agricultural land	kg per hectare	2012	86	2017	75	2010	49	2015	51
Environmental impacts of agricultural production	Ammonia emissions from agriculture	kg per ha of utilised agricultural area	2012	26.2	2017	21.3	2011	19.7	2016	20.3
	Nitrate in groundwater	mg NO_3 per litre	N/A	:	N/A	:	2012	19.2	2017	19.1
	Estimated soil erosion by water	km^2	2010	3 780.9	2016	2 562.1	2010	207 232.2	2016	205 294.5
	Common farmland bird index	index 2000 = 100	N/A	:	N/A	:	2013	83.9	2018	80.7
SDG 3 – Good health and well-being										
Healthy lives	Life expectancy at birth	years	2012	77.3	2017	78.0	2012	80.3	2017	80.9
	Share of people with good or very good perceived health	% of population aged 16 or over	2013	46.6	2018	60.7	2013	67.3	2018	69.2
Health determinants	Smoking prevalence	% of population aged 15 or over	2014	33	2017	35	2014	26	2017	26
	Obesity rate	% of population aged 18 or over	2014	18.7	2017	18.2	2014	15.9	2017	15.2
	Population living in households considering that they suffer from noise	% of population	2013	10.0	2018	8.0	2013	18.8	2018	18.3
	Exposure to air pollution by particulate matter ($PM_{2.5}$)	$\mu g/m^3$	2013	21.9	2017	19.0	2012	16.8	2017	14.1
Causes of death	Death rate due to chronic diseases	number per 100 000 persons aged less than 65	2011	196.3	2016	169.8	2011	132.5	2016	119.0
	Death rate due to tuberculosis, HIV and hepatitis	number per 100 000 persons	2011	2.6	2016	3.2	2011	3.4	2016	2.6
	People killed in accidents at work	number per 100 000 employed persons	2012	3.87	2017	2.63	2012	1.91	2017	1.65
	People killed in road accidents	number of killed people	2012	393	2017	331	2012	28 231	2017	25 257
Access to health care	Self-reported unmet need for medical care	% of population aged 16 or over	2013	3.3	2018	1.4	2013	3.7	2018	2.0

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([59]) Data extracted on 9 February 2020 from the Eurostat database (official EU SDG indicator set; see https://ec.europa.eu/eurostat/web/sdi/main-tables).

([60]) The EU SDG indicator set is aligned as far as appropriate with the UN list of global indicators, noting that the UN indicators are selected for global level reporting and are therefore not always relevant in an EU context. The EU SDG indicators have strong links with EU policy initiatives.

Table (continued)

