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**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**

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EXECUTIVE SUMMARY

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

The performance of the Hungarian economy remains solid, increasingly driven by domestic demand. Real GDP has surpassed its pre-crisis peak. Potential growth however still remains a full percentage point lower than before the crisis, despite the recovery in recent years. In 2016, GDP is estimated to have increased by 1.9 %, supported by strengthening private consumption and net exports. A temporary decline in EU-funded investment reduced growth in 2016, but continuing support from private consumption, a gradual recovery in EU-funded investment, and expansive fiscal policy is likely to accelerate growth to around 3.5 % as of 2017. Higher energy prices and significant minimum wage increases are expected to push up inflation towards the central bank's target rate of 3.0 % by the end of 2018.

The labour market situation continues to improve, but with growing signs of tightening. Unemployment fell below its pre-crisis level, despite a rapidly increasing activity rate. Long-term unemployment also fell. The supply of labour rose, due to restrictive policies on social transfers, early retirement and increasing statutory retirement age. Owing to the increasing activity rate, labour has become a positive contributor to the potential growth rate despite population ageing. However, shortages of both skilled and unskilled workers have emerged in various sectors and companies find it increasingly difficult to fill vacancies.

After a significant drop in 2016, investment is forecast to recover progressively. The considerable investment growth in 2013-2014 came to a halt as EU-funded investment temporarily subsided. In addition, private investment is hampered by still-cautious lending activity and frequent changes to the regulatory and tax environment. Factors adversely affecting the business environment are linked particularly to

weaknesses in institutional performance and governance. An increase in productive investment, especially in equipment and machinery, would help increase productivity and improve competitiveness.

Lending to the private sector is improving, but credit growth remains modest. While banks' lending capacity is close to a historical high, their willingness to lend remains limited, especially to the corporate sector. Lending is also dampened by their sizeable amount of non-performing loans. The central bank launched various schemes to promote lending to small firms, which picked up significantly in 2016. Lending to households also improved in 2016, as the new government housing support scheme and growing property prices started to spur households' borrowing. However, overall credit growth is not yet strong enough to support economic growth.

Fiscal policy has been prudent but the fiscal stance is expected to loosen, posing a risk for a medium-term debt reduction. The budget deficit decreased to a historical low of 1.6 % of GDP in 2015, but is forecast to rebound. The headline deficit is expected to have reached 1.8 % of GDP in 2016 and projected to rise further to 2.4 % in 2017 and 2.5 % in 2018, due to planned measures such as tax cuts and spending increases. Since its peak in 2011, the public debt ratio has declined continuously, helping improve Hungary's financial stability. However, in the absence of fiscal adjustment, the deterioration of the structural balance may jeopardise the goal of steadily reducing debt in the medium term.

Overall, Hungary has made limited progress in addressing the 2016 country-specific recommendations. Some progress has been made in reducing the tax wedge for low-income earners, but progress in reducing sector-specific taxes and improving transparency and competition in public procurement has been limited. The latter is to a large extent due to a delay in the development and implementation of e-procurement. Some progress has been made in facilitating the transition from the public works scheme to the primary labour market and reinforcing other active labour market policies. Limited progress has also been made in improving the adequacy and coverage of social and unemployment benefits; and educational outcomes and participation by disadvantaged

groups, in particular Roma, in inclusive mainstream education.

Regarding the progress on reaching the national targets under the Europe 2020 Strategy, Hungary is performing well in reducing greenhouse gas emissions, increasing renewable energy, tertiary education and the employment rate; while more effort is needed to increase R&D expenditure and reduce early school leaving and poverty.

The main findings of the analysis in this report, and the related policy challenges, are as follows:

- **External balances continued to strengthen both in terms of stocks and flows.** Net external liabilities declined from 116 % of GDP in 2009 to 61 % by 2015, and the ratio is estimated to have declined further in 2016. The economy has been rebalanced by maintaining large current and capital account surpluses, which reflect private sector debt reduction and a sizeable inflow of EU funds. The improvement in the external balance continued despite a pick-up in domestic demand, showing the strength of the underlying adjustment.
- **Internal financial balances have also strengthened further.** Hungary entered the crisis burdened with a relatively high level of private sector debt, mostly denominated in foreign currencies. The biggest systemic risk from this foreign currency exposure was removed by converting households' foreign currency mortgages in recent years. This helped reduce private sector debt from its peak 117 % of GDP in 2009 to 83.9 % by 2015.
- **The banking system has also strengthened substantially in the past two years.** The sector's profitability has been helped by the improving economic environment and by a reduction in taxes on banks. The funding structure and capital position of Hungary's banks are adequate. The biggest challenges are (i) the proper management of the decreasing but still sizeable amount of non-performing loans, (ii) restarting market lending, especially the corporate segment, and (iii) moving sustainable profitability levels towards regional averages.
- **Low corporate investment is however holding back productivity growth and thereby competitiveness and potential growth.** Productivity is comparatively low. Without productivity gains, there is a risk of Hungary becoming less competitive in the medium term. The recent increases in minimum wages are intended to trigger a shift towards higher productivity jobs. Innovation is not yet embedded in the economy reflected in wide productivity gaps between foreign-owned and domestic companies. Regulatory barriers in services, including retail, tend to limit market dynamics and hamper investment.
- **Recent tax measures go in the right direction but challenges in the tax system remain.** Hungary's total tax-to-GDP ratio remains well above its regional peers', though the 2017 cuts in social security contributions and corporate income tax have reduced the tax burden by some 1.5 pps., improving the country's competitiveness. The tax wedge on labour costs is set to decrease gradually, but remains high for several groups, especially low-income workers without children. Despite a declining trend since 2013, sector-specific taxes still tend to complicate the tax system and weaken investor confidence. The complexity of the tax system and associated administrative burdens pose a continuing challenge. While there is still room to improve the efficiency of tax collection and tax compliance, policy efforts to combat tax evasion and fraud have produced tangible results.
- **Despite significant improvements, the Hungarian labour market still faces challenges.** The main active labour market policy remains the public works scheme. The government is strengthening efforts to reinforce other active labour market policies. The system of childcare services has been reformed to tackle the persistently wide gender employment gap and the impact of parenthood on women's employment. Some poverty indicators have fallen back to pre-crisis levels, but remain high in comparison with other EU Member States. Poverty among children and Roma has declined, but remains at a high level and the adequacy and coverage of social assistance and unemployment benefits is still limited.

Performance in providing basic skills remains weak by international standards and the impact of pupils' socio-economic background on education outcomes is one of the highest in the EU. The concentration of disadvantaged pupils, in particular Roma, in certain schools is becoming more pronounced. Finally, labour market participation is affected by comparatively weak health outcomes and unequal access to healthcare.

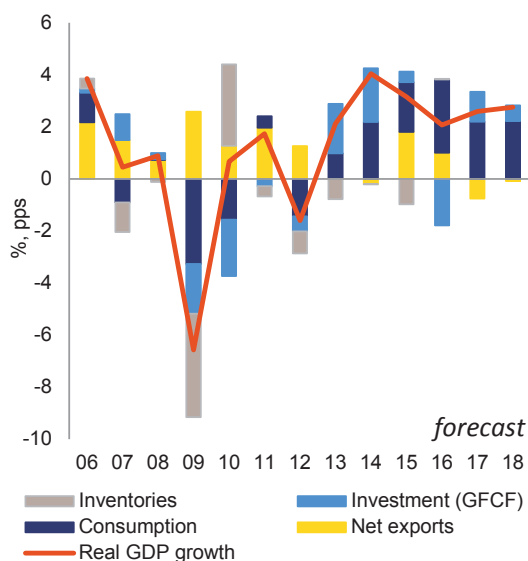
- **Weaknesses in institutional performance weigh on the business climate and reduce the growth potential of the economy.** The unstable regulatory environment is one of the biggest barriers to doing business in Hungary, with insufficient stakeholder engagement and evidence-based policy making. The transparency and predictability of the budget process remain limited. Public procurement is still characterised by limited competition and transparency. Corruption risks remain high and there are notable gaps in the measures taken to address the issue.

1. ECONOMIC SITUATION AND OUTLOOK

GDP growth

Following a strong performance in 2015, economic growth temporarily eased in Hungary, as EU-funded investments dipped. Stoppages in production in a major automotive company also added to the slowdown. Overall investment is estimated to have contracted by 9.6 % in 2016, following a 1.9 % growth in 2015. Despite this contraction, domestic demand growth remained dynamic, holding up GDP growth at 1.9 % in 2016, down from 3.1 % in 2015 (Graph 1.1). Private consumption grew by a robust 5.0 % supported by accelerating wage growth, growing employment and low inflation. Trade flows remained strong as net exports contributed 0.9 pps. to GDP in 2016. On the production side, an exceptionally good performance by agriculture is estimated to have generated an above-average contribution to GDP growth.

Graph 1.1: Contributions to real GDP growth



Source: DG ECFIN, Winter Forecast 2016

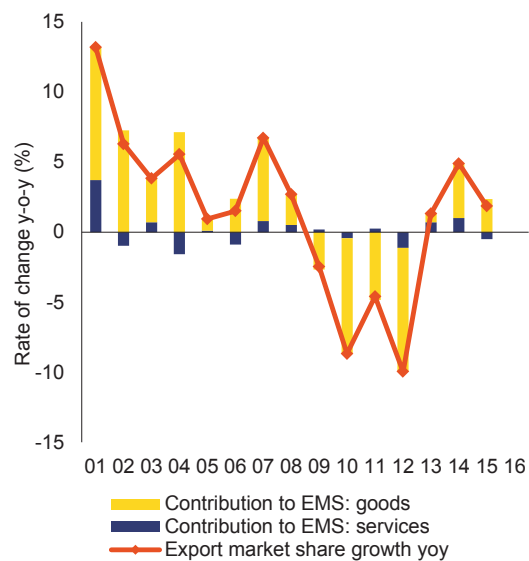
Economic growth is forecast to accelerate to 3.5 % in 2017 and 3.2 % in 2018. The dynamic growth in household consumption is projected to continue. This is supported by accelerating wage growth, consumer confidence at a post-crisis high, further positive developments in household lending and second-round effects following improvements in the housing market. However, employment growth, which boosted consumption

until now, is expected to ease as the economy reaches full employment.

