



EUROPEAN  
COMMISSION

Brussels, 22.2.2017  
SWD(2017) 76 final

**COMMISSION STAFF WORKING DOCUMENT**

**Country Report Croatia 2017**  
**Including an In-Depth Review on the prevention and correction of macroeconomic imbalances**

*Accompanying the document*

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

**2017 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**

**{COM(2017) 90 final}**  
**{SWD(2017) 67 final to SWD(2017) 93 final}**

# CONTENTS

Executive summary	1
1. Economic situation and outlook	4
2. Progress with country-specific recommendations	10
3. Summary of the main findings from the MIP in-depth review	13
4. Reform priorities	19
4.1. Public finances	19
4.2. Private sector debt and financial sector	24
4.3. Labour market, social policies and education	31
4.4. Business environment and investment	39
4.5. Public sector governance	48
A. Overview table	56
B. MIP Scoreboard	61
C. Standard tables	62
References	67

## LIST OF TABLES

1.1.	Key economic, financial and social indicators — Croatia	9
2.1.	Summary table on 2016 CSR assessment	11
3.1.	MIP Matrix	17
4.1.1.	Tax brackets in PIT (HRK / month)	22
4.2.1.	Financial soundness indicators, all banks	28
B.1.	The MIP Scoreboard for Croatia	61
C.1.	Financial market indicators	62
C.2.	Labour market and social indicators	63
C.3.	Labour market and social indicators (continued)	64
C.4.	Product market performance and policy indicators	65
C.5.	Green growth	66

## LIST OF GRAPHS

1.1.	Real GDP growth by demand component	4
1.2.	Structure of employment (lhs) and unemployment rate (rhs)	5
1.3.	Contributions to rate of change in yearly unit labour costs (ULC)	5
1.4.	Current account composition, gross external debt and net international investment position	6
1.5.	Inflation dynamics and main components in Croatia and in the euro area and money market interest rates	6
1.6.	Average cost of MFI euro-denominated loans for non-financial corporations, new business	7
1.7.	Debt and debt servicing burden to GDP for non-financial corporations , households and general government sector	7
1.8.	Actual and potential output growth	8
3.1.	Level and change in net international investment position	15
4.1.1.	General government debt by currency and market of issuance	19
4.1.2.	Contributions to yearly change in debt to GDP and total debt to GDP	20
4.1.3.	Expenditure on the wage bill and intermediate consumption compared to peers 2016	20
4.1.4.	Budget revenue from EU grants: projections, revisions and execution 2014-2017	21
4.1.5.	Gross public debt under different scenarios	21
4.2.1.	Contributions to changes in total corporate debt	24
4.2.2.	Proportion of debt by risk class and industry (2010 and 2015)	25
4.2.3.	Currency composition of corporate debt	25
4.2.4.	Contributions to change in total households debt	26
4.2.5.	Key indicators of the Croatian banking sector	27
4.2.6.	Non-performing loans developments	28
4.3.1.	Change in the unemployment rate: contribution of employment and participation	31
4.3.2.	Change in activity rate by age and skill level (Q3-2015 and Q3-2016)	31

4.3.3.	Composition of new retirees by type of pensions	32
4.3.4.	Temporary employment by labour market status 1 year before, and share of temporary contracts in total employment	33
4.4.1.	Potential output in Croatia and in Central Eastern European peer economies	39
4.4.2.	Investment by sectors, cumulative growth	41
4.4.3.	Investment across sectors: 2009 versus 2015	41
4.4.4.	Sources of investment financing by sectors (2015)	42
4.4.5.	Productivity in Croatia and CEE peers by industry (2014, CEE total=100)	42
4.4.6.	Change in average productivity by industry (2010-2014)	43
4.4.7.	Restrictiveness indicator	44
4.4.8.	Broadband connectivity in Croatia by speeds (% of households)	46
4.5.1.	Aggregate local government unit expenditure in 2015 by function	48
4.5.2.	Municipalities and towns (*) current revenue and expenditure in 2015 by size class	49
4.5.3.	Productivity gap of SOEs by ownership	51

## LIST OF BOXES

2.1.	Contribution of the EU budget to structural change in Croatia	12
4.3.1.	Impact of personal income tax reform on inequality and work incentives	34
4.4.1.	Investment challenges and reforms in Croatia	40

## EXECUTIVE SUMMARY

**This report assesses Croatia's economy in light of the European Commission's Annual Growth Survey published on 16 November 2016.** In the survey, the Commission calls on EU Member States to redouble their efforts on the three elements of the virtuous triangle of economic policy — boosting investment, pursuing structural reforms and ensuring responsible fiscal policies. In so doing, Member States should focus on enhancing social fairness in order to deliver more inclusive growth. At the same time, the Commission published the Alert Mechanism Report (AMR) that initiated the sixth round of the macroeconomic imbalance procedure. The in-depth review, which the 2017 AMR concluded should be undertaken for the Croatian economy, is presented in this report.

**The recovery picked up steam in 2016.** In 2015, GDP had expanded modestly, marking the end of one of the longest and deepest recessions in the EU. The recovery accelerated in 2016, at a projected rate of 2.8 %. An improving labour market, low energy prices and the personal income tax reform spurred consumption. Investment started to finally recover, thanks partly to a pick-up in the use of EU Funds. Croatian goods continued to gain export market shares, while soaring tourist arrivals boosted the export of services.

**Economic growth is projected to remain robust and broad-based in the short term, and the labour market to improve further.** As favourable new developments replace the fading tailwinds that have aided the recovery for the past two years, GDP growth is forecast at a relatively robust 3.1 % in 2017 and 2.5 % in 2018. Consumption is expected to be bolstered by the newly adopted tax reform, with lower personal income taxes more than compensating for the impact of inflation on household disposable income. A further increase in the absorption of EU funds and still favourable credit conditions are set to support investment. Growth of exports is set to moderate, while imports are projected to keep growing, leading to a gradual fall in the current account surplus. The labour market is projected to continue improving, with activity rates stabilising and the unemployment rate declining further.

**The economic recovery is helping to reduce domestic and external debt, but vulnerabilities persist.** Private sector debt reduction is

progressing, and the general government debt ratio moved onto a declining path in 2016. External liabilities are contracting, as the current account remains in solid surplus. An overall sound financial sector lays the ground for continued macro-financial stability. Nevertheless, vulnerabilities persist, in particular related to high levels of debt denominated in foreign currency.

**Modest growth prospects remain a key challenge for the economy.** Protractedly slow productivity growth and low and declining utilisation of human capital reduce the economy's long term growth prospects. At about 1 %, Croatia's currently estimated potential growth rate is low compared to other catching up economies. Real GDP has been growing above this rate over the past two years and the economy is projected to keep growing above potential over the forecast period. In the medium term, however, the economy is set to return to its long-term potential. This will slow down the convergence process and the unwinding of macroeconomic imbalances. Improving this long-term scenario will require determination in carrying out structural reforms.

**Croatia has made limited progress in implementing the 2016 country-specific recommendations, in the context of two general elections in less than a year.** Only a few of the policy commitments put forward in the 2016 national reform programme have been implemented to date. Croatia has made limited progress in reinforcing numerical fiscal rules and strengthening the Fiscal Policy Commission, as well as improving budgetary planning and strengthening the multi-annual budgetary framework. Some progress has been made in reforming recurrent property taxation and improving debt management. There has been no progress in discouraging early retirement, accelerating the transition to the higher statutory retirement age and aligning pension provisions for specific categories with the rules of the general scheme. Limited progress has been made in providing appropriate up- and re-skilling measures, while there has been no progress in consolidating social protection benefits. Limited progress has been made in reducing the fragmentation and improving the functional distribution of competencies in the public administration. There has been no progress in harmonising the wage-setting frameworks across the public

administration and public service. Limited progress has been made in reinforcing the monitoring of state-owned enterprises' performance and boards' accountability, as well as advancing the listing of their shares and the divestment process of state assets. There has been limited progress in reducing parafiscal charges and the administrative burden on businesses, as well as removing unjustified regulatory restrictions on regulated professions. Limited progress has been made in improving the quality and efficiency of the judicial system in commercial and administrative courts. Finally, there has been some progress in facilitating the resolution of non-performing loans.

Regarding progress in reaching the national targets under the Europe 2020 strategy, Croatia's record is mixed. It is on track in terms of energy efficiency, reducing greenhouse gas emissions, increasing the share of renewable energy (except in transport), reducing early school leaving and reducing poverty and social exclusion. However, this is less the case for targets on tertiary education attainment and employment rates, R&D investment and renewable energy in transport.

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

- **In 2016, the general government debt ratio moved onto a declining path, but sustainability risks have not been fully overcome.** After having more than doubled during the six-year recession, the general government debt is expected to have shrunk to 84.1 % of GDP in 2016 and to continue declining in the short term. Several factors contributed to this outcome. They include the achievement of a primary surplus in 2015 and its increase in 2016, declining debt servicing costs, higher GDP and a slight appreciation of the kuna against the euro in 2016, which reduced the value of outstanding government liabilities denominated in foreign currency. However, public debt remains high — well above its pre-crisis levels — and much of it is denominated in foreign currency, and thus exposed to currency risk. Moreover, while sustainability risks are low in the long term, they remain high in the medium term. They are compounded by weaknesses in fiscal

governance, including in strategic planning and in the debt management framework.

- **Private sector debt is decreasing, but remains high, especially in the corporate sector, and heavily exposed to currency risk.** The pace of corporate and household debt reduction picked up speed in 2015 and 2016. This was due to higher growth as well as the slight appreciation of the national currency towards the euro, as a significant proportion of private debt is also denominated in foreign currency. However, in the corporate sector, debt remains high and concentrated in a few sectors and a handful of companies. The legislated conversion of Swiss franc-denominated household loans also helped reduce household indebtedness in 2016, but resulted in significant losses for the banking sector.
- **The financial sector is set to support the recovery, but remains exposed to indirect credit risk.** The financial sector remains well capitalised, despite the losses incurred with the conversion of the Swiss franc loans, and its profitability recovered in the course of 2016. Improving economic conditions and low interest rates are expected to support credit demand. Combined with the improving quality of banks' assets, this is set to result in mildly positive net credit flows. However, the non-performing loans ratio remains high in comparison to other Member States. The new provisions on the treatment of writing off non-performing loans, as part of the tax reform, may give impetus to their swift resolution. The banking sector, nevertheless, remains exposed to indirect credit risks through the large foreign currency exposure of its corporate and household clients. The central bank's tight management of the exchange rate significantly reduces these risks.
- **The unemployment rate is falling rapidly, thanks to moderate job creation but also a shrinking labour force.** In 2016, the unemployment rate fell to 12.8 %, over 3.5 percentage points below the rate a year earlier. However, the contracting labour force accounted for more than half of this reduction, while most of the new jobs were created on

temporary contracts. Youth and long-term unemployment remain high. Limited availability of attractive job opportunities may have discouraged labour market participation and contributed to increasing migration outflows. Skill gaps among the working age population and multiple pathways to early exit compound the problem. The employment rate remains amongst the lowest in the EU, as early retirement and, for women, care responsibilities, drive a high share of prime-age potential workforce out of the labour market. Despite the low utilisation of the labour potential, the steep decline in the number of jobseekers is expected to give rise to renewed wage pressure, following years of wage moderation.

- **A cumbersome business environment depresses productive investment and productivity growth.** Croatia's productivity growth lags behind that of its central and eastern European peers in all sectors of the economy. The average productivity of Croatian firms has improved in recent years, but inefficient allocation of resources has prevented productive businesses from growing faster than their less productive competitors. Productivity is particularly weak in state-owned enterprises and in heavily regulated sectors such as energy, and to a lesser extent in transport. The high level of the administrative burden in the provision of services and of parafiscal charges continues to constrain investment in business creation and expansion. Furthermore, the regulatory environment for service providers and regulated professions remains restrictive. The difficulties in accessing finance are preventing small and medium-sized enterprises from expanding more rapidly.

Other key economic issues analysed in this report which point to particular challenges facing Croatia's economy are as follows:

- **The fragmented public administration weighs on the effective delivery of public services.** Croatia's marked territorial fragmentation and complex fiscal relations across levels of government are not conducive to an efficient delivery of public services and

the reduction of regional disparities. The wage setting framework still lacks consistency across the public administration and public services. Improving the efficiency and quality of the justice system remains a challenge, despite reduced backlogs. Health outcomes remain below EU average. Although the sector continues to generate arrears, no action has been taken to promote a more sustainable and efficient financing of health care. Finally, the new ministry in charge of managing public assets could foster a more coordinated approach and give impetus to restructuring and privatisation. The Croatian Bank for Reconstruction and Development still appears to lack the high standards of transparency and accountability that are needed to fulfil its mission.

- **The education and social protection systems still suffer from structural weaknesses.** Lack of basic skills makes transitions into employment difficult. The awaited reform of the education system has been delayed, and efforts to equip the workforce with the skills needed in the labour market remain insufficient. Croatia still exhibits high levels of poverty and social exclusion, and the two successive personal income tax reforms have reduced the tax system's capacity of tackling income inequality. Inconsistencies, fragmented coverage and lack of transparency in the system of social protection weaken its effectiveness and fairness. Finally, both current and future adequacy of pensions is low and creates high risks of poverty in old age, especially for those with shorter working lives.

# 1. ECONOMIC SITUATION AND OUTLOOK

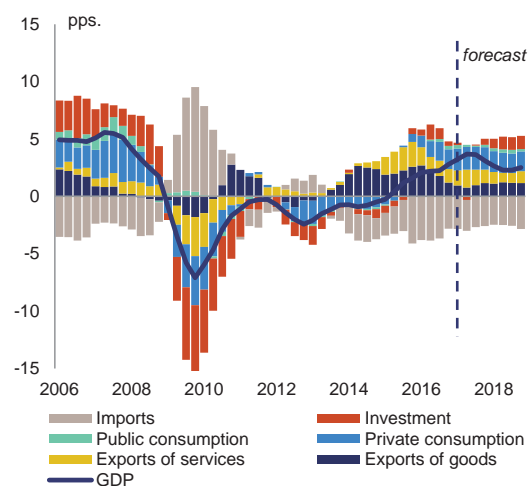
## GDP growth

**Croatia came out of its six year recession in 2015 and a strong recovery is now underway.**

The 2008 economic and financial crisis has had a profound and long lasting impact on the Croatian economy, as it brought to the fore important structural weaknesses and macroeconomic imbalances accumulated in the pre-crisis years. Between 2008 and 2014, real GDP contracted by more than 12 %. Following EU accession in July 2013, export of goods started to provide a positive contribution to growth, followed, one year later, by the strong rise in the contribution of export of services, especially tourism. As falling energy prices and the income tax cuts implemented in late 2015 boosted household disposable income, 2015 finally saw a return to positive real GDP growth, by 1.6 %. Investment also started to rebound in the course of 2015 and picked up momentum the following year. Overall, in 2016 GDP growth is expected to have accelerated to 2.8 % (see Graph 1.1) while turning broader-based across demand components and sectors.

**Growth is expected to remain robust until 2018, but the volume of output is set to remain below pre-crisis levels.** The favourable conditions that supported the recovery in the last two years are abating. No further significant cost-competitiveness gains are expected as productivity growth remains subdued and wage growth resumes. After three years of sizeable gains, export market shares are projected to gradually stabilise by 2018. As import growth remains robust, net external demand is projected to have detracted from growth in 2016 and continue to do so over the forecast period. At the same time, the recovery of employment and wages and the stipulated reduction in the personal income tax (see Section 4.1) are expected to support consumption, while investment is set to benefit from continued favourable financing conditions and increased absorption of EU funds. Against this background, the Commission 2017 winter forecast expects GDP growth to accelerate to 3.1 % in 2017 and slow down to 2.5 % in 2018. Yet, by 2018 real GDP is projected to remain about 3 % lower than the peak attained in 2008.

Graph 1.1: Real GDP growth by demand component



(1) Year-on-year contributions are obtained as the moving average of four quarters GDP component compared to the moving average of the respective components in the same quarters of the previous year.

Source: Eurostat

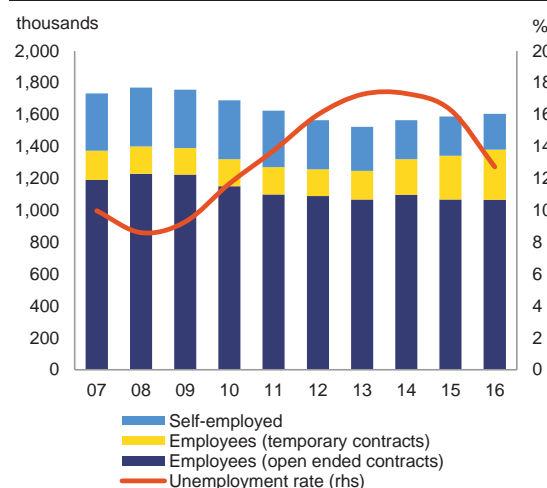
## Labour market

**The acceleration in output is boosting employment, but job creation has relied mainly on fixed-term contracts.** During the crisis, slow wage adjustment exacerbated labour shedding (see Graph 1.2). The unemployment rate peaked at 18 % in mid-2013. In 2013 and 2014, two reforms were implemented to make the labour market — especially the temporary contracts segment — more flexible, while wages started to adjust. Employment began to expand at the end of 2013 <sup>(1)</sup>. It is projected to have increased by 1.9 % in 2016. Job creation has relied almost exclusively on temporary contracts — also due to the expansion of the seasonal tourism-related industries. Employment growth is expected to strengthen this year and slightly decelerate thereafter.

<sup>(1)</sup> Employment statistics stemming from different sources do not always provide a consistent picture for Croatia (see Croatia: 2016 Country Report, box 2.4.1). The above statistics refer to the Labour Force Survey.



Graph 1.2: Structure of employment (lhs) and unemployment rate (rhs)

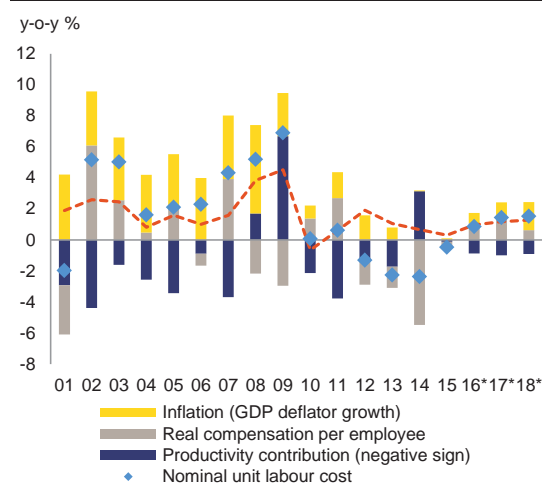


(1) The figures related to the structure of employment are based on moving averages for four quarters. The unemployment rate is seasonally adjusted.

Source: Eurostat, LFS

The unemployment rate has been falling rapidly, partly due to a marked contraction of the labour force, and wages have started growing again. The unemployment rate fell to 12.8 % in 2016. This rapid decrease is only partly due to employment growth. The labour force continued to shrink throughout 2016, also due to net migration outflows. In the third quarter, the activity rate was down to 65.6 % (age group 15-64), some 8 pps below the EU average. No further major declines of the labour force are expected going forward. Consequently, the unemployment rate is set to contract at a more moderate pace, falling to 9.3 % by the end of 2018. The steep decline in the number of jobseekers is contributing to renewed wage pressure. After years of wage moderation, in 2016 wages are expected to have increased by roughly 1.7 %, (i.e. 2.3 % in real terms). In turn, unit labour costs are projected to have started increasing again in 2016, and are forecast to keep growing in line with developments in the euro area (see Graph 1.3). The outcome of the ongoing wage negotiations in the public sector (see Section 5.1) may add wage pressure in the private sector through demonstration effects. Overall, compensation of employees is projected to increase by around 2.5 % in both 2017 and 2018.

Graph 1.3: Contributions to rate of change in yearly unit labour costs (ULC)



Source: Eurostat, European Commission winter 2017 forecast

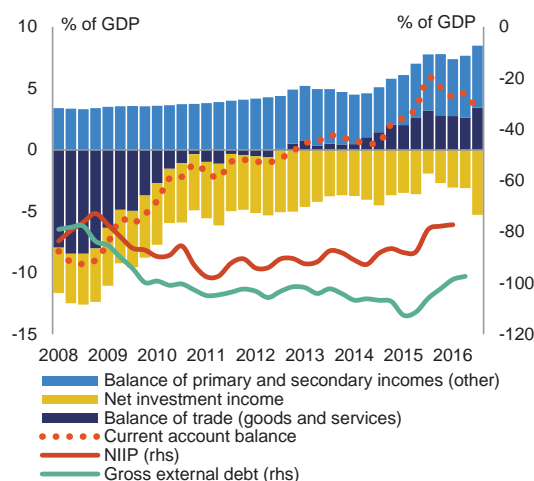
## Social developments

**Income inequality has remained broadly stable and close to the EU average since the crisis.** In 2014 the richest 20 % of households had 5.3 times more income than the poorest 20 %, broadly in line with the EU average <sup>(2)</sup>. However, income inequality in Croatia is driven by the poorer households having a lower share of income than in other European countries <sup>(3)</sup>. Income inequality before taxes and benefits — "market income inequality" — was 66 % higher than after taxes and benefits. This indicates that Croatia's tax-benefit system reduces inequality by around the same extent as the EU average. The tax reforms implemented recently (at the end of 2015 and again on 1<sup>st</sup> January 2017) are set to slightly weaken the system's redistributive capacity (see Box 4.3.1).

<sup>(2)</sup> EU-SILC 2015 data. Note that these data refers to the 2014 situation (first year of recovery) for the income and work intensity components, while material deprivation refers to 2015.

<sup>(3)</sup> The share of income received by the richest 10% of households in Croatia (22.8% in 2015) is lower than the EU average (of 24.1%), suggesting that rich households are not contributing to inequality in Croatia as much as elsewhere. On the other hand, the share of income received by the poorest 20% of households in Croatia (7.3% in 2015) was below the EU average (of 7.7%), suggesting this is increasing inequality more in Croatia than elsewhere in Europe.

Graph 1.4: **Current account composition, gross external debt and net international investment position**



Source: Eurostat, NCB

### External position

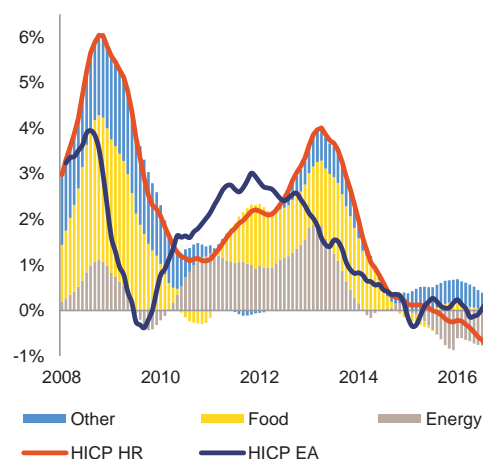
As domestic savings continue to outstrip investment, the current account remains in surplus, and external liabilities are abating. After a record deficit of 9 % of GDP in 2008, the current account balance turned into a small surplus position in 2013. The improvement was initially driven by a contraction of imports, but as of 2013 the main driver has been the positive performance of exports of goods and, more recently, services. The surplus has progressively strengthened, reaching a record 5.0 % of GDP in 2015 (see Graph 1.4). As the impact of temporary factors fades-out <sup>(4)</sup>, export market shares stabilises and oil prices increase again, the current account surplus is expected to shrink to 1.3 % of GDP by 2018. The improvement in the current account balance helped reverse the trend of growing external indebtedness. Net external liabilities improved from the record negative position of about -98 % of GDP in early 2011 to -75.8 % of GDP in mid-2016. Similarly, gross external debt fell from 106 % to 97 % of GDP over the same period. The ratio of external liabilities is set to continue falling in the short term as continued surpluses combine with stronger growth.

<sup>(4)</sup> Temporary factors also contributed to the high surplus, including falling energy prices and losses suffered by the mainly foreign-owned banking sector in the wake of the legislated conversion of Swiss franc loans, which resulted in a negative flow of retained earnings of about 1.5 % of GDP in 2015.

### Inflation and interest rate developments

Following two years of deflation, the rebound in energy prices and wage increases is driving a turnaround in price dynamics. In 2015, the collapse in energy prices on international markets fed through to domestic energy prices and contributed to negative inflation, at -0.3 % in 2015 and -0.6 % in 2016. Prices started to increase again towards the end of 2016 and the rising trend is expected to strengthen over the forecast horizon, sustained by a rebound in energy prices (partly offset by VAT cuts) and, to a lesser extent, wage growth. Inflation is therefore projected to rise back to 1.7 % in 2017 and slightly decelerate in 2018, as the recovery in energy prices slows down.

Graph 1.5: **Inflation dynamics and main components in Croatia and in the euro area and money market interest rates**

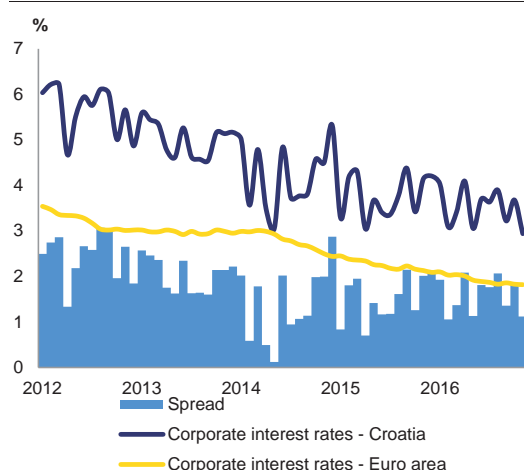


Source: Eurostat

The accommodative monetary policy is resulting in lower interest rates, but the spread between the local and euro area rates remains high. The combination of the economic recovery, stronger demand for kuna loans and solid current account surplus has allowed the central bank to pursue an even more expansionary monetary policy. Abundant kuna liquidity was released through several refinancing operations during 2016. Despite the traditionally weak transmission mechanisms of domestic monetary policy, the loan rates for newly granted loans have decreased (see Graph 1.6), more so in the euro segment. However, the spread between the average interest rates on newly granted euro denominated loans to non-financial corporations in Croatia and in the euro

area remains high, occasionally surpassing 200 basis points.

Graph 1.6: **Average cost of MFI euro-denominated loans for non-financial corporations, new business**



(1) Weighted averages

Source: Croatian National Bank, European Central Bank, own calculations

### Private indebtedness

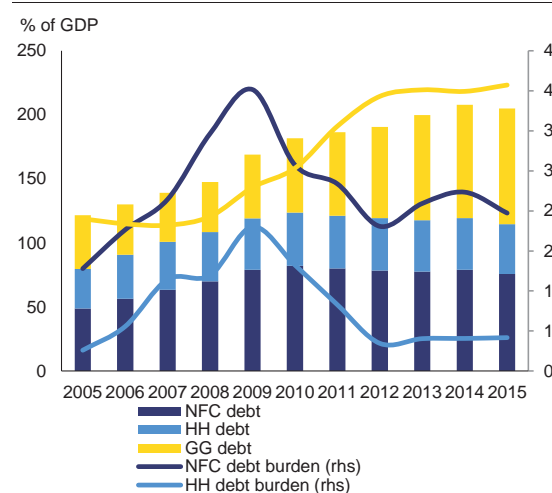
**Businesses and households continue to reduce their high debt and foreign currency exposure.** During the recession, corporate and household deleveraging progressed slowly, as negative credit flows were partially offset by contracting income. By mid-2016 corporate debt is estimated to have fallen to 72 % of GDP (of which about 55 % is external liabilities and 22 % is domestic debt contracted in foreign currency). Household debt is estimated to have decreased to about 36.5 % of GDP (of which just above 60 % contracted in euros, down from 68 % at the end of 2015) <sup>(5)</sup>. The recent reduction was largely driven by higher growth, the conversion of Swiss franc loans (which in some cases resulted in accelerated re-payment) and currency-related valuation effects, while the contribution of net credit flows has turned broadly neutral.

**Easing deleveraging pressures and improving financing conditions are laying the basis for a new credit expansion phase.** Debt levels remain relatively high. Yet, the low interest rate environment has reduced the debt servicing burden

<sup>(5)</sup> Debt is defined as the sum of loans and debt securities in sector accounts.

for households and firms (defined as interest paid to GDP ratio), as most loans to households are on flexible interest rates and corporate debt has been rolled-over on more favourable terms. This, combined with the acceleration of economic activity, is expected to stimulate credit demand. After peaking at 17.3 % in mid-2015, the proportion of non-performing loans fell below 15 % in mid-2016, due to a large extent to accelerated sales and write-offs of impaired assets. The freeing-up of reserves and abundant kuna liquidity are set to ease supply constraints. Credit is therefore projected to resume expanding already in 2017. Currency and maturity mismatches between new credit demand (long-term kuna) and deposits (short-term kuna or long-term EUR) may nevertheless turn out to be a limiting factor, if households maintain their preference for foreign currency deposits.