SDG / Sub-theme	Indicator	Unit	Croatia				EU-28			
			Starting		Latest		Starting		Latest	
			year	value	year	value	year	value	year	value
SDG 4 – Quality education										
Basic education	Early leavers from education and training	% of the population aged 18 to 24	2013	4.5	2018	3.3	2013	11.9	2018	10.6
	Participation in early childhood education	% of the age group between 4-years-old and the starting age of compulsory education	2012	71.7	2017	82.8	2012	94.0	2017	95.4
	Underachievement in reading	% of 15-year-old students	2015	19.9	2018	21.6	2015	19.7	2018	21.7
	Young people neither in employment nor in education and training	% of population aged 15 to 29	2013	22.3	2018	15.6	2013	15.9	2018	12.9
Tertiary education	Tertiary educational attainment	% of the population aged 30 to 34	2013	25.6	2018	34.1	2013	37.1	2018	40.7
	Employment rate of recent graduates	% of population aged 20 to 34	2013	53.8	2018	71.2	2013	75.4	2018	81.7
Adult education	Adult participation in learning	% of population aged 25 to 64	2013	3.1	2018	2.9	2013	10.7	2018	11.1
SDG 5 – Gender equality										
Gender-based violence	Physical and sexual violence to women experienced within 12 months prior to the interview	% of women	N/A	:	2012	5	N/A	:	2012	8
Education	Gender gap for early leavers from education and training	percentage points, persons aged 18–24	2013	2.1	2018	0.4	2013	3.4	2018	3.3
	Gender gap for tertiary educational attainment	percentage points, persons aged 30–34	2013	8.0	2018	15.4	2013	8.5	2018	10.1
	Gender gap for employment rate of recent graduates	percentage points, persons aged 20–34	2013	0.2	2018	9.6	2013	4.4	2018	3.4
Employment	Gender pay gap in unadjusted form	% of average gross hourly earnings of men	2013	7.7	2017	11.6	2012	17.4	2017	16.0
	Gender employment gap	percentage points, persons aged 20–64	2013	8.8	2018	10.2	2013	11.7	2018	11.6
	Gender gap in inactive population due to caring responsibilities	percentage points, persons aged 20–64	2013	22.1	2018	22.6	2013	25.5	2018	27.1
Leadership positions	Seats held by women in national parliaments and governments	% of seats	2014	25.8	2019	19.9	2014	27.2	2019	31.5
	Positions held by women in senior management	% of board members	2014	19.0	2019	23.7	2014	20.2	2019	27.8
SDG 6 – Clean water and sanitation										
Sanitation	Population having neither a bath, nor a shower, nor indoor flushing toilet in their household	% of population	2013	1.5	2018	1.1	2013	2.2	2018	1.7
	Population connected to at least secondary wastewater treatment	% of population	2012	36.9	2017	36.9	N/A	:	N/A	:
Water quality	Biochemical oxygen demand in rivers	mg O_2 per litre	2012	1.92	2017	1.79	2012	2.06	2017	2.00
	Nitrate in groundwater	mg NO_3 per litre	N/A	:	N/A	:	2012	19.2	2017	19.1
	Phosphate in rivers	mg PO_4 per litre	2012	0.031	2017	0.025	2012	0.096	2017	0.093
	Inland water bathing sites with excellent water quality	% of bathing sites with excellent water quality	2013	37.5	2018	51.9	2013	76.5	2018	80.8
Water use efficiency	Water exploitation index	% of long term average available water (LTAA)	N/A	:	N/A	:	N/A	:	N/A	:
SDG 7 – Affordable and clean energy										
Energy consumption	Primary energy consumption	million tonnes of oil equivalent (Mtoe)	2013	8.0	2018	8.2	2013	1 577.4	2018	1 551.9
	Final energy consumption	million tonnes of oil equivalent (Mtoe)	2013	6.6	2018	6.9	2013	1 115.5	2018	1 124.1
	Final energy consumption in households per capita	kgoe	2013	586	2018	562	2013	605	2018	552
	Energy productivity	EUR per kgoe	2013	5.1	2018	5.6	2013	7.6	2018	8.5
	Greenhouse gas emissions intensity of energy consumption	index 2000 = 100	2012	95.8	2017	90.4	2012	91.5	2017	86.5
Energy supply	Share of renewable energy in gross final energy consumption	%	2013	28.0	2018	28.0	2013	15.4	2018	18.0
	Energy import dependency	% of imports in gross available energy	2013	47.4	2018	52.7	2013	53.2	2018	55.7
Access to affordable energy	Population unable to keep home adequately warm	% of population	2013	9.9	2018	7.7	2013	10.7	2018	7.3

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Table (continued)