After a significant fall in 2016, investment is forecast to progressively recover as of 2017. Real investment is expected to grow at around 10 % in 2017 and 5 % in 2018. This is mainly due to an increased absorption of EU funds, improving domestic demand prospects, increasing household investment and several large planned investments in the automotive sector. The low interest rate environment and a recovery in corporate lending are also expected to boost investment.

Reflecting improved competitiveness, net exports boosted growth until 2016, but strengthening import demand is projected to gradually counterbalance this effect in 2017. This is mainly due to the expected pick-up in domestic demand, which will boost import growth towards 7 %. Exports are expected to continue to grow at a relatively stable rate, around 5.5 %. Hungary's export market shares grew in the last 3 years (Graph 1.2) and the country's exporters are expected to keep gaining market share in the near future. However, increasing unit labour costs will weigh on Hungary's relative trade performance.

Graph 1.2: Export market shares

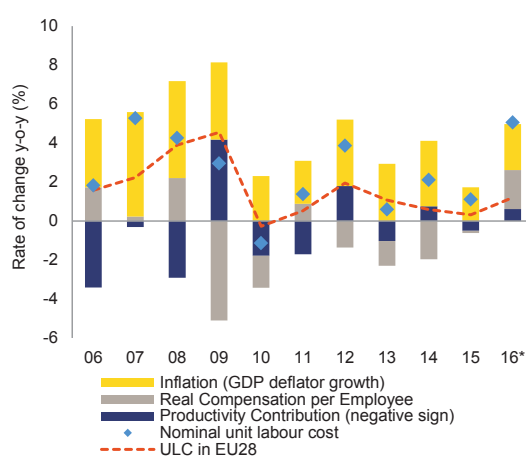


Source: Eurostat

Hungary's unit labour costs (ULC) increased considerably in 2016. Nominal ULC grew by 1.1 % in 2016, which is 4 pps. above the EU

average. This increase was mainly driven by dynamic wage growth, but also by a slight deterioration in productivity (Graph 1.3). Real ULC developments, however, appear stronger as Hungary's real ULCs have been on a downward trend since 2010. Nevertheless, looking forward, real wage growth is forecast to significantly outpace productivity. This is expected to reduce price and cost competitiveness in the near future. Competitiveness is discussed in more detail in section 3.4.

Graph 1.3: Unit labour cost developments in Hungary



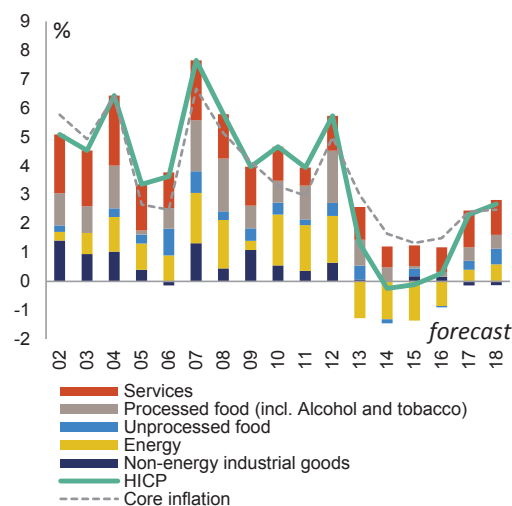
Source: Eurostat

Inflation

Inflation remained muted in 2016, but is forecast to gradually approach the central bank's medium-term target of 3% by 2018. Headline inflation has remained around zero since 2014 as falling energy prices fully offset limited inflation in services and food. However, core inflation, which excludes energy and unprocessed food prices, remained stable at around 1.3%. Inflation is forecast to accelerate towards the Hungarian central bank's target of 3.0% by 2018. Price growth is expected to be broad based, as energy prices grow again and prices of services accelerate on the back of strong wage growth (Graph 1.4). Gross wages are forecast to grow by 8.7% in 2017 and by 7.5% in 2018. As labour shortages have already started to limit production – mainly in industry, construction and services – overheating risks are expected to appear, contributing to 'demand-pull' inflation. These risks are expected to be exacerbated by the projected

fiscal loosening in 2017 and 2018, mainly linked to the minimum wage and tax reforms (Box 1.1).

Graph 1.4: Contributions to HICP inflation



Source: Commission's calculations based on Eurostat data, Winter Forecast 2016

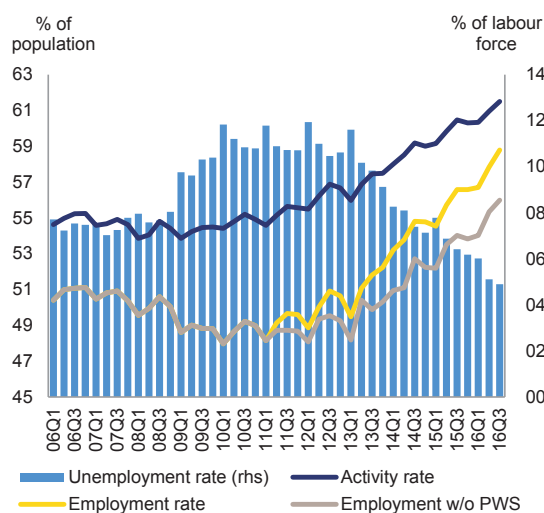
Labour market

The Hungarian labour market has improved in the recent years. The unemployment rate fell below 5% in 2016. The employment rate has increased significantly since the recovery started in 2013, while activity rates have been steadily increasing since 2008 (Graph 1.5). Employment reached 4.4 million in 2016, supported also by the public works scheme, which employed approximately 220 000 persons on average in 2016. Private sector job creation amounted to around 130 000 in the same year. As a consequence, full-time equivalent employment in the domestic private sector has come close to the pre-crisis level. Rates of long-term and youth unemployment, as well as the rate of young people out of both employment and education/training, largely returned to their pre-crisis levels.

There are however growing indications that the labour market is tightening. Employment growth is expected to slow in the coming years as labour supply becomes more limited. There are skill shortages in numerous sectors and it is increasingly difficult to match both the skilled and unskilled labour force with vacancies. Consequently, there is a significant pressure on

wage growth, which is another indicator of tightening labour market.

Graph 1.5: Activity, employment and unemployment



(1) Activity and employment rates (% of population), unemployment rate (% of labour force). Data available do not allow decomposition between employment rate and employment w/o PWS before 2011.

Source: HCSO

Social developments

Inequality increased during the recovery but remains below the EU average. The S80/S20 indicator — which compares the proportion of the income of the richest 20% of households to that of the poorest 20% — increased from 3.4 in 2010 to 4.3 in 2015. This is well below the EU average of 5.2. The available data indicate that inequality in net wealth ⁽¹⁾ was within the range observed in other EU countries for which data were collected in 2013-2014 (ECB 2016). Market income inequality (before taxes, social transfers and benefits are taken into account) is close to the EU average. It is driven by increasing wage dispersion and faster wage growth by higher earners. While the benefit system is effective in reducing market inequality, the introduction of a flat tax in 2011 made the tax system less progressive, which has had a negative impact on inequality. A strong spatial dimension also plays a role, with the incomes of rural households at only 73 % of urban households. This figure is well below the EU average of 83 %. Inequality also exists in access to

(1) Difference between total assets and total liabilities.

services, such as education and health care, negatively affecting in particular the Roma.

Public finances

The budget deficit decreased to historically low levels in recent years, but the fiscal stance is expected to loosen in the short term. After reaching 1.6 % of GDP in 2015, the headline deficit is expected to have increased to 1.8 in 2016 and forecast to rise further to 2.4 % in 2017 and then to 2.5 % in 2018. The country's fiscal situation benefits from a tax-rich recovery, declining interest outlays, savings in social transfers and considerable temporary revenues. The increased fiscal leeway, however, is expected to be more than offset by deficit-increasing measures, including substantial tax cuts and spending increases. As a result, the structural deficit is estimated to deteriorate considerably, reaching around 3 ½ % of GDP in 2017 and 2018.

The public debt ratio continued on a declining path, helping to improve financial stability.

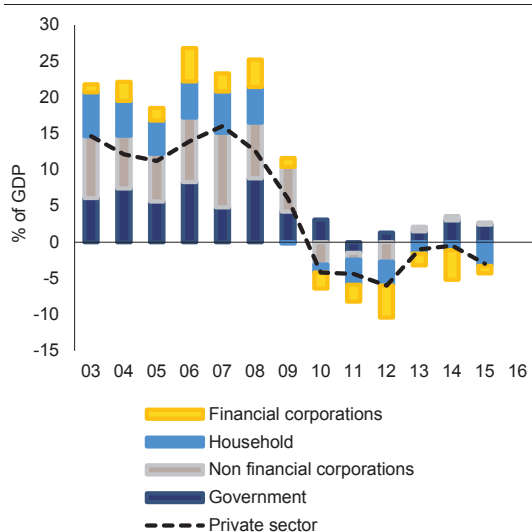
Following the outbreak of the financial crisis, the government debt-to-GDP ratio increased sharply, reaching almost 81 % in 2011. Since then, it has decreased by more than 6 pps., falling below 75 % by 2015. The reduction of debt was supported by the takeover of the assets of mandatory private pension schemes (so-called second pillar), fiscal consolidation efforts and the subsequent economic recovery. Although the current public debt ratio is still well above that of regional peers, Hungary's sovereign financing risks have receded significantly. Looking ahead, the debt ratio is forecast to decrease further in 2017 and 2018. However, in the absence of fiscal measures, the deterioration of the structural balance points puts at risks the objective of ensuring a firmly declining debt-reduction path, towards the debt rule reference level of 60 % of GDP.