Graph 1.7: **Debt and debt servicing burden to GDP for non-financial corporations, households and general government sector**



Source: European Commission, DG ECFIN

### Public finances

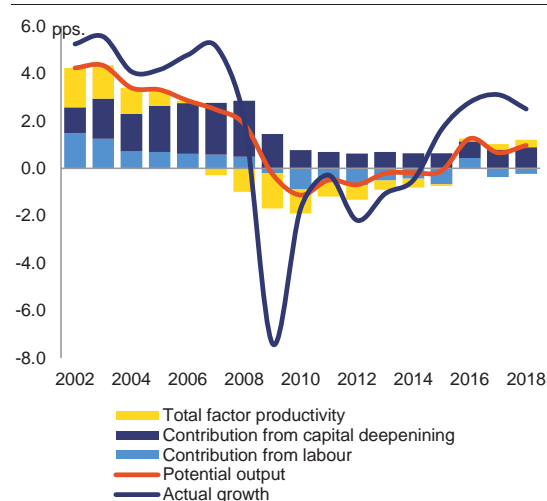
**Public finances deteriorated substantially during the recession, but as of 2016 the general government debt ratio is set to decline.** During the crisis, the accumulation of high deficits and transactions related to state-owned enterprises (SOEs) were the main drivers of general government debt. Budgetary targets set through the excessive deficit procedure (EDP) have provided an anchor to fiscal policy. After hitting a record high of 7.8 % of GDP in 2011, the deficit contracted to 3.3 % of GDP in 2015 and is

expected to have reached 1.8 % of GDP in 2016. The combination of these factors with the more benign growth outlook is expected to have put the public debt to GDP ratio onto a declining path. The ratio is projected to have declined to 84.1 % in 2016 and to shrink further to 81.3 % in 2018.

### Potential growth

**The sustainability of the adjustment process rests on lifting the low potential growth.** The rebound in internal demand is driving GDP above its potential growth rate. In the medium term, however, output growth is set to revert to its potential, which is currently estimated at around 1 %. The on-going recovery of capital expenditure is lifting the long term growth outlook, but it will take years of sustained investment growth before the contribution of capital deepening to potential GDP growth returns to pre-crisis levels. Moreover, adverse developments in the labour force and subdued total factor productivity (TFP) still limit Croatia's long term growth prospects (see Graph 1.8). A pre-condition for the abatement of accumulated domestic and external debt largely relies on a prolonged period of sustained growth. This, in turn, hinges upon the implementation of structural policies to lift TFP growth and increase the utilisation of labour potential.

Graph 1.8: Actual and potential output growth



(1) Potential output: production function approach

Source: European Commission, DG ECFIN

Table 1.1: Key economic, financial and social indicators — Croatia

	2004-2008	2009	2010	2011	2012	2013	2014	2015	forecast		
									2016	2017	2018
Real GDP (y-o-y)	4.0	-7.4	-1.7	-0.3	-2.2	-1.1	-0.5	1.6	2.8	3.1	2.5
Private consumption (y-o-y)	3.8	-7.4	-1.5	0.3	-3.0	-1.8	-1.6	1.2	3.0	3.4	3.0
Public consumption (y-o-y)	3.5	2.1	-1.6	-0.3	-1.0	0.3	-0.8	-0.3	1.4	1.0	1.0
Gross fixed capital formation (y-o-y)	7.2	-14.4	-15.2	-2.7	-3.3	1.4	-2.8	1.6	4.2	5.2	5.8
Exports of goods and services (y-o-y)	4.1	-14.1	6.2	2.2	-0.1	3.1	7.6	10.0	4.9	4.7	4.3
Imports of goods and services (y-o-y)	5.8	-20.4	-2.5	2.5	-3.0	3.1	4.5	9.4	6.1	5.2	5.8
Output gap	3.6	-1.3	-1.8	-1.6	-3.1	-4.0	-4.3	-2.6	-1.1	1.3	2.8
Potential growth (y-o-y)	2.8	-0.2	-1.1	-0.5	-0.7	-0.2	-0.2	-0.1	1.3	0.7	1.0
Contribution to GDP growth:											
Domestic demand (y-o-y)	4.7	-7.9	-5.0	-0.4	-2.7	-0.7	-1.7	1.0	2.9	3.2	3.1
Inventories (y-o-y)	0.3	-3.5	0.2	0.3	-0.7	-0.3	-0.2	0.2	0.4	0.0	0.0
Net exports (y-o-y)	-1.0	4.1	3.1	-0.1	1.2	0.0	1.4	0.5	-0.4	-0.1	-0.6
Contribution to potential GDP growth:											
Total Labour (hours) (y-o-y)	0.6	-0.2	-0.9	-0.5	-0.7	-0.5	-0.4	-0.7	0.4	-0.4	-0.2
Capital accumulation (y-o-y)	2.0	1.5	0.8	0.7	0.6	0.7	0.6	0.6	0.7	0.8	0.9
Total factor productivity (y-o-y)	0.1	-1.5	-1.0	-0.7	-0.6	-0.4	-0.4	-0.1	0.1	0.2	0.3
Current account balance (% of GDP), balance of payments	-6.5	-5.3	-1.2	-0.8	-0.2	1.0	2.1	5.0	.	.	.
Trade balance (% of GDP), balance of payments	-6.9	-3.7	-0.4	-0.4	0.5	0.4	2.0	2.8	.	.	.
Terms of trade of goods and services (y-o-y)	1.3	1.2	0.6	0.2	-0.6	-0.1	0.4	0.7	1.8	-1.7	0.0
Capital account balance (% of GDP)	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.6	.	.	.
Net international investment position (% of GDP)	-68.0	-86.9	-94.3	-91.7	-90.8	-88.9	-86.8	-77.7	.	.	.
Net marketable external debt (% of GDP) (1)	-31.1	-46.5	-49.5	-52.1	-49.1	-47.8	-45.1	-42.0	.	.	.
Gross marketable external debt (% of GDP) (1)	70.2	88.5	91.8	93.7	91.1	93.3	94.1	91.7	.	.	.
Export performance vs. advanced countries (% change over 5 years)	29.2	2.8	-6.0	-8.5	-15.0	-15.9	-12.5	-1.50	.	.	.
Export market share, goods and services (y-o-y)	-1.1	-0.7	-12.7	-6.0	-7.5	2.5	4.7	3.5	.	.	.
Net FDI flows (% of GDP)	-4.9	-2.9	-1.8	-2.5	-2.8	-1.9	-1.8	-0.5	.	.	.
Savings rate of households (net saving as percentage of net disposable income)	2.0	6.7	7.4	7.0	7.4	6.1	7.3	.	.	.	.
Private credit flow, consolidated (% of GDP)	15.0	2.6	4.9	-2.4	-3.0	-0.6	0.4	-1.4	.	.	.
Private sector debt, consolidated (% of GDP)	90.7	118.6	125.2	122.6	119.8	118.3	119.6	115.0	.	.	.
of which household debt, consolidated (% of GDP)	33.8	40.0	42.0	41.5	41.2	40.4	40.4	39.0	.	.	.
of which non-financial corporate debt, consolidated (% of GDP)	56.9	78.6	83.2	81.1	78.6	77.9	79.2	76.0	.	.	.
Corporations, net lending (+) or net borrowing (-) (% of GDP)	-3.5	-3.0	0.2	2.3	0.7	3.4	1.0	4.1	-0.4	-1.2	-1.5
Corporations, gross operating surplus (% of GDP)	20.6	19.2	18.1	19.2	18.5	18.4	17.4	17.5	16.3	16.2	16.6
Households, net lending (+) or net borrowing (-) (% of GDP)	0.6	3.9	4.8	4.6	5.1	3.7	5.1	6.9	6.9	6.7	5.9
Deflated house price index (y-o-y)	8.7	-8.0	-7.8	-2.2	-4.6	-5.7	-1.1	-2.4	.	.	.
Residential investment (% of GDP)	.	.	.	.	.	.	.	.	.	.	.
GDP deflator (y-o-y)	4.2	2.8	0.8	1.7	1.6	0.8	0.0	0.1	0.7	0.9	1.8
Harmonised index of consumer prices (HICP, y-o-y)	3.4	2.2	1.1	2.2	3.4	2.3	0.2	-0.3	-0.6	1.7	1.6
Nominal compensation per employee (y-o-y)	4.9	-0.3	2.2	4.4	0.1	-0.6	-5.4	-0.3	1.7	2.4	2.5
Labour productivity (real, person employed, y-o-y)	0.2	-6.7	2.1	3.8	1.4	1.7	-3.1	0.1	.	.	.
Unit labour costs (ULC, whole economy, y-o-y)	3.1	6.9	0.1	0.6	-1.3	-2.3	-2.4	-0.5	0.9	1.4	1.5
Real unit labour costs (y-o-y)	-1.0	4.0	-0.8	-1.0	-2.8	-3.0	-2.4	-0.6	0.2	0.6	-0.3
Real effective exchange rate (ULC, y-o-y)	2.4	1.7	-1.0	-1.9	-5.8	-2.5	-3.4	-2.9	1.0	0.9	-0.3
Real effective exchange rate (HICP, y-o-y)	1.4	1.5	-3.4	-2.7	-2.5	1.2	0.4	-1.5	1.1	-1.6	.
Tax rate for a single person earning the average wage (%)	.	.	.	.	.	30.3	30.3	29.1	.	.	.
Tax rate for a single person earning 50% of the average wage (%)	.	.	.	.	.	23.1	23.1	21.9	.	.	.
Total Financial sector liabilities, non-consolidated (y-o-y)	14.1	5.3	3.7	2.3	1.9	3.1	1.0	2.2	.	.	.
Tier 1 ratio (%) (2)	.	.	.	.	.	18.6	19.4	17.7	.	.	.
Return on equity (%) (3)	.	.	.	.	.	0.6	3.9	-6.8	.	.	.
Gross non-performing debt (% of total debt instruments and total loans and advances) (4)	.	.	.	.	.	11.8	12.9	12.5	.	.	.
Unemployment rate	11.4	9.2	11.7	13.7	16.0	17.3	17.3	16.3	12.8	10.8	9.3
Long-term unemployment rate (% of active population)	6.4	5.1	6.6	8.4	10.2	11.0	10.1	10.3	.	.	.
Youth unemployment rate (% of active population in the same age group)	28.5	25.2	32.4	36.7	42.1	50.0	45.5	43.0	30.5	.	.
Activity rate (15-64 year-olds)	64.3	65.6	65.1	64.1	63.9	63.7	66.1	66.8	.	.	.
People at risk of poverty or social exclusion (% total population)	.	.	31.1	32.6	32.6	29.9	29.3	29.1	.	.	.
Persons living in households with very low work intensity (% of total population aged below 60)	.	.	13.9	15.9	16.8	14.8	14.7	14.4	.	.	.
General government balance (% of GDP)	-3.5	-6.0	-6.2	-7.8	-5.3	-5.3	-5.4	-3.3	-1.8	-2.1	-1.8
Tax-to-GDP ratio (%)	36.7	36.4	36.1	35.2	35.9	36.4	36.4	37.3	37.6	37.0	36.6
Structural budget balance (% of GDP)	.	.	-5.3	-7.1	-3.8	-3.2	-3.6	-2.1	-1.4	-2.8	-3.2
General government gross debt (% of GDP)	39.6	49.0	58.3	65.2	70.7	82.2	86.6	86.7	84.1	83.0	81.3

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

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

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

(\*) Indicates BPM5 and/or ESA95

Source: European Commission, ECB

## 2. PROGRESS WITH COUNTRY-SPECIFIC RECOMMENDATIONS

**Progress with implementing the recommendations addressed to Croatia in 2016<sup>(6)</sup> has to be seen as part of a process which started with the introduction of the European Semester.** Most country-specific recommendations have remained unchanged since 2014 when Croatia was first included in the European Semester cycles. The most notable areas of progress have been ensuring a lasting correction of the excessive deficit and reducing the general government debt ratio. The general government deficit shrank markedly in 2016, although this owed more to windfall gains and under-execution of expenditure than to structural consolidation measures that would ensure sustained fiscal discipline. Measures to improve the fiscal framework are still pending, while a public debt management strategy was adopted in January 2017.

**In 2014 Croatia implemented reforms to make the labour market more flexible, but weaknesses in the pension and social protection system have not been addressed.** Two reforms were implemented in order to enhance the flexibility of the labour market. The quality of services offered by the Croatian employment service was improved and active labour market policy measures were re-designed with a focus towards the young without working experience, including those who are not in employment, education or training. The comprehensive reform of the education system is being reassessed and its implementation is delayed. The authorities adopted a plan for reforming the vocational education system that should improve the quality and relevance of education for the labour market. However, the challenge of low labour utilisation has still not received an adequate response, as measures encouraging longer working lives and a streamlining of pension provisions have not yet been carried out. On the positive side, the assessment of disability claims was harmonised and moved to a new Single Expert Evaluation Body. Finally, weaknesses in the social protection system have not been addressed.

**Policy actions aimed at improving the business environment and the public administration**

**have been largely delayed.** This includes the main pillars of the public administration reform and the law on public sector wages, now planned for 2019. Several para-fiscal charges were abolished or reduced and an action plan to reduce the administrative burden was adopted. The management of public assets was transferred to a newly established ministry. The divestment of state-owned companies has not proceeded in line with the announced plans, and the adoption of the corporate governance code has been delayed.

**Reforms of healthcare and EU funds absorption have progressed slowly, while steps have been taken to improve the judiciary system.** There was limited progress in implementing structural measures in the healthcare sector and addressing the accumulation of arrears. The absorption of EU funds remains hindered by limited administrative capacity and strategic planning. Insolvency procedures have been thoroughly revised, and the reformed judicial map has improved the efficiency of the system. However, the quality and efficiency of the judiciary continue to pose challenges, with large backlogs and long disposition times.

**Implementation of the recommendations on the financial sector came with some drawbacks.** In 2014, the comprehensive portfolio screening of the banking sector confirmed its robustness, and the some identified weaknesses have been addressed. The share of non-performing loans remains relatively high, but they are well provisioned, and their sale has accelerated lately. The conversion of Swiss franc loans into euros hit the profitability of the banking sector, and may have damaged legal certainty.

**Overall, Croatia has made limited<sup>(7)</sup> progress in addressing the 2016 recommendations.** In the context of two parliamentary elections in less than one year, Croatia undertook limited policy action. There has been some progress with public debt management and the introduction of a simple form of recurrent property taxation, envisaged as of 2018. Furthermore, the 2017 tax reform included provisions on tax deductibility for writing off non-performing loans, which is expected to help banks improve their asset quality.

<sup>(6)</sup> For the assessment of other reforms implemented in the past, see in particular section 4.

<sup>(7)</sup> 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 the Annex.



Table 2.1: Summary table on 2016 CSR assessment

Croatia	Overall assessment of progress with 2016 CSRs: Limited
<b>CSR 1:</b> <i>Ensure a durable correction of the excessive deficit by 2016. Thereafter, achieve an annual fiscal adjustment of at least 0.6% of GDP in 2017. Use any windfall gains to accelerate the reduction of the general government debt ratio. By September 2016, reinforce numerical fiscal rules and strengthen the independence and the mandate of the Fiscal Policy Commission. By the end of 2016, improve budgetary planning and strengthen the multi-annual budgetary framework. By the end of 2016, start a reform of recurrent taxation of immovable property. Reinforce the framework for public debt management. Adopt and start implementing a debt management strategy for 2016-2018. (MIP relevant)</i>	<b>Limited progress*</b> <ul style="list-style-type: none"> <li>• Limited progress in reinforcing fiscal rules and strengthen the Fiscal Policy Commission.</li> <li>• Limited progress in improving budgetary planning and the multi-annual framework.</li> <li>• Some progress in reforming recurrent taxation.</li> <li>• Some progress in reinforcing the public debt management framework and adopting a debt management strategy.</li> </ul>
<b>CSR 2:</b> <i>By the end of 2016, take measures to discourage early retirement, accelerate the transition to the higher statutory retirement age and align pension provisions for specific categories with the rules of the general scheme. Provide appropriate up- and re-skilling measures to enhance the employability of the working-age population, with a focus on the low-skilled and the long-term unemployed. Consolidate social protection benefits by reducing special schemes, aligning eligibility criteria, integrating their administration, and focus support on those most in need. (MIP relevant)</i>	<b>No progress</b> <ul style="list-style-type: none"> <li>• No progress in reforming the pension system.</li> <li>• Limited progress in providing up- and re-skilling measures</li> <li>• No progress in improving the social protection system.</li> </ul>
<b>CSR 3:</b> <i>By the end of 2016, start reducing fragmentation and improving the functional distribution of competencies in public administration to improve efficiency and reduce territorial disparities in the delivery of public services. In consultation with social partners, harmonise the wage-setting frameworks across the public administration and public services. Reinforce the monitoring of state-owned enterprises' performance and boards' accountability. Advance the listing of shares of state-owned companies and the divestment process of state assets. (MIP relevant)</i>	<b>Limited progress</b> <ul style="list-style-type: none"> <li>• Limited progress in reforming the public administration.</li> <li>• No progress in harmonising the wage-setting frameworks.</li> <li>• Limited progress in improving the corporate governance of SOEs and the divestment process of state assets.</li> </ul>
<b>CSR4:</b> <i>Significantly reduce parafiscal charges. Remove unjustified regulatory restrictions hampering access to and the practice of regulated professions. Reduce the administrative burden on businesses. (MIP relevant)</i>	<b>Limited progress</b> <ul style="list-style-type: none"> <li>• Limited progress in reducing parafiscal charges.</li> <li>• Limited progress in removing regulatory restrictions.</li> <li>• Limited progress reducing administrative burden.</li> </ul>
<b>CSR 5:</b> <i>Take measures to improve the quality and efficiency of the judicial system in commercial and administrative courts. Facilitate the resolution of non-performing loans, in particular by improving the tax treatment of the resolution of non-performing loans. (MIP relevant)</i>	<b>Limited progress</b> <ul style="list-style-type: none"> <li>• Limited progress in improving the justice system.</li> <li>• Some progress in facilitating the resolution of NPLs.</li> </ul>

\* This overall assessment of CSR1 does not include an assessment of compliance with the Stability and Growth Pact.

Source: European Commission

### Box 2.1: Contribution of the EU budget to structural change in Croatia

Croatia is a large beneficiary for the European Structural and Investment Funds (ESI Funds) with an allocation of EUR 10.7 billion in the period 2014-2020. This is equivalent to around 3.3% of GDP annually (over 2014-2017) and 74 % of total public investment <sup>(1)</sup>. Use of financial instruments will focus on the support to Small and Medium Enterprises and energy efficiency. By 31 December 2016, an estimated EUR 1.3 billion, which represents about 12 % of the total allocation for ESI Funds, have already been allocated to concrete projects (See chapter 4 for the contribution of the Funds).

Financing under the European Fund for Strategic Investments, Horizon 2020, the Connecting Europe Facility and other directly managed EU funds is additional to the ESI Funds. By end 2016, Croatia has signed agreements worth EUR 350 million for projects under the Connecting Europe Facility. The EIB Group approved financing under EFSI amounts to EUR 66 million, which is expected to trigger nearly EUR 247 million in total investments (as of end 2016).

**ESI Funds helped progress on a number of structural reforms in 2015 and 2016 via ex-ante conditionalities <sup>(2)</sup> and targeted investment.** Examples include the adoption of the smart specialisation strategy, which provides the frame for investments in research and innovation, and strengthen the competitive advantage of the country. Fulfilment of ex-ante conditionalities might be in some cases delayed, as in the waste management and the transport sector. Administrative reforms support is available through targeted financing under the European Social Fund, advice from the Structural Reform Support Service and, indirectly, through technical assistance.

**The relevant CSRs focusing on structural issues were taken into account when designing the 2014-2020 programmes.** These include helping strengthen employability and job creation, improving the business climate and boosting the competitive advantage of the country through research and innovation. It is expected that by 2020, the R&D and innovation in the country will attain 1.4% of GDP (0.85% in 2015), whereas new services and financial support mechanisms (loans and grants) will be set in place to support SMEs establishment and competitiveness. The focus is also on structural reform priorities, such as increasing labour market participation through effective active labour market policies, education and lifelong learning, as well as on the business climate and the quality and efficiency of the public administration and judicial system. ESI Funds will contribute to increasing labour market participation and employment (62.9% employment target in 2020 against 55.4 in 2012), and increasing the participation in tertiary education of the people aged 30-34 year to targeted 35%.

**In addition to challenges identified in the past CSRs, ESI Funds address wider structural obstacles to growth and competitiveness,** such as improving the coverage of fast broadband network to 53% (instead of 33% in 2013), reforming the public administration (sound management of public finances, leaner administration and introduction of the e-applications). In addition, a large share of the Funds will be invested to address shortcomings in heavy-infrastructure sectorial policies, both through physical investment and the upgrading of associated services: 1 million inhabitants served by improved water supply and wastewater treatment, the average annual heating/cooling energy demand in retrofitted public buildings will go down to 50 kWh/m2 (from 250), 100% of the population will be covered by air quality information in urban areas, while the admission rate to acute care will decrease by 10% thanks to the development of additional primary health care services.

Please consult: <https://cohesiondata.ec.europa.eu/countries/HR>

<sup>(1)</sup> National public investment is defined as gross capital formation + investment grants + national expenditure on agriculture and fisheries.

<sup>(2)</sup> Before programmes are adopted, Member States are required to comply with a number of ex-ante conditionalities, which aim at improving framework and conditions for the majority of public investments areas. For Members States that did not fulfil all the ex-ante conditionalities by the end 2016, the Commission has the possibility to propose the temporary suspension of all or part of interim payments.



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

**The 2017 Alert Mechanism Report called for a new in-depth analysis to monitor progress in unwinding the excessive imbalances identified in previous years.** In March 2016 the Commission concluded that Croatia was experiencing excessive macroeconomic imbalances and called for a new in-depth review to examine further the persistence of macroeconomic risks and to monitor its progress in unwinding excessive imbalances. These are mainly related to the high levels of external and domestic debt, both largely dominated in foreign currency, in a context of low potential output growth.

**This report provides the in-depth review of how the identified imbalances have developed.** Analysis relevant to the review is found in the following sections:

- government debt is analysed in section 4.1;
- private sector debt and the financial sector are discussed in section 4.2;
- labour market is analysed in section 4.3;
- business environment and investment, and public sector governance — all issues relevant to addressing the low productivity growth — are discussed in chapters 4.4 and 4.5 respectively.

#### 3.1. IMBALANCES AND THEIR GRAVITY

**After 6 years of rapid increase, general government debt is projected to have shrunk to 84.1 % of GDP in 2016.** Long-term debt sustainability challenges are considered manageable, but vulnerability remains substantial in the medium term. The debt ratio has diminished in the last year, but it does not decrease under all envisaged scenarios and debt levels are likely to remain high in the coming years. Moreover, a large share of the public debt is exposed to currency risks. This concerns both the part of public debt held by foreign investors (35 % of GDP) and the domestic debt denominated or indexed in EUR (37 % of GDP).

**Private sector debt is projected to have shrunk to 115 % of GDP by mid-2016, but it remains heavily exposed to currency risks.** A number of sectors (notably construction) appear over-indebted. More than half of corporate debt is cross-border lending, thus subject to currency risk. On the other hand, part of cross-border debt (about 13% of GDP in 2015) consists in inter-company loans, typically less exposed to re-financing risks. Moreover, at least 18% of the remaining domestic corporate debt is also exposed to currency risks. While household debt stood at a moderate 36.5% of GDP by mid-2016, more than half of it was contracted domestically but in foreign currency, mostly euros.

**The financial system has withstood the financial crisis and the rapid accumulation of non-performing loans, but remains exposed to the credit risks of its unhedged borrowers.** By September 2016, the share of non-performing loans remained at 14.7 % but impaired assets were well covered. Direct exposure of the financial sector to currency risk was limited, although the largely unhedged foreign currency exposure of its household and corporate clients represents a source of vulnerability. The tight management of the exchange rate has been successful in managing these risks.

**High corporate and government debt are reflected in a high level of external debt and a negative net international investment position.** The excess of investment over domestic savings has resulted in the accumulation of sizeable external liabilities. However, by mid-2016 gross external debt had shrunk to about 97 % of GDP, while the net international investment position stood at -75 % of GDP. Risks related to the high share of external liabilities are mitigated by the significant share of inter-company lending; on the other hand almost one third of external debt is in the form of government securities.

**Potential output growth remains low due to weak labour utilisation and subdued growth in productivity.** At the end of 2015, the participation rate of 66.8 % (age group 15-65) was one of the lowest in the EU. This is mostly due to low activity rates among prime-age men. In spite of the

low participation, the unemployment rate was still high at 16.5 %, particularly for young people (43 % in the age bracket 15 to 24) and for the low skilled (22.8 %). Productivity (measured as total factor productivity, TFP) has contributed negatively to growth over the past 6 years, but it was registering rather sluggish growth rates even before the crisis. Adverse productivity developments are rooted in weak business environment and public sector governance, which prevent a more efficient allocation of resources throughout the economy. Croatia's low potential growth is slowing the resolution of stock imbalances and amplifying related vulnerabilities.

### 3.2. EVOLUTION, PROSPECTS, AND POLICY RESPONSES

**The general government deficit is projected to have shrunk further in 2016, while the debt-to-GDP ratio has moved onto a declining path.** In 2015, Croatia significantly cut the headline deficit. The strengthening of the recovery in 2016 resulted in windfall revenue gains which, together with contained expenditure growth, resulted in a projected headline deficit of just above 2 %. This lower deficit, combined with the acceleration of growth and exchange rate-related valuation effects, is projected to have led to a slight decline in the debt-to-GDP ratio to 84.1 %. This trend is expected to continue thanks to the improved macroeconomic situation. Moreover, the current low interest rate environment is lowering refinancing costs. Vulnerabilities linked to the high currency exposure of public debt remain. The debt sustainability analysis reveals that short and long term sustainability risks are low, but the medium-term risk is high, albeit with some improvements since 2015. The outlook of the sovereign credit rating has improved, but retains a non-investment grade.

**The recently adopted tax reform will boost investment and consumption, but will also result in a deterioration of the public finances.** The reform lowers the corporate and personal tax rates and aims to simplify procedures and modernise the tax administration. The expected direct budgetary effect of the reform is a revenue reduction of 0.6 % of GDP in 2017 and an additional 0.2 % in 2018. The reform is expected to have a positive impact on consumption and

investment, but is not targeted at low income households, nor at making work pay for the low skilled.

**Household deleveraging picked up steam in 2016 on the back of higher growth, valuation effects and the legislated conversion of the Swiss franc mortgage loans.** By mid-2016 the household debt was estimated to have further contracted by some 2.5 pps of GDP. The impact of transactions turned broadly neutral due to a slight pick-up in kuna loans. The strong growth performance in the first half of the year also contributed to the acceleration of deleveraging. The main driver, nevertheless, was the reduction in debt owed to credit institutions arising from the statutory conversion of Swiss franc-indexed loans to euro-denominated loans. The impact on banks' balance sheets was estimated at roughly 2.3 % of GDP up to the first quarter of 2016 (see below), but this figure also includes the sale of non-performing loans. The impact on household debt is therefore lower. The appreciation of the kuna exchange rate also helped households with euro denominated debt by reducing the value of their outstanding liabilities.

**The total indebtedness of the non-financial corporate sector continued to decline in the first half of 2016.** By mid-2016, consolidated corporate debt is estimated to have further contracted by around 2.5 pps of GDP. The contribution of transactions was broadly neutral. Valuation effects, largely driven by the appreciation of the kuna against the euro played a significant role, but the bulk of the reduction was delivered by the acceleration of growth. The reduction in external debt, partly driven by debt-to-equity swaps was the main driver of the reduction in indebtedness. In the current low interest rate environment, the repayment burden has eased considerably. Exposure to exchange rate fluctuations nevertheless remains high as external debt still amounts to 39.8 % of GDP and domestic debt contracted in foreign currency amounts to at least 16.2 % of GDP.

**In 2015, banks' profitability was severely affected by the conversion of Swiss franc loans, but it has now recovered.** The aforementioned conversion of the Swiss franc loans resulted in bank losses that are estimated at HRK 7.6 billion (or 2.3% of GDP). The banks nevertheless

remained well capitalised and the quality of their assets is improving. Overall, proportion of non-performing loans fell to below 15% by Q3-2016, the lowest in 3 years. Accelerated sale, also motivated by the progressive automatic provisioning imposed by the Central Bank, is the key driver behind this sharp reduction. The tax reform includes provisions on tax treatment of writing off such loans, and this may help improve the quality of banks' assets further. The amended corporate and personal insolvency frameworks are starting to deliver results, but in the absence of an adequate monitoring system it is difficult to quantify to which extent they are contributing to the deleveraging process.

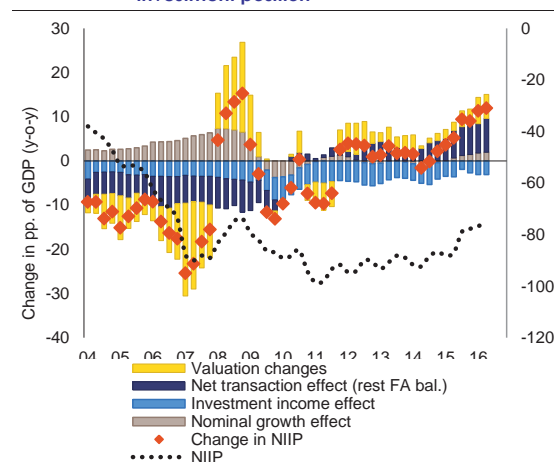
**The simultaneous deleveraging of households, government and businesses is resulting in large current account surpluses and the progressive reduction of external liabilities.** The current account is set to deteriorate slightly in 2016 due to a surge in profits in the largely foreign-owned banking sector, while still maintaining a solid surplus (2.8 % of GDP). By mid-2016, the external debt had decreased by about 6.5 % of GDP. The deleveraging was mainly intermediated by the financial sector, but was also driven by the direct external deleveraging of the government and the corporate sector. The valuation effects mentioned above, largely related to the appreciation of the kuna, reduced the value of the outstanding liabilities. These improvements carried over to the net international investment position, which improved by a broadly similar magnitude. The net international investment position to GDP ratio nevertheless remains far more negative than the prudential threshold level (-35 % of GDP).