SDG / Sub-theme	Indicator	Unit	Croatia				EU-28			
			Starting		Latest		Starting		Latest	
			year	value	year	value	year	value	year	value
SDG 8 – Decent work and economic growth										
Sustainable economic growth	Real GDP per capita	EUR per capita, chain-linked volumes (2010)	2013	10 280	2018	11 990	2013	25 750	2018	28 280
	Investment share of GDP	% of GDP	N/A	:	N/A	:	2013	19.5	2018	20.9
	Resource productivity	EUR per kg, chain-linked volumes (2010)	2013	1.03	2018	1.08	2013	1.98	2018	2.04
Employment	Young people neither in employment nor in education and training	% of population aged 15 to 29	2013	22.3	2018	15.6	2013	15.9	2018	12.9
	Employment rate	% of population aged 20 to 64	2013	57.2	2018	65.2	2013	68.4	2018	73.2
	Long-term unemployment rate	% of active population	2013	11.0	2018	3.4	2013	5.1	2018	2.9
	Gender gap in inactive population due to caring responsibilities	percentage points, persons aged 20–64	2013	22.1	2018	22.6	2013	25.5	2018	27.1
Decent work	People killed in accidents at work	number per 100 000 employed persons	2012	3.87	2017	2.63	2012	1.91	2017	1.65
	In-work at-risk-of-poverty rate	% of population	2013	6.2	2018	5.2	2013	9	2018	9.5
SDG 9 – Industry, innovation and infrastructure										
R&D and innovation	Gross domestic expenditure on R&D	% of GDP	2013	0.81	2018	0.97	2013	2.01	2018	2.12
	Employment in high- and medium-high technology manufacturing and knowledge-intensive services	% of total employment	2013	36.4	2018	38.9	2013	45.0	2018	46.1
	R&D personnel	% of active population	2013	0.58	2018	0.73	2013	1.15	2018	1.36
	Patent applications to the European Patent Office (EPO)	number	2012	19	2017	20	2012	56 772	2017	54 649
Sustainable transport	Share of buses and trains in total passenger transport	% of total inland passenger-km	2012	14.2	2017	15.7	2012	17.2	2017	16.7
	Share of rail and inland waterways in total freight transport	% of total inland freight tonne-km	2012	29.5	2017	26.4	2012	25.4	2017	23.3
	Average CO2 emissions per km from new passenger cars	g CO_2 per km	2013	127.1	2018	115.7	2014	123.4	2018	120.4
SDG 10 – Reduced inequalities										
Inequalities within countries	Relative median at-risk-of-poverty gap	% distance to poverty threshold	2013	28.1	2018	28.9	2013	23.8	2018	24.6
	Income distribution	income quintile share ratio	2013	5.3	2018	5.0	2013	5.0	2018	5.2
	Income share of the bottom 40 % of the population	% of income	2013	20.4	2018	20.9	2013	21.1	2018	21.0
	People at risk of income poverty after social transfers	% of population	2013	19.5	2018	19.3	2013	16.7	2018	17.1
Inequalities between countries	Purchasing power adjusted GDP per capita	Real expenditure per capita (in PPS)	2013	16 000	2018	19 400	2013	26 800	2018	31 000
	Adjusted gross disposable income of households per capita	Purchasing power standard (PPS) per inhabitant	2013	:	N/A	:	2013	20 392	2018	22 824
	Financing to developing countries	million EUR, current prices	2012	17	N/A	:	2012	147 962	2017	155 224
	Imports from developing countries	million EUR, current prices	2013	3 469	2018	4 022	2013	817 475	2018	1 013 981
Migration and social inclusion	Asylum applications	Positive first instance decisions, per million inhabitants	2013	6	2018	33	2013	213	2018	424
SDG 11 – Sustainable cities and communities										
Quality of life in cities and communities	Overcrowding rate	% of population	2013	42.8	2018	39.3	2013	17.0	2018	15.5
	Population living in households considering that they suffer from noise	% of population	2013	10.0	2018	8.0	2013	18.8	2018	18.3
	Exposure to air pollution by particulate matter ($PM_{2.5}$)	µg/m³	2013	21.9	2017	19.0	2012	16.8	2017	14.1
	Population living in a dwelling with a leaking roof, damp walls, floors or foundation or rot in window frames or floor	% of population	2013	13.1	2018	11.2	2013	15.6	2018	13.9
	Population reporting occurrence of crime, violence or vandalism in their area	% of population	2013	2.9	2018	2.6	2013	14.5	2018	12.7
Sustainable mobility	People killed in road accidents	number of killed people	2012	393	2017	331	2012	28 231	2017	25 257
	Share of buses and trains in total passenger transport	% of total inland passenger-km	2012	14.2	2017	15.7	2012	17.2	2017	16.7
Adverse environmental impacts	Settlement area per capita	m²	N/A	:	2015	670.7	2012	625.0	2015	653.7
	Recycling rate of municipal waste	% of total waste generated	2013	14.9	2018	25.3	2013	41.7	2018	47.0
	Population connected to at least secondary wastewater treatment	% of population	2012	36.9	2017	36.9	N/A	:	N/A	:

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Table (continued)

SDG / Sub-theme	Indicator	Unit	Croatia Starting year	Croatia Starting value	Croatia Latest year	Croatia Latest value	EU-28 Starting year	EU-28 Starting value	EU-28 Latest year	EU-28 Latest value
SDG 12 – Responsible consumption and production										
Decoupling environmental impacts from economic growth	Consumption of toxic chemicals	million tonnes	N/A	:	N/A	:	2013	300.3	2018	313.9
	Resource productivity	EUR per kg, chain-linked volumes (2010)	2013	1.03	2018	1.08	2013	1.98	2018	2.04
	Average CO2 emissions per km from new passenger cars	g CO_2 per km	2013	127.1	2018	115.7	2014	123.4	2018	120.4
	Energy productivity	EUR per kgoe	2013	5.1	2018	5.6	2013	7.6	2018	8.5
Energy consumption	Primary energy consumption	million tonnes of oil equivalent (Mtoe)	2013	8.0	2018	8.2	2013	1 577.4	2018	1 551.9
	Final energy consumption	million tonnes of oil equivalent (Mtoe)	2013	6.6	2018	6.9	2013	1 115.5	2018	1 124.1
	Share of renewable energy in gross final energy consumption	%	2013	28.0	2018	28.0	2013	15.4	2018	18.0
Waste generation and management	Circular material use rate	% of material input for domestic use	2012	3.6	2017	5.1	2012	11.5	2017	11.7
	Generation of waste excluding major mineral wastes	kg per capita	2012	620	2016	828	2012	1 716	2016	1 772
	Recycling rate of waste excluding major mineral wastes	% of total waste treated	2012	35	2016	52	2012	55	2016	57
SDG 13 – Climate action										
Climate mitigation	Greenhouse gas emissions	index 1990 = 100	2012	81.1	2017	78.7	2012	82.1	2017	78.3
	Greenhouse gas emissions intensity of energy consumption	index 2000 = 100	2012	95.8	2017	90.4	2012	91.5	2017	86.5
	Primary energy consumption	million tonnes of oil equivalent (Mtoe)	2013	8.0	2018	8.2	2013	1 577.4	2018	1 551.9
	Final energy consumption	million tonnes of oil equivalent (Mtoe)	2013	6.6	2018	6.9	2013	1 115.5	2018	1 124.1
	Share of renewable energy in gross final energy consumption	%	2013	28.0	2018	28.0	2013	15.4	2018	18.0
	Average CO2 emissions per km from new passenger cars	g CO_2 per km	2013	127.1	2018	115.7	2014	123.4	2018	120.4
Climate impacts	European mean near surface temperature deviation	temperature deviation in °C, compared with the 1850–1899 average	N/A	:	N/A	:	2013	1.4	2018	2.1
	Climate-related economic losses	EUR billion, in 2017 values	N/A	:	N/A	:	2012	2 719	2017	2 649
	Mean ocean acidity	pH value	N/A	:	N/A	:	2013	8.06	2018	8.06
Support to climate action	Contribution to the international 100bn USD commitment on climate related expending	EUR million, current prices	N/A	:	2017	0.0	N/A	:	2017	20 388.7
SDG 14 – Life below water										
Ocean health	Coastal water bathing sites with excellent water quality	% of bathing sites with excellent water quality	2013	95.4	2018	95.6	2013	85.5	2018	87.1
	Mean ocean acidity	pH value	N/A	:	N/A	:	2013	8.06	2018	8.06
Marine conservation	Surface of marine sites designated under NATURA 2000	km^2	2013	5 280	2018	4 986	2013	251 566	2018	551 899
Sustainable fisheries	Estimated trends in fish stock biomass	index 2003 = 100	N/A	:	N/A	:	2012	110.0	2017	136.0
	Assessed fish stocks exceeding fishing mortality at maximum sustainable yield (Fmsy)	% of stocks exceeding fishing mortality at maximum sustainable yield ($F>F_{MSY}$)	N/A	:	N/A	:	2012	52.9	2017	42.7
SDG 15 – Life on land										
Ecosystems status	Share of forest area	% of total land area	N/A	:	2015	50.6	2012	40.3	2015	41.6
	Biochemical oxygen demand in rivers	mg O_2 per litre	2012	1.92	2017	1.79	2012	2.06	2017	2.00
	Nitrate in groundwater	mg NO_3 per litre	N/A	:	N/A	:	2012	19.2	2017	19.1
	Phosphate in rivers	mg PO_4 per litre	2012	0.031	2017	0.025	2012	0.096	2017	0.093
Land degradation	Soil sealing index	index 2006 = 100	2009	101.7	2015	103.7	2009	101.7	2015	104.2
	Estimated soil erosion by water	km^2	2010	3 780.9	2016	2 562.1	2010	207 232.2	2016	205 294.5
	Settlement area per capita	m^2	N/A	:	2015	670.7	2012	625.0	2015	653.7
Biodiversity	Surface of terrestrial sites designated under NATURA 2000	km^2	2013	20 675	2018	20 704	2013	787 766	2018	784 252
	Common bird index	index 2000 = 100	N/A	:	N/A	:	2013	94.7	2018	93.5
	Grassland butterfly index	index 2000 = 100	N/A	:	N/A	:	2012	72.2	2017	74.1