Financial sector

Financial sector assets have continued to contract, in line with further deleveraging in the private sector. Private debt was reduced to about 84 % of GDP in 2016, from its peak of close to 120 % of GDP in 2009. While credit flows remained negative for households, credit growth to non-financial corporations remained marginally positive (including inter-company loans and loans

from foreign financial institutions, Graph 1.6). Credit growth remains limited by banks' cautious lending strategies, especially to the corporate sector. The central bank launched various schemes to promote lending to small firms, which picked up significantly in 2016. Lending to households also started to improve in 2016, as the new government housing support scheme and growing property prices started to spur households' interest in borrowing.

Graph 1.6: **Decomposition of credit flows**



Source: Eurostat

The financial sector has yet to fully benefit from the improvement in macroeconomic conditions.

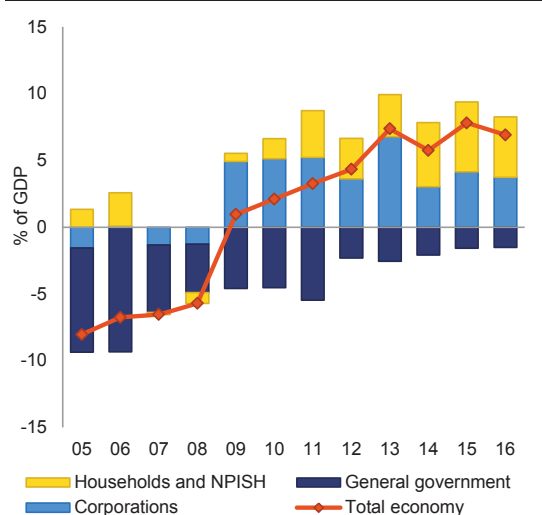
Some encouraging signs appeared in 2016, such as improved profitability, strengthening capital positions, and a decrease in non-performing loans. A key measure for the return to profitability was a close to 50 % reduction in the bank levy in 2016. Improved profitability also led to strengthening capital positions. Prompted by regulation, financial institutions continued cleaning up their portfolios of non-performing loans. The financial sector is discussed in more detail in section 3.2.

External position

Hungary's external position has continued to improve in terms of both stocks and flows. Net external liabilities declined to 61 % of GDP in 2015 (from 76 % in 2014 and the peak of 116 % in 2009). They are estimated to have declined further in 2016. The economy was rebalanced by maintaining high current and capital account

surpluses. The latter reflect private sector deleveraging and a high inflow of EU funds. The external adjustment was helped by Hungary's floating exchange rate regime, as the real depreciation of the forint helped improve the trade balance. Hungary's strong net lending position remained stable over the last 4 years, despite the pick-up in domestic demand (Graph 1.7). Even though EU fund inflows temporarily declined in 2016, the country's net lending remained high (at 6 % of GDP). It is projected to remain at this level in 2017 and 2018.

Graph 1.7: **Net lending / borrowing by institutional sector**

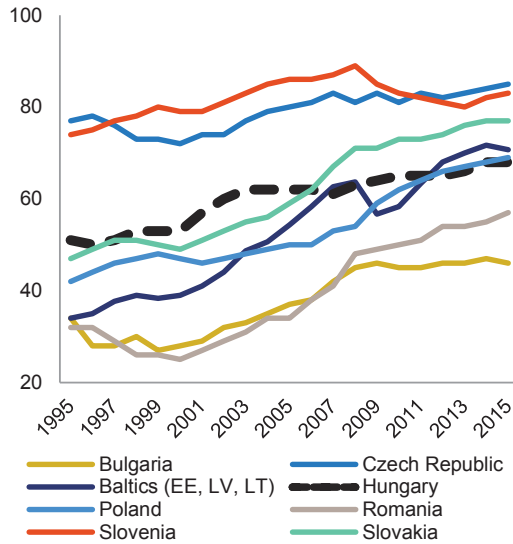


Source: Eurostat

Real convergence & potential growth

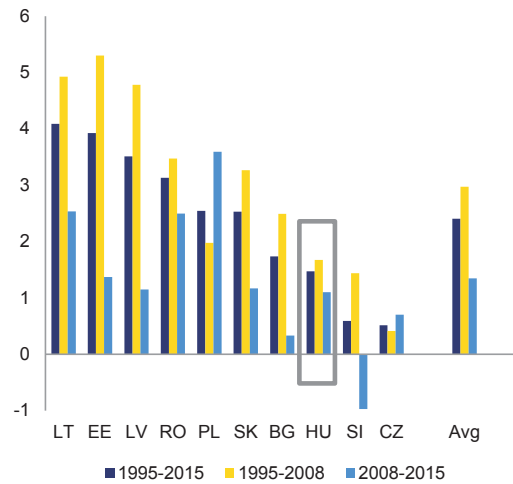
Despite an improving performance since 2013, Hungary's real convergence still lags behind most of its regional peers (Graphs 1.8 and 1.9). Over a 20-year period, Hungary's per capita GDP in terms of purchasing-power-parity (PPP) rose from half to two thirds of the EU average. The country started this period as the third highest per capita GDP among the emerging market economies in the central-eastern European region. By the end of the period, however, it had fallen back to the 7th position. While the convergence of most of its peers slowed after the 2008/09 crisis, Hungary's convergence had already decelerated significantly before the crisis (Graph 1.9).

Graph 1.8: Per capita GDP in PPP terms



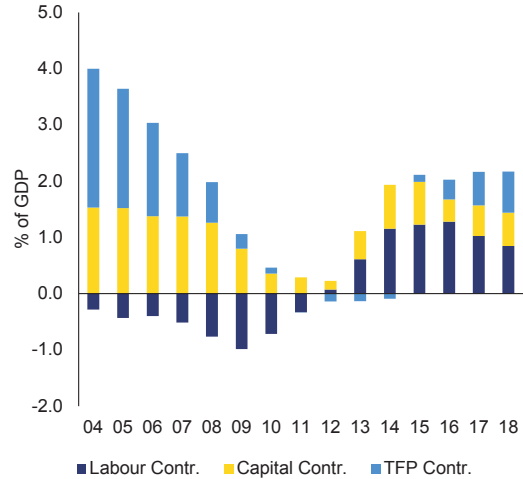
(1) PPP = purchasing power parities; calculated as the percentage of the EU28 average.
Source: Eurostat

Graph 1.9: Average annual rate of real convergence



Source: Commission's calculation based on Eurostat data

Graph 1.10: Contributions to potential growth



Source: DG ECFIN, Winter Forecast 2016

Potential growth recovered, but similar to most of its regional peers, it still lags behind the pre-crisis years. Potential growth in 2016 is estimated at 2 %, which is more than 1 pp. below Hungary's pre-crisis average (2000-2008). While potential growth was driven by total factor productivity before the crisis, this factor disappeared thereafter. The post-crisis recovery was labour-intensive, which is also reflected in a growing labour contribution to potential growth. The key to elevated potential growth lies in enhancing total factor productivity, based on well-designed structural policies (section 3.4).

Box 1.1: The minimum wage increase and tax reform

In November 2016, the government agreed with the social partners to increase substantially the minimum wage and to decrease employers' social security contributions both in 2017 and 2018 (section 3). The gross monthly minimum wage is set to increase by 15 % in 2017 from the current HUF 111 000, and by another 8% the following year. The minimum wage of skilled workers is set to increase by 25 % in 2017 from the current HUF 129 000 and by an additional 12 % in 2018. Employers will be partly compensated for the increased labour costs through a 5 p.p. decrease in employers' social contribution in 2017 and a further decrease of 2-2.5 p.p. in 2018. Moreover, the corporate income tax will be cut from the current two-tier rate of 19 % for large companies and 10 % for SMEs to a single rate of 9 % for all companies.

The measures aim at supporting economic growth via strengthened domestic demand and productivity. The government expects the wage increase to encourage low income earners to improve their skills and companies to improve their productivity. This would facilitate the transition of workers from low to higher-productivity sectors. Higher domestic wages would also decrease the incentives for workers to take up a job abroad and, in combination with the tax cuts, would boost consumption and investment. After the announcement of the measures, the government updated its forecast for 2017-2020. The new forecast includes the impact of the measures, but also other factors. Compared to the convergence programme, the government now expects higher GDP growth by around 1.0 p.p. in both 2017 and 2018, lower employment growth in 2017 by 0.3 p.p. but higher employment growth in 2018 by 0.5 p.p. (*MoNE, 2016*). The official deficit path remained unchanged, since higher wages and domestic demand are expected to generate additional revenues which compensate for the revenue shortfall of the tax cuts. According to the central bank's recent inflation report the incremental effect of the minimum wage increase on private sector wages is 2.5% in 2017, because wages would have increased at a fast pace due to the tight labour market.

According to simulations using the European Commission's QUEST model, the measures add 0.3% to GDP in 2017 and there is no further positive growth effect in 2018. The positive growth effect comes from the higher consumption driven by elevated wages and from higher investments. The investment is spurred by the tax cuts. In addition the increase in minimum wages raises investment also, since it drives firms to substitute capital for workers. While the higher investment lifts employment, the minimum wage increase, which exceeds productivity growth, will weigh on employment and more than offset the favourable employment effect of higher investment. Overall, the simulations suggest that the measures have a negative net effect on employment, but it raises average labour productivity in the economy. Nominal wages and inflation will rise and trigger a gradual tightening in monetary conditions. The set of measures are not self-financing and without offsetting measure, would lead to budgetary deterioration. The QUEST model excludes some channels that might generate positive economic effects. In particular, the model does not incorporate labour migration and consequently excludes the possibility that higher domestic wages lead to a partial reversal of outward labour migration and, hence, an increase in domestic labour supply. Furthermore, the model does not generate skill improvement as a possible response to higher minimum wages, or asymmetric market power of employers (monopsony) in parts of the labour market that could generate more positive employment effects of a minimum wage.

The measures affect companies unevenly. The impact of the minimum wage increase is stronger in sectors and companies with low labour productivity where employees are paid around the minimum wage. For such companies, the higher labour costs resulting from the wage increases more than offset the positive impact of the reduction in employers' contribution. The corporate income tax cut benefits predominantly large companies, while the cut in the employers' social security contribution affects all companies. While higher wage costs may deter foreign direct investment inflows in low-productivity sectors, the decrease in the corporate tax rate and employers' contribution is expected to have the opposite effect. The corporate tax rate is the lowest in the EU, and very low compared to Hungary's regional peers (19% in the Czech Republic and Poland, 21% in Slovakia). At the same time, the overall tax burden on companies may also include sector-specific taxes. The measures would spur wages more in the lower income categories, which reduces inequality among wage-earners and is favourable for consumption due to the generally higher consumption rate of low-income earners.

Table 1.1: Key economic, financial & social indicators — Hungary

	2004-2008	2009	2010	2011	2012	2013	2014	2015	forecast		
									2016	2017	2018
Real GDP (y-o-y)	2.9	-6.6	0.7	1.7	-1.6	2.1	4.0	3.1	1.9	3.5	3.2
Private consumption (y-o-y)	1.3	-6.7	-2.7	0.7	-2.1	0.3	2.5	3.4	5.0	4.8	3.9
Public consumption (y-o-y)	0.6	1.4	-0.4	0.2	-1.5	4.1	4.5	1.0	2.0	1.0	2.0
Gross fixed capital formation (y-o-y)	3.4	-8.3	-9.5	-1.3	-3.0	9.8	9.9	1.9	-9.6	10.0	5.0
Exports of goods and services (y-o-y)	14.7	-11.4	11.3	6.5	-1.8	4.2	9.8	7.7	6.7	4.9	5.9
Imports of goods and services (y-o-y)	12.1	-14.7	10.2	4.4	-3.5	4.5	10.9	6.1	6.4	6.8	6.7
Output gap	3.0	-4.4	-3.7	-2.0	-3.8	-2.7	-0.7	0.3	0.2	1.4	2.2
Potential growth (y-o-y)	2.5	0.2	-0.1	0.1	0.2	1.0	1.9	2.1	2.0	2.3	2.4
Contribution to GDP growth:											
Domestic demand (y-o-y)	1.7	-5.2	-3.7	0.2	-2.0	2.9	4.3	2.3	0.8	4.5	3.3
Inventories (y-o-y)	-0.1	-4.0	3.1	-0.4	-0.8	-0.8	0.0	-1.0	0.2	0.0	0.0
Net exports (y-o-y)	1.4	2.6	1.3	2.0	1.3	0.0	-0.2	1.8	0.9	-1.0	-0.1
Contribution to potential GDP growth:											
Total Labour (hours) (y-o-y)	-0.5	-1.0	-0.7	-0.3	0.1	0.5	1.0	1.1	1.1	0.8	0.6
Capital accumulation (y-o-y)	1.4	0.8	0.4	0.3	0.2	0.5	0.8	0.8	0.3	0.6	0.7
Total factor productivity (y-o-y)	1.6	0.3	0.2	0.1	0.0	0.0	0.1	0.3	0.6	0.9	1.0
Current account balance (% of GDP), balance of payments	-7.3	-0.8	0.3	0.8	1.8	3.8	2.0	3.2	.	.	.
Trade balance (% of GDP), balance of payments	-0.9	4.1	5.3	6.1	6.8	7.0	6.9	8.9	.	.	.
Terms of trade of goods and services (y-o-y)	-4.8	1.3	0.1	-1.4	-1.0	0.8	0.7	0.7	1.7	0.1	0.2
Capital account balance (% of GDP)	0.6	1.7	1.8	2.4	2.5	3.6	3.8	4.5	.	.	.
Net international investment position (% of GDP)	-92.2	-115.5	-108.8	-106.3	-94.0	-83.5	-75.8	-60.8	.	.	.
Net marketable external debt (% of GDP) (1)	-37.8	-56.1	-54.1	-51.4	-45.8	-37.1	-33.7	-24.2	.	.	.
Gross marketable external debt (% of GDP) (1)	78.7	111.4	113.8	116.9	100.5	88.8	86.0	75.3	.	.	.
Export performance vs. advanced countries (% change over 5 years)	45.6	22.4	11.8	6.6	-11.9	-15.3	-9.4	-6.01	.	.	.
Export market share, goods and services (y-o-y)	4.7	-3.3	-7.9	-4.0	-10.6	1.7	4.8	0.7	.	.	.
Net FDI flows (% of GDP)	-2.2	-0.5	-3.0	-1.6	-2.1	0.0	-2.7	-1.6	.	.	.
Savings rate of households (net saving as percentage of net disposable income)	3.9	3.4	3.4	4.1	2.6	4.3	5.7	4.3	.	.	.
Private credit flow, consolidated (% of GDP)	13.2	6.0	-4.2	-4.4	-6.0	-1.0	-0.5	-3.0	.	.	.
Private sector debt, consolidated (% of GDP)	86.6	117.0	115.6	115.0	102.0	95.5	91.0	83.8	.	.	.
of which household debt, consolidated (% of GDP)	27.2	37.7	39.7	37.6	31.7	28.1	25.6	21.5	.	.	.
of which non-financial corporate debt, consolidated (% of GDP)	59.4	79.3	75.9	77.4	70.3	67.4	65.4	62.3	.	.	.
Corporations, net lending (+) or net borrowing (-) (% of GDP)	-1.4	4.9	5.1	5.2	3.6	6.8	3.0	4.2	3.7	5.1	7.1
Corporations, gross operating surplus (% of GDP)	24.0	24.0	24.7	25.4	24.5	25.7	26.4	26.6	26.8	26.7	27.1
Households, net lending (+) or net borrowing (-) (% of GDP)	0.5	0.6	1.5	3.5	3.0	3.1	4.8	5.2	4.5	3.1	2.7
Deflated house price index (y-o-y)	-3.1	-9.0	-5.9	-6.9	-9.3	-4.3	3.2	11.6	.	.	.
Residential investment (% of GDP)	4.3	4.2	3.1	2.2	2.0	1.8	2.1	1.9	.	.	.
GDP deflator (y-o-y)	4.2	4.0	2.3	2.2	3.4	2.9	3.4	1.7	2.3	2.8	3.2
Harmonised index of consumer prices (HICP, y-o-y)	5.7	4.0	4.7	3.9	5.7	1.7	0.0	0.1	0.4	2.2	3.1
Nominal compensation per employee (y-o-y)	7.1	-1.3	0.6	3.1	2.0	1.6	1.3	1.6	5.0	6.1	5.6
Labour productivity (real, person employed, y-o-y)	3.5	-4.2	1.8	1.7	-1.8	1.0	-0.8	1.0	.	.	.
Unit labour costs (ULC, whole economy, y-o-y)	3.5	3.0	-1.1	1.4	3.9	0.6	2.1	0.7	5.1	3.0	2.6
Real unit labour costs (y-o-y)	-0.7	-1.0	-3.4	-0.8	0.4	-2.3	-1.2	-1.1	2.7	0.2	-0.5
Real effective exchange rate (ULC, y-o-y)	2.1	-9.7	-1.2	-0.3	-3.0	-1.7	-2.5	-2.0	3.9	2.7	0.8
Real effective exchange rate (HICP, y-o-y)	3.1	-5.3	1.6	-0.4	-2.2	-1.4	-3.6	-2.0	0.7	0.2	.
Tax rate for a single person earning the average wage (%)	36.1	37.8	31.2	35.0	35.1	34.5	34.5	34.5	.	.	.
Tax rate for a single person earning 50% of the average wage (%)	20.4*	23.8	23.8	26.8	34.5	34.5	34.5	34.5	.	.	.
Total Financial sector liabilities, non-consolidated (y-o-y)	22.6	-0.8	-0.3	7.1	-6.7	-5.0	8.2	0.6	.	.	.
Tier 1 ratio (%) (2)	.	13.1	14.1	13.8	16.0	17.0	14.6	13.8	.	.	.
Return on equity (%) (3)	.	16.3	3.7	8.0	7.3	7.1	-15.3	-0.9	.	.	.
Gross non-performing debt (% of total debt instruments and total loans and advances) (4)	.	7.7	10.9	12.8	14.1	14.0	14.2	11.0	.	.	.
Unemployment rate	7.2	10.0	11.2	11.0	11.0	10.2	7.7	6.8	5.2	4.8	4.5
Long-term unemployment rate (% of active population)	3.3	4.2	5.5	5.2	5.0	4.9	3.7	3.1	.	.	.
Youth unemployment rate (% of active population in the same age group)	18.3	26.4	26.4	26.0	28.2	26.6	20.4	17.3	.	.	.
Activity rate (15-64 year-olds)	61.3	61.2	61.9	62.4	63.7	64.7	67.0	68.6	.	.	.
People at risk of poverty or social exclusion (% total population)	30.3	29.6	29.9	31.5	33.5	34.8	31.8	28.2	26.3	.	.
Persons living in households with very low work intensity (% of total population aged below 60)	11.5	11.3	11.9	12.8	13.5	13.6	12.8	9.4	8.2	.	.
General government balance (% of GDP)	-6.4	-4.6	-4.5	-5.5	-2.3	-2.6	-2.1	-1.6	-1.8	-2.4	-2.5
Tax-to-GDP ratio (%)	38.0	39.2	37.5	36.9	38.6	38.1	38.3	39.2	39.0	37.8	36.7
Structural budget balance (% of GDP)	.	.	-3.4	-4.2	-1.2	-1.3	-2.0	-1.7	-2.2	-3.4	-3.6
General government gross debt (% of GDP)	64.1	77.8	80.5	80.7	78.2	76.6	75.7	74.7	73.5	72.3	71.2

(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 BPM 5 and/or ESA 95

Source: European Commission, ECB

2. PROGRESS WITH COUNTRY-SPECIFIC RECOMMENDATIONS

Progress implementing the 2016 ⁽²⁾ recommendations for Hungary has to be seen in a longer term perspective (since the introduction of the European Semester in 2011). Over the six year period recommendations have focused on the issues of public finances, taxation, the labour market and the business environment.

Over the 2011-2016 period the government has achieved considerable progress with strengthening public finances. Structural reform measures were included in the 2011 Convergence Programme and further saving measures were adopted as part of the 2012 budget. Moreover, a new package of consolidation steps, concentrating mainly on the revenue side, was announced in the 2012 Convergence Programme with the ambition to attain the deficit targets in 2012 and 2013. In June 2013, the Council of the European Union decided to abrogate the decision on the existence of an excessive deficit in Hungary.

Recommendations regarding labour taxation, active labour market policies and social assistance have been adopted every year since 2011. In recent years the authorities have implemented several measures to reduce the tax wedge, especially tax credits for families and targeted social security contribution cuts for selected groups and have achieved some progress. However, the Hungarian tax wedge remains high in international comparison, especially for low income earners. Similarly, some progress can be observed regarding active labour market policies. For years, the authorities' main focus was the public works scheme with growing number of participants; however, its efficiency was limited. Recently the expansion of the scheme halted and no further increase of the budgeted amount is expected. In fact the number of the public workers started to decline reflecting improving labour market conditions. Further activation measures were adopted such as the reimbursement of travel costs. The recent increase of the minimum wage also may further encourage public workers to enter the open labour market. A number of programmes have recently been launched with the support of the European Social Fund (ESF) and the Youth Employment Initiative (YEI). (see Section 3.3).

A third area of recommendations has been centred on barriers to business. Hungary has received a recommendation in this area every year since the European Semester started. Recommendations cover several fields including high administrative burdens; public procurement; the legislative process; competition; a stable regulatory environment; tax compliance costs and supporting the SME sector. Several measures were developed in response. For example the Funding for Growth Scheme, a program of the Central Bank helped SMEs by subsidiaries loans. Another very successful measure was linking cash registers online to the tax authority.

Between 2013 and 2015 Hungary received yearly recommendations to take measures to restore lending to the real economy. This included reducing burdens on banks and decreasing state ownership in the banking sector. In 2015, the Hungarian authorities announced their plans to reduce the financial burden on banks. This was emphasised in a memorandum of understanding signed with the European Bank for Reconstruction and Development. The government committed itself to gradually reduce bank taxes, to reprivatise two lenders recently acquired by the Hungarian state, and to assist in reducing non-performing loans. It also committed to refrain from implementing new laws or measures with potential negative impact on the profitability of the banking sector.

Following the 2016 country report and the in-depth review, Hungary was found to no longer experience macroeconomic imbalances. Hungary was assessed to be on a balanced, albeit still relatively moderate growth path, gradually reducing its imbalances. External imbalances had been significantly reduced and the public debt ratio declined since the beginning of the decade. The indicators of net international investment position had rapidly improved. The country also repaid its debt under the 2008 balance of payment assistant programme.

Overall, Hungary has made limited progress in addressing the 2016 country-specific recommendations (Table 2.1). Some progress has been made in reducing the tax wedge for low-income earners, but progress in reducing sector specific taxes and strengthening transparency and

⁽²⁾ Other major reforms taken are described in section 3.

competition in public procurement has been limited. The latter is to a large extent due to a delay in the development and implementation of e-procurement. On the regulatory environment in the services and retail sector, no progress has been achieved. Regarding labour market, education and social policies (CSR3), some progress has been made in introducing incentives towards supporting the transition from the Public Work Scheme to the primary labour market and reinforcing other active labour market policies. Limited progress has also been made in improving the adequacy and

coverage of social assistance and unemployment benefits, as well as in increasing the participation of disadvantaged groups, in particular Roma, in inclusive mainstream education.

Table 2.1: **Summary Table in 2016 CSR assessment**

<p>CSR1: <i>In view of the high risk of a significant deviation, achieve an annual fiscal adjustment of 0.3 % of GDP towards the medium-term budgetary objective in 2016 and of 0.6 % of GDP in 2017, unless the medium-term budgetary objective is respected with a lower effort, by taking the necessary structural measures.</i></p>	<p>CSRs related to compliance with the Stability and Growth Pact will be assessed in spring once the final data are available.</p>
<p>CSR2: <i>Further reduce sector-specific taxes and reduce the tax wedge for low-income earners. Strengthen transparency and competition in public procurement through e-procurement, increased publication of tenders and further improvement of the anti-corruption framework. Improve the regulatory environment in the services sector and in the retail sector by addressing restrictive regulations and ensuring predictability.</i></p>	<p>Hungary has made limited progress in addressing CSR2*:</p> <ul style="list-style-type: none"> • Limited progress has been made regarding sector specific taxes. • Some progress has been made on reducing the tax wedge of low income earners. • Limited progress has been made on strengthening transparency and competition in public procurement. • No progress has been made on improving the regulatory environment in the services sector and in the retail sector.
<p>CSR3: <i>Facilitate the transition from the public works scheme to the primary labour market and reinforce other active labour market policies. Improve the adequacy and coverage of social assistance and unemployment benefits. Take measures to improve educational outcomes and to increase the participation of disadvantaged groups, in particular Roma, in inclusive mainstream education.</i></p>	<p>Hungary has been made limited progress in addressing CSR3*:</p> <ul style="list-style-type: none"> • Some progress has been made to facilitate the transition from the public works scheme to the primary labour market and reinforce other active labour market policies. • Limited progress has been made in improving the adequacy and coverage of social assistance and unemployment benefits • Limited progress has been made to improve educational outcomes and to increase the participation of disadvantaged groups, in particular Roma, in inclusive mainstream education.

Source: European Commission

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

Hungary is a major beneficiary of the European Structural and Investment Funds (ESI Funds) with an allocation of EUR 25 billion for the period 2014-2020. This is equivalent to 3.1% of GDP annually (over 2014-2017) and 39% of the expected national public investment¹. Out of the EU financing, EUR 2.3 billion is planned for delivery via financial instruments (a substantially higher amount than in the 2007-2013 period). By 31 December 2016, EUR 13.1 billion, which represents about 52 % of the total allocation for ESI Funds, have already been allocated to concrete projects.

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, Hungary has signed agreements for EUR 1 billion for projects under the Connecting Europe Facility. The EIB Group approved financing under EFSI amounts to EUR 26 million, which is expected to trigger nearly EUR 626 million in total investments (as of end 2016). In addition to that, 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.

ESI Funds helped progress on a number of structural reforms in 2015 and 2016 via ex-ante conditionalities² and targeted investment. Examples include targeted investments in R&D via smart specialisation by creating a framework for constant dialogue among stakeholders; coordinating environmental investments with water basin management plan; the development of the transport plan which facilitates the development of mature road and railway projects; as well as the improvement of public employment services through the profiling system, the targeting of labour market policies and the quality of education, training and health systems. These reforms have prepared the ground for better implementation of public investment projects in general including those financed from national sources and from other EU instruments. Fulfilment of the remaining ExACs is on track. Only one action of the ex-ante conditionality related to public procurement is at risk of non-fulfilment.

The relevant CSRs focusing on structural issues were taken into account when designing the 2014-2020 programmes. Funds are targeted at the modernisation of the public education system, the combatting early-school leaving, the promotion of inclusive education and to balancing labour market mismatches through enhancing employability of disadvantaged groups, vocational education and lifelong learning. Early childhood care and social inclusion measures, particularly for Roma also constitute important areas for investment. The funding will also support Hungary's efforts to improve the quality of its public administration. To combat youth unemployment, Hungary received support from the Youth Employment Initiative (YEI) – to date over 32 000 young people have benefitted from it. A substantial share of ESI Funds will be devoted to ensure the sustainability of Hungary's transport infrastructure: emphasis is put on rail investments (sub) urban connections and regional connectivity. A further development goal is the shift to a low carbon economy, via improving energy efficiency and an increasing share of renewable energy sources.

In addition to challenges identified in the past CSRs, ESI Funds address wider structural obstacles to growth and competitiveness and provide a financial basis for Hungary's medium and long-term development. ESI Funds will also help stimulate growth by investments focusing on enhanced innovation activity and the competitiveness of enterprises, also through better access to finance. The improvement of the competitiveness of agricultural holdings, investments in processing activities and food chain organisations, supporting biodiversity, better soil management are also promoted. In the waste and water sectors, some investments are still needed to make sure EU environmental requirements are fulfilled (see section 3.5). <https://cohesiondata.ec.europa.eu/countries/HU>

¹ National public investment is defined as gross capital formation + investment grants + national expenditure on agriculture and fisheries.

² Before programmes are adopted, Member States are required to comply with a number of ex-ante conditionalities, which aim at improving framework and conditions for the majority of public investments areas. For Member 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. REFORM PRIORITIES

3.1. PUBLIC FINANCES

Taxation

The government has introduced new reforms to tackle the persistently high overall tax burden in Hungary. The total tax-to-GDP ratio hovered around 38-39 % in recent years, which was the highest among the country's peers at a similar level of development. There have been marked improvements in tax composition. The weight of direct taxes declined significantly (by 7 pps.) over the past ten years, along with a parallel increase in the share of indirect taxes. This shift mainly reflected the phasing-in of a new flat rate personal income tax regime. Nevertheless, the tax burden on labour income still remained substantial on account of high social security contributions. Systemic changes also included the introduction of some relatively distortive forms of taxation such as sector-specific levies. The government's most recent tax package of November 2016 aims at reducing the overall tax burden, while also lowering the tax wedge on labour.

Despite some recent improvements, sector-specific taxes still play a prominent role, weighing on the business environment. The introduction of these taxes was motivated by the goal to increase tax proceeds from areas where profitability was perceived to be high. Revenues from sector-specific taxes were estimated at about 1.5 % of GDP in 2016, including banking, insurance, utilities, energy, telecommunication and retail sectors. The decline from the peak in 2013 (close to 2 % of GDP) reflects in particular the halving of the banking tax in 2016. However, apart from an additional marginal decrease in taxes on the banking sector, no further reductions in sector-specific taxes are implemented in 2017. These surcharges are usually based on turnover or assets and in some cases involve progressive rates. As a consequence, intermediate goods and services are also part of the tax base, which results in a distortionary effect. Given that many of the sectorial levies could not be fully passed on to customers, they also decrease the rate of return to investment (*Deloitte, 2015*). Even though the magnitude of the direct distortive effects may differ, the presence of selective extra taxes itself

creates regulatory unpredictability, weighing on investor confidence.

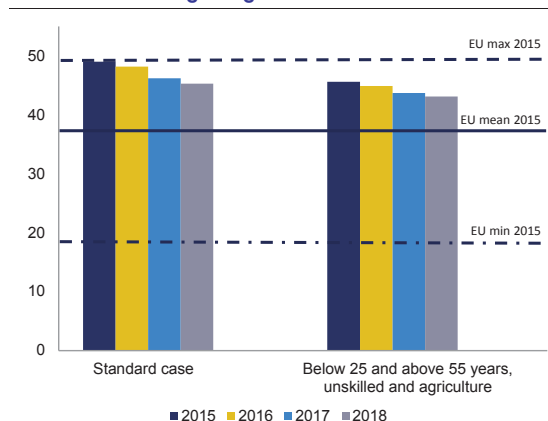
The general corporate income tax rate was lowered markedly from 2017 onwards, mostly benefiting large companies. The new tax rate of 9 % has replaced the previous scheme of 10 %, increasing to 19 % above a particular threshold. The reduction thus benefits mostly larger companies, especially those that had fewer opportunities to use the available extensive tax allowances. The lowest corporate income tax rate in the EU will improve Hungary's competitiveness, but could make it more attractive for tax optimisation purposes by foreign companies. At the same time, the overall tax regime for companies remains complex. Sector-specific taxes and other smaller taxes on enterprises are bigger sources of tax revenue than the standard corporate income tax.

The high tax wedge on labour, particularly for low-income earners, can negatively affect the employability of low productivity workers and hamper investment. In 2015, the last year with comparable figures, Hungary belonged to the group of countries with the highest tax burden for several taxpayer categories. In particular, Hungary had the highest tax wedge within the EU for single earners earning 50 % of the average wage; the second highest at 67 % of the average wage and the fourth highest at the average wage.

A number of measures adopted before 2016 reduced the tax wedge for targeted groups, but these had a limited effect on low earners overall. Family tax credits reduce the tax wedge for low-earners with children. However, even for these household types, the tax wedge remains above the EU average, especially for families with less than three children at low incomes. Targeted social security allowances, introduced under the Job Protection Act (JPA) in 2013, reduce the tax wedge for several groups such as unskilled workers, certain age groups or carrier starters. However, the estimated effect of such allowances – 3.5 pps. in 2016 for a typical beneficiary earning 67 % of the average wage – has not substantially changed Hungary's comparative position (see

Graph 3.1.1). Measures adopted since 2013 include the lowering of the flat personal income tax rate by 1 pp. and the further extension of the family tax credit.

Graph 3.1.1: Tax wedge of a single worker earning 67% of average wage



Note 1: The tax wedge is an indicator of total labour tax burden. It is calculated as the ratio of all taxes and total labour cost.

Note 2: Predicted average wage developments are based on European Commission Forecast.

Note 3: EU mean is the unweighted average of EU28.

Source: OECD and European Commission calculations.

In autumn 2016, the Government launched a major multiannual reform package, which reduces the tax wedge for low-wage earners as well. Employers' social security contributions are set to decrease by 5 pps. in 2017, and by a further 2 pps. in 2018. For single earners at 67 % of the average wage, the measure is estimated to reduce the tax wedge by 2 pps. in 2017, and then by around 1 pp. in 2018, reaching a level just above 45 %. For workers eligible for the contribution allowances under the JPA, the reduction will be lower as the targeted allowances were also cut in a parallel measure. Their tax wedge is calculated to decline from 45 % in 2016 to about 43 % by 2018 (Graph 3.1.1). Despite the noticeable reduction, the tax wedge for low-income earners without children will remain considerably higher than the EU average of 37 %. By contrast, for households with two children, the reduction in the tax wedge is more substantial due to an on-going increase of the family tax credit. As a consequence, for this household category, the tax wedge will be close to the EU average by 2018.⁽³⁾ With the simultaneous

⁽³⁾ For example, the tax wedge for a single earner at 67% of the average wage with two children is estimated to decrease from 25.5% in 2016 to less than 21% in 2018,

increases in the minimum wage, the net impact of the package is likely to be an increase in total labour costs regarding workers at low-income levels, at least in the short term.

Growth friendly taxes such as environmental or property taxes play a relatively moderate role.

The tax system is already strongly reliant on consumption taxes with the highest standard VAT rate (27 %) in the EU. At the same time, studies show there is potential to increase the reliance on environmental taxes (including vehicle and pesticides taxes or congestion charges) (*Eunomia, 2016*). The effective excise rates on unleaded petrol and diesel are among the lowest within the EU (*European Commission, 2016a*). Finally, the level of recurrent property taxes is also low (0.6 % of GDP), well below the EU average. The recovery of the property market seems to provide better conditions for shifting taxes towards property.

The complexity of the tax system generates important administrative and compliance costs.

The time and costs required to meet tax obligations are higher than in most neighbouring and OECD countries (*World Bank, 2017*). High compliance costs weigh in particular on SMEs. The simplified regimes KATA (small business lump sum tax) and KIVA (small business tax) aim at reducing the administrative burden on SMEs. The costs of administering taxes are estimated to be ten times higher for these firms than for larger companies (*OECD, 2016a*). The tax system includes a multitude of small taxes generating only minimal proceeds. Sector-specific taxes also add to the complexity of the system. Several goods and services are subject to more than one levy, often using different tax bases. Tax policies are still subject to sudden changes imposing adjustment and transaction costs on businesses. The government has recently announced a comprehensive review in order to reduce the administrative burdens of taxation and to simplify the tax structure.

Measures to combat tax avoidance and fraud have significantly contributed to more effective

only some 2 pps. above the EU-average for that category. With eligibility for a JPA allowance, the tax wedge for the same household type would be already somewhat below the current EU average.

tax collection. Recent policy initiatives such as the introduction of online cash registers in retail and the Electronic Public Road Trade Control System (EKAER) have produced visible results.⁽⁴⁾ The VAT gap, which shows the magnitude of tax avoidance, decreased sharply, by 4 pps. to 18 % in 2014, although it still remains above the EU average (14 %) (*European Commission, 2016b*). The 2017 budget counts on sizeable yields from curbing tax evasion with the help of additional measures. These include a further extension of online cashiers to services and introducing online invoicing for inter-company transactions.

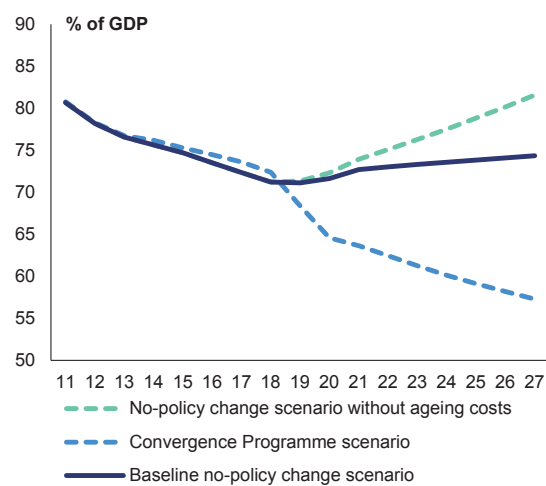
Public debt sustainability

The government debt-to-GDP ratio has been steadily declining since the beginning of the decade. The pace of debt reduction received an impetus from the takeover of mandatory private pension assets by the State. In parallel, the primary deficit turned to a surplus (of around 2 % of GDP between 2012 and 2015). More recently, debt reduction benefited also from a favourable "snowball" effect (i.e. the combined effect of growth rate and interest) thanks to economic recovery and declining interest rates. The debt ratio is expected to decrease further from 74.7 % in 2015 to around 71% by 2018. However, the structural primary balance is forecast to move into deficit (of -1.0 % of GDP in 2018) reflecting the estimated widening of the positive output gap. This poses some risk for Hungary's debt reduction path.

Public debt is still high for a middle-income economy, but sovereign financing risks have been considerably reduced since the crisis years. On the basis of the Commission's short-term risk indicator, the country faces a low risk of an immediate fiscal distress. This is also confirmed by the recent upgrades of the country's sovereign risk ratings. The maturity structure of debt has improved. The initially high proportion of foreign exchange-denominated public debt has been decreasing, supported by the central bank's self-financing programme.

⁽⁴⁾ The introduction of the electric road cargo monitoring system also created administrative burdens as regards intra-EU trade. This highlights the trade-off between tax collection efficiency and compliance costs.

Graph 3.1.2: **Gross government debt ratio: the baseline scenario and alternative trajectories**



Source: European Commission calculations

The debt ratio is projected not to remain on a decreasing path in the medium term, starting to increase again at the end of this decade. Based on the Commission's no-policy-change baseline scenario, government debt is projected to rebound to around 74.5 % of GDP by 2027, i.e. to the level seen in 2015 (Graph 3.2). The debt trajectory benefits from the estimated decrease in age-related public spending reflecting the impact of recent parametric pension reforms. However, this effect is projected to be more than offset by the deterioration of the underlying primary balance to its structural level and the negative effect related to the country's moderate potential growth coupled with the assumed rebound of interest rates. Overall, Hungary's medium-term debt trajectory has flattened markedly compared to a similar projection presented in the last year's Country Report (*European Commission, 2016c*). Apart from the forecast deterioration of the primary balance, this reflects the adverse impact of the wide positive output gap estimated for 2018, the year serving as the initial position for the medium-term projection⁽⁵⁾. The level of the output gap, however, is subject to considerable estimation uncertainty. Therefore the projection results should be treated with caution.

⁽⁵⁾ With the assumed closing of the output gap and the cyclical component, both the primary deficit and the snowball effect are adversely affected with a negative impact on the debt-reduction path.

The Commission's medium-term debt projection highlights the risks to the goal of placing Hungary's public debt firmly on a declining path. The primary balance forecast by the Commission on a no-policy-change basis for 2018 is significantly below the planned level in the latest Convergence Programme (by almost 1 % of GDP). If the fiscal trajectory remains in line with the plans in the Convergence Program up to 2020, the debt ratio would decrease relatively fast towards the 60 % of GDP benchmark level (*Graph 3.2*). However, there are negative risks to the medium-term fiscal plans. Without offsetting measures, the planned "Paks II." nuclear power plant project is estimated to result in a considerable debt increasing effect (*European Commission, 2015a; Romhányi, 2014*). Unless their performance is improved, the expanding role of state-owned companies, especially in the loss-making regulated energy sector, can increase contingent liability risks (see section 3.5).

Hungary appears to face medium level debt sustainability risks. The country's medium-term sustainability gap referred to as the S1 indicator is currently estimated at 1.5 % of GDP. This shows the required fiscal adjustment, which would need to be achieved during the next five years in order to bring down the debt ratio to 60 % by 2031. At the same time, the long-term sustainability gap S2 is at 3.3 % of GDP. This is the sufficient upfront adjustment ensuring that the debt ratio would not move on an ever-increasing path in the long term. About one half of the adjustment need reflects the projected rebound in age-related public expenditure after 2030 (*European Commission, 2015b*).

Fiscal framework

Despite a solid fiscal performance, there are still weaknesses in Hungary's fiscal governance framework. The repeated overachievement of the deficit targets and the steady reduction of the public debt ratio reflected conservative planning. It also evidenced a strong policy commitment to intervene with corrective steps in case of an emerging slippage. The adopted improvements in the fiscal framework, most notably strict rules of debt control across all layers of general government, also contributed to the observed fiscal discipline. However, some noteworthy gaps still remain in the fiscal framework.

The medium-term budgetary framework has not yet had its desired effect of making the budgetary process more transparent and predictable. The medium-term framework was adopted in 2013. A key feature of this planning mechanism is that differences between plans and the draft budget must be formally justified by the government. The first medium-term resolution was issued only in December 2015. It detailed expenditure and revenue plans for budgetary chapters over a two-year period. The deliberation of the 2017 budget therefore served as a test case for the new framework. For several budgetary chapters, the differences between appropriations and the respective medium-term figures were sizeable (at 0.5 %-1 % of GDP), although this was only four months after the publication of the resolution. The written justifications for the differences were often unavailable. Moreover, the medium-term plans were not based on the most appropriate information, since some explanations explicitly referred to decisions taken already in autumn 2015.

Domestic numerical rules are an imperfect guide for budgetary policy. While the overall objective of debt sustainability is underpinned by constitutional provisions, there are some design weaknesses in the way it has been implemented through numerical fiscal rules. The debt reduction formula does not provide an effective constraint in practice due to a very broad escape clause introduced in 2015. The nominal and structural budget balance rules are binding only for the draft budget. However, they do not apply for the budget law as adopted by Parliament and for the budgetary execution stage.

The role of the Fiscal Council in scrutinizing and shaping fiscal policies remains weak. The Fiscal Council has continued to increase the number of published external studies. However, this has not been sufficient to ensure a strong analytical basis commensurate with the Council's uniquely strong constitutional veto power over the budget. The Fiscal Council focuses rather narrowly on the budget bill and its amendments, whereas there have been several examples of significant fiscal decisions and policy initiatives outside the annual budget cycle. This highlights the importance of systematically evaluating fiscal policies throughout the entire year.

3.2. FINANCIAL SECTOR

The Hungarian banking system has strengthened substantially over the past two years (Table 3.2.1). The funding structure and capital position of banks are adequate. Following several years of deleveraging, the banking system is mainly deposit-funded – customer deposits accounted for 57 % of the banks’ total liabilities at the end of 2015. The loan-to-deposit ratio was 80.9 %. The full conversion of the large foreign currency-denominated loan book (in 2014 and 2015) into Hungarian forint reduced both foreign exchange funding needs and short term refinancing risks.

The shock-absorption capacity of the banking system remains strong. Capital adequacy at system level amounts to 20 % while Tier 1 eligible capital represents close to 14 %. In the stress test scenario designed by the Hungarian central bank, banks’ solvency levels seemed sufficient both at sector and individual bank level. Liquidity reserves in stressed conditions are adequate, though some banks move away from the regulatory minimum after the theoretical shock.

Table 3.2.1: **Financial soundness indicators, all banks**

(%)	2011	2012	2013	2014	2015	2016 Q2
Non-performing loans	12.8	14.1	14.0	14.2	11.0	10.3
Coverage ratio	52.2	59.0	63.8	66.0	62.4	63.8
Loan to deposit ratio	128.0	110.6	102.1	94.8	80.9	82.0
Tier 1 ratio	11.3	13.3	14.7	13.8	13.9	14.0
Return on equity	-12.0	-5.1	-0.4	-21.9	0.3	-
Return on assets	-0.9	-0.4	0.0	-2.0	-0.1	-

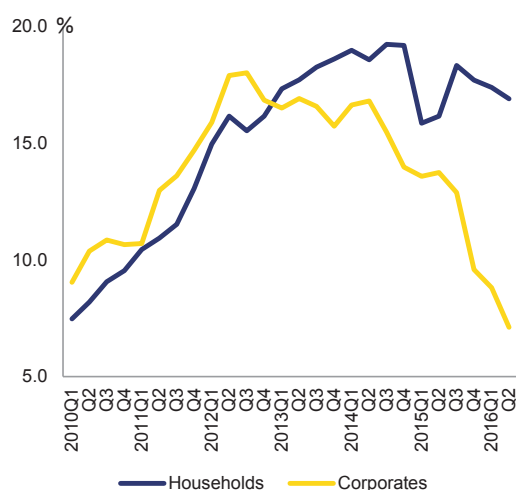
(1) ECB aggregated balance sheet

Source: ECB, CBD

Bank profitability has been improving but still lies below that of regional peers. Before 2015, the authorities had implemented a number of measures with largely negative effects on the banking system’s profitability. These included the highest bank tax in the EU, a financial transaction tax and a set of bills to help mortgage borrowers. Since 2015, the authorities have announced a number of policy measures to support the domestic financial sector, including a reduced bank levy (from 0.53 % to 0.24 % in 2016, and to 0.21 % in 2017 and 2018). The first levy reduction was already reflected in the positive 2016 profitability data, after breaking even in 2015. However, Hungary still lags behind regional peers, who recorded an average profitability of 6.7 % in 2015. Profitability in 2016 was also driven by the stabilised environment. Yet, much of the 2016 profits derive from the reversal of past provisions

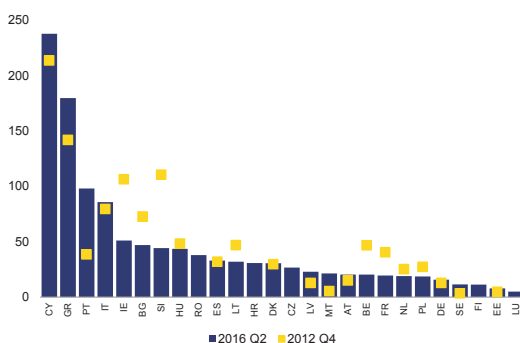
for expected losses. A sustainable rise in profits would be possible only when interest rates start rising again.

Graph 3.2.1: **Non-performing loans, 90-day+ ratios**



Source: MNB

Graph 3.2.2: **Net NPLs to own funds (%)**



(1) No data available for GB and SK for Q2 - 2016 and for RO, HR, CZ, LU and FI for Q4 - 2012.

Source: ECB (consolidated banking data)

Although declining, the level of non-performing loans (NPL) remains high. The NPL ratio peaked in 2014 (Graph 3.2.1). Following the conversion of foreign-currency mortgages and a pick-up in economic growth, also reflected in real estate valuations, banks’ asset quality has been gradually improving. NPL ratios stood at 16.9% and 7.1% in the retail and corporate sectors respectively in the first half of 2016. Although the absolute level is still high in comparison to other Member States, they are well provisioned (coverage ratio of 63.4 % in June 2016). The loss absorbing capacity and the remaining spill-over risks to the sector are

comparatively limited as net NPLs to own funds represented 43.6 % in June 2016 (Graph 3.2.2).

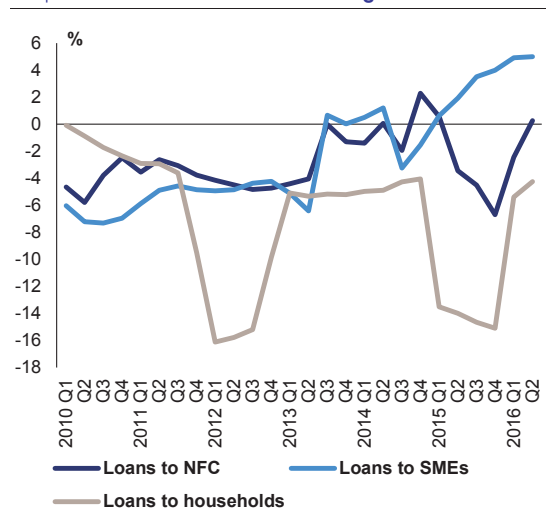
Measures have been taken to address bad household debt. Delinquency rates are high among household mortgage borrowers (close to a quarter of mortgages are classified as NPL). The Hungarian Asset Management Company, with capacity to purchase a total of 35 000 dwellings, is targeting non-performing debtors in the most difficult financial situation. Mortgage holders who are excessively indebted can also initiate a debt settlement procedure under the Personal Bankruptcy Act adopted in 2015. Debtors have in general improved cooperation with lenders. This was helped by a recommendation issued to credit institutions by the central bank. The latter determined the expected minimum framework of cooperation between debtors and creditors.

Important steps were also taken to tackle non-performing corporate loans. The asset management company established by the central bank (MARK) officially started operating in 2016. It aims to tackle the sizeable number of distressed commercial real estate loans and more generally to initiate the clean-up of banks' balance sheets by selling their non-performing portfolios on the market. The central bank is also working on a new recommendation which will set out best practice guidelines on out-of-court restructuring and consensual settlement of NPLs in the corporate sector. The recommendation is designed to encourage lenders to adopt a more cooperative and coordinated approach where more than one financial creditor is involved. It could become an important tool for resolving such loans and improve the depth of the market for distressed assets in Hungary.

Lending to the private sector is improving but both lenders and borrowers remain cautious.

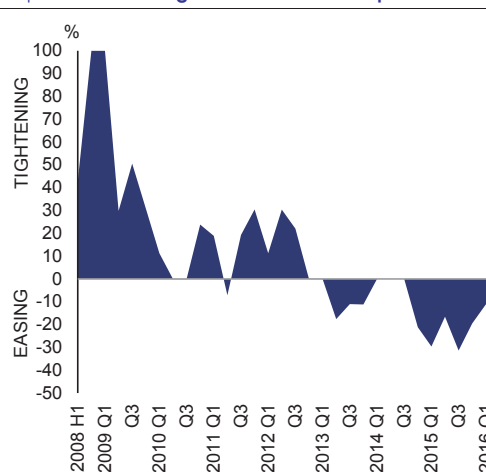
The recent trend in bank lending to the private sector is positive (Graph 3.2.3). The domestic banking sector's lending capacity is close to a record high. Yet, willingness to lend is only gradually improving (Graph 3.2.4). Households and businesses also remain cautious about taking on new debt. In 2015, lending to the corporate segment decreased by 4.3 %, while household loans dropped by 5.8 % (excluding the effect of the legal settlement of household mortgage loans).

Graph 3.2.3: Growth rate of outstanding loans



Source: MNB

Graph 3.2.4: Lending conditions in the corporate sector



Source: MNB

In 2016, several factors led to a gradual increase in appetite for borrowing. On the supply side, competition between lenders and lending conditions improved. On the demand side, wages and home prices rose, also supported by the Home Purchase Subsidy scheme (Box 3.2.1). The volume of new household loans grew by 38 % in 2016. Yet the total value of outstanding household loans declined by 4.5 % as repayments outgrew new lending. Growth of domestic corporate loans turned positive in 2016 but remained restrained due to firms' still large self-financing capacity and frequent use of cross-border loans. In addition, confidence surveys indicate that borrowers are

Box 3.2.1: **House price developments**

The previous decline in real house prices reversed sharply as prices surged in 2015. While such a development may involve potential macroeconomic risks, house prices have just returned to their pre-crisis levels in nominal terms and the subsequently introduced debt cap rules should help limit the risks of market overheating. In addition, the revival of the property market improves the dynamics of the domestic credit market and can also help resolve the problem of the still high non-performing mortgage loans of households.

The uptake of the housing market stimulus offered by the Home Purchase Subsidy scheme for families since the beginning of 2016 has been slower than anticipated, but is expected to pick up next year. The number of construction permits issued doubled compared to the first half of last year. The work of construction companies is becoming more difficult due to the shortage of suitable labour. While nominal housing prices increased by 14.4 % in year-on-year terms, from 2014 to 2015, the Central Bank forecast for the third quarter of 2016 was for it to slow to 9% in annual terms. The slowdown in price increases is visible in monthly data. The housing market also displays marked regional variation, with the highest price growth in the capital.

Excessive house price and credit growth is being curbed with the application of debt cap rules. To tackle vulnerabilities in the property sector, Hungary had previously introduced loan-to-value and loan-to-income limits. New stricter loan-to-value limits were recently applied to new mortgages and limits were further differentiated according to the currency of a loan. These limits restrict the available loan amounts compared to the value of the property, hence mitigating housing demand and curbing lenders' potential losses in the event of falling house prices. Loan-to-income limits restrict the amount of monthly instalments compared to the income of borrowers, thus lowering their probability of default. Both types of limits apply to individual credit contracts; hence they are very effective in tackling over-indebtedness. In a pro-active manner, the central bank introduced comprehensive debt cap rules in time for the cyclical upturn in 2015. Lenders have integrated the rules into their lending practices and the room for competing in risk-taking has thus diminished. Even though the housing market has not yet overheated, house prices have exhibited rapid growth for the past two years and the ratio of borrowers with higher levels of indebtedness has slightly increased since the regulation was introduced. These developments warrant the close monitoring of housing and credit market indicators.

conservative about longer-term investments. This is partly due to the high dependency on EU funds (more details in section 3.4).

Policy initiatives to boost small business financing start to bear fruits in loan growth.

The Funding for Growth Scheme (European Commission 2015a and 2016c) was substituted by the new Market-Based Lending Scheme designed to boost SME financing. It provides interest rate swaps to participating banks, which cover part of the interest rate risks generated by new loans. In the first half of 2016, loan growth in the SME segment was up by 5 % y-o-y. At the same time, aggregate net lending to Hungarian firms increased by 0.3 %.

Hungary announced a number of macro-prudential measures in 2016, which should further improve financial stability.

The Hungarian central bank (MNB) identified nine systemically important financial institutions and introduced relevant risk buffers, applicable from 2017. It also announced its intention to introduce institution-specific systemic risk buffers linked to

the risk of their commercial real estate NPLs. Hungary has a minimum foreign exchange funding adequacy ratio in place, which requires banks to hold a sufficient amount of stable foreign currency funds in proportion to their foreign currency assets. In addition, there is also a foreign exchange coverage ratio, which imposes a limit on the degree of currency mismatches between assets and liabilities.

The National Bank has expanded its area of action beyond monetary policy and purchased the Budapest Stock Exchange (BSE).

The latter was nationalised in 2015 when the MNB purchased 68.8 % of the BSE from Austrian stakeholders. The BSE then adopted a new strategy to boost capital market access, growth, liquidity and improve the financial culture in Hungary. The BSE aims to become an alternative to bank financing for local companies. The new BSE management aims to reach market capitalisation of 30 % GDP, build a market for small firms with at least 30 participants, and attract at least 5 stock market launches (IPOs) a year.

3.3. LABOUR MARKET, EDUCATION AND SOCIAL POLICIES

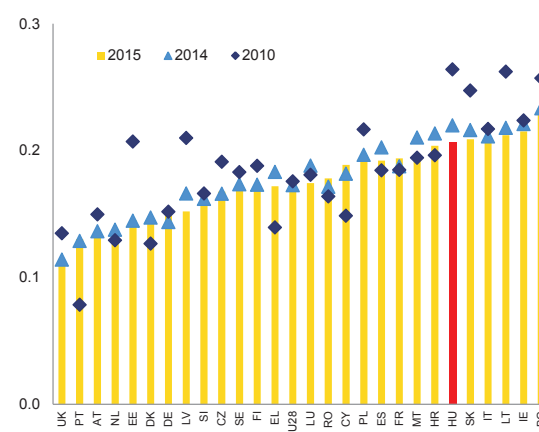
LABOUR MARKET

The Hungarian labour market has improved significantly since the recovery started in 2013 but still faces challenges. While unemployment has significantly decreased for all skill groups, it is still high for low-skilled workers. There are major disparities in labour market outcomes across high, medium and low-skilled workers. These have fallen significantly in the last five years, but remain high in 2015 (Graph 3.3.1). One reason for such disparities may be the high tax burden on low wages. In this regard, new measures lowered the tax wedge introduced in January 2017 will reduce tax/social security contributions (see Section 3.1). At the same time, surveys reported that businesses