**Unemployment has declined sharply, although mostly due to the shrinking labour force.** In the fourth quarter of 2016, the unemployment rate fell to 11.4 %, from 15.6 % in the previous year. Whereas job creation intensified, more than half of the contribution to this decline came from a further contraction of the labour force caused by adverse demographic dynamics, reduced activity and net migration outflows.

**The contribution of total factor productivity to potential growth has turned slightly positive in 2016, but market inefficiencies still constrain Croatia's potential growth.** On average, firms are improving their productivity, but the gap with

regional peers remains wide in almost all sectors of the economy. The main difference is related to poor allocative efficiency, as the less productive firms appear to be growing faster than the more productive ones. Excessive red tape, sector-specific bottlenecks and limited access to finance for small firms constrain the free flow of labour and capital to where they could be used most efficiently.

Graph 3.1: **Level and change in net international investment position**



(1) Net transaction effect corresponds to Financial Account balance, net of investment income, i.e. the sum of trade balance and capital transactions.

Source: CNB, Eurostat

**Structural reforms are needed to tackle the bottlenecks in productivity growth, but the reform agenda has broadly stalled.** The withdrawal of parliamentary support to the government in the summer 2016 was followed by a new general election in September 2016. This prolonged the standstill in reforms that started in the run-up to the parliamentary elections of November 2015. As a result, few of the ambitious policy commitments put forward in the national reform programme submitted by the Croatian authorities in April 2016 have been implemented to date. The new government has yet to present a detailed structural reform programme.

### 3.3. OVERALL ASSESSMENT

**The unwinding of debt related sources of imbalances is accelerating on the back of stronger economic growth, but vulnerabilities persist.** Robust growth in 2016 is helping the

deleveraging and both public and private debt is now on a declining path. As a large share of the debt is denominated in foreign currency, the kuna's ongoing appreciation is also reducing the value of the outstanding liabilities. The simultaneous deleveraging of the private and public sector is reducing external liabilities and improving the net international investment position. Whereas valuation effects are currently helping the deleveraging process, they also point to the economy's sensitivity to exchange rate fluctuations. This reinforces the need for the central bank to pursue its policy of tightly managing the exchange rate. It also calls for policies aimed at maintaining the regained competitiveness, while avoiding macro and fiscal measures that could undermine the current account balance.

to ensure a durable adjustment of debt-related imbalances.

**The financial sector is well capitalised and the quality of banks' assets is improving, but exposure to indirect credit risk remains.** Banks are accelerating the resolution of impaired assets, and improving the quality of their portfolios. Profitability indicators are also improving. The financial sector remains indirectly exposed to currency risk due to loans contracted in foreign currency in the household and corporate sector. The indirect risks are mitigated by the tightly managed rate of the kuna against the euro.

**In the long run the resolution of stock-related imbalances is threatened by the low potential growth.** A lasting adjustment, however, requires a prolonged period of sustained economic growth. Growth is projected to remain robust over the forecast period, at well above the economy's current potential. In the long run, however, maintaining current growth rates will require the root causes of the low growth potential — namely the shrinking labour force and sluggish productivity growth — to be tackled.

**Progress with implementing growth enhancing structural reforms has been limited.** The core of Country Specific Recommendations addressed to Croatia was aimed at boosting employment and productivity by removing disincentives to labour supply and improving the business environment. As discussed in the previous section, there has been only limited progress in implementing the policies. Resuming the reform agenda will be key

Table 3.1: MIP Matrix

	Gravity of the challenge	Evolution and prospects	Policy response
	<i>Imbalances (unsustainable trends, vulnerabilities and associated risks)</i>		
Public debt	<p>Between 2008 and 2015 public debt rose from 39.6 % to 86.7 % of GDP due to the large government deficit and the materialisation of contingent risks related to state-owned enterprises.</p> <p>A large share of the government debt is denominated or indexed to foreign currency (mostly euro), entailing exchange rate risk.</p> <p>In line with the large public debt, debt sustainability analysis indicates that risks will remain high in the medium term (see Section 4.1).</p>	<p>The general government deficit has contracted substantially in 2015 and again in 2016, but the adjustment has relied strongly on lower public investment, with possible impact on long-term growth. Public investment rebounded in 2016 in line with better absorption of EU funds.</p> <p>The debt-to-GDP ratio is projected to have declined to about 84.1 % of GDP in 2016 due to the lower deficit, a rebound in the growth and favourable valuation effect resulting from the kuna appreciation, and is set to further decline over the forecast period.</p>	<p>The authorities have completed a new draft of the Fiscal Responsibility Act. In addition, the amendments to the Budget Act in relation to the revision and execution of the budget are being prepared, including rules on reallocating funds within or across budget lines.</p> <p>The previous debt management strategy that expired in 2013 is now replaced by a new one for the upcoming 2017-2019 period. No other measures have been taken to strengthen the debt management function or improve the framework.</p> <p>Steps were taken to reduce compliance risks related to VAT refunds and the application of the reverse charge mechanism. A compliance risk management system is being developed.</p> <p>The reform of personal income tax was implemented. It is set to further reduce the already small share of personal income tax revenue.</p>
Household and corporate debt and the financial sector	<p>Household and corporate debt increased rapidly in the previous decade reaching a peak of 42% and 83.2% of GDP by the end of 2010. By the end of 2015, corporate and household debt stood at 76 % and 39.0 % of GDP, respectively.</p> <p>The banking sector has suffered significant losses due to the conversion of Swiss franc household loans into euros, but bank profitability is recovering and the sector remains relatively well capitalised and liquid.</p> <p>At around 15 %, the rate of non-performing-loans is still relatively high. It stems mainly from the corporate debt (especially construction sector).</p> <p>Around 63 % of household debt and almost 80 % of corporate debt is denominated in euro.</p>	<p>Both corporate and household deleveraging accelerated during 2016, mainly thanks to higher growth and the conversion of Swiss franc loans.</p> <p>Deleveraging pressures in both the household and corporate sector are set to abate in the context of low interest rates. Credit is projected to enter a mild expansionary phase.</p> <p>Non-performing loans of corporates are decreasing mostly because of the marked sell-off.</p>	<p>The authorities plan to facilitate the write-off of non-performing loans through the tax deductibility provisions.</p> <p>The implementation of the revised corporate insolvency legislation resulted in the bankruptcy of thousands of illiquid companies without assets. The authorities also plan to step up the monitoring of the reformed corporate and personal insolvency framework in order to assess its effectiveness.</p>

(Continued on the next page)

Table (continued)

External liabilities and trade performance	<p>The current account improved from a record deficit of 9 % of GDP in 2008 to surplus in 2013. Gross external debt continued to increase up to mid-2015 due to government borrowing, reaching 114 % of GDP.</p> <p>In 2015 the net international investment position decreased to around 76 % of GDP, while gross external debt declined to 104 % of GDP.</p> <p>External debt is almost exclusively foreign denominated (in euro), which adds to the currency risk exposure of domestic debt.</p>	<p>The trade performance has improved significantly following EU-accession. Croatia has regained most of its previously lost market shares (+8 % between 2013 and 2015). The export of services has also been very strong due to solid growth in the tourism sector.</p> <p>The current account is projected to record a solid surplus position over the forecast period, partly due to increasing absorption of EU funds.</p> <p>The net international investment position is projected to further improve over the forecast period, thanks to falling external debt liabilities, the improved macroeconomic scenario and the appreciation of the kuna. Further reduction in external debt is also projected over the forecast period, but external sustainability remains vulnerable to shocks in exchange and interest rates</p>	<p>The simplification of administrative procedures for imports and exports is helping reduce transaction costs, though Croatian firms are still burdened by costly administrative procedures.</p> <p>Weaknesses in the business environment remain, limiting Croatia's attractiveness for foreign direct investment and increasing the costs of doing business for Croatian firms.</p> <p>Most reform initiatives aimed at improving the business environment have been largely delayed due to the political instability in 2016.</p>
Potential output	<p>The low potential growth has contributed to exacerbate the challenges linked to the high debt in the public and private sector.</p> <p>The contribution of total factor productivity has remained negative.</p> <p>Low labour utilisation and sluggish productivity are weighing on potential growth, undermining the durability of the adjustment process.</p> <p>The crisis led to intense shedding of labour and the unemployment rate reached 18 % towards the end-2013. At 15.7%, the unemployment rate in 2015 was well above the EU average, and it combined with one of the highest inactivity rates in the EU. Low labour utilisation is weighing on potential growth, undermining the durability of the adjustment process.</p>	<p>The contribution of total factor productivity is set to return to positive, remaining however low for a catching-up economy.</p> <p>The unemployment rate fell by about 3.5 pps in 2016. Employment grew by an estimated 1.8 %, but new jobs are mostly on temporary basis. Most of the drop in the unemployment rate, however, was driven by a contraction of the labour force. Activity rates continue to decline fast after the age of 50 as recourse to early retirement is still widespread.</p> <p>Over the past few years wages have reversed the rapid growth seen before the crisis. They are now projected to start growing again, though so far broadly in line with productivity increases.</p>	<p>The labour market has been made more flexible by the 2013 and 2014 reforms, but the increasing weight of temporary employment is a source of concern.</p> <p>The government had undertaken a review of wage-setting in the broader public sector (including state-owned enterprises), but has so far failed to propose reform measures. The adoption of the new Act on Public Sector Wages has been postponed by more than 2 years.</p> <p>Some steps have been taken in simplifying the business environment, including the reduction of para-fiscal charges. The implementation of most of the related measures, however, registers significant delays (see Section 4.4).</p>

## Conclusions from IDR analysis

- The economy is burdened by a high stock of public and private sector debt that is constraining investment and the ability of fiscal policy to respond to cyclical downturns. The large share of foreign currency-denominated debt amplifies vulnerability to financial markets' volatility. Despite the recent losses, the financial sector remains well capitalised, although the rate of non-performing loans remains high. The net international investment position and the external debt are high, contributing to the vulnerability of the economy. Persistently low activity rates and the high unemployment rate are holding back the growth potential, while the high share of temporary employment exposes the economy to large fluctuations in employment levels.
- Deleveraging pressures are set to abate and credit is expected to start growing again, partly due to the declining rate of non-performing loans. The acceleration of the economic recovery is nevertheless expected to contribute to a further mild reduction in the private debt-to-GDP ratio, while as of 2016 the ratio of public debt to GDP is on a declining path. The current account is expected to remain positive and to support further reduction in external debt.
- The Central bank's policies have contributed to preserving macro-financial stability and – together with the reform of insolvency procedures – accelerating the resolution of banks' impaired assets. Enhanced labour market flexibility is underpinning a relatively job-rich growth. Policy action is needed in order to ensure a lasting correction of the primary balance. With investment growing again, an increase in potential growth could be supported by improving the business environment and addressing the low activity rates.

Source: European Commission



## 4. REFORM PRIORITIES

### 4.1. PUBLIC FINANCES

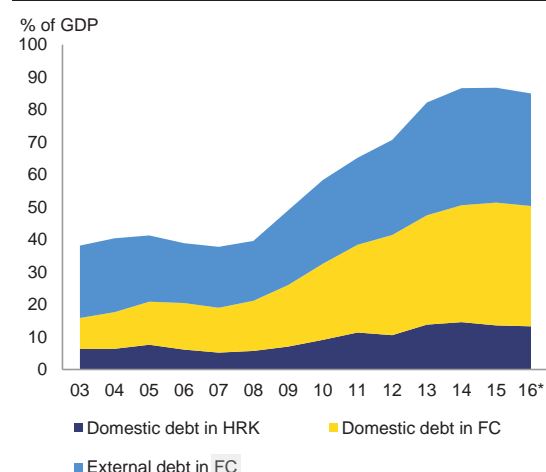
**Until 2015, widening general government deficits led to a substantial increase in the stock of public debt.** With cyclically-adjusted deficits averaging above 5 % of GDP in the period 2004-2009, Croatia entered the recession with limited room for fiscal manoeuvre. The protracted recession depressed revenue collection, which resulted in soaring deficits in the period 2009-2014. In addition to deficits in the state budget, public debt was significantly affected by off-budget transactions, including the rising net borrowing of SOEs classified in the general government sector and the take-up of debt by the state upon repeated calls on guarantees to public corporations (together averaging 1.4 % of GDP annually in this period) (European Commission, 2016, p. 14). As a result, general government debt rose from 39.6 % in 2008 to 86.7 % of GDP in 2015.

**The increase in debt contributed to a build-up of foreign currency exposure.** Against the background of limited absorption of debt by the domestic market, almost 40 % of the debt that was accumulated during the crisis was issued abroad. Furthermore, the most of the general government debt held domestically was issued in or indexed to the euro, reflecting the high euroisation of the economy. This resulted in growing exposure of public finances to foreign exchange risks.

**The general government deficit decreased markedly in 2015-2016 on the back of strong economic growth and expenditure restraint.** Between 2014 and 2015, the general government deficit decreased from 5.4 % to 3.3 % of GDP and, according to the Commission's 2017 winter forecast, improved further to 1.8 % of GDP in 2016. The deficit reduction was achieved through a combination of windfall revenues stemming from stronger-than-expected economic growth and expenditure restraint facilitated by the presence of caretaker governments with no legislative powers during much of the year. The restraint no longer affected public investment. On the contrary, backed by a stronger uptake of EU funds (estimated at +20 %), public investment rebounded by an estimated 16 % after it was heavily cut in 2010 (by almost 40%) in an effort to contain

soaring public spending, and increasing only moderately thereafter.

Graph 4.1.1: **General government debt by currency and market of issuance**



(1) FC = foreign currency, of which most is in EUR

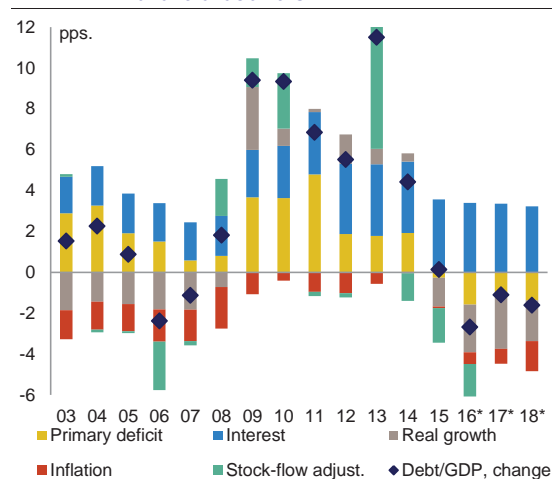
Source: Croatian National Bank, European Commission

**The reduction in deficit and strong growth drove the debt ratio to decrease for the first time since 2007.** In addition to low deficits, which reduced the need to issue new debt, strong GDP growth helped decrease the debt ratio through a denominator effect. Furthermore, the aforementioned high exposure of Croatia's public debt to the euro had a positive effect, as the appreciation of the kuna (slightly above 1 %, from end-2015 to end-2016), also supported the reduction of the debt ratio (by an estimated 0.7 % of GDP in 2016) (see Graph 4.1.2). Thus, general government debt is estimated to have decreased to 84.1 % of GDP in 2016 and is projected to decline further to 81.3 % of GDP by 2018.

**The structure of public expenditure does not provide sufficient support to growth and jobs.** A comparatively high intermediate consumption and wage bill add up to almost one fifth of the country's GDP, which makes the functioning of the government costly in comparison to comparable countries in the region, as well as the EU average (see Graph 4.1.3). Considering in addition the still high costs of debt servicing, this leaves little fiscal space to finance productive investment, education or social spending, which is facing demographic

pressures. Therefore, improving the efficiency of spending through structural measures remains a challenge for fiscal policy in the near term.

Graph 4.1.2: Contributions to yearly change in debt to GDP and total debt to GDP

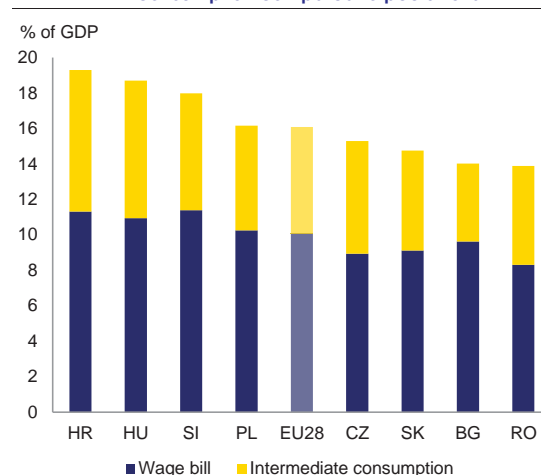


(1) \* based on European Commission's winter forecast  
Source: Eurostat, CNB and Winter Forecast

The medium term budgetary framework is expected to be strengthened soon, while the credibility of budgetary targets varies across items. The new fiscal responsibility act should soon be adopted. It is intended to transpose the EU Directive on requirements for budgetary frameworks of the Member States (Council, 2011), including the strengthening of the autonomy and role of the Fiscal Policy Commission. The adoption of a new budget act is also expected, with the aim of making the budgetary framework of the central and local government more binding, namely by qualifying the conditions under which a departure from the set deficit target is permitted. This is set to help reduce the frequency and significance of the revisions to the targets throughout the year that was observed in the past. Still, in order to enhance the robustness of annual and multiannual budgetary planning and execution, ensuring the quality of the underlying projections remain important pre-requisites. In 2015 and 2016, the growth surprise explains much of the discrepancies between projections and execution on the revenue side. However, budgetary projections for items like corporate income tax revenues (underestimated by 16 %) and dividends from entities within the public sector could be improved. Revenues from EU grants are continuously over-estimated (see Graph 4.1.4),

although this does in principle not pose a risk for the deficit as they tend to be matched by a similar overestimation on the expenditure side.

Graph 4.1.3: Expenditure on the wage bill and intermediate consumption compared to peers 2016



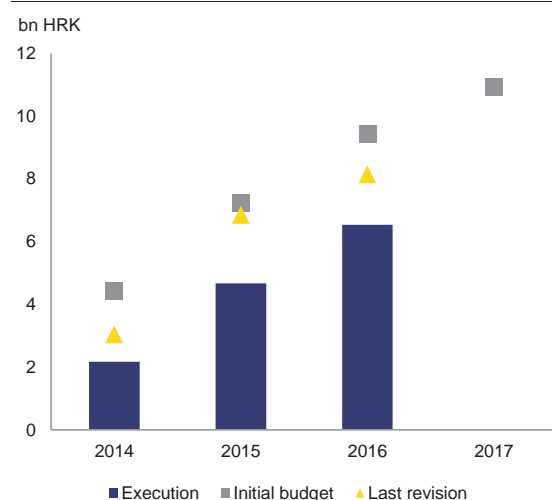
Source: Eurostat, European Commission winter forecast

**The expansionary 2017 state budget relies on strong take-up of EU funds.** In spite of strong growth, the budget projects modest growth in tax revenues (ca. 1.5 %), largely due to the negative impact of the tax reform, estimated at HRK 2 bn in 2017 (this represents 0.6 % of GDP or 2.8 % of 2016 tax revenues). Meanwhile, the budgeted expenditure - net of increases in transfers from the central to the local government to compensate for loss in shared personal income tax revenue resulting from the tax reform - is planned to increase by 6 %. Approximately half of the projected increase is expected to be deficit-neutral as it is intended to be conditional upon financing from external sources (largely EU funds). The wage bill is set to grow by 3.7 % as the terms of the collective agreement were renegotiated with a part of public sector employees. Intermediate consumption is also projected to grow substantially (ca. 14 %), although much of the projected increase should be deficit-neutral as it is projected to be financed from EU funds. Sources of risk to the budget include the estimation of the impact of the tax reform and a further increase in the wage bill resulting from the possible renegotiation of the collective agreement with the rest of the employees in the public sector. The coverage of the state budget was expanded to include two more agencies, with a minor and largely equal impact on



both revenue and expenditure. This is welcome as it brings the coverage closer to that of central government in ESA 2010 terms. Nevertheless, the budget still does not feature an ESA-based target (neither for the central government nor for the general government as a whole).

Graph 4.1.4: Budget revenue from EU grants: projections, revisions and execution 2014-2017

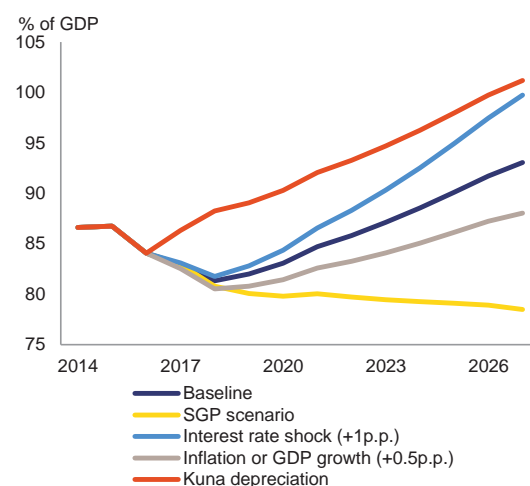


(1) Last budget revisions were in November (2014 & 2016) and September 2015

Source: Official gazette, European Commission estimate (for 2016 execution)

**Refinancing risks in the short term appear low.** Although public debt moved onto a declining path in 2016, at a projected 84.1 % of GDP it still represents a vulnerability for the Croatian economy. The government borrowing requirements were met without major difficulties in 2016, partly thanks to ample liquidity in the financial sector coupled with the current low interest rate environment. Overall, short-term fiscal risks stemming from the fiscal and broader macro-financial conditions in Croatia have significantly decreased since the aftermath of the crisis, and appear now contained. Similarly, two of the leading rating agencies have recently improved the outlook for Croatia's sovereign credit rating, which might imply lower financing costs in the near future. However, with refinancing needs due to maturing debt being higher in 2017, risks may increase if the interest rate and exchange rate environment becomes more adverse.

Graph 4.1.5: Gross public debt under different scenarios



(1) Baseline scenario: no policy change

Interest rate shock scenario: Standardised (permanent) positive shock to the short- and long-term interest rates on newly issued and rolled over debt

Inflation/GDP growth scenario: Standardised (permanent) positive shock on inflation or GDP growth yield the same outcome

kuna depreciation scenario: Sensitivity test on the HRK depreciation vis-à-vis euro (-5% in 2017 and 2018)

Source: European Commission

**Croatia's fiscal sustainability risk is expected to remain high in the medium term.** The improved budgetary position implies that the improvement in the structural primary balance over 2019-2023 needed to reduce the debt-to-GDP ratio to 60 % of GDP by 2031 has significantly declined (from a cumulative 4.5 % of GDP last year to 3.2 % of GDP). However, sensitivity analysis of the public debt trajectory under alternative scenarios (see Graph 4.1.5) still points to high sustainability risks in the medium term. Based on the Commission's 2017 winter forecast, and under normal economic conditions with no change of fiscal policy after the forecast period, the public debt ratio is projected to fall until 2018 but start increasing again after that, reaching 93 % of GDP in 2027. Assuming full compliance with the fiscal effort recommended by the Council and achievement of Croatia's medium-term objective of a structural balance of -1.75 % thereafter, the debt ratio would continue falling, to 78.5 % of GDP in 2027. By contrast, under more unfavourable assumptions on interest rates and exchange rates, the debt ratio would increase to over 90 % of GDP, which is the critical threshold for considering a certain scenario to be high risk.

**Currency risk exposure is mitigated by the monetary policy implemented by the Croatian**

**National Bank** (Graph 4.1.1). The large share of public debt that is indexed or denominated in foreign currency – mostly euros – implies substantial currency risk, as was also demonstrated by its materialisation in 2016, when the slight appreciation of the kuna against the euro helped reduce the debt-to-GDP ratio (see above). In a simulation which assumes that the kuna depreciates against the euro in 2017 and 2018, public debt would rise to 101.2 % of GDP in 2027. However, exchange rate risk is greatly mitigated by the central bank's tightly managed float of the kuna's exchange rate against the euro.

**In the long run, in an unchanged policy setting, Croatia faces low fiscal sustainability risk.** A still unfavourable initial budgetary position and the projected increase in healthcare costs are more than offset by a substantial projected drop in pension spending as a result of previous reforms. These include the introduction in 2002 of a mandatory fully funded pillar, which is not included in the projections. However, the pension system gives rise to strong adequacy concerns (see Section 4.3.3), which make it susceptible to policy reversals.

**The authorities have finally adopted a public debt management strategy for the period 2017-19, but the debt management framework has not been strengthened.** The government's high financing needs and the high exposure of sovereign debt to currency risk highlight the importance of developing and maintaining reliable financing sources that are subject to prudent risk management. After a gap of three years from the last strategy (which covered the period 2011-2013), a new strategy for the management of public debt over the next three years was adopted in January 2017. It focuses on the debt of the state sector only, thus excluding the financing needs of extra-budgetary entities and local governments. The former have contributed to a large extent to the build-up of debt in past years. In the meantime though, no steps have been taken to reinforce the framework for debt management or strengthen the debt management function within the Ministry of Finance.

**A comprehensive tax reform has just entered into force.** The tax reform package includes several elements, namely a simplification and a reduction in personal income tax (PIT), a

rationalisation of corporate income tax (CIT), a one-off incentive for the writing-off of non-performing loans, changes in the VAT categories and the basis for the future introduction of the recurrent property taxation.

**The personal income tax reform further narrows the tax base.** As described in Table 4.1.1, the brackets of the personal income tax (PIT) were reduced from three (12%, 25%, 40%) to two (24% and 36%) and the personal allowance was significantly increased (from a threshold of HRK 2 600 to HRK 3 800). Other changes in the PIT include a more progressive scale for expanding the personal allowance for dependent children and the narrowing of eligibility criteria for other supported family members. Social security contributions for “other income” – i.e. non regular income from employment and self-employment – have also been cut. As a consequence, the number of persons that will no longer pay any PIT will increase by 560 000, reaching 1.5 million (more than half of all persons with income), while higher-income earners will face a significantly lower tax liability (further discussed in box 4.3.1). According to the authorities, the PIT reform reduces tax revenue by 0.4 % of GDP in 2017 (which represents the bulk of the overall effect of the reform of -0.6 % of GDP) and somewhat increases income inequality (see Chapter 4.3). The budgetary impact of the cuts in social security contributions is expected to be marginal, as they apply only to second incomes, which represents less than 2 % of employment and self-employment income.

Table 4.1.1: **Tax brackets in PIT (HRK / month)**

	Pre - reform	Post - reform
Personal allowance	2 600 - 3 800 (1)	3 800
1st bracket	0 - 2 200	0 - 17 500
rate	12%	24%
2nd bracket	2 200 - 13 200	> 17 500
rate	25%	36%
3rd bracket	> 13 200	-
rate	40%	-

(1) The general personal allowance before the reform was HRK 2 600, while the higher allowances applied to pensioners and citizens in supported areas

Source: Ministry of finance

**Reductions in the corporate income tax rates are designed to be broadly compensated by the abolition of costly exemptions and tax breaks.** The general CIT rate was cut from 20 % to 18 % and a new, reduced rate of 12 % was introduced

for small businesses and farmers (with revenue up to HRK 3m). At the same time, the authorities broadened the base by removing some of the exemptions applied to companies in supported (underdeveloped) geographical areas and by abolishing the tax break for reinvested earnings. This tax break was introduced in 2012 to help revive plummeting investment, against the background of negative credit growth and slow deleveraging. However, as circumstances improved and the design of the tax break was changed, it became costly to implement, while providing benefits to few companies. Reducing rates while simultaneously abolishing the tax breaks and exemptions is expected to result in a broader-based freeing up of investment capital at a cost for the budget of just above 0.1 % of GDP, accompanied by a simplification of the framework. Additional simplifications include the possibility given to small businesses to choose between two methods for calculating their CIT liabilities and the introduction of a system of warnings and recommendations instead of punitive measures for minor offences. However, the substantial gap between the general and the reduced rate (6 pp.) risks creating disincentives for companies to grow.

**VAT rates remained unchanged, but categories of goods and services were shifted across rates.**

In a move to support small farmers and households, the reduced rate of 13 % is now being applied to inputs in agriculture, electricity and utility services. On the other hand, food and drink services were moved from the reduced to the general rate. In 2018, the authorities plan to raise the threshold for entry into the VAT system by 30 % and reintroduce a deduction of input tax on vehicles at a rate of 50 %. The authorities estimate the net effect of these measures on budget revenues at around -0.1 % of GDP in 2017 and an additional -0.1 % of GDP in 2018. If this VAT reform translates into lower prices of electricity and inputs in agriculture, the purchasing power of households and the competitiveness of small farmers and businesses will be supported.

**The introduction of a recurrent property tax is scheduled for 2018, while the property transfer tax rate is being reduced.** The authorities remain committed to introducing a recurrent property tax as laid out in the 2016 national reform programme. This long process is envisaged to result in the introduction of a simple property tax first (in 2018)

and then a value-based property tax in 2020. The simple version of the tax will entail an enhanced version of the existing utility fee and will also replace the tax on holiday homes as well as one parafiscal charge (the monument fee). The calculation of the tax base will be the same as for the utility fee, with the addition of two new coefficients (age and condition of property, respectively). Exemptions that are in place will be abolished. Local government units will be responsible for providing data on the coefficients. The first stage of this process is progressing well, with 96 % of local government units having conducted the necessary recording of properties by November 2016. The real estate transfer tax rate was cut from 5 % to 4 %, with the entire amount now earmarked for local government units (compared to 80 % before).

## 4.2. PRIVATE SECTOR DEBT AND FINANCIAL SECTOR

**A sizeable part of private debt is largely financed externally and in foreign currency.** In the run-up to the crisis, the excess of investments over domestic savings was partly financed through direct external borrowing by large corporations, including inter-company lending, and via the financial sector. The resulting surge in domestic bank lending was also partially financed from abroad, so that external indebtedness grew rapidly <sup>(8)</sup>. In 2010, corporate debt peaked at 83.2 % of GDP, while household debt stood at 42.0 % of GDP. In addition, a substantial part of the domestic lending took place also in foreign currency, amplifying exposure to currency risk <sup>(9)</sup>.

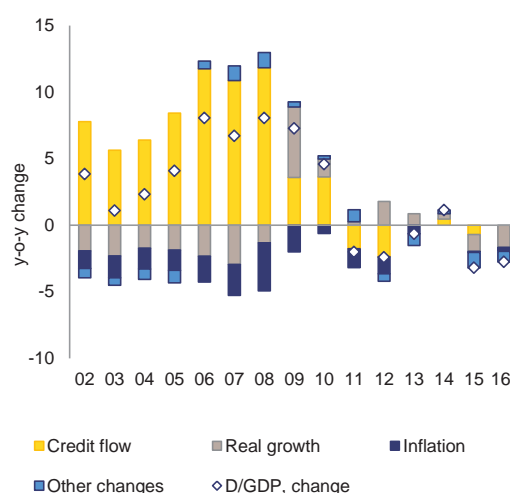
**Deleveraging of the private sector has gained momentum, while the financial sector remains robust.** In 2016 the overall level of private debt is expected to have declined markedly. Household deposits continued increasing and disposable income grew as well. Benefiting from the improved economic conditions, corporate sector profitability has recovered and investment credit demand has started to increase. The financial sector recovered the profitability that had been dented by the conversion of Swiss franc-denominated loans, and it remains well capitalised, liquid and stable.

### 4.2.1. CORPORATE DEBT

**High investment rates in the pre-crisis years resulted in a steep accumulation of corporate debt.** With investment growing at an average rate of over 10 % between 2002 and 2008, the aggregate indebtedness of non-financial corporations rose sharply up to 2010. Partly because of supply constraints, Croatian corporations often by-passed the domestic banking sector to obtain cross-border loans directly from foreign banks and, to a lesser extent, from parent

companies. In 2010, more than 50 % of the of non-financial corporations' total debt was external debt, mostly in euro area countries. Moreover, two thirds of domestic debt was also denominated in foreign currency, essentially the euro.

Graph 4.2.1: **Contributions to changes in total corporate debt**



Source: European Commission (Eurostat)

**Corporate debt has decreased by approximately 7 percentage points between 2010 and 2015.** The reduction stemmed mostly from reduced investment. As net credit flows turned negative, by 2015 the debt-to-GDP ratio was down to 75.8 %, while corporate external debt fell to around 42.5 %. The ratio is projected to have further decreased by about 2.5 pps by mid-2016. This is a result of the acceleration of economic activity, but also of valuation effects, as a slight appreciation of the kuna reduced the value of outstanding debt denominated in euro.

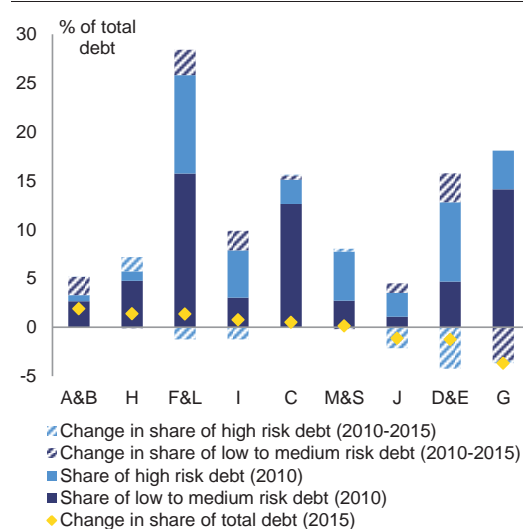
**The deleveraging process went hand in hand with reallocation of resources across industries.** Whereas the stock of debt decreased in aggregate terms, evidence from corporates' balance sheets suggests that the distribution of debt also shifted across industries. Between 2010 and 2015, agriculture, manufacturing, transportation and storage, and accommodation and food increased their proportion of total debt. These dynamics are consistent with the evidence showing that in the recession productive resources shifted towards sectors that are more exposed to external demand. Conversely, the proportion of debt decreased

<sup>(8)</sup> Between 2000 and 2010, external debt increased by roughly 52 % of GDP, of which roughly half was intermediated by the broader financial system (about 15 pps by deposit taking institutions and 9 pps by non-monetary financial institutions). The rest of the increase was due by direct inter-company lending (about 11 pps) and direct lending from foreign credit institutions (about 15 pps).

<sup>(9)</sup> Domestic lending in foreign currency results from high euroisation of local deposits, also due to existing macro-prudential regulation limiting banks' open currency position.

sharply in the wholesale and retail sector and utilities. An increased proportion of debt in the already highly indebted construction sector can probably be related to the persistent involvement of domestic banks in real estate lending, expecting that the real estate market will eventually recover.

Graph 4.2.2: **Proportion of debt by risk class and industry (2010 and 2015)**



(1) Sectors: A — Agriculture, forestry and fishing; B — Mining and quarrying; C — Manufacturing; D — Electricity, gas, steam and air conditioning supply; E — Water supply; F — Construction; L — Real estate activities; G — Wholesale and retail trade; repair of motor vehicles and motorcycles; H — Transportation and storage; I — Accommodation and food service activities; M — Professional, scientific and technical activities; N — Administrative and support service activities; S — Other service activities.

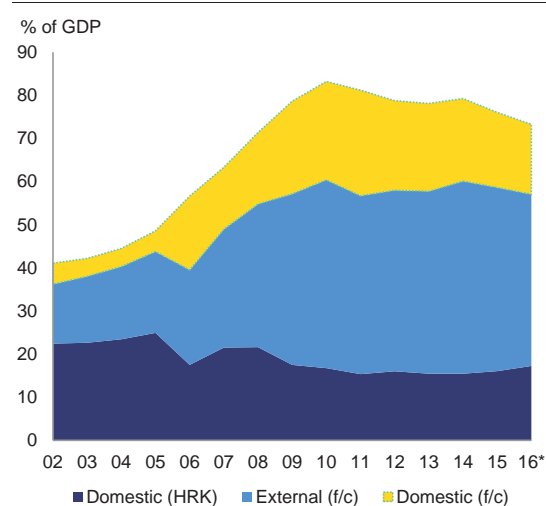
Source: Orbis, European Commission

**The sustainability of corporate debt keeps improving, but risks are concentrated in a few sectors and a handful of companies.** Between 2010 and 2015, the share of corporate debt considered high-risk decreased from 39% to 31%<sup>(10)</sup>. This improved risk profile is essentially linked to higher profits, which led to a significant reduction in the debt-to-earnings ratio — one of the key metrics for assessing debt sustainability. High-risk debt nevertheless remains highly concentrated in a few sectors — including utilities (NACE codes D&E), and services other than retail

<sup>(10)</sup> For details on the definitions of risk class and methodology, please refer to the analysis already performed in the 2015 Country Report (European Commission, 2015a).

and wholesale (NACE codes M-S)<sup>(11)</sup>. The absolute level of high-risk debt in the construction sector remains high but the average has recently been decreasing, reaching 27 %. However, the risk profile of debt in construction and the real estate sector may be underestimated to the extent that the stock of unsold properties might still be valued at pre-crisis prices<sup>(12)</sup>. Furthermore, debt in the construction sector has become more concentrated than before the crisis since the total number of construction firms fell by about a quarter during the recession.

Graph 4.2.3: **Currency composition of corporate debt**



(1) Foreign currency-denominated debt is estimated.

Source: Croatian National Bank, European Commission (use of stat)

**Whereas the stock of corporate debt appears moderate, exposure to currency risk remains high.** Despite an increase in domestic currency lending, over 85% of corporate debt (total external debt and part of domestic debt) is denominated in foreign currency. Importantly, the stability of the

<sup>(11)</sup> The higher share of (high-risk) debt in the utility industry is partially related to the high capital intensity — which typically requires higher than average leverage ratios. The risk assessment takes into account this aspect, since debt levels are assessed also in terms of the debt to capital ratio. Yet, critical thresholds are not industry specific, thus penalising utility industry. However, the stability of the revenue streams and quasi-monopoly position enjoyed by most corporations largely mitigates risks stemming from excessive leverage ratios.

<sup>(12)</sup> Again, this is mainly related to the debt to capital ratio (see previous footnote). If firms have not yet marked to market the value of the stock of unsold properties, capital can be overestimated. Therefore an artificially low debt to capital ratio and an underestimation of the risk profile of the debt held by construction and real estate.



foreign exchange rate reduces the risk of currency shock. Risks are also mitigated by the currency matching of revenue and expenditure flows in companies operating in the tradable sector. Nevertheless, some non-tradable industries (such as construction) have a higher-than-average currency mismatch (Croatian National Bank, 2015a, p. 32). Exposure to interest rate risk is mitigated by longer debt maturities and the share of contracted fixed interest rates. Although the likelihood of shocks appears low in the current context, the assessed impact is substantial and requires close monitoring.

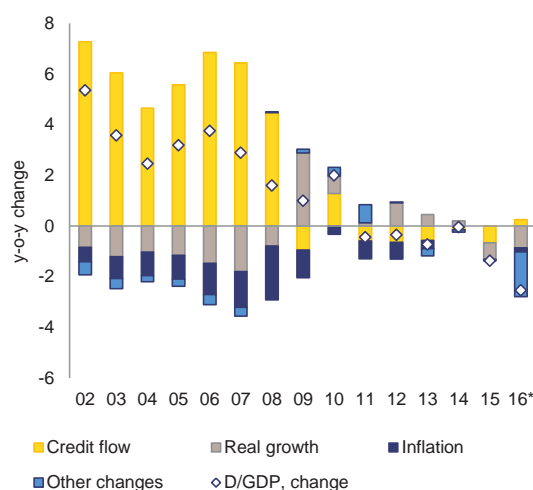
#### 4.2.2. HOUSEHOLD DEBT

##### **A housing boom and expectations of rapid convergence of income levels with the EU average fuelled the past household debt surge.**

Between 2002 and 2008, real household disposable income increased by 20% underpinned by dynamic wage growth and a strong expansion in employment. Real estate prices soared while expectations of income convergence fuelled demand for durable goods. The prospect of high returns invited the banks — mostly foreign — owned — to increase the supply of credit — including in foreign currency. As a result, household indebtedness reached 42 % of GDP by 2010 — still low in the EU wide perspective, but one of the highest amongst catching-up economies.

**Households started deleveraging in 2011, but progress was slow due to long loan maturities and a rising debt repayment burden.** As real estate prices started to adjust, credit growth to the household sector fell. As almost half of the loans extended were granted for real estate purchases, the average duration of the outstanding household debt remains high. A sharp deterioration in labour market conditions and decreasing disposable income hindered swift debt repayment and increased the household debt burden. As in the corporate sector, the recession also contributed to the slow deleveraging process. Aggregate household debt therefore contracted by only about 3 pps between 2010 and 2015, with 1.4 pps of the change in 2015 alone.

Graph 4.2.4: **Contributions to change in total households debt**



(1) Foreign currency denominated debt is estimated.

**Source:** Croatian National Bank, European Commission (Eurostat)

**The legislated conversion of Swiss franc loans into euros accelerated household deleveraging in 2016.** The conversion of Swiss franc-denominated loans into euro-denominated loans, stipulated in September 2015, has significantly reduced household debt as it reduced principal and future instalments of the vast majority of the relevant borrowers. Moreover, data suggest that in some cases households opted for refinancing along with the conversion of their loans, by taking out kuna-denominated loans. Despite a feeble increase in the demand for new loans, due to the conversion of the Swiss franc loans and the appreciation of the kuna, the household debt-to-GDP ratio is set to have fallen by 2.5 pps in 2016.

**Pressures to reduce household debt are subsiding as labour market conditions improve, real estate prices stabilise and interest rates remain at historically low levels.** Lower debt levels and, even more importantly, low interest rates have pushed down households' debt servicing burden (i.e. the interest paid on outstanding debt) to 0.4 % of GDP in 2015, well below the record of 1.8 % of GDP reached in 2009. As the situation on the labour market keeps improving and real estate prices show signs of bottoming out, residual pressure to reduce debt level appears contained (Croatian National Bank, 2014, p. 27-30). According to the Commission's 2016 winter forecast, households' saving rate is set to decline

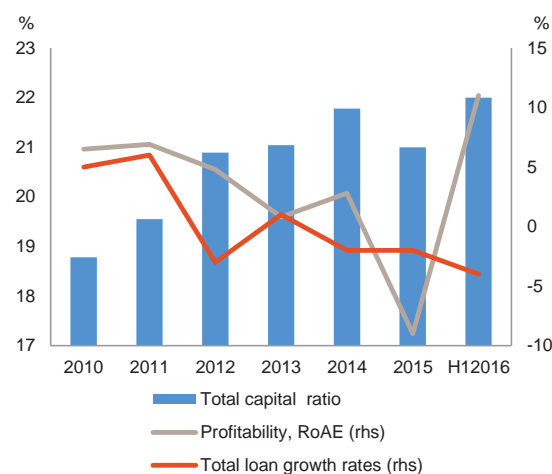
to just above 11 % over 2017-2018 period. It is therefore unlikely that the debt-to-GDP ratio will see similar sharp reductions.

**The debt burden is no longer dragging household consumption, but exposure to interest and currency risk remains high.** In the current low interest rate environment, macroeconomic risks stemming from high debt levels appear contained. The sinking debt burden is contributing to the recovery in consumption. Nonetheless, household bank loans exposed to currency risk still amounted to around 22 % of GDP in mid-2016, albeit a small share of households is likely hedged through their foreign currency-denominated financial assets or revenue streams. Household borrowers in Croatia who contracted variable interest rate loans are also exposed to interest rate risk, especially in mortgages, due to the loans' long duration. As with corporate debt, risks currently appear limited and have further decreased over the last year.

#### 4.2.3. FINANCIAL SECTOR

**The profitability of the banking sector was affected by the conversion of Swiss franc loans into euros, but the sector has been recovering since then.** The conversion legislation allowed Swiss franc borrowers to convert their loans into euros at historical currency and interest rates. This resulted in a gross loss estimated at HRK 7.6 billion (Ministry of Finance, 2016) for the banks — roughly 2.3 % of GDP — which hit their profitability immediately in 2015 and subsequently weakened their capital positions. The conversion insulated Swiss franc borrowers from the effects of the franc's appreciation, but the government took a blanket approach and did not specifically target distressed borrowers. In addition, it may have damaged legal certainty and investor confidence. The measure is currently subject to legal proceedings, which may eventually result in a substantial liability for the state budget.

Graph 4.2.5: Key indicators of the Croatian banking sector



(1) Total loans comprise government, corporate and household sector

Source: Croatian National Bank

**Asset quality has been improving since mid-2015 thanks to the acceleration of sales of impaired assets.** The ratio of non-performing loans (according to the national definition<sup>(13)</sup>) to gross loans declined from 16.6 % at end-2015 to 14.6 % in September 2016, the lowest level in the last 3 years. The ratio of non-performing housing loans in all currencies fell from 9.8 % to 8.5 % over the same period. Similarly, the share of non-performing loans to non-financial corporations dropped from 34.7 % to 30.0 % over the period. Preliminary analysis suggests that sales of non-performing loans have been a principal driver behind these improvements. The increase in sales was probably driven by both supply and demand factors; parent banks have more actively reduced their portfolios of such loans, while buyers have recognised the potential of the Croatian market. The progressive and automatic provisioning requirements introduced by the central bank in 2013 could have been an important driver, as this policy has continuously increased the coverage of the non-performing loans (see Graph 4.2.6). Section 4.5.3 explains why it is difficult to monitor the impact of the revised insolvency regulation on

<sup>(13)</sup> The non-performing loans definition relies on granular risk category data provided by the Croatian National Bank which is based on the local loan classification rules. Accordingly, they cover partly recoverable loans (i.e. loans for which there exists objective evidence of partial impairment) and fully irrecoverable loans (i.e. loans for which there exists objective evidence of full impairment). As a general rule, the local figures are broader than those cited by the European Central Bank.

the process of resolving non-performing loans. At this stage, it is also difficult to assess the role played by the conversion of Swiss franc loans into euro loans in helping reduce non-performing loans. Despite recent improvements, the proportion of such loans in Croatia remains high, both historically and in comparison with the EU average.

Table 4.2.1: **Financial soundness indicators, all banks**

(%)	2013	2014	2015	2016Q2
Non-performing loans	11.8	12.9	12.5	11.2
Coverage ratio	48.1	59.1	64.1	69.5
Loan to deposit ratio*	95.6	91.0	83.7	81.7
Tier 1 ratio	18.6	19.4	17.7	18.4
Return on equity	0.6	3.9	-6.8	-
Return on assets	0.1	0.5	-0.9	-

\*Aggregate balance sheet data, excl. government and MFIs

Source: European Central Bank

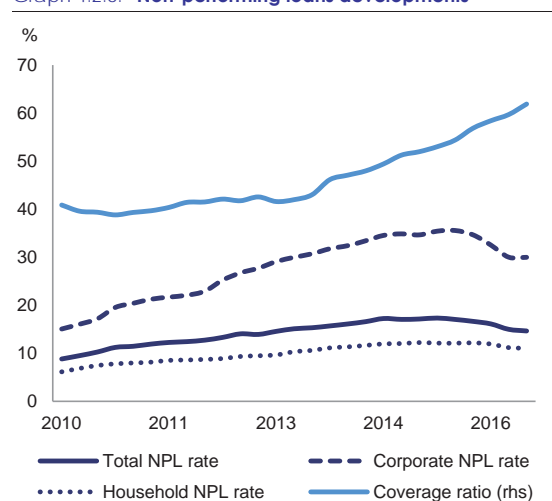
The recently adopted tax reform may provide further incentives to the banks to write off the non-performing loans and provide a fresh start to borrowers. Until recently, banks have reportedly been discouraged from writing off their non-performing loans because of ambiguities in tax deductibility rules. The recent tax reform (see chapter 4.1) allows banks to treat the provisions related to the non-performing loan as tax-deductible expenses when writing it off. This could shift the resolution strategy from sales towards writing off. However, deductibility would be recognised only during 2017 for non-performing loans and related provisions that were booked as such, according to the Croatian National Bank's definition, in the banks' balance sheets as of end-2015.

There are signs of a recovery in new domestic currency lending and in domestic currency deposits. The share of domestic currency loans in total loans for households has increased substantially, from 28 % at end-2014 to over 40 % by September 2016. This is due to increased demand for kuna loans, either through new lending or through the refinancing of existing foreign currency loans. It may also reflect prudential measures that encourage banks to provide more domestic currency loans<sup>(14)</sup>. Kuna lending by

<sup>(14)</sup> In accordance with local rules, banks now have to offer each client a comparable kuna loan whenever a foreign currency loan (or a currency-indexed loan) is requested. The supervisors have also maintained Pillar 2 measures to

banks has increased due to the marked increase in kuna deposits by both households and corporates. In contrast, deposits by households in foreign currency have fallen since 2015.

Graph 4.2.6: **Non-performing loans developments**



(1) NPL: Non-performing loans, according to local definition

Source: Croatian National Bank

A pick-up in deposits, coupled with continuous deleveraging, has improved the financial sector's external position. As deposit growth outpaced credit growth and domestic market experienced ample liquidity, the financial sector started reducing its external debt. Between 2011 and 2015 the external debt-to-GDP ratio dropped by more than 16 pps. Banks intermediated the bulk of this reduction and consequently now have positive net external position<sup>(15)</sup>. However, gross external debt remains at very high levels, as does the net international investment position. In June 2016 gross external debt and the net international investment position were at 97 % and -75 % of GDP, respectively.

**Banks remain exposed to currency- and interest rate-induced credit risk.** The Croatian economy remains heavily euroised, due to historical mistrust

increase the risk-weights on foreign currency loans for almost all banks with substantial foreign currency lending. Also, in 2016, the CNB provided around HRK 1 bn additional domestic currency liquidity through structural repo auctions, which typically provide medium to long-term kuna funding for banks.

<sup>(15)</sup> The reduction in net external liabilities was even higher as the excess of deposits was also used to increase foreign assets.



in the domestic currency as a store of value after frequent episodes of hyperinflation in the 1980s and early 90s. The direct exposure of the financial sector to currency risk is — and has always been — limited, with relatively small unhedged positions. The financial sector nevertheless remains exposed to indirect (i.e. currency-induced) credit risk due to the largely unhedged position of households<sup>(16)</sup> and non-financial corporations. High exposure to indirect credit risk became clear in the wake of the depreciation of the kuna against the Swiss franc. However, the system is currently exposed to currency-induced credit risk only regarding the euro, against which the domestic currency has a proven track record of stability due to the Croatian National Bank's firm commitment in managing the float. The future transposition of the Mortgage Credit Directive and its foreign currency loans provisions would provide additional protection of the borrowers in foreign currency, allowing them to convert the loan into domestic currency at the market exchange rates, while also ensuring they are informed of the risks that such loans entail.

**The independence of the central bank could potentially be undermined by pending amendments to the Central Bank Act.** The draft amendments would strengthen public authorities' powers of scrutiny of the Croatian National Bank in a way that may infringe the principle of central bank independence and the ECB's confidentiality rules. The ECB expressed these concerns in two successive opinions, in June and October 2016 (European Central Bank, 2016). Its concerns mainly relate to the remit of the State Audit Office's audit powers, notably access to confidential information, and Parliament's right to vote on the National Bank's reports. The ECB points out that national central banks and members of their decision-making bodies are prohibited from seeking or taking instructions from EU institutions, bodies or agencies, from any government of a Member State and from any other body. Parliament has adopted a conclusion on accepting the draft law without taking on board the ECB's concerns. The law still has to go through its

second reading in Parliament before it is formally adopted.

#### 4.2.4. ACCESS TO FINANCE

**Access to bank loans for small and medium sized enterprises is gradually improving.** Banks are the main source of external financing, in particular for small and medium-sized enterprises (SMEs). Although their access to finance is improving, the latest survey on the access to finance of enterprises indicates that this remains more of a problem for Croatian SMEs than for their EU peers. In 2016, 61 % of the SMEs surveyed that applied for a bank loan were granted it, a decline from 77 % the year before. For 26 % the application was rejected, the loan offer was too expensive or they received a smaller loan than they had applied for. This was an increase from 23 % the year before. The remaining 13 % were still awaiting the outcome of their application. The impact of rejected loan applications on SMEs could be further mitigated, and repeated rejections avoided, through activities aimed at mandating financial intermediaries to provide feedback to SMEs on their loan applications (European Commission, 2016b; ECB, forthcoming). Apart from direct bank lending, other major sources of financing are loans and credit lines with subsidised interest rates from the Croatian Bank for Reconstruction and Development (HBOR) implemented through counties and commercial banks.

**European Structural and Investment Funds are expected to improve SME financing but other potential sources of financing are largely untapped.** A set of new financial instruments supported by the European Regional Development Fund and European Social Fund (ESF) to the tune of EUR 310 million are expected to considerably ease access to finance with an expected leverage of over 3.6. The instruments comprise small development loans, guarantees, subsidies for guaranteed loans, and growth and expansion loans. The funding should give a boost to entrepreneurship and SME activity. It should also lead to measures that encourage the creation of businesses and enable the financing of newly established companies (European Commission, 2016b; ECB, forthcoming). In 2016 a seed co-investment fund worth EUR 2.5 million was

<sup>(16)</sup> According to the CNB, the share of unhedged loans in total loans exposed to the currency-induced credit risk was close to 66.2 % in September 2016 (Croatian National Bank database).

launched in order to strengthen risk capital financing for innovative SMEs (IBRD, 2015).

**Ongoing reforms in the capital markets could improve access to finance, but challenges remain.** After the acquisition of Ljubljana Stock Exchange by Zagreb Stock Exchange in 2015 and the recent activities undertaken to support the SEE (south-east Europe) Link and the regional Central Counterparty (CCP) service, Croatia has developed the potential to become an important regional capital market player. Other initiatives, such as the development of a domestic covered bond instrument and market, are also progressing. The remaining challenges could be addressed by measures such as increasing the number of initial public offerings by SOEs on the Zagreb Stock Exchange and further initiatives to boost local currency financing <sup>(17)</sup>.

---

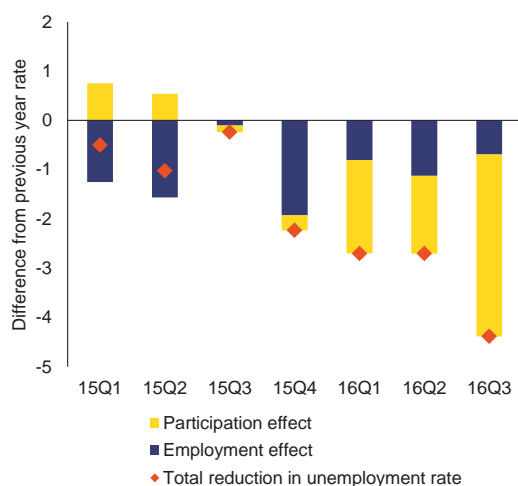
<sup>(17)</sup> Other measures suggested by international entities like the European Bank for Reconstruction and Development could also prove useful.

## 4.3. LABOUR MARKET, SOCIAL POLICIES AND EDUCATION

### 4.3.1. LABOUR MARKET

**The labour market is recovering but continues to face challenges.** The unemployment rate soared from less than 9 % in 2008 to 18 % in August 2013 and, according to both national accounts and the Labour Force Survey, the rate of job destruction peaked at the end of 2013. The labour market started to recover in 2014 and in 2016 the unemployment rate declined to 12.8 %, from 16.3 % in 2015. The unemployment rate among people aged 15-24 also fell significantly, from 41 % in Q3-2015 to 28 % a year after. The share of young people who were not in employment, education or training, fell from 19.6 % in 2013 to just over 18.5 % in 2015. Despite these improvements, unemployment remains significantly above the EU average, including for young people, and almost two thirds of the unemployed have been without a job for more than a year. Moreover, a significant drop in the activity rate explains more than half of the overall reduction in the unemployment rate (see Graph 4.3.1).

Graph 4.3.1: **Change in the unemployment rate: contribution of employment and participation**



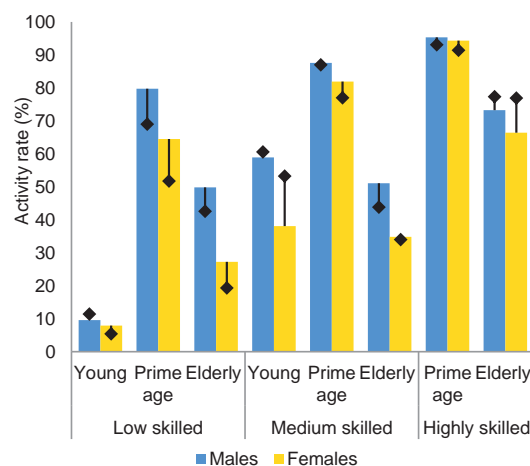
(1) The 'employment effect' reflects the change in the number of employed while the 'participation effect' reflects the change in the labour force.

Source: Eurostat, Commission calculations

**The still high unemployment in combination with persistently low and declining activity points to a large untapped labour potential.** In 2016, the activity rate (age 15-64) declined by 2.5 pps., to 65.6 %, with particularly large falls among the low skilled, especially those of prime age (25

to 55 years) (see Graph 4.3.2). Limited availability of attractive job opportunities may have discouraged labour market participation and contributed to increasing migration outflows. Indeed, the share of 'discouraged' workers (jobless people available to work but not seeking employment) amounted to 5 % of the total population (15-74) in 2015, which is more than double compared to the EU average and has increased significantly since 2008 (3 %). Skills deficiencies, care responsibilities as well as multiple pathways to early exits represent further barriers to labour market participation. Going forward, the still high number of the long-term unemployed poses an additional risk to labour market participation rates due to their declining employability over time. Some steps have been taken to improve support to the long term unemployed to make them more employable and help them get back into work. However, there appears to be no policy focus on bringing more people into the labour market.

Graph 4.3.2: **Change in activity rate by age and skill level (Q3-2015 and Q3-2016)**



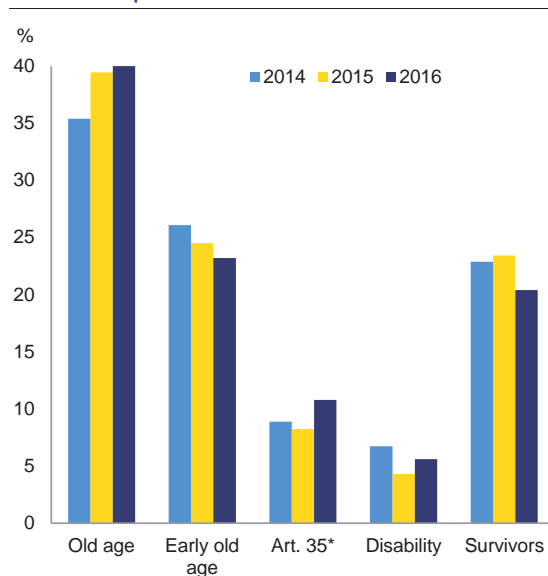
(1) Bars indicate group-specific activity rates in Q3 2015 and diamonds the corresponding rate in Q3 2016.

Source: European Commission (Eurostat)

**The working-age population is shrinking due to both ageing and emigration.** Data for 2015 point to an acceleration of the negative demographic trends recorded in Croatia over the past two decades. Those have been driven both by negative natural population growth and migration outflows, which intensified following EU accession in 2013. Official figures are likely to substantially underestimate the real size of emigration, given

that many do not notify the national authorities when leaving the country. Better labour market situation and living conditions in host countries are strong pull-factors for migration. The bulk of migrants are aged 25-50 years, which relates to the above mentioned developments in the labour force. Data from recipient countries indicate that Germany has been by far the most popular destination, followed by Austria and Ireland. The authorities have announced greater efforts in tackling the demographic challenge.

Graph 4.3.3: **Composition of new retirees by type of pensions**



(1) Retirement without penalty for people having completed minimum 41 years of contributions who are at least 60 years old. Data related to early retirement with no penalty due to employer's bankruptcy (regulated under Art 36) was not included as it is negligible (about 0.1 % in 2016).  
**Source:** European Commission based on data from Croatian Pension Insurance Institute from September 2016 (and projections for the remaining months of 2016).

**Low employment among older workers is still mainly due to the availability of various pathways to early labour market exits.** In 2016 the proportion of new retirees exiting the labour market at the statutory retirement age is expected to have increased marginally. However, the share of those retiring earlier than the statutory retirement age increased, if the different pathways to early retirement (early old age, long-career pensions – the so called Article 35 pensions – and disability pensions) are combined. In addition, the Croatian pension system still features numerous special rules that give entitlement to more

favourable conditions – like lower retirement age or higher pension accruals – to categories of workers in occupations classified as arduous and hazardous<sup>(18)</sup>, in specific sectors like security and defence, and for war veterans<sup>(19)</sup>. If these categories were included in the share of those retiring earlier, this share would be even higher.

#### **Commitments to reform the pension system have not been carried out.**

The design of the pension system and the lack of policy progress raise serious concerns regarding future pension adequacy, as discussed in Section 4.3.3. Measures aimed at discouraging and reducing access to early retirement<sup>(20)</sup> and redefining pension provisions for specific categories are on hold. In 2016 the authorities completed a review of the arduous and hazardous professions benefiting from more generous pension provisions. The planned streamlining of the provisions has not yet taken place, however. The same applies to the planned acceleration of the gradual increase in the statutory retirement age (currently due to be completed by 2038) and of plans to make the retirement age equal for men and women. Efforts on reforming the methodology and assessment framework for disability pensions are ongoing. Other measures enabling longer working lives, including tax incentives and increasing the coverage of labour market policy measures have not been implemented yet.

#### **Care responsibilities are an additional barrier to women's participation in the labour market.**

Croatia lags behind the EU target on the provision of formal childcare, though the situation seems to be improving slowly, especially for full-time childcare for children under three. The lack of nation-wide policies has resulted in large disparities across municipalities in available places and costs. As discussed in previous year's country report, care responsibilities particularly affect elder women, who consequently retire prematurely from

<sup>(18)</sup> This group benefits from a lower statutory retirement age and up to 25 % higher pension accruals compared to other pensioners. There are currently 30.000 insured people under this scheme (ca 2.1 % of all insured); since 2009 their share has been increasing.

<sup>(19)</sup> War veterans from Croatia and Bosnia and Herzegovina, among which about 80 000 have been already retired, mainly on disability pensions.

<sup>(20)</sup> Including on the basis of Article 35, the current gap of five years between early and statutory retirement age, and the current levels of bonuses/penalties.

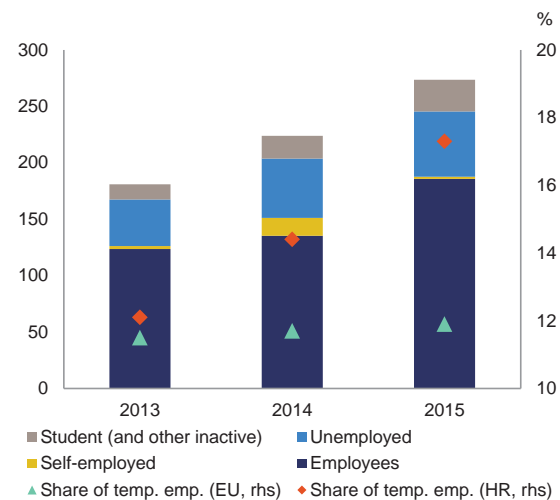
the labour market: in the broad age bracket 45-59, care responsibilities explain about one third of the inactivity among Croatian women (well above the EU average). In addition, Croatia is one of the few EU countries where paternity leave is unpaid. Regarding care for dependant relatives, in most cases the rights of carers are not recognised in Croatia <sup>(21)</sup>. Work contracts allow little flexibility in terms of reduced hours, leave arrangements and sharing of rights to enable carers, mostly women, to balance work and care responsibilities.

**Job creation has mostly relied on temporary contracts.** Following the 2013 and 2014 labour market reforms, which increased the flexibility of the labour market, there has been a surge in temporary contracts. This is especially the case among young people: for those aged 15-29, 47.1 % of contracts in 2015 were temporary, compared with an EU average of 32.2 % for the same age group. The share of fixed-term contracts in total employment grew from 15.6 % in Q3-2013 to 24.2 % in Q3-2016. The trend is visible in all sectors of the economy but especially in construction, private services and tourism, due to the high seasonality of their activity. The 2016 country report showed that these trends have been underpinned by both increased inflows of people moving into employment and a higher probability of temporary employment for all categories of workers (see graph 4.3.4) <sup>(22)</sup>. In addition, some atypical contracts that are designed only for specific circumstances – professional contracts (*"ugovor o djelu"*) and student contracts – appear to be increasingly used (CELSI, 2016). On a positive note, recent data show that an increasing share of temporary employees (37.8 % in 2015) did make the transition to permanent employment.

**Labour costs are projected to increase marginally.** Despite subdued productivity developments, nominal unit labour costs fell by almost 5 % in 2013-2016 in response to the labour market slack. The steep decline in the number of jobseekers, despite low and declining participation, is expected to stimulate renewed wage pressure. In 2016, wages are expected to have increased by

around 1.8 %. Due to negative inflation, this implies a 2.4 % growth rate in real terms. Wages are projected to increase above productivity in 2017 and 2018, causing a small increase in unit labour costs.

Graph 4.3.4: **Temporary employment by labour market status 1 year before, and share of temporary contracts in total employment**



Source: Eurostat

**There have been no reforms of the wage setting framework.** The adoption of new legislation on public sector wages, aiming to better harmonize wages across the public administration and public services <sup>(23)</sup>, has been postponed by more than 2 years, to 2019. A common methodology and guidance for negotiating, coordinating and monitoring collective agreements in the public administration has been developed and adopted by the government in February 2017. The two basic collective agreements regulating the rights of civil servants and public servants expired in 2016. They will both be temporarily extended and re-negotiated in 2017, partly with a view to increasing synchronisation of bargaining cycles <sup>(24)</sup>. The government negotiated a 6 % wage increase for civil servants under a 2009 agreement

<sup>(21)</sup> Rights are only recognised in the case of parents taking care of their disabled children.

<sup>(22)</sup> However, the surge in transitions from self-employment to temporary employment that was observed in 2014 data was probably linked to a one-off policy-induced effect, as it appears to have faded out the following year.

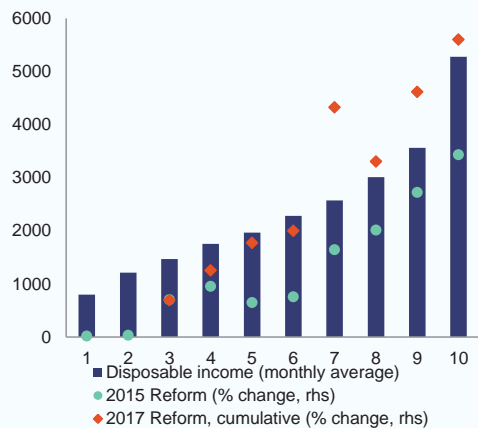
<sup>(23)</sup> By introducing common wage grids and job complexity coefficients, more consistent job descriptions and competences frameworks.

<sup>(24)</sup> It is worth noting that the delayed adoption of the law on public sector wages, which was meant to also regulate aspects of working conditions and rights that are currently negotiated under the collective agreements, creates a time inconsistency, in that the two basic agreements will be negotiated before the new law comes into force.

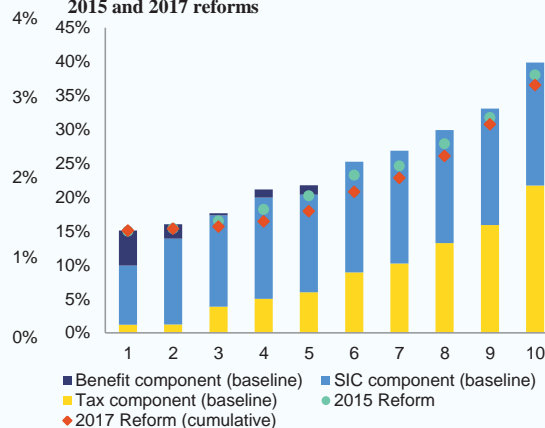
### Box 4.3.1: Impact of personal income tax reform on inequality and work incentives

Personal income taxes were reduced in 2015 and a further cut entered into force in January 2017. The details of the two reforms are discussed in last year's Country Report and in chapter 4.1 of this report, respectively. The graphs below illustrate the impact of the two reforms on income distribution and work incentives <sup>(1)</sup>. Graph 1a shows that disposable income of the first and second deciles remained broadly unaffected by both the two reforms. The 2015 reform delivered a broadly uniform increase, of about 0.5 %, in disposable income of households in the third to the sixth deciles. Thereafter the gains in disposable income increased almost linearly, from 1.1 % in the seventh decile to 2.3 % in the 10th decile. The 2017 reform only slightly increases disposable income in the third and fourth deciles (by less than 1 %) and in the next two deciles (by less than 2 %). Most of the gain is concentrated in the top two deciles (more than 3 %). As a result, both reforms somewhat increase income inequality. Accordingly, the Gini coefficient increases by 0.4 pps with the 2015 reform and by an additional 0.3 pps with the 2017 reform <sup>(2)</sup>.

Graph 1a: Average individual disposable income by decile and percentage change following the reforms (rhs)



Graph 1b: Composition and distribution of effective marginal tax rates by income decile under the baseline and 2015 and 2017 reforms



Graph 1b shows the composition and distribution of effective marginal tax rates before and after the reforms. For households in the first three income deciles, the effective marginal rates are hardly affected. However as from the fourth decile and up to the eighth the rates are reduced by some 4 pps on average. This is likely to have a positive impact on labour supply of households already in employment.

Changes in labour supply, however, are mainly driven by transitions from unemployment or inactivity to employment. The financial incentive to move to employment is typically measured by the net gain obtained when moving from inactivity or unemployment into employment. Total taxes paid by workers up to the third decile are not affected by the reform. After deducting employees' social security contributions (20 %) and the personal allowance, a single person working at the minimum wage was already not paying any personal income tax before the 2015 reform. Hence, both the 2015 and 2017 reforms appear to do little to give low-skilled workers stronger incentives to work.

<sup>(1)</sup> Simulations have been conducted by the Joint Research Centre of the European Commission to analyse the fiscal and distributional impact of the reforms using EUROMOD, the tax-benefit microsimulation model for the European Union. EUROMOD simulates benefit entitlements and tax liabilities (including social security contributions) of individual and households according to the tax-benefit rules in place in each Member State. The simulations are based on representative survey data from the European statistics on income and living conditions (EU-SILC) and cover the main elements of direct taxation and social contributions as well as non-contributory benefits.

<sup>(2)</sup> The index is based on disposable income and ignores the role of indirect taxes such as value added tax. As highlighted in the 2016 country report, Croatia relies more than other EU Member States on indirect taxation, which typically has a regressive effect. Ignoring TVA typically leads to under-estimating overall inequality.



with the trade unions (see chapter 4.1). It is still due to negotiate the wage increase for the public servants. This may add to wage pressure in the private sector through demonstration effects. As for SOEs, no further steps have been taken to set up a coordinated system for collective bargaining.

**Changes to the minimum wage are under consideration.** The minimum wage currently in force in Croatia is on the lower end of the EU rank <sup>(25)</sup>. In 2016, the authorities commissioned a study on the institutional design and impact of the minimum wage in Croatia (Institute of Economics Zagreb, 2015). The study highlights significant variations in the coverage and level of the minimum wage (relative to gross earnings) across regions and sectors within Croatia. Employees earning the minimum wage are predominantly women, people with relatively lower education, working in services and in rural areas. Young people are also concerned. The study recommends reviewing the definition of the minimum wage, in consultation with the social partners, and making the annual revision process more predictable and transparent. It also recommends the establishment of an independent expert body to inform the discussions of social partners and the authorities. In 2017, the government announced an increase in the minimum wage of 5 % but it is not clear to what extent the recommendations from the study will be taken on board.

**The personal income tax reductions implemented recently decrease the progressivity of the tax system.** The reform of the personal income tax that entered into force in January 2017 (see Section 4.1) <sup>(26)</sup> comes on top of a previous PIT reform, in force since 2015. The latter had already increased the tax allowance and broadened the intermediary tax bracket (the upper limit was raised from HRK 8 000 to 13 000). The tax cuts are expected to mainly benefit higher incomes, without increasing work incentives for low skilled workers. See Box 4.3.1.

#### 4.3.2. EDUCATION AND SKILLS

**The low and deteriorating basic skills of many pupils will eventually lead to skills gaps in the labour market.** In the 2015 OECD Programme for International Student Assessment (PISA) of 15 year-olds, Croatia recorded one of the worst results in the EU in applied science and mathematics. Compared to 2012, the proportion of low achievers increased in mathematics (from 30 % to 32 %) and most significantly in science (from 17 % to 25 %), undoing the progress made up to 2012 (OECD, 2016). The proportion of top performing students is on average below 5 %, demonstrating a lack of focus on identifying and supporting talented students. However, the Trends in International Mathematics and Science Study (2015) shows that younger pupils (10 year olds) are significantly better at solving theoretical exercises in mathematics and science than in 2011, and that the best and poorest performers are fairly evenly distributed (IEA, 2015). As far as digital skills are concerned Croatia remains below the EU average, but there has been improvement compared to last year with 27.9 % of individuals having no digital skills, 17.4 % low skills, 21.3 % basic skills and 33.3 % above basic skills (European Commission, 2017a). The national ‘e-Schools’ project aims at ensuring that digitally competent teachers have access to adequate ICT equipment and that they develop and use e-content in classrooms.

**The reform of the education system is being reassessed and its implementation is significantly delayed.** Over the past 2 years policy developments in the education system have been dominated by the implementation of the strategy for education, science and technology. A part of the strategy is a comprehensive and ambitious curricular reform. Since the beginning of 2015, school curricula have been revised and refocused on improving content and better incorporating transferable skills <sup>(27)</sup>. While teacher unions, parents and the non-governmental sector expressed support for the reform, strong criticism was voiced by some parts of academia. As a result, the coordination body in charge of the reform resigned and the pilot implementation was delayed, though a public consultation on the final draft of curricular

<sup>(25)</sup> Both expressed as purchasing power standard (663 in 2017) and as a share of mean gross earnings (43 %).

<sup>(26)</sup> The reform was part of a broader package including a reform of corporate income tax (CIT) and a reshuffling of categories of goods across preferential VAT rates.

<sup>(27)</sup> Learning to learn, entrepreneurship, personal and social development, health, sustainable development, ICT use and citizenship education.

documents went ahead between June and November 2016. The lack of consensus on some key aspects of the reform and the ways forward ultimately led to a loss of momentum, although there appears to be political will to restart the process in 2017.

**The labour market recovery has revealed shortages in the supply of labour at both ends of the skill spectrum.** Despite Croatia's still high unemployment and level of inactivity, employers in transportation, construction, shipbuilding, tourism and other seasonal sectors continue to report shortages of low and medium skilled workers and call for increased import quotas for foreign workers. The limited attractiveness of seasonal jobs certainly explains part of this, while for other sectors shortages are partially linked to outmigration. A recent study (CEDEFOP, 2016) shows there are also shortages in professions requiring higher skills (ICT professionals, mechanical engineers and secondary mathematics teachers) mainly due to shortcomings in the education system. For medical doctors, vacancies are difficult to fill in rural and underdeveloped areas due to general unwillingness to relocate in the country. At the same time, higher skilled professionals are mobile internationally, as they tend to find more job opportunities with better working conditions abroad. In 2017, the Public Employment Service plans to gather more precise and timely evidence from employers on their labour force needs.

**Croatia is updating its qualification standards to bring them into line with the needs of the labour market.** Implementation of the Croatian Qualification Framework (CROQF) picked up speed in 2016, yielding first results. These include the introduction of new qualifications <sup>(28)</sup>, surveys of graduate employment outcomes, and a better alignment of enrolment criteria with labour market needs. These were all conducted in close cooperation with employer associations. At the same time, the sectoral councils established to coordinate this process are revising the occupation classification system in line with the labour market analyses. Once approved, all standards will be entered into the so called CROQF Register to guide a continuous process of updating study

programmes. This has contributed to a better common understanding among key actors of sectoral human resources needs. To improve the poor employment outcomes of vocational education graduates (discussed in earlier country reports), Croatia adopted a vocational education and training development plan in September 2016 that will guide, in line with the CROQF methodology, the update of the VET curricula, increase the share of work-based learning and improve the quality of teaching.

**Croatia is lagging behind in upgrading skills and re-skilling the working age population.** In 2015, only 3.1 % of adults (25-64) reported having participated in lifelong learning. Even though this is slightly higher than previous years, it is far below the EU average of 10.7 %. This is a particular concern given the generally low educational attainment of the working-age population, and especially given that 50 % of the unemployed are long-term unemployed who run a higher risk of becoming inactive due to their obsolete or eroded skills. New legislation is under preparation with the aim of improving the quality of institutions, programmes and teaching for adult learning. However there has been no significant progress with the system for recognising and validating non-formal and informal learning as it is dependent on progress made in updating the CROQF standards. The Public Employment Service is currently reviewing its active labour market policy measures in order to take into account the findings of the 2016 external evaluation. Nevertheless, resources for re-training programmes, and life-long learning in general as well as employer engagement remain insufficient.

**Tertiary education outputs and labour market needs are not sufficiently aligned.** More students in Croatia choose to study social sciences and humanities than in EU peer countries, leaving science, technology, engineering and mathematics (STEM) graduates in rather short supply (CEDEFOP, 2016). The lack of basic skills in mathematics and science leads to low interest in STEM subjects and high dropout rates. To better align the education outputs with labour market needs, the National Council for Development of Human Potential recommends setting up a rigorous methodology for establishing enrolment quotas. This would be based on labour market needs and would regulate enrolments through more strategic

<sup>(28)</sup> Agro tourism managers, social entrepreneurs, energy efficient building technicians and palliative care nurses.



use of subsidies and accreditation instruments. However, the lack of relevant labour market data makes it difficult to implement these types of recommendations yet. A recent pilot graduate tracking project revealed that especially professional higher education programmes, as opposed to the academic programmes, were unsuccessful at teaching the practical skills and competencies necessary for employment (Mrnjavac and Pivac, 2015). However, surveys of graduates' employment paths (European Commission/EACEA/Eurydice, 2014) which could help align education policy with labour market needs are not run systematically.

#### 4.3.3. SOCIAL PROTECTION SYSTEM

**In 2014 Croatia exhibited high levels of poverty and social exclusion.** The risk of relative poverty (AROP) remained above the EU average and increased somewhat in 2014 (see footnote 2). Social transfers are less effective in Croatia in reducing poverty than in other EU Member States<sup>(29)</sup>. Absolute poverty measured as the share of those suffering from severe material deprivation and those living in (quasi) jobless households<sup>(30)</sup> is still considerably higher than the EU averages, though decreasing. Access to quality and affordable housing remains difficult, partly because the social housing sector is small (less than 2 % of all housing stock). Overcrowding rates<sup>(31)</sup> are high both among the general population (42.1 % v 16.9 % EU average) and the poor (47.1 % vs 30.1 % EU average).

**The design of the social protection system weakens its effectiveness and fairness.** Previous analysis concluded that there are inconsistencies in eligibility criteria at the central level, substantial regional disparities in spending on social protection benefits and that only a marginal share of the budget is spent on the poorest (ca 0.6 % of the GDP). The Guaranteed Minimum Benefit (GMB) scheme does not meet the basic

subsistence needs and has very low coverage (European Commission, 2016a). It has been estimated that about 5 % of the state budget (or ca 1.8 % of GDP) is devoted to the specific group of war veterans<sup>(32)</sup> and their families, with the highest share spent on pensions<sup>(33)</sup>. Given that a range of legal provisions govern the rights and cash benefits of this group, the functioning of the system is not very clear. For the time being, the fiscal impact and the dedicated resources have not been assessed in the context of other social expenditure items, nor in terms of labour market effects. At the same time, significantly higher budgetary resources have been allocated in 2017 for this group and a new law is under preparation with the aim to extend the rights to a larger number of beneficiaries.

**The consolidation of social benefits and the establishment of 'one-stop shops' have not advanced according to plan.** The draft action plan outlining the reform of the social protection system has not yet been adopted<sup>(34)</sup>. The authorities have completed the analysis of almost 50 benefits granted at the central government level with a view to categorising them, agreeing on the institutional division of responsibilities and harmonising the eligibility criteria. To date the consolidation plans regarding local and regional benefits and those granted on the basis of special rules have not been outlined by the authorities. The establishment of one-stop shops as the single point of contact with the administration for various benefits and social services was postponed for the second time in a year. This has had the effect of delaying the implementation of other related reform measures which could help improve the transparency of the system and design an adequate minimum benefit scheme. A tool has been developed to enable poverty mapping<sup>(35)</sup>, which

<sup>(29)</sup> For 2014 data, social transfers including pensions reduced the poverty rate in Croatia by 17.1 percentage points. This was the second lowest poverty reduction effect in the EU.

<sup>(30)</sup> Share of people aged 0-59 living in a household where the working age population worked no more than 20 % of their potential during the previous year.

<sup>(31)</sup> Percentage of the population living in a household that does not have at its disposal a minimum number of rooms as defined for that household size.

<sup>(32)</sup> There are about 500 000 people registered with war veteran status. The majority are in their prime age, and the dedicated expenditure is likely to remain considerable for a long time.

<sup>(33)</sup> Both disability and old-age pensions in these cases are higher than for the general population due to more generous pension provisions.

<sup>(34)</sup> The plan does not cover the war veteran related benefits discussed above.

<sup>(35)</sup> The tool ranks small geographic areas based on the multiple (income and consumption) deprivation index. It allows the identification of high poverty concentration areas and differentiation between income- and consumption-based poverty.

should help the authorities better target policy interventions and the allocation of EU funds.

**Pension adequacy is low for most of the population, also reflecting short working careers.** This creates a high risk of poverty and social exclusion in old age, especially for women <sup>(36)</sup>. Not only are today's pensioners experiencing a significant drop of their earnings <sup>(37)</sup>, but a significant further reduction in income is also expected due to lower projected pensions (European Commission, 2016a). The pension system is characterised by a duality stemming from its combination of more generous retirement rules for certain categories of workers (see section on early retirement) and above-average benefits for some groups. This has led to relatively high income inequality among pensioners, makes the system fragmented and raises questions about its fairness. To improve future pension adequacy, the authorities introduced voluntary pension schemes in 2002 and have been encouraging voluntary savings through tax exemptions and subsidies <sup>(38)</sup>. While the overall take-up of these schemes is on the rise, this is likely not the case among people on lower incomes. Furthermore, the very early pay-out age (50 years) of these schemes undermines their role in providing better retirement income in old-age.

---

<sup>(36)</sup> 34.4 % of women aged 65+ are in a situation of poverty or social exclusion compared to 28.2 % for men and the EU average rate for women 65+ of 19.6 % (Eurostat, 2015)

<sup>(37)</sup> The aggregate replacement ratio is 40 %, the lowest in the EU (European Commission, 2015b).

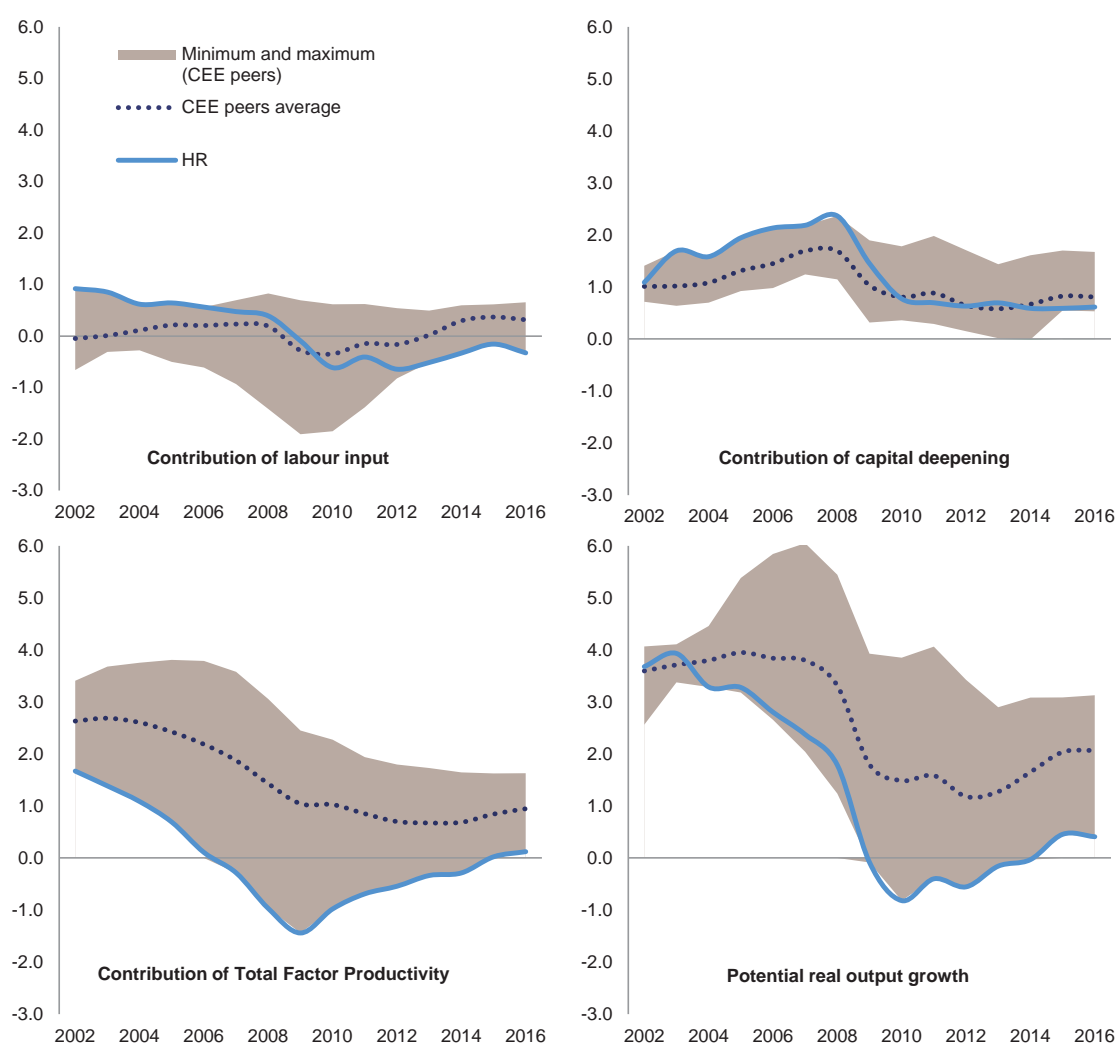
<sup>(38)</sup> A partial tax exemption is available to employers matching contributions to the voluntary individual account up to HRK 500 per month (ca EUR 65) or a total of HRK 6 000 per year (ca EUR 800). The state is also subsidising voluntary contributions by 15 % of the amount of contributions actually paid (maximum HRK 5 000 per year or ca EUR 660). Membership has grown from 13 % of the working-age population in 2010 to 19 % in 2015.

## 4.4. BUSINESS ENVIRONMENT AND INVESTMENT

**Slow productivity growth and weaknesses in investment act as a drag on Croatia's potential growth.** A lasting adjustment of macroeconomic imbalances and the achievement of sustained economic and social convergence towards higher standards all depend on lifting Croatia's potential output. Potential output is currently estimated at 1 %, and has been well below that of other catching-up economies in Central Eastern Europe (CEE) for the past 15 years. The previous chapter discussed the impediments to high potential growth stemming from labour – due to both high unemployment and a shrinking labour force. The other drivers of potential output are capital deepening, which is determined by productive

investments, and total factor productivity (TFP). In the aftermath of the crisis, investment contracted sharply in most EU economies, but the slower recovery of Croatian investment has translated into the contribution of capital deepening falling below the level in many other EU countries, including Croatia's peers. Even more striking is the dismal performance of TFP. Its contribution to potential growth gradually declined during the pre-crisis years, until it became negative and reached a trough in 2009; it is expected to have turned positive only in 2016.

Graph 4.4.1: Potential output in Croatia and in Central Eastern European peer economies



(1) CEE Peers in this analysis include Czech Republic, Hungary, Poland, Slovenia and Slovakia.

Source: Ameco

**Box 4.4.1: Investment challenges and reforms in Croatia**

Investment activity was hit hard by the economic crisis: from a peak of 28 % of GDP in 2008, investment plummeted to 21 % in 2010 and then stagnated. Private investment was mainly affected by weak domestic demand and the debt overhang, since corporations struggled to reduce their debt exposure. Supply conditions also played a role, as a high country risk pushed up firms' financing costs. Investment rebounded in 2016 and is expected to continue recovering over the forecast period, facilitated by a new credit expansionary phase and a pick-up in the absorption of European Structural and Investment Funds.

Despite the more favourable macroeconomic and financing conditions, as confirmed by the European Commission assessment, a number of bottlenecks still weigh on a more sustained recovery and investment <sup>(1)</sup>. Some reforms have been adopted, in particular in the areas of employment protection legislation and insolvency frameworks, but significant barriers remain to be addressed.

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

**Legend:**

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

In particular, (1) the still high number of para-fiscal charges levied on firms complicates the business environment. Frequent changes in regulation, substantial inconsistency in how they are interpreted and the recourse to urgent legislative procedures weaken legal certainty and the predictability of the business environment. The perceived low quality of regulation, including the degree of interference with market mechanisms in some sectors, depresses the business climate. The administrative weaknesses and the fragmentation of the public administration weigh on service delivery for businesses.

(2) Restrictive regulation in the energy and railways sector limits competition, favouring incumbent firms and stifling investment. (3) Gas and electricity prices remain regulated, creating a barrier to market entry, while the lack of regulatory requirements for cooperation between state-owned enterprises, private operators and infrastructure managers prevents market contestability.

<sup>(1)</sup> See SWD (2015) 400 final.

**Investment is picking up, but structural bottlenecks hamper a more sustained recovery.** Since the crisis, the decline in investment has been sharper than in most other catching-up CEE economies. The fall in public investment was particularly sharp, with a cumulative drop by almost 46 % between 2008 and 2015.

The contraction in private investment was more gradual, but still in the order of 33 % between 2008 and 2014, when Croatia finally came out of

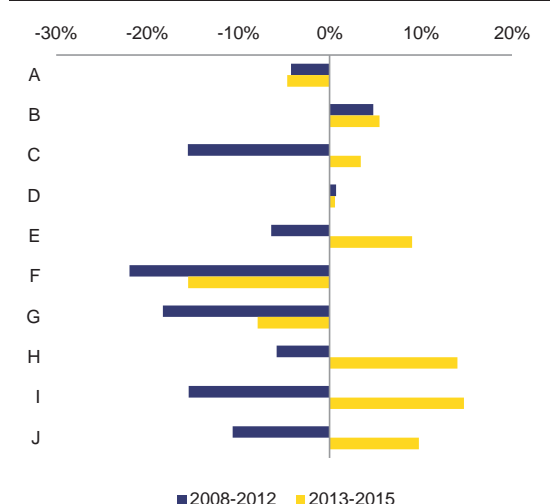
the recession <sup>(39)</sup>. Investment picked up again in 2016 and is set to accelerate moderately over the forecast period, but structural weaknesses still prevent a more sustained recovery (see Box 4.4.1).

<sup>(39)</sup> Arguably, however, public investment started from a comparatively high level, due to a prolonged public infrastructure boom.

#### 4.4.1. INVESTMENT AND EU FUNDS

As Croatia has emerged from the recession, investment has picked up in most sectors. Investment has been growing most steadily in transport, tourism and ICT. It also continues to grow in manufacturing, which was among the sectors hardest and earliest hit by the investment slump. The uptake of investment in these industries reflects growing industrial production and the strong performance of exports of goods and services. At the same time, the correction of investment in construction and trade was still underway in 2015.

Graph 4.4.2: Investment by sectors, cumulative growth



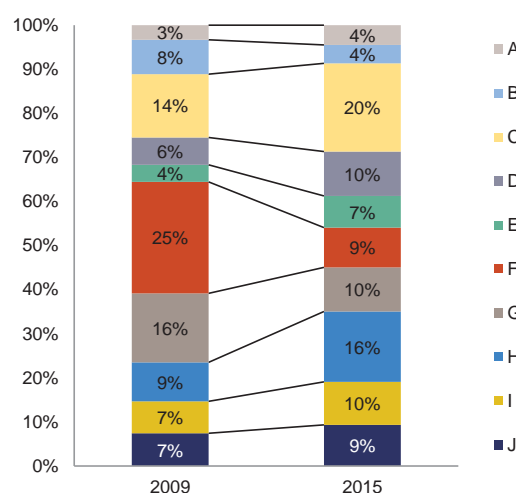
(1) Sectors: A — Agriculture, forestry and fishing; B — Mining and quarrying; C — Manufacturing; D — Electricity, gas, steam and air conditioning supply; E — Water supply; sewerage, waste management and remediation activities; F — Construction; G — Wholesale and retail trade; repair of motor vehicles and motorcycles; H — Transportation and storage; I — Accommodation and food service activities; J — Information and communication.

Source: Croatian Bureau of Statistics

**The positive trends in investment contribute to a more balanced allocation of capital across sectors.** Investment in the tradable sectors seems to have squeezed out a lot of the investment that was previously concentrated in the non-tradable sectors, mainly construction and trade. Between 2009 and 2015, investment in manufacturing significantly increased its share in total investment, followed by transport and storage and accommodation and food service activities (see Graph 4.4.3). A similar shift has been seen in the distribution of corporate debt (see Graph 4.2.2).

**The sources of investment funding vary significantly across sectors.** While the growing ICT sector finances investment almost entirely from own sources, the transport and tourism-related industries rely more on bank loans. This reflects the fact that investment in these sectors has been growing most strongly in the recent years, at a pace difficult to sustain through own sources alone. Public funding is, as might be expected, prevalent in water supply and waste management. In the (public) construction sector and in water supply and waste management, EU funds have played a big role.

Graph 4.4.3: Investment across sectors: 2009 versus 2015



(1) For definition of sectors refer to Graph 4.4.2.

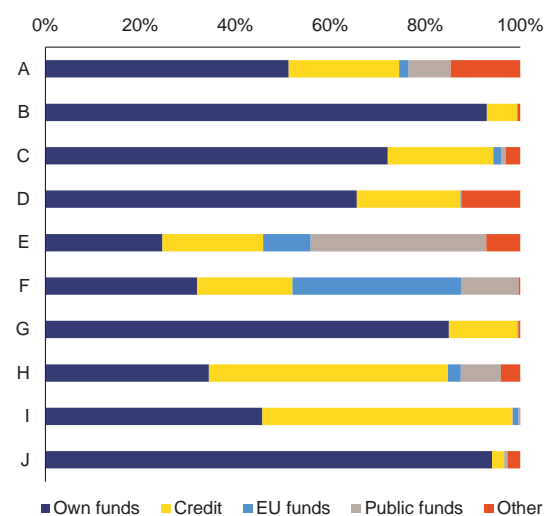
Source: Croatian Bureau of Statistics

**The efficient use of the European Structural and Investment Funds (ESIF) is vital for supporting investment and conducting structural reforms in key areas.** As the sectoral strategies and plans are the precondition for receiving the funds, they are beneficial for both funding of key projects and structural improvements in key sectors. At the end of the programming period 2007-13, the rate of use of ESIF climbed up to 78 % <sup>(40)</sup>, coming from slightly below 50 % in 2015. The real challenge currently lies in the use of the funds allocated in the programming period 2014-20, which have vast potential but so far have been used up to 6.32 %

<sup>(40)</sup> Cut-off date 31 December 2016, including advance payments. Per Fund: 77.4 % for the European Regional Development Fund (ERDF), 71 % for the Cohesion Fund (CF) and 93% for European Structural Fund (ESF).

<sup>(41)</sup>. In some investment-intensive sectors, such as environment and transport, the need for strong delivery capacities is particularly pronounced. The prioritisation of the projects and the use of well-targeted selection criteria are key to ensuring an optimal leverage of the innovation and competitive advantage (see Box 2.1).

Graph 4.4.4: Sources of investment financing by sectors (2015)



(1) For definition of sectors refer to Graph 4.4.2.  
Source: Croatian Bureau of Statistics

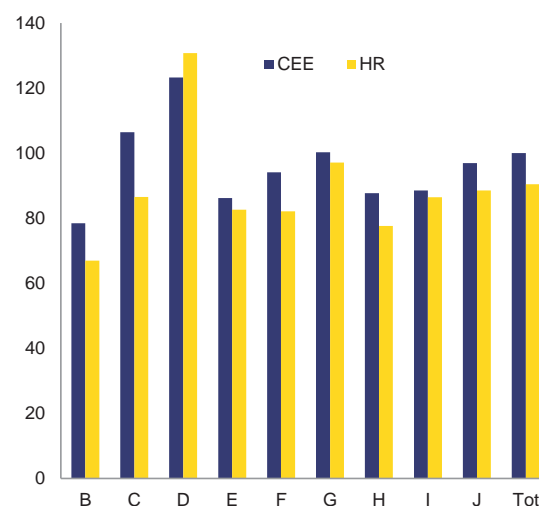
#### 4.4.2. PRODUCTIVITY DEVELOPMENTS

In most industries, Croatia's productivity is well below that of its peers. In 2014, Croatia's TFP was about 10 % lower than that of peer CEE economies. The gap was highest in manufacturing (almost 20 %), mining and quarrying and construction. The only industry in which productivity was above the peer average was energy (see Graph 4.4.5). Provisional data suggest that in 2015 productivity in the food and hotel industry was above peers <sup>(42)</sup>.

<sup>(41)</sup> Cut-off date 31 December 2016, including advance payments. Per Fund: 4,70% for the ESF, ERDF, CF, EMFF, 9% for the EAFRD and 29% for the YEI.

<sup>(42)</sup> Data for 2015 are not presented, since limited coverage of firms' accounts does not yet allow for a fully comparable picture.

Graph 4.4.5: Productivity in Croatia and CEE peers by industry (2014, CEE total=100)



(1) Sectors: B — Mining and quarrying; C — Manufacturing; D — Electricity, gas, steam and air conditioning supply; E — Water supply; sewerage, waste management and remediation activities; 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  
Source: European Commission, based on Orbis database

**A cumbersome business environment prevents more productive firms from growing faster than competitors.** In 2010-2014, average productivity of firms increased in most industries, with the significant exception of energy utilities and mining and quarrying <sup>(43)</sup>. Productivity growth was sustained in the tourism-related industry of accommodation and food. Strong demand and the upgrading of infrastructure, in terms of both capacity and quality, have resulted in better productivity indicators. Firms in trade and manufacturing also registered significant increases, comparable to or above those in other CEE economies (see Graph 4.4.6). However, allocative efficiency <sup>(44)</sup>, defined as the extent to which the

<sup>(43)</sup> The firm level analysis focuses on firms active in the real sector only and excludes the public sector, financial sector and part of the services sector (i.e. business services). Moreover the macroeconomic derivation of TFP relies on a concept of potential output, whereas micro-level TFP estimates assume that each company is at its potential output level. Finally TFP derived from macro data is estimated on the basis of aggregate labour statistics, which present significant shortcomings (European Commission, 2016a). For all these reasons, macro and micro based TFP can show partially different evolutions.

<sup>(44)</sup> Average productivity in an industry increases if the average productivity of firms increases and/or if capital is shifted towards the most productive firms, meaning that the weight



most productive firms also have the highest market shares, has been weak or negative, partially offsetting the substantial improvement in firm-level productivity in driving aggregate productivity. With the significant exception of the energy sector, more productive firms appear to have grown more slowly than less productive firms. Overall, whereas aggregate productivity increased by 4 % and 8 % between 2010 and 2014 in the CEE economies and Croatia, respectively, the contribution of the allocation of resources was positive in CEE economies (9 % growth), whereas it slightly detracted from aggregate growth in TFP in the case of Croatia (-7 %) <sup>(45)</sup>. Such sub-optimal allocation of resources is typically associated with a weak functioning of markets, rigid regulation (often in specific sectors) and the widespread presence of large state owned enterprises.

#### 4.4.3. SECTOR-SPECIFIC ISSUES

**The liberalisation of the energy markets is progressing but there remain some restrictive regulations.** Obligations requiring gas producers to offer the gas primarily to the wholesale market supplier and the supplier of last resort, and to sell any remaining gas quantities in Croatia, are still in place. These provisions practically prevent energy exports to other Member States. Additionally, public service suppliers and the supplier of last resort must purchase gas for the needs of retail customers from the supplier on the wholesale market. Croatia is currently in the process of revising the legislation.

**Competition is developing, although gas and electricity prices remain heavily regulated.** Competition is slowly developing in the retail

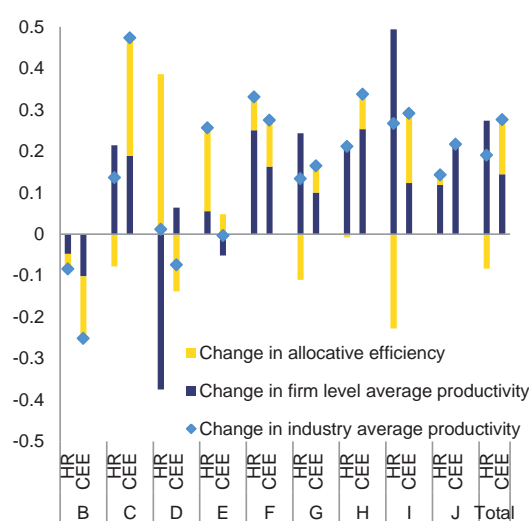
of more productive firms increases. In particular, if we define aggregate productivity as the average of individual firm productivity weighted by the share of value added in the industry, at any time  $t$ , then it can be shown that aggregate productivity is the sum of the simple mean of productivity across firms and a measures of how larger (smaller) than average share, correlates with higher (respectively lower) than average productivity, i.e.

$$P_{it} = \sum_{i \in jt} P_{it} \theta_{it} = \frac{1}{N_{jt}} \sum_{i \in jt} P_{it} + \sum_{i \in jt} (\theta_{it} - \bar{\theta}_j) (P_{it} - \bar{P}_j),$$

<sup>(45)</sup> While this could in theory result from slower productivity growth in a few very large companies the data shows a weak correlation between growth and productivity across all classes of enterprises.

market for households <sup>(46)</sup>. Furthermore, although legislation has been transposed, electricity and gas transmission system operators (TSOs) have still not been certified in Croatia. Additionally, licensing procedures and rights remain cumbersome, and the separation of tasks between the transmission system operators, the national regulatory authority and market operators is incomplete.

Graph 4.4.6: **Change in average productivity by industry (2010-2014)**



(1) Sectors: B — Mining and quarrying; C — Manufacturing; D — Electricity, gas, steam and air conditioning supply; E — Water supply; sewerage, waste management and remediation activities; 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

**Source:** European Commission, based on Orbis database

**Despite recent improvements, restrictive regulations and policies still dominate some transport sectors, particularly rail.** The dominant market position of the existing three rail SOEs (HŽ Infrastruktura, HŽ Putnički prijevoz, HŽ Cargo) prevents the development of private rail enterprises in Croatia. For example, HŽ Cargo accounted for around 91 % of freight transport in the first three quarters of 2016, while in passenger rail transport the incumbent continues to hold 100 % of the market. In this latter segment, Croatia does not make use of competitive tendering, but only of direct award to the state-owned incumbent passenger operator. The lack of cooperation

<sup>(46)</sup> There are currently more than 40 retailers and the incumbent's share (40 %) is below EU average (50 %)

between SOEs and private operators, and between infrastructure managers, further hampers the competitiveness of the rail sector in Croatia. The infrastructure manager HŽ Infrastruktura does not have an asset register which forms the basis of efficient asset management strategies. On the positive side, Croatian ports have lifted a major barrier by publishing complete lists of access conditions and prices of rail-related services.

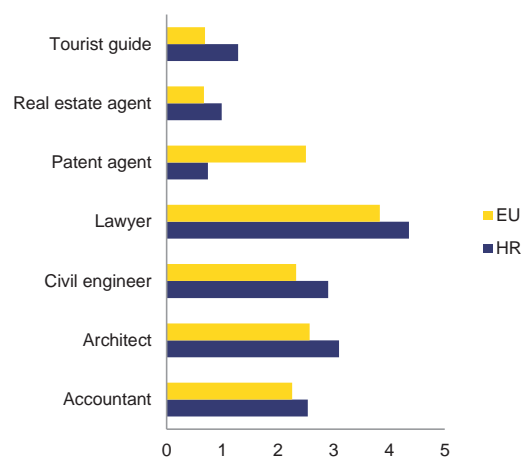
**Services are still hampered by red tape, but there are some improvements.** The regulatory environment for business services in Croatia remains restrictive, as confirmed by a new indicator developed by the Commission <sup>(47)</sup>. This is particularly evident in legal services, where fixed tariffs and a marketing ban are still in force. The recently adopted action plan for reducing the administrative burden envisages the abolition of some of such restrictions (Ministry of Economy, 2017). In December 2016 the authorities adopted legislation that brings tax advisers' activities into line with the Services Directive. The slow pace of legislative changes hampers the development of new business models. This has a negative impact on consumers and investors, especially in the collaborative economy sector, in spite of the fact that Croatian consumers appear to be well aware of the services on offer and are keen to use them (European Commission, 2016e).

**There has been little progress in reforming regulated professions.** Croatia's list of regulated professions includes architects, certified civil engineers, tax advisers, lawyers, patent agents, real estate agents and tourist guides. The restrictiveness indicator shows that in six of the seven professions analysed, regulation in Croatia is more restrictive than on average in the EU (see Graph 4.4.7). In July 2016 the government submitted an action plan outlining plans to replace and modernise unfit regulation. However, the plan contains only limited reform proposals or does not provide details on the substance of the planned amendments.

**Tourism continues to be a key driver of Croatia's strong economic performance.** The

steadily rising trend in the number of tourist arrivals and overnight stays has continued throughout 2016, with revenues exceeding pre-crisis levels and positively contributing to the current account surplus. Tourism boasted record investments in 2013-2015 (see Graph 4.4.2), resulting in an increase in both capacity and quality. The sector benefits from the country's increasingly recognised status of a safe and easily accessible tourist destination with a preserved environment. The large-scale investment in roads over the last decade has made most Croatian tourist destinations more accessible to tourists from the main European markets. Unlike several other competing Mediterranean destinations, Croatia has so far avoided excessive construction and devastation of its coast. These advantages, if preserved and further developed, have the potential to bring increasing benefits to the sector.

Graph 4.4.7: Restrictiveness indicator



Source: European Commission

**Arrivals are progressing in line with the national strategy for tourism but revenue remains relatively low.** The goals of increasing the number of tourist arrivals and overnight stays set out in the tourism development strategy up to 2020 seem within reach. However, achieving the revenue growth target will require a substantial boost in tourists' average expenditure. The implementation in 2016 of the 'eVisitor' and 'eCrew' systems, which are aimed at simplifying check-in and check-out procedures and reducing the sector's shadow economy, was a positive development. The bulk of investment in the sector is geared toward upgrading existing hotels (to 4

<sup>(47)</sup> The Commission has developed a new composite indicator on the restrictiveness of most existing barriers to the access to and exercise of regulated professions, based on data collected from Member States and complemented by desk research (European Commission, 2016c and 2016d).

and 5 stars). While this may help to extend the peak season and increase revenues, hotels still account for just around one third of Croatia's total accommodation capacity (with the rest largely being residential accommodation). However, the extremely high seasonality of the tourism industry remains a key challenge, however.

**The ever-growing importance of tourism has a twofold effect — it boosts the economy and puts strains on the environment.** In 2016, revenues from tourism accounted for almost one fifth of GDP, higher than in any of the competing European countries in the Mediterranean. During the crisis, tourism curbed the country's trade deficit, helped to maintain currency stability and cushioned the rising unemployment. However, such a heavy reliance on one single sector exposes the (entire) economy to a considerable risk. Other adverse effects are seen in waste management and water supply, traffic congestion, pollution and pressures on natural resources.

**Croatia's transition from a linear to a circular economy is just beginning.** Six years of economic recession, a general lack of adequate policies and competences and a regulatory framework that is still not in line with EU regulations have all contributed to the lag in Croatia's transition towards a circular economy. Resource productivity (which measures how efficiently the economy uses material resources to produce wealth) has improved slightly over the last ten years, but at 1.1 EUR/kg is still significantly below the EU average of 2 EUR/kg. Lack of investment, in particular in the waste management sector is the main driver of the slow transition to a circular economy. Croatia is still far from meeting the EU targets on recycling. Recycling of municipal waste <sup>(48)</sup> remains low (17 % compared to the EU average of 44 %). At the same time, landfilling of municipal waste accounts for 83 %, compared to the EU average of 28 %. Croatia has recently adopted the national waste management plan and the waste prevention programme, both required to develop the existing policies and strategies aimed at achieving the EU waste management targets. Suboptimal use of economic instruments,

insufficient incentives to manage waste according to the waste hierarchy, lack of co-ordination between the different administrative levels, and insufficient enforcement capacity are the main factors impeding a faster transition to a circular economy.

**The Green Book published in October 2015 sets the technical basis for developing a low carbon strategy.** This strategy sets out the path towards a competitive low-carbon economy for the period until 2030, with an outlook to 2050. It applies to all sectors of the economy and human activities, but particularly concerns energy, industry, transport, agriculture, forestry and waste management. It supersedes the sectoral strategies, although operationally implemented through the individual sectors.

#### 4.4.4. CROSS-CUTTING ISSUES

**The authorities' plans to reduce the administrative burden are now resuming.** The implementation of the action plan for reducing the administrative burden is expected to cut administrative costs by 30 % (commensurate to 0.4 % of GDP) in eight areas by end-2017 (Ministry of Economy, 2017). The plan sets out 104 measures to achieve the reduction. The cost was measured using the standard cost model methodology (SCM). There are plans to enlarge the model measurement to all economically-relevant regulation, including services, but so far no decision has been taken. The SCM will also be used in the regulatory impact assessment of new regulation, together with the SME test. National rules for directly transferring companies' registered offices into and out of Croatia are not yet in place.

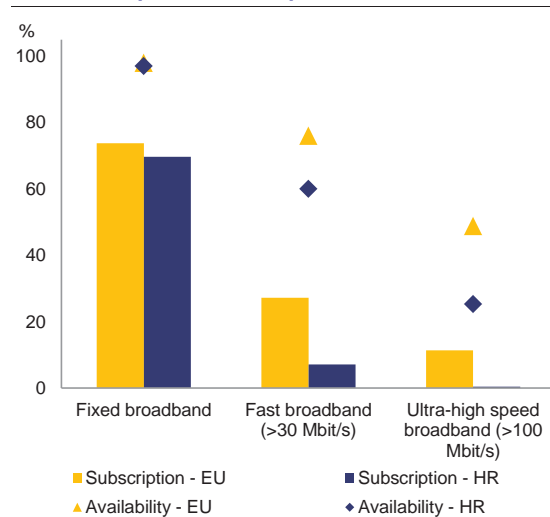
**Progress on removing parafiscal charges is lagging.** The authorities did not use the comprehensive tax reform to systematically address the long-standing issue of parafiscal charges, many of which are statistically treated as taxes, regardless of their legal title. However, the government adopted a decision in July 2016 to abolish 13 and reduce 11 parafiscal charges in 2016-2017, amounting to HRK 250 million (25 % lower than its national reform programme commitment). To date, five of these charges have been abolished and five reduced (amounting to a

<sup>(48)</sup> Municipal waste consists of waste collected by or on behalf of municipal authorities, or directly by the private sector (business or private non-profit institutions) not on behalf of municipalities.

total of HRK 130 million), and amendments have been prepared to reduce four more. The register of parafiscal charges has not been updated.

**Croatia lags behind other Member States in broadband connectivity and coverage.** While there is some progress in improving connectivity (European Commission, 2017), Croatia is still far below the EU average (see Graph 4.4.8). The National Programme for the Development of Broadband Backhaul Infrastructure has been notified to the Commission end of December 2016. It aims at building the infrastructure for better and nationwide high-speed broadband connections. By 2020 the country should be covered by next-generation access networks enabling internet access at speeds over 30 Mbit/s across the country, and at least 50 % of households shall have access at 100 Mbit/s or greater. Rural broadband connectivity and fast broadband coverage remain limited. The expected transposition of the Cost Reduction Directive (European Commission, 2014) should help speed up infrastructure coverage and broadband roll-out.

Graph 4.4.8: **Broadband connectivity in Croatia by speeds (% of households)**



Source: DESI 2016

#### 4.4.5. RESEARCH AND INNOVATION

**Croatia has the fifth lowest R&D intensity level in the EU and, as a moderate innovator, performs below average in nearly all innovation dimensions.** R&D intensity amounts to only 0.85 % of GDP, significantly below both the 2 %

EU average and the national R&D intensity target of 1.4 %. Public R&D intensity stagnated in the last 5 years at around 0.4 % of GDP. Business R&D intensity has increased between 2009 and 2015 from 0.34 % to 0.44 %, but remains far below the EU average of about 1.3 %. In innovation, Croatia performs above the EU average only in human resources, a result of having an above-average proportion of young people with upper secondary education. Notwithstanding the high number of graduates, the education system faces challenges (see section 4.3.2).

**The low level of R&D spending is one of the reasons for the low quality and efficiency of the R&I system.** The quality and efficiency of the R&I system as measured by the quality and impact of scientific publications is low<sup>(49)</sup>. Several factors continue to hinder the development of a strong science base in Croatia with improved connections to the economy. They include sub-critical scale, fragmentation, lack of international integration and a below EU average rate of new graduates in science and engineering<sup>(50)</sup>. Public-private cooperation in R&I remains at a relatively low level, as shown by the level and decline in public-private co-publications<sup>(51)</sup> and the share of public research financed by business<sup>(52)</sup>.

**Croatia has recently introduced some policy responses to foster innovation.** Several national-level strategies to support R&I have recently been developed to complement the 2014 strategies for education, science and technology and for fostering innovation. In particular, the 'smart specialisation' strategy adopted in March 2016 is an important framework for implementing ESIF funding effectively and ensuring that R&I activities are fostered in five key thematic priorities (health and quality of life; energy and sustainable environment; transport and mobility; security; food and bio-economy). There was

<sup>(49)</sup> Only 4.5 % of Croatian publications were within the top 10 % most cited publications in 2013, compared to an EU average of 10.5 %

<sup>(50)</sup> New graduates in science and engineering per thousand population aged 25-34 in Croatia represent 14.4 (EU average 17.6).

<sup>(51)</sup> Croatia in 2014 had 11 public private co-publications per million population, compared to an EU average of 34.

<sup>(52)</sup> In Croatia public expenditure on R&D financed by business enterprise amounted to 0.034 % of GDP in 2015 compared to 0.052 % in the EU

progress in improving governance by merging existing R&I institutions — the National Science Council and the National Council for Higher Education; the Business and innovation agency BICRO and the Agency for Small Business and Investments, HAMAG. In November 2015 six new centres of research excellence were established and additional resources for them are planned from ESIF funding.

scientific excellence and industry clusters under the smart specialisation strategy.

**Changes have been made with the aim of introducing competitive funding of R&D, but with low impact.** These changes include funding research and higher education, and awarding project-based R&D, on the basis of performance; allocating new institutional responsibilities; and a more rigorous evaluation process. Although these reforms can help to strengthen the accountability of public research organisations, the percentage of public funding allocated on this basis remains low. Public spending on R&D as a share of GDP in 2015 reached only 59 % of the EU average.

**The 'smart specialisation' strategy addresses the need to strengthen the private sector's R&I capacity.** The strategy aims to create an innovation-friendly environment for SMEs, strengthen the links between science and business and develop smart skills to meet business needs. This initiative follows the National Innovation Strategy (of December 2014) and a programme for technology transfer at universities launched in February 2015. Additional grant schemes for SMEs were launched in 2016 to complement the R&D investment schemes and to ensure sequencing of innovation policy instruments aimed supporting the commercialization phase of innovation projects. The new tax reform maintains the existing tax incentives for R&D. The National Information System in Science, launched in 2014 to improve programme evaluation, has yet to be completed.

**Croatia can build on the use of EU funds to meet its challenge of increasing investment in R&D&I.** Croatia is eligible for a substantial amount of funding for R&D from EU funds over 2014-2020, including a contribution of around EUR 665 million from the European Regional Development Fund. These resources have a key role in stimulating the transition towards a knowledge-intensive economy through targeted capacity building and by bringing together areas of



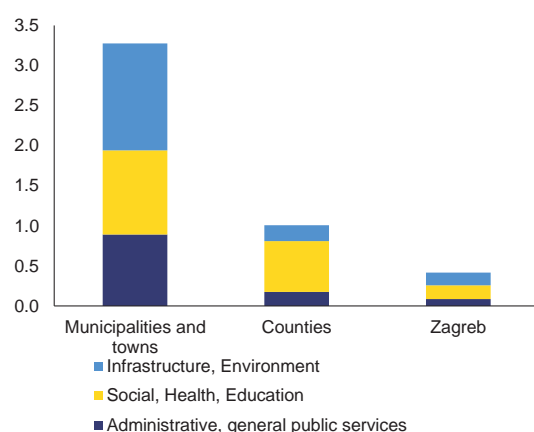
## 4.5. PUBLIC SECTOR GOVERNANCE

### 4.5.1. PUBLIC ADMINISTRATION

#### **A weak public administration holds back the implementation of the reform agenda.**

According to the World Economic Forum Competitiveness Report 2016-2017, an inefficient government bureaucracy is by far the biggest problem for doing business in Croatia. Furthermore, Croatia scores much lower than other EU members on the government's capacity to deliver sound policies ('executive capacity') as well as on the participatory and oversight competencies of social actors ('executive accountability')<sup>(53)</sup>. The lack of evidence-based policymaking and monitoring of policy impact affects most areas, and the perceived quality of public services in Croatia is also predominantly bad (European Commission, 2016f).

Graph 4.5.1: **Aggregate local government unit expenditure in 2015 by function**



**Source:** Ministry of Finance and Croatian National Bank

#### **At the sub-national level, municipalities and towns are in charge of the majority of spending.**

The 2016 country report analysed the financing system and the distribution of competences between central, county and local level (municipalities and towns) administration.

(53) The Sustainable Governance Indicator (SGI) combines analysis of policy performance, democracy and governance for 41 EU and OECD countries. Executive capacity includes factors such as strategic capacity, inter-ministerial coordination, societal consultation, policy communication, effective implementation, adaptability, and organisational reform capacity. Executive accountability includes factors such as citizens' participation, legislative actors' resources, the role of media, political parties and interest associations (Bertelsmann Stiftung, 2016).

Although the law in principle distinguishes between towns and the municipalities, they have the same competencies. In particular, they are responsible for the bulk of spending at the sub-national level, mainly on pre-primary education, housing, road and transport, and recreational activities (including religion). At the level of counties, the share of spending is higher on non-pre-primary education and healthcare (see graph 4.5.1).

#### **The high level of territorial fragmentation contributes to a complex state administration and weighs on efficiency.**

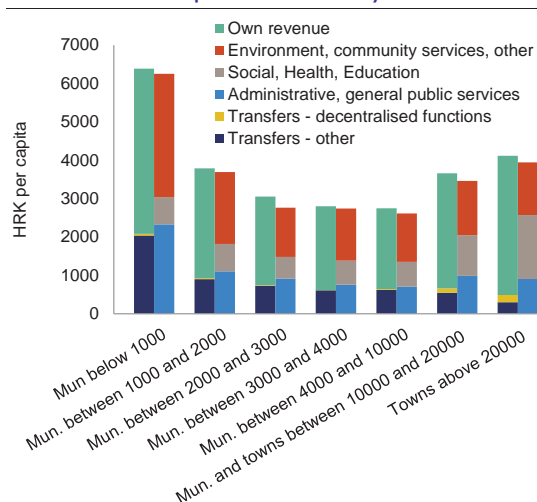
The current institutional design emerged from the 1992 Law on Local Self-Government and Administration. Between 1992 and today, the number of towns and municipalities has increased from 102 to 555, mainly as a result of villages claiming autonomous jurisdiction. This has led to a large number of small municipalities, with the majority having a population between 2 000 and 3 000. The 2001 constitutional and legislative amendments broadened the responsibilities of towns and municipalities. They were granted the possibility to extend their competencies in the provision of public services, without however adequate consideration of capacity constraints induced by the increasing fragmentation of municipalities. Many units do not have the adequate financial, administrative, and personnel resources, and the range and quality of functions performed varies significantly across municipalities and towns. Moreover, the increase in the number of municipalities and towns contributed to increased costs and an inefficient utilisation of resources (UNDP, 2005; Ministry of Public Administration, 2015). This trend is still continuing: between 2010 and 2015 the staff of sub-national units has increased by almost 7 % (World Bank, 2016). This has been accompanied by a steady increase in the wage bill but no noticeable improvement in the quality of local services.

**Per-capita expenditure tends to be higher for smaller municipalities, partly on account of higher operational costs.** Administrative and general public services absorb more than one third of current expenditure, and in some cases the financing of the administration itself takes up to half of the units' budgets. The population size of towns and municipalities influences their financing costs and the efficiency of spending. Per-capita



spending is highest in the smallest municipalities (with less than 1 000 inhabitants), partly on account on the higher administrative costs, but possibly also due to the higher cost of providing services. Per-capita expenditure drops by more than 50 % in units between 1 000 and 2 000 residents, and further declines thereafter. The smaller municipalities typically perform a minimum set of tasks. This also explains why per-capita administrative expenditure makes up for a higher share of their total expenditure.

Graph 4.5.2: **Municipalities and towns (\*) current revenue and expenditure in 2015 by size class**



(\*) Simple average within each size class. Zagreb has not been included.

Source: Ministry of Finance and Croatian National Bank

**Larger municipalities and towns also feature higher average expenditure, but this partly reflects a broader range of provided services.** Larger municipalities and towns appear to achieve economies of scale in terms of administrative costs, but they also incur higher average per-capita spending on services. Municipalities above 10 000 inhabitants and towns spend a greater share of their revenues on education, healthcare and social services, compared to smaller units. This is also related to the fact that they tend to provide services for citizens residing outside their borders (which distorts the figure for per-capita expenditure). The role of major centre for service provision is recognised through special status to the town-county of Zagreb, for which an ad-hoc system of revenue sharing and grants is in place. However, other large municipalities and towns do not enjoy similar special status.

**The system of sub-national financing relies on a complex system of revenue sharing and transfers.** The core financial resources of municipalities and towns comes from a revenue sharing arrangement of the personal income tax levied on residents. Towns and municipalities that have taken on decentralised functions are entitled to a higher share of the personal income tax, irrespective of the extent to which service provision goes beyond residents. This financing system implies that most units are not able to provide services with own resources alone, particularly in the least developed parts of Croatia. When shared revenue is not sufficient to cover established minimum standards, the central government intervenes through its ‘fiscal equalisation fund’. The financial standards for the decentralised functions appear to be mostly based on past expenditure, though this is not clearly specified (European Commission, 2016a). As can be seen in the graph 4.5.2, these transfers are significant only for larger municipalities and towns, as indeed these are providing the bulk of the decentralised functions. These transfers are relatively modest when compared with other transfers from the central budget, ministries and other central institutions, and which are not directly linked to the decentralised functions. Furthermore, municipalities and towns belonging to areas of special national concern, benefit from additional transfers, as well as a privileged tax-sharing arrangement. The multitude of special rules and criteria for the allocation of transfers and grants ultimately result in a non-fully transparent financing system.

**Transfers do not fully address regional disparities and heterogeneity in service provision.** The per-capita cumulative distribution of transfers varies considerably across municipalities and towns, and it is weakly correlated with the fiscal capacity of local units and scope of services provided. Per-capita transfers tend to be much larger in smaller municipalities than in larger ones. As a large share of transfers ultimately seems to address the higher costs of smaller local units, their redistributive impact in terms of service provision is impaired. Moreover, following the 2017 tax reform, and the further cut in personal income taxes, the share of transfers from central to local government units has increased by around 17 %. Meanwhile, disparities in per-capita expenditures across the territory

remain marked, ranging from as low as 1 700 HRK (around 225 EUR) per year in the Brod-Posavina county to 6 250 HRK (around 825 EUR) in Istria county.

**Recent years have seen no concrete progress in tackling the weaknesses in public administration.** In general, the adoption and implementation of the ambitious reform plans in this area has not been supported by firm political commitment. Upon accession to the EU, Croatia allocated a significant share of the European Social Fund for the period 2014-2020 to improving the quality and efficiency of its public administration. In order to meet the ex-ante conditionalities required for the release the funds, in 2015 the ambitious public administration development strategy for 2015-2020 was adopted. However, due to several revisions of its action plan, adopted in December 2016, the actual implementation of the strategy could not start. The action plan for 2017-2020 tackles three very relevant policy areas: efficiency of the public administration system, depoliticisation and efficient human resource management, and digitalisation of public services. The success of this reform will very much depend on the extent of political backing and the administrative capacities to implement it.

**The three pillars of the public administration reform face delays.** Analytical work has been undertaken on the territorial fragmentation of the public administration and the functional distribution of competencies, but no measure has been adopted. The authorities have decided to make the reform conditional upon the establishment of an information system that records local units' spending by beneficiary. This may prove challenging and thus risks significantly delaying the reform process. New legislation on the public administration which redefines the division of tasks between the central and local state administration offices is still under preparation. There is no clear timetable for the plan to reduce the over 1 200 local branches of central administration offices by 20 %. In early 2017 the government announced the establishment of a task force to draw up a new law on the financing of sub-national government units. The planned streamlining of the state agencies system has also been put on hold. This includes legislation aimed at regulating their establishment and introducing a higher degree of homogeneity across the system,

as well as merging the existing agencies. The planned streamlining of public sector wages has been postponed to the end of 2019 (Section 4.3).

#### 4.5.2. STATE-OWNED ENTERPRISES

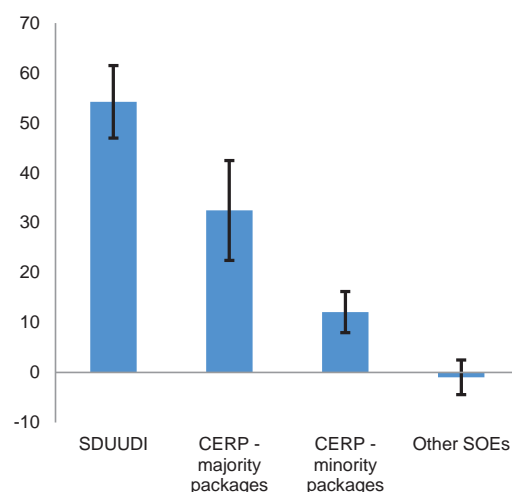
**The recent creation of a Ministry of State Assets could foster a more coordinated approach and give impetus to the restructuring and privatisation of SOEs.** Until recently, 49 companies of strategic and special interest for the state were coordinated by the central state office for state asset management (SDUUDI). Recently, this role has been taken over by the newly established Ministry of State Assets. The ownership function for another 500 companies owned by the central government but whose public shares are intended to be privatised stays with the Centre for Restructuring and Sale (CERP). Some of these companies operate in industries where the presence of SOEs is typically large, whereas others operate in sectors such as manufacturing, trade and accommodation. Other SOEs are owned by local government units, mostly utility companies in the energy and water distribution sector.

**Corporate governance of enterprises owned by local government units appears to be weak.** In recent reports, the State Audit Office identified various shortcomings in local government-owned enterprises (State Audit Office, 2015 and 2016). These include the lack of a clear specification of the duties and responsibilities of Supervisory Boards, as well as unclear rules of appointment for board members and on conflict of interest. Supervisory boards do not appear to be involved in strategic planning. In some companies, supervisory boards are not given the chance to discuss the business results and management performance. Independent external auditors were occasionally selected without following the public procurement rules. Overall, in many such companies, internal control systems appear inadequate. As regards real estate management, it is seen as inadequate in most of the local government-owned enterprises. This is due to outdated catalogues of their real estate and a lack of strategies for optimal utilisation, and to the poor maintenance of the registers of lessees and respective income.

**The government has taken some steps towards the privatisation of national assets but progress**

**is stalling.** The 2016 national reform programme launched an ambitious privatisation agenda for Croatia and identified some potential candidates for divestment. Eight SOEs have been removed from the list of strategic companies, opening up the way for their privatisation. The government's share in one of those companies, Koncar electric industry, has already been successfully sold through a bid on the Zagreb Stock Exchange. Other companies that have been removed from the strategic list are Croatia Airlines (98 % state owned), Podravka (20 % state owned), ACI (79 % state owned), port Rijeka (33 % state owned), Croatia Banka (100 % state owned), Petrokemija (80 % state owned) and Croatia Osiguranje (31 % state owned). In 2016 the state sold shares in a few companies besides Koncar, yielding total revenues of around 0.2 % of GDP. However, the draft operational plan for 2017 does not spell out a detailed strategy to achieve the remaining goals of the 2013-2017 strategy for public assets management, and no concrete future steps for privatisation have been outlined yet.

Graph 4.5.3: Productivity gap of SOEs by ownership



(1) SOEs, including minority stakes.

(2) Histogram shows the estimated productivity gap and vertical bars represent the standard error.

Source: European Commission, Orbis and SDUUDI

**The available evidence suggests that Croatian SOEs have particularly weak productivity.** The productivity gap between state-owned and private enterprises is higher in Croatia than in peer CEE economies (after controlling for sector, size, state

ownership and a country-specific effect)<sup>(54)</sup>. The productivity gap was estimated at about 54 % in firms coordinated previously by SDUUDI (now by the Ministry of State Assets). It was around 32 % in firms in CERP's portfolio with a majority ownership and about 12 % in those with minority ownership. Interestingly, in the remaining SOEs the gap does not appear to be significant. This may be due to the fact that utilities also tend to be state owned in the other countries examined. Overall, the evidence shows that central government ownership in Croatia entails a 'productivity gap', which appears to be greater in firms subject to tighter public control.

**The presence of large, unproductive SOEs may affect overall productivity in the industries in which they operate, as they hamper allocative efficiency.** The European Commission has published an analysis of the impact of state ownership on allocative efficiency (European Commission, 2016g) which finds that the presence of SOEs significantly reduces sectoral allocative efficiency. This is likely to be driven by the lower productivity of typically large SOEs and the potentially negative spillover effects on the allocation of productive resources. The presence of SOEs can hamper the reallocation of labour and capital to more efficient firms, for example because private firms face more difficulties to engage in public procurement or obtain bank loans, or because of higher wages in SOEs (European Commission, 2015a). It may take some time before the benefits of privatisation in terms of productivity gains materialise, and complementary policy measures could be necessary to reap the full benefits. Accompanying measures, such as retraining the workforce, would also need to be put in place to mitigate the potential social costs of restructuring SOEs. Similar caveats also hold for the firm-level productivity gap referred to above. Whereas these limitations call for caution in projecting potential gains from privatisation, including the timeline for the positive effects to

(54) Specifically, firm level total factor productivity (TFP) was estimated at the level of NACE 2 industries with pooled data for Croatia and other Central Eastern European economies (namely CZ, SK, PL and HU). TFP was then regressed on size, time, industry-related dummies, and additional dummies controlling for lower TFP in Croatia overall and lower TFP in SOEs overall in Croatia and in peer countries. Finally, for Croatia, we included four specific indicator variables capturing the specific ownership structure.

occur, they clearly suggest that the large proportion of SOEs contributes to the overall low productivity growth.

**The Croatian Bank for Reconstruction and Development (HBOR) will be subject to an independent asset quality review in 2017.** With the financial crisis, the role of national promotional banks in the EU economy has become more prominent, and they take prominent place in implementing the EU financial instruments and, more recently, the Investment Plan for Europe ('Juncker Plan'). To play this role without causing distortions to the economy (such as misallocation of investment and the crowding out of private-sector financing alternatives) national promotional banks need high standards of transparency and accountability and independently exercised prudential supervision, in line with best practices prevalent in most Member States (European Commission, 2015c). Such high standards do not appear to be met by the Croatian Bank for Reconstruction and Development, and this gap appears greater in view of the fact that HBOR has a high share of direct lending in its assets (in 2014 around 60 % of its total loans), a relatively large market share (its assets would approximately correspond to the assets of the sixth largest Croatian bank) and it assumes a high level of credit risk. The authorities plan to decide on possible changes to the Bank's regulatory framework and governance structures on the basis of the findings of the upcoming asset quality review. The methodology for this review has been developed by the Croatian National Bank and tailored to the characteristics of a promotional bank. The review is envisaged for the second quarter of 2017 (on the basis of end-2016 data) by external auditors. The results and final reporting are planned for the second half of 2017.

#### 4.5.3. JUSTICE SYSTEM

**Despite reduced backlogs, court proceedings remain long.** The number of pending cases and disposition time in litigious civil and commercial cases remained among the highest in the EU in 2015 (European Commission, 2017b). Proceedings in first instance courts remain slow, with civil and commercial cases taking 889 and 724 days, respectively, and criminal cases taking 594 days (at municipal courts) and 988 days (at county

courts), on average. However, there are signs of improvement, as courts have resolved more cases than they have received. In 2016, the number of pending civil, commercial, enforcement and administrative cases at first instance courts dropped by 10 % (against 2015). This was partly due to a lower caseload as fewer cases were resolved. The backlog of criminal cases increased.

**Electronic communication with courts remains underdeveloped.** The electronic filing and delivery of court documents could bring significant savings and would relieve the court staff's workload. However, the electronic delivery is not in place regarding insolvency cases (for FINA), enforcement cases (for public notaries), administrative cases (for the tax administration) or regarding civil and commercial cases (for lawyers). Commercial judges lack online access to registers (e.g. for vehicles, boats), which would reduce costs and improve efficiency in insolvency cases. The online availability of first and second instance court judgments remains low and there is no management tool to indicate the timeframes (the rate of cases to be resolved in a court within a given time). The High Commercial Court has successfully joined the ICT case-management system; the Supreme Court will be the last remaining court to join in 2017. While the partial introduction of case management reform appears to have brought improvements to the High Commercial Court (around 30% more resolved cases, around 20% lower backlog), such reforms have not been implemented at first instance commercial courts. An evaluation of the effects of the implemented judicial map reform that has been implemented is being prepared, drawing on experience from Member States.

**The involvement of the National Security Agency in the appointment of first time judges remains under constitutional review.** This issue raises concerns about judicial independence, particularly in the light of the on-going procedure to appoint new Supreme Court judges (European Commission, 2016c, p.76). Perceived judicial independence remains particularly low. Despite the fact that the Council for the judiciary plays a key role in safeguarding judicial independence, its administrative capacity remains low.

**While the corporate and personal insolvency framework has been improved, a system for**



**monitoring its effectiveness in practice is not yet in place.** Despite a continued large influx of liquidation cases for companies (18 432 in 2016; mostly without assets), the average length of insolvency cases fell to 190 days from 327 in 2015. The length of pre-insolvency cases rolled-out according to the new law was 158 days. In 2016, the first year the personal insolvency law was in force, claims worth over EUR 56 million were submitted to the financial agency that operates the out-of-court resolution procedure. Of these, only 321 personal insolvency cases have so far reached the municipal courts, where it took 66 days on average to resolve them. The number of company pre-insolvency cases slightly decreased (589 cases in 2016, compared to 724 in 2015). There is a need for continued training of judges and of restructuring/insolvency practitioners if the new insolvency laws are to be implemented effectively. A quarterly insolvency framework effectiveness report is in preparation, drawing on experience from Member States <sup>(55)</sup>.

#### 4.5.4. FIGHTING CORRUPTION

**The implementation of the important anti-corruption strategy and action plan has been delayed.** The implementation of Croatia's anti-corruption strategy for 2015-2020 and the action plan for 2015-2016 has stalled. The commitments contained in the action plan (Ministry of Justice, 2015) and more broadly in the 2016 national reform programme have not yet been confirmed by the new government. The new government has put the effective fight against corruption, in particular in public procurement, among its priorities, but concrete steps have yet to be taken. The limited progress in this area is reflected in the results of the Executive Opinion Survey 2016 of the World Economic Forum: from 2015 to 2016 corruption climbed to fifth place among the most problematic factors for doing business in the country as identified by Croatian executives (WEF, 2016).

**Addressing corruption risks in public procurement could have a significant impact on public spending efficiency.** Public procurement accounts for around 13 % of GDP and is

considered vulnerable to corruption. A recent Commission study recommended that Croatia allow investigations ex officio by the State Commission for Supervision of Public Procurement, increase protection for whistle-blowers and implement sanctions for infringements of the procurement rules (European Commission, 2016h). A study for the European Parliament estimated a potential gain of just over EUR 10 million per year from reducing corruption in public procurement once Croatia fully implements e-procurement (RAND, 2016). A new Public Procurement Act, transposing Directives 2014/24/EU and 2014/25/EU, entered into force on January 1 2017. The new Act should help address corruption through higher traceability and transparency of procurement procedures. Introduced in Croatia in 2008, the use of e-procurement is mandatory, including (since July 2016) the legal obligation to allow e-submission of tenders for all contracting authorities, above as well as below EU thresholds.

#### 4.5.5. HEALTHCARE SYSTEM

**The fiscal sustainability of the healthcare system appears to be at high risk in the medium term.** At 6.7 % of GDP in 2015, health expenditure in Croatia remains below the EU average of 9.5 %. Spending on medical goods as a proportion of total health expenditure and on pharmaceuticals in relation to GDP are both significantly higher than the EU average (29.3 % v 17.1 %, and 2.0 % against 1.3 %). According to the Ageing Report 2015, healthcare expenditure is projected to increase by 1.7 pp. of GDP (in the Age Working Group reference scenario, compared to 0.9 pp. EU average), driven by population ageing. Healthcare in Croatia is largely financed through social security contributions. In the short term, the still weak labour market constrains the system's revenue-generating potential. Currently only one third of the population is liable to pay full contributions, and high contribution rates may have a detrimental impact on the labour market.

**Health sector arrears, mainly related to the hospital organisation structure, remain a source of concern.** The stock of arrears increased from HRK 1.8 billion (roughly 0.5 % of GDP) in 2015 to HRK 2.7 billion (roughly 0.8 % of GDP) in Q3-2016. The arrears largely comprise hospital

(55) Workshop in Slovenia (Oct 2016) funded by the technical assistance programme of the European Commission operated by the Structural Reform Support Service

arrears, in particular in clinical centres, although the proportion of arrears from the Croatian Health Insurance Fund has been rising strongly (from 27 % to 41 % in the same period). The constant flow of arrears calls for systematic injections of public funds, which points to the unsustainability of the current system and could generate further financing instability. The problematic performance of hospitals is partly due to their funding and reimbursement model, based on advance payments. Funds are rarely returned, even when they are not used for the intended purpose or amount. Hospital capacity is unequally distributed and concentrated in metropolitan areas, and the governance system does not provide incentives for quality or cost-efficiency. Reorganising the hospital network and promoting fiscally responsible hospital management could help achieve a more sustainable system.

**Health outcomes are below the EU average, and point to a challenge in preventing non-communicable (chronic) diseases** <sup>(56)</sup>. Life expectancy at birth for both women and men has increased over the last decade but remains below the EU average (for women 81.0 v 83.6 years, for men 74.7 v 78.1 years)<sup>(57)</sup>. Infant mortality is 5.0 per thousand live births, above the EU average of 3.7, while perinatal mortality is 4.2 against the EU average of 6.1. Both represent a short term proxy for health system performance. In Croatia non-communicable diseases account for 93 % of all deaths, affecting mainly the population of working age, with an 18 % probability of premature mortality from four leading non-communicable diseases (World Health Organization, 2015).

**Unmet needs for medical examination in Croatia remain below EU average, but rising inequalities in access to healthcare pose a challenge.** The total unmet needs reported for financial, geographical and waiting time reasons is below the EU average. However, a relatively high unmet need for medical examination due to distance (1.1 % of the population, vs 0.1 % in the EU) reflects challenges posed by the geographical specificities of Croatia, notably the high number of islands. The gap in unmet needs between the lower

income quintile of the population and the higher quintile remains higher than the EU average. While the gap narrowed between 2005 and 2012, inequities are on the rise again since then. The provision of healthcare services remains over-reliant on hospitals as the primary healthcare system is not developed enough. The overall efficiency of the system is hampered by a heavy reliance on hospitals. Implementing the planned reorganisation of primary healthcare could reduce the number of referrals to specialists, and the cost of specialist and hospital treatments.

**Croatia has not yet developed a comprehensive strategy on long-term care.** The system of long-term care is spread across different health and social-welfare institutions. The fragmentation of the system often leads to inefficiencies which, combined with a rapidly ageing population, are likely to pose increased financial burdens. The scarce availability of community based services leads to a situation where women take on the burden of care provision, which reduces their availability on the labour market.

**While the planned reforms in healthcare are being reconsidered, no specific measures have been taken to address the accumulation of arrears in the health sector.** A number of structural reforms, among others, aimed at increasing the fiscal sustainability of the healthcare system have been abandoned. These include: increasing the basic insurance payment to the Croatian health insurance fund (HZZO); increasing the cap on patients' co-payment; reforming the 'additional insurance' scheme; and introducing new rules for emergency services. The long-awaited reorganisation of the hospital system is stalling, and the reform of hospital financing has also been halted <sup>(58)</sup>. To reduce pharmaceutical expenditure, the list of benchmark countries has been updated and the authorities also envisage cost-containment measures in primary care and the establishment of a central commission to distribute particularly expensive medicines to hospitals. In

(56) The four main types are cardiovascular diseases, cancer, chronic respiratory and diabetes.

(57) Healthy life years at birth amount to 60.0 (women) and 58.6 years (men) and are below the EU average as well (61.8 and 61.4).

(58) The latter was intended to gradually reduce the share of hospital funding based on ex ante spending limits in favour of funding based on the amount of care provided. The authorities are preparing a central information system collecting data on the medical services provided to each patient by all the hospitals in the country, which would allow better control excessive costs and possible abuse in the system.



recent months the authorities have enlarged the network of emergency medicine. However, there are still no concrete plans in the short term to address the accumulation of arrears in healthcare.

## ANNEX A

### Overview table

#### Commitments

#### Summary assessment <sup>(59)</sup>

2016 Country-specific recommendations (CSRs)	
<b>CSR 1</b> <ul style="list-style-type: none"> <li>• Ensure a durable correction of the excessive deficit by 2016. Thereafter, achieve an annual fiscal adjustment of at least 0.6 % of GDP in 2017.</li> <li>• Use any windfall gains to accelerate the reduction of the general government debt ratio.</li> <li>• By September 2016, reinforce numerical fiscal rules and strengthen the independence and the mandate of the Fiscal Policy Commission.</li> <li>• By the end of 2016, improve budgetary planning and strengthen the multi-annual budgetary framework.</li> <li>• By the end of 2016, start a reform of recurrent taxation of immovable property.</li> <li>• Reinforce the framework for public debt management. Adopt and start implementing a debt management strategy for 2016-2018.</li> </ul>	<p>Croatia has made <b>limited progress</b> in addressing CSR 1 (this overall assessment of CSR1 does not include an assessment of compliance with the Stability and Growth Pact):</p> <ul style="list-style-type: none"> <li>• <b>Limited progress</b> in reinforcing numerical fiscal rules and strengthening the independence and the mandate of the Fiscal Policy Commission. While a new draft of the fiscal responsibility act and budget act were prepared, they have still not been adopted.</li> <li>• <b>Limited progress</b> in improving budgetary planning and strengthen the multi-annual budgetary framework.</li> <li>• <b>Some progress</b> in reforming recurrent property taxation. The authorities have introduced a simple recurrent real estate tax through amendments to the law on local taxes. The tax will enter into force as of 2018.</li> <li>• <b>Some progress</b> regarding public debt management, related to the adopted debt management strategy, which covers the 2017-2019 period.</li> </ul>
<b>CSR 2</b> <ul style="list-style-type: none"> <li>• By the end of 2016, take measures to</li> </ul>	<p>Croatia has made <b>no progress</b> in addressing CSR 2</p> <ul style="list-style-type: none"> <li>• <b>No progress</b> in reforming the pension system.</li> </ul>

(59) The following categories are used to assess progress in implementing the 2015 country-specific recommendations: No progress: The Member State has not credibly announced nor adopted any measures to address the CSR. Below a number of non-exhaustive typical situations that could be covered under this, to be interpreted on a case by case basis taking into account country-specific conditions:

- no legal, administrative, or budgetary measures have been announced in the National Reform Programme or in other official communication to the national Parliament / relevant parliamentary committees, the European Commission, or announced in public (e.g. in a press statement, information on government's website);
- no non-legislative acts have been presented by the governing or legislator body;
- the Member State has taken initial steps in addressing the CSR, such as commissioning a study or setting up a study group to analyse possible measures that would need to be taken (unless the CSR explicitly asks for orientations or exploratory actions), while clearly-specified measure(s) to address the CSR has not been proposed.

Limited progress: The Member State has:

- announced certain measures but these only address the CSR to a limited extent; and/or
- presented legislative acts in the governing or legislator body but these have not been adopted yet and substantial non-legislative further work is needed before the CSR will be implemented;
- presented non-legislative acts, yet with no further follow-up in terms of implementation which is needed to address the CSR.

Some progress: The Member State has adopted measures that partly address the CSR

and/or

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

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

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

<p>discourage early retirement, accelerate the transition to the higher statutory retirement age, and align pension provisions for specific categories with the rules of the general scheme.</p> <ul style="list-style-type: none"> <li>• Provide appropriate up- and re-skilling measures to enhance the employability of the working-age population, with a focus on the low-skilled and the long-term unemployed.</li> <li>• Consolidate social protection benefits, including special schemes, by aligning eligibility criteria and integrating their administration, and focus support on those most in need.</li> </ul>	<p>Announced measures encouraging longer working lives and streamlining pension provisions have not been implemented. The authorities have completed a review of the arduous or hazardous professions benefiting from more generous pension provisions. However, the planned streamlining has not yet taken place.</p> <ul style="list-style-type: none"> <li>• <b>Limited progress</b> in providing up- and re-skilling measures. The programme for developing vocational education training has been adopted and new legislation is being prepared to improve adult learning. However, the scope of training actions provided by the Public Employment Services seems inadequate in view of the size of the challenge. There are no significant developments on recognition of skills and validation of non-formal and informal learning.</li> <li>• <b>No progress</b> in improving the social protection system. The action plan setting out the reform priorities has not yet been adopted. The authorities have completed the analysis of benefits granted at central government level with a view to categorising them and harmonising eligibility criteria. The planned introduction of means-testing for the child allowance is currently being reviewed. The establishment of one-stop shops to administer and provide social services is being postponed for the second time in a year. This has delayed the implementation of all the related reform measures.</li> </ul>
<p><b>CSR 3</b></p> <ul style="list-style-type: none"> <li>• By the end of 2016, start reducing fragmentation and improving the functional distribution of competencies in public administration to improve efficiency and reduce territorial disparities in the delivery of public services.</li> <li>• In consultation with social partners, harmonise the wage-setting frameworks across the public administration and public services.</li> <li>• Advance the divestment process of state assets and reinforce the monitoring of state-owned enterprises' performance and boards' accountability, including by advancing the</li> </ul>	<p>Croatia has made <b>limited progress</b> in addressing CSR 3</p> <ul style="list-style-type: none"> <li>• <b>Limited progress</b> in reforming the public administration. The main pillars of the reform have all been postponed due to lack of political commitment. In December 2016 the government adopted a new version of the 2017-2020 action plan for the modernisation of the public administration. New legislation redefining the division of tasks between the central and local state administration offices was due to be adopted in December 2016 but is still under preparation. There is no clear timetable for the plan to reduce the over 1 200 local branches of central administration offices by 20 %. The planned harmonisation and rationalisation of the state agencies system has been put on hold.</li> </ul>

<p>listing of shares of state-owned companies.</p>	<ul style="list-style-type: none"> <li>• <b>No progress</b> in harmonising the wage-setting frameworks. The adoption of new legislation on public sector wages has been postponed by two years, to the end of 2019. Preparatory work has been carried out to develop an IT system to support the introduction of a universal system of wage grades. The authorities have also developed common guidelines for the negotiation, coordination and monitoring of collective agreements in the public administration. As far as state-owned enterprises are concerned, no further steps have been taken in setting up a coordinated system for collective bargaining.</li> <li>• <b>Limited progress</b> in improving performance monitoring and corporate governance of state owned enterprises, and in divestment from state assets. Eight companies were removed from the government's list of companies and other legal entities of strategic and special interest, whereas the sale of stakes in non-strategic companies yielded income of 0.2 % of GDP in 2016.</li> </ul>
<p><b>CSR 4</b></p> <ul style="list-style-type: none"> <li>• Significantly reduce parafiscal charges.</li> <li>• Remove unjustified regulatory restrictions hampering access to and the practice of regulated professions.</li> <li>• Reduce the administrative burden on businesses.</li> </ul>	<p>Croatia has made <b>limited progress</b> in addressing CSR 4</p> <ul style="list-style-type: none"> <li>• <b>Limited progress</b> in reducing parafiscal charges. The authorities have decreased or cut only five parafiscal charges, with an impact significantly lower than planned in the national reform programme.</li> <li>• <b>Limited progress</b> in removing regulatory restrictions in regulated professions. An action plan was submitted in July 2016, but it entails only limited reform proposals and does not provide details on the substance of the amendments. For a number of professions, the action plan states that current regulation is adequate and no modification is needed.</li> <li>• <b>Limited Progress</b> in reducing the administrative burden. An action plan for the reduction of administrative burden was adopted by the government.</li> </ul>
<p><b>CSR 5</b></p> <ul style="list-style-type: none"> <li>• Take measures to improve the quality and efficiency of the judicial system in commercial and administrative courts.</li> </ul>	<p>Croatia has made <b>limited progress</b> in addressing CSR 5</p> <ul style="list-style-type: none"> <li>• <b>Limited progress</b> in improving the justice system. The number of pending cases and length of court proceedings remain among the highest in</li> </ul>

<ul style="list-style-type: none"> <li>Facilitate the resolution of non-performing loans, in particular by improving the tax treatment of the resolution of non-performing loans.</li> </ul>	<p>the EU. Few measures have been implemented to improve the efficiency of justice (e.g. limited introduction of case management reforms) and it will take time for the implemented judicial map reform to show effects. Improving the quality of the justice system remains a challenge, particularly the electronic communication with courts, where no measures have been implemented that would allow public bodies, parties and legal professionals to send and receive court documents in electronic form.</p> <ul style="list-style-type: none"> <li><b>Some progress</b> in facilitating the resolution of non-performing loans, as sales accelerate. The recent tax reform's provisions on deductibility of non-performing loan write-offs may facilitate a faster resolution in 2017.</li> </ul>
<b>Europe 2020 (national targets and progress)</b>	
Employment rate target: 65.2 %.	The employment rate in Croatia is one of the lowest in the EU but it increased from 57.2 % in 2013 to 60.5 % in 2015. In 2016 the unemployment rate fell to 12.8 %. Croatia may achieve its national target for employment, but this is still far below the level in other EU countries.
R&D target: 1.4 % of GDP	Limited progress towards the target. In 2007-2015 R&D intensity slightly increased. The decline of public expenditure on R&D as % of GDP was compensated by an increase of private R&D intensity. However, based on current trends Croatia will not reach its R&D target.
Greenhouse gas emissions, national target: + 11 %	<p>Based on the latest national projections submitted to the Commission, and taking into account existing measures, it is expected that the target will be achieved: -8.9 % in 2020 as compared to 2005 (a margin of 19.9 percentage points)</p> <p>Non-ETS 2015 target: +5.9 %</p> <p>The latest proxy data for 2015 show that Croatia reduced its emissions by -25.3 %. This sharply contrasts with the increase of up to 6% that was allowed by the annual allocation interim target under the Effort Sharing Decision for 2015.</p>

<p>2020 renewable energy target: 20 %</p> <p>Share of renewable energy in all modes of transport: 10 %</p>	<p>With a renewable energy share in gross final energy consumption of 27.9 % in 2015 <sup>(60)</sup>, Croatia has for the time being achieved the 2020 target. Over 2014-2020, EU cohesion policy will invest some EUR 95 million in renewable energy in Croatia.</p>
<p>Energy efficiency, 2020 energy consumption targets:</p> <ul style="list-style-type: none"> <li>• 11.2 Mtoe (primary energy consumption);</li> <li>• 7 Mtoe (final energy consumption).</li> </ul>	<p>Croatia increased its primary energy consumption by 4.4 % from 7.66 Mtoe in 2014 to 8 Mtoe in 2015. Final energy consumption increased by 6 % from 6.24 Mtoe in 2014 to 6.59 Mtoe in 2015. Even if Croatia has already achieved levels of primary and final energy consumption which are below the indicative national 2020 targets (11.2 Mtoe in primary energy consumption and 7 Mtoe in final energy consumption) it would need to make an effort to keep these levels until 2020.</p>
<p>Early school leaving (ESL) target: 4 %.</p>	<p>The proportion of early school leavers aged 18-24 in Croatia is 2.8 %. This is the lowest rate in the EU and significantly below the EU average of 11% and the EU target of 10 %. The rate has fluctuated slightly in recent years but has always remained close to the national target of 4 %.</p>
<p>Tertiary education target: 35 %.</p>	<p>Tertiary attainment of 30-34 year olds has been on a generally upward trend since 2012, increasing by 7.8 percentage points since 2012 — the third largest positive change in the EU. However, the drop from 32.2 % to 30.9 % between 2014 and 2015 caused Croatia to slip further away from meeting its 35 % national target by 2020, as well as from the EU average of 38.7 %.</p>
<p>Target for reducing the number of people at risk of poverty or social exclusion, expressed as an absolute number of people: by 150 000</p>	<p>The number of people at risk of poverty fell from 1.384 million in 2011 to 1.216 million in 2014. Croatia is likely to meet its national target of reducing the number of people at risk of poverty or social exclusion by 150 000.</p>

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



## ANNEX B

### MIP Scoreboard

Table B.1: The MIP Scoreboard for Croatia

		Thresholds	2010	2011	2012	2013	2014	2015
External imbalances and competitiveness	Current account balance, (% of GDP) 3 year average	-4%/6%	-5.2	-2.4	-0.7	0.0	1.0	2.7
	Net international investment position (% of GDP)	-35%	-94.3	-91.7	-90.8	-88.9	-86.8	-77.7
	Real effective exchange rate - 42 trading partners, HICP deflator 3 years % change	±5% & ±11%	2.0	-4.4	-8.3	-4.0	-1.0	0.1
	Export market share - % of world exports 5 years % change	-6%	-12.9	-15.8	-23.5	-22.8	-18.6	-3.5
	Nominal unit labour cost index (2010=100) 3 years % change	9% & 12%	12.5	7.6	-0.6	-3.0	-5.8	-5.0
	Deflated house prices (% y-o-y change)	6%	-7.8	-2.2	-4.6	-5.7	-1.1	-2.4
Internal imbalances	Private sector credit flow as % of GDP, consolidated	14%	4.9	-2.3	-3.0	-0.6	0.4	-1.3
	Private sector debt as % of GDP, consolidated	133%	125.2	122.6	119.7	118.4	119.5	115.0
	General government sector debt as % of GDP	60%	58.3	65.2	70.7	82.2	86.6	86.7
	Unemployment rate 3 year average	10%	9.8	11.5	13.8	15.7	16.9	17.0
	Total financial sector liabilities (% y-o-y change)	16.5%	3.3	2.4	1.7	2.8	0.9	2.1
New employment indicators	Activity rate - % of total population aged 15-64 (3 years change in p.p)	-0.2%	-0.6	-1.7	-1.7	-1.4	2.0	2.9
	Long-term unemployment rate - % of active population aged 15-74 (3 years change in p.p)	0.5%	0.6	3.1	5.1	4.4	1.7	0.1
	Youth unemployment rate - % of active population aged 15-24 (3 years change in p.p)	2%	7.2	13.0	16.9	17.6	8.8	0.9

Flags: e: estimated, i: see metadata.

1) Unemployment rate: for 2006 i = Eurostat back-calculation to include 2011 Population Census results.

2) Youth unemployment rate: for 2006 i = Eurostat back-calculation to include 2011 Population Census results.

**Source:** European Commission, Eurostat and Directorate General for Economic and Financial Affairs (for real effective exchange rate), and International Monetary Fund.

## ANNEX C

### Standard tables

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

	2011	2012	2013	2014	2015	2016
Total assets of the banking sector (% of GDP)	131.4	132.2	133.2	134.5	132.0	128.1
Share of assets of the five largest banks (% of total assets)	-	73.9	72.9	72.3	72.7	-
Foreign ownership of banking system (% of total assets)	-	-	79.3	78.3	65.2	-
Financial soundness indicators: <sup>(1)</sup>						
- non-performing loans (% of total loans)	-	-	11.8	12.9	12.5	11.2
- capital adequacy ratio (%)	-	-	19.6	20.4	19.2	19.8
- return on equity (%) <sup>(2)</sup>	-	-	0.6	3.9	-6.8	5.9
Bank loans to the private sector (year-on-year % change)	1.8	-6.2	-0.1	-1.7	-2.4	0.7
Lending for house purchase (year-on-year % change)	-0.3	-0.9	-2.0	-2.8	-1.9	-2.4
Loan to deposit ratio	111.2	100.5	95.6	91.0	83.7	78.1
Central Bank liquidity as % of liabilities	0.0	0.0	0.0	0.0	0.1	0.4
Private debt (% of GDP)	122.6	119.7	118.4	119.5	115.0	-
Gross external debt (% of GDP) <sup>(1)</sup> - public	24.7	28.1	32.7	35.9	36.3	33.1
- private	50.7	51.7	51.0	52.9	49.9	47.0
Long-term interest rate spread versus Bund (basis points)*	393.1	463.4	311.1	288.8	305.5	345.9
Credit default swap spreads for sovereign securities (5-year)*	322.5	382.9	303.7	276.1	273.1	240.1

(1) Latest data Q2 2016.

(2) Quarterly values are not annualised

(\*) Measured in basis points.

**Source:** European Commission (long-term interest rates); World Bank (gross external debt); Eurostat (private debt); ECB (all other indicators).

Table C.2: Labour market and social indicators

	2011	2012	2013	2014	2015	2016 <sup>4</sup>
Employment rate (% of population aged 20-64)	59.8	58.1	57.2	59.2	60.5	61.5
Employment growth (% change from previous year)	-3.9	-3.5	-2.7	2.7	1.5	1.3
Employment rate of women (% of female population aged 20-64)	53.6	52.6	52.8	54.2	55.8	56.9
Employment rate of men (% of male population aged 20-64)	66.1	63.7	61.6	64.2	65.2	66.1
Employment rate of older workers (% of population aged 55-64)	38.2	37.5	37.8	36.2	39.0	37.9
Part-time employment (% of total employment, aged 15-64)	7.2	5.6	5.4	5.3	5.9	5.9
Fixed-term employment (% of employees with a fixed term contract, aged 15-64)	13.5	13.3	14.5	16.9	20.3	22.6
Transitions from temporary to permanent employment	43.7	39.2	23.7	:	37.8	:
Unemployment rate <sup>1</sup> (% active population, age group 15-74)	13.7	16.0	17.3	17.3	16.3	13.2
Long-term unemployment rate <sup>2</sup> (% of labour force)	8.4	10.2	11.0	10.1	10.3	6.7
Youth unemployment rate (% active population aged 15-24)	36.7	42.1	50.0	45.5	43.0	31.2
Youth NEET <sup>3</sup> rate (% of population aged 15-24)	16.2	16.6	19.6	19.3	18.5	:
Early leavers from education and training (% of pop. aged 18-24 with at most lower sec. educ. and not in further education or training)	5.0	5.1	4.5	2.7	2.8	:
Tertiary educational attainment (% of population aged 30-34 having successfully completed tertiary education)	23.9	23.1	25.6	32.2	30.9	:
Formal childcare (30 hours or over; % of population aged less than 3 years)	12.0	11.0	10.0	17.0	:	:

(1) The unemployed persons are all those who were not employed but had actively sought work and were ready to begin working immediately or within 2 weeks.

(2) Long-term unemployed are those who have been unemployed for at least 12 months.

(3) Not in education employment or training.

(4) Average of first three quarters of 2016. Data for total unemployment and youth unemployment rates are seasonally adjusted.

**Source:** European Commission (EU Labour Force Survey).

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

Expenditure on social protection benefits (% of GDP)	2010	2011	2012	2013	2014	2015
Sickness/healthcare	6.9	6.7	7.0	7.5	7.1	:
Disability	3.7	3.6	2.7	2.7	2.6	:
Old age and survivors	7.6	7.6	8.7	9.0	9.3	:
Family/children	1.5	1.5	1.6	1.6	1.5	:
Unemployment	0.5	0.5	0.5	0.5	0.5	:
Housing	0.0	0.0	0.0	0.0	0.0	:
Social exclusion n.e.c.	0.0	0.0	0.2	0.2	0.2	:
<b>Total</b>	<b>20.3</b>	<b>20.0</b>	<b>20.7</b>	<b>21.5</b>	<b>21.2</b>	<b>:</b>
of which: means-tested benefits	1.3	1.4	1.0	1.1	1.0	:
Social inclusion indicators	2010	2011	2012	2013	2014	2015
People at risk of poverty or social exclusion <sup>1</sup> (% of total population)	31.1	32.6	32.6	29.9	29.3	29.1
Children at risk of poverty or social exclusion (% of people aged 0-17)	29.4	31.1	34.8	29.3	29.0	28.2
At-risk-of-poverty rate <sup>2</sup> (% of total population)	20.6	20.9	20.4	19.5	19.4	20.0
Severe material deprivation rate <sup>3</sup> (% of total population)	14.3	15.2	15.9	14.7	13.9	13.7
Proportion of people living in low work intensity households <sup>4</sup> (% of people aged 0-59)	13.9	15.9	16.8	14.8	14.7	14.4
In-work at-risk-of-poverty rate (% of persons employed)	6.3	6.6	6.0	6.2	5.7	5.9
Impact of social transfers (excluding pensions) on reducing poverty	31.3	31.9	33.3	34.3	35.1	35.5
Poverty thresholds, expressed in national currency at constant prices <sup>5</sup>	23043	21740	20922	19330	19585	20562
Gross disposable income (households; growth %)	0.8	2.3	0.4	-1.9	0.6	2.8
Inequality of income distribution (S80/S20 income quintile share ratio)	5.5	5.6	5.4	5.3	5.1	5.2
GINI coefficient before taxes and transfers	50.2	50.9	50.6	50.8	50.1	:
GINI coefficient after taxes and transfers	31.6	31.2	30.9	30.9	30.2	:

(1) People at risk of poverty or social exclusion : individuals who are at risk of poverty and/or suffering from severe material deprivation and/or living in households with zero or very low work intensity.

(2) At-risk-of-poverty rate : proportion of people with an equivalised disposable income below 60 % of the national equivalised median income.

(3) Proportion of people who experience at least four of the following forms of deprivation: not being able to afford to i) pay their rent or utility bills, ii) keep their home adequately warm, iii) face unexpected expenses, iv) eat meat, fish or a protein equivalent every second day, v) enjoy a week of holiday away from home once a year, vi) have a car, vii) have a washing machine, viii) have a colour TV, or ix) have a telephone.

(4) People living in households with very low work intensity: proportion of people aged 0-59 living in households where the adults (excluding dependent children) worked less than 20 % of their total work-time potential in the previous 12 months.

(5) For EE, CY, MT, SI and SK, thresholds in nominal values in euros; harmonised index of consumer prices = 100 in 2006 (2007 survey refers to 2006 incomes)

**Source:** For expenditure for social protection benefits ESSPROS; for social inclusion EU-SILC.

Table C.4: Product market performance and policy indicators

Performance indicators	2010	2011	2012	2013	2014	2015
Labour productivity (real, per person employed, year-on-year % change)						
Labour productivity in industry	1.10	-1.57	-1.14	3.10	0.86	6.96
Labour productivity in construction	2.63	1.59	-2.56	-5.29	-1.09	-3.29
Labour productivity in market services	-0.35	6.21	-0.10	2.83	-3.01	2.31
Unit labour costs (ULC) (whole economy, year-on-year % change)						
ULC in industry	0.78	-0.24	5.77	1.77	-2.23	-0.80
ULC in construction	4.53	1.62	7.21	-1.24	-2.25	2.92
ULC in market services	-0.20	-0.34	1.69	-1.02	1.79	-0.74
Business environment	2010	2011	2012	2013	2014	2015
Time needed to enforce contracts <sup>1</sup> (days)	561.0	561.0	572.0	572.0	572.0	572.0
Time needed to start a business <sup>1</sup> (days)	15.5	15.0	15.0	15.0	15.0	12.0
Outcome of applications by SMEs for bank loans <sup>2</sup>	na	0.17	na	0.19	0.88	0.31
Research and innovation	2010	2011	2012	2013	2014	2015
R&D intensity	0.74	0.75	0.75	0.82	0.79	0.85
Total public expenditure on education as % of GDP, for all levels of education combined	4.31	4.21	na	na	na	na
Number of science & technology people employed as % of total employment	31	30	32	36	37	37
Population having completed tertiary education <sup>3</sup>	16	15	16	17	19	20
Young people with upper secondary education <sup>4</sup>	94	95	94	94	96	96
Trade balance of high technology products as % of GDP	-1.49	-1.50	-1.27	-1.49	-1.54	-1.75
Product and service markets and competition				2003	2008	2013
OECD product market regulation (PMR) <sup>5</sup> , overall				na	na	2.08
OECD PMR <sup>5</sup> , retail				na	na	1.42
OECD PMR <sup>5</sup> , professional services				na	na	3.70
OECD PMR <sup>5</sup> , network industries <sup>6</sup>				na	na	2.75

(1) The methodologies, including the assumptions, for this indicator are shown in detail at :

<http://www.doingbusiness.org/methodology> .

(2) Average of the answer to question Q7B\_a: '[Bank loan]: If you applied and tried to negotiate for this type of financing over the past six months, what was the outcome?'. Answers were scored as follows: zero if received everything, one if received most of it, two if only received a limited part of it, three if refused or rejected and treated as missing values if the application is still pending or if the outcome is not known.

(3) Percentage population aged 15-64 having completed tertiary education.

(4) Percentage population aged 20-24 having attained at least upper secondary education.

(5) Index: 0 = not regulated; 6 = most regulated. The methodologies of the OECD product market regulation indicators are shown in detail at : <http://www.oecd.org/competition/reform/indicatorsofproductmarketregulationhomepage.htm>

(6) Aggregate OECD indicators of regulation in energy, transport and communications.

**Source:** European Commission; World Bank — Doing Business (for enforcing contracts and time to start a business); OECD (for the product market regulation indicators); SAFE (for outcome of SMEs' applications for bank loans).



Table C.5: **Green growth**

<b>Green growth performance</b>		<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>Macroeconomic</b>							
Energy intensity	kgoe / €	0.21	0.21	0.20	0.20	0.19	0.19
Carbon intensity	kg / €	0.73	0.72	0.68	0.66	0.64	-
Resource intensity (reciprocal of resource productivity)	kg / €	1.19	1.19	1.10	1.17	1.10	1.09
Waste intensity	kg / €	0.08	-	0.09	-	0.10	-
Energy balance of trade	% GDP	-3.8	-5.4	-5.6	-5.1	-4.0	-
Weighting of energy in HICP	%	12.14	13.19	14.47	15.74	16.49	14.86
Difference between energy price change and inflation	%	6.1	0.3	11.4	2.6	-0.2	-2.7
Real unit of energy cost	% of value added	18.2	18.9	20.3	19.8	20.0	-
Ratio of environmental taxes to labour taxes	ratio	0.24	0.23	0.22	0.24	0.26	-
Environmental taxes	% GDP	3.7	3.3	3.2	3.5	3.9	-
<b>Sectoral</b>							
Industry energy intensity	kgoe / €	0.22	0.21	0.19	0.20	0.19	-
Real unit energy cost for manufacturing industry excl. refining	% of value added	12.3	13.3	13.0	13.0	13.3	-
Share of energy-intensive industries in the economy	% GDP	-	-	-	-	-	-
Electricity prices for medium-sized industrial users	€ / kWh	0.09	0.09	0.09	0.09	0.09	0.09
Gas prices for medium-sized industrial users	€ / kWh	0.04	0.04	0.04	0.04	0.04	0.04
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	0.00	0.00	0.00
Municipal waste recycling rate	%	-	-	-	-	-	-
Share of GHG emissions covered by ETS*	%	38.6	38.6	37.5	37.0	36.7	37.2
Transport energy intensity	kgoe / €	1.11	1.13	1.17	1.24	1.22	-
Transport carbon intensity	kg / €	3.20	3.22	3.28	3.46	3.42	-
<b>Security of energy supply</b>							
Energy import dependency	%	46.6	49.4	48.9	47.0	43.8	48.3
Aggregated supplier concentration index	HHI	27.7	26.2	19.8	28.3	19.7	-
Diversification of energy mix	HHI	0.29	0.27	0.27	0.28	0.28	-

All macro intensity indicators are expressed as a ratio of a physical quantity to GDP (in 2005 prices)

Energy intensity: gross inland energy consumption (in kgoe) divided by GDP (in EUR)

Carbon intensity: greenhouse gas emissions (in kg CO<sub>2</sub> equivalents) divided by GDP (in EUR)

Resource intensity: domestic material consumption (in kg) divided by GDP (in EUR)

Waste intensity: waste (in kg) divided by GDP (in EUR)

Energy balance of trade: the balance of energy exports and imports, expressed as % of GDP

Weighting of energy in HICP: the proportion of 'energy' items in the consumption basket used for the construction of the HICP

Difference between energy price change and inflation: energy component of HICP, and total HICP inflation (annual % change)

Real unit energy cost: real energy costs as a percentage of total value added for the economy

Environmental taxes over labour taxes and GDP: from European Commission's database, 'Taxation trends in the European Union'

Industry energy intensity: final energy consumption of industry (in kgoe) divided by gross value added of industry (in 2005 EUR)

Real unit energy costs for manufacturing industry excluding refining: real costs as a percentage of value added for manufacturing sectors

Share of energy-intensive industries in the economy: share of gross value added of the energy-intensive industries in GDP

Electricity and gas prices for medium-sized industrial users: consumption band 500–20 000 MWh and 10 000–100 000 GJ; figures excl. VAT.

Recycling rate of municipal waste: ratio of recycled and composted municipal waste to total municipal waste

Public R&D for energy or for the environment: government spending on R&D for these categories as % of GDP

Proportion of GHG emissions covered by EU Emissions Trading System (ETS) (excluding aviation): based on greenhouse gas emissions

(excl land use, land use change and forestry) as reported by Member States to the European Environment Agency.

Transport energy intensity: final energy consumption of transport activity (kgoe) divided by transport industry gross value added (in 2005 EUR)

Transport carbon intensity: GHG emissions in transport activity divided by gross value added of the transport sector

Energy import dependency: net energy imports divided by gross inland energy consumption incl. consumption of international bunker fuels

Aggregated supplier concentration index: covers oil, gas and coal. Smaller values indicate larger diversification and hence lower risk.

Diversification of the energy mix: Herfindahl index over natural gas, total petrol products, nuclear heat, renewable energies and solid fuels

(\*) European Commission and European Environment Agency

**Source:** European Commission (Eurostat) unless indicated otherwise.

## REFERENCES

Bertelsmann Stiftung (2016), *Sustainable Governance Indicators*

CEDEFOP (2016), *Mismatch priority occupations Croatia*, Skills Panorama, available at: [http://skillspanorama.cedefop.europa.eu/en/analytical\\_highlights/croatia-mismatch-priority-occupations](http://skillspanorama.cedefop.europa.eu/en/analytical_highlights/croatia-mismatch-priority-occupations)

CELSI (2016), *Research Report No. 15 The rise of the dual labour market: Fighting precarious employment in the new member states through industrial relations (PRECARIR)*, Bratislava

Council of the European Union (2011), *Council Directive 2011/85/EU*

Croatian National Bank (2015a), *Financial Stability Report*, No. 14, Zagreb

Croatian National Bank (2015b), *Financial Stability Report*, No. 15, Zagreb

Croatian National Bank (2014), *Financial Stability Report*, No. 13, Zagreb

European Central Bank (2017), *Survey on the access to finance of enterprises (SAFE)*, (forthcoming)

European Central Bank (2016), *Opinion of the ECB of 15 June 2016 on amendments to the Law on Hrvatska Narodna Banka (CON/2016/33)* and *Opinion of the ECB of 28 October 2016 on amendments to the Law on Hrvatska Narodna Banka (CON/2016/52)*

European Commission (2017a), *Digital Scoreboard 2017*

European Commission (2017b), *EU Justice Scoreboard*, Communication from the Commission to the European Parliament, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions (forthcoming)

European Commission (2016a), *Country Report — Croatia 2016*, Occasional Papers, 2016

European Commission (2016b), *SBA Fact Sheet Croatia*

European Commission (2016c), *Communication on reform recommendations for regulation in professional services*, COM(2016) 820 final

European Commission (2016d), *Commission staff working document accompanying the communication on reform recommendations for regulation in professional services*, SWD(2016) 436 final

European Commission (2016e), *The use of collaborative platforms*, Flash Eurobarometer 438, March 2016

European Commission (2016f), *Public Opinion in the European Union, Annex*; Standard Eurobarometer 86, Autumn 2016, available at: <http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfm/Survey/getSurveyDetail/instruments/STANDARD/surveyKy/2137>

European Commission (2016g), *State-owned enterprises in the EU: Lessons learnt and ways forward in a post-crisis context*, Institutional Paper, no. 31

European Commission (2016h), *Stock-taking of administrative capacity, systems and practices across the EU to ensure the compliance and quality of public procurement involving European Structural and Investment (ESI) Funds – Croatia country profile*; Study by PwC for the European Commission

European Commission (2015a), *Country Report — Croatia 2015, European Economy, Occasional Papers, 218, 2015*

European Commission (2015b), *The 2015 Aging Report*, Publications Office of the European Union, Luxembourg, available at: [http://ec.europa.eu/economy\\_finance/publications/european\\_economy/2015/pdf/ee3\\_en.pdf](http://ec.europa.eu/economy_finance/publications/european_economy/2015/pdf/ee3_en.pdf)

European Commission (2015c), Communication from the Commission to European Parliament and the Council, *Working together for jobs and growth: The role of National Promotional Banks (NPBs) in supporting the Investment Plan for Europe*, COM/2015/0361 final

European Commission/EACEA/Eurydice (2014), *Modernisation of Higher Education in Europe: Access, Retention and Employability 2014; Eurydice Report*; Publications Office of the European Union, Luxembourg, available at: [http://eacea.ec.europa.eu/education/eurydice/documents/thematic\\_reports/165EN.pdf](http://eacea.ec.europa.eu/education/eurydice/documents/thematic_reports/165EN.pdf)

European Commission (2014), *Directive on measures to reduce the cost of deploying high-speed electronic communications networks*, 2014/61/EU

IBRD (2015), Project appraisal document PAD 1360 and press release 7 July 2015

Institute of Economics Zagreb (2015), *Minimum wage effects on employment, productivity and living standards in Croatia*, Zagreb

International Association for the Evaluation of Educational Achievement (IEA) (2015), *Trends in International Mathematics and Science Study*, available at: <https://nces.ed.gov/timss/timss2015/>

Ministry of Economy (2017), *Action Plan for Reducing the Administrative Burden*, Zagreb, available at: <http://www.mingo.hr/page/donosjenjem-akcijskog-plana-zapocinjje-sustavno-rezanje-troskova-gospodarstvu>

Ministry of Finance (2016), *Analysis of the conversion of CHF-denominated loans*, available at: <http://www.mfin.hr/adminmax/docs/Analiza%20konverzije%20CHF%20kredita.pdf>

Ministry of Justice (2015), *Action plan of the anti-corruption strategy for the period 2015-2016*, Zagreb

Ministry of Public Administration (2015), *Strategy for the Development of Public Administration 2015-2020*, available at: <https://uprava.gov.hr/strategija-razvoja-javne-uprave-za-razdoblje-od-2015-do-2020-godine-14369/14369>

Mrnjavac, Ž., Pivac, S. (2015), *Results of the survey on student satisfaction of study programmes and preparedness for the labour market*, Zagreb

OECD (2016), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, OECD Publishing, Paris, available at: <http://dx.doi.org/10.1787/9789264266490-en>

RAND (2016), *The cost of non-Europe in the area of organised crime and corruption: Annex II Corruption*; research paper by RAND Europe for the European Parliamentary Research Service

State Audit Office (2016a), *Fraud prevention in local government units' owned state-owned enterprises*, Zagreb

State Audit Office (2016b), *Supervisory Board performance in local government units' owned state-owned enterprises*, Zagreb

State Audit Office (2015), *Real-estate management in local government units' owned state-owned enterprises*, Zagreb

UNDP (2005), *Fiscal Decentralization in Transition Economies: Case Studies from the Balkans and Caucasus*, Bratislava

World Bank (2016), *Croatia policy notes 2016: restoring macroeconomic stability, competitiveness and inclusion*. Washington, D.C., World Bank Group

World Economic Forum (2016), *Global competitiveness index 2016–2017: Croatia*

World Health Organization (2015), *Better non-communicable disease outcomes: challenges and opportunities for health systems; Croatia country assessment: focus on cardiovascular diseases and diabetes*, Copenhagen