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Table (continued)

SDG / Sub-theme	Indicator	Unit	Croatia Starting year	Croatia Starting value	Croatia Latest year	Croatia Latest value	EU-28 Starting year	EU-28 Starting value	EU-28 Latest year	EU-28 Latest value
SDG 16 – Peace, justice and strong institutions										
Peace and personal security	Death rate due to homicide	number per 100 000 persons	2011	1.1	2016	1.2	2011	0.9	2016	0.6
	Population reporting occurrence of crime, violence or vandalism in their area	% of population	2013	2.9	2018	2.6	2013	14.5	2018	12.7
	Physical and sexual violence to women experienced within 12 months prior to the interview	% of women	N/A	:	2012	5	N/A	:	2012	8
Access to justice	General government total expenditure on law courts	million EUR	2012	226	2017	220	2012	48 381	2017	51 027
	Perceived independence of the justice system	% of population	2016	28	2019	18	2016	52	2019	56
Trust in institutions	Corruption Perceptions Index	score scale of 0 (highly corrupt) to 100 (very clean)	2013	48	2018	48	N/A	:	N/A	:
	Population with confidence in the EU Parliament	% of population	2013	44	2018	50	2013	39	2018	48
SDG 17 – Partnerships for the goals										
Global partnership	Official development assistance as share of gross national income	% of GNI	2012	0.04	2017	0.10	2013	0.43	2018	0.48
	EU financing to developing countries	million EUR, current prices	2012	17	N/A	:	2012	147 962	2017	155 224
	EU imports from developing countries	million EUR, current prices	2013	3 469	2018	4 022	2013	817 475	2018	1 013 981
Financial governance within the EU	General government gross debt	% of GDP	2013	81.2	2018	74.8	2013	86.3	2018	80.4
	Shares of environmental and labour taxes in total tax revenues	% of total tax revenues	2013	7.9	2018	9.3	2013	6.4	2018	6.1

Source: Eurostat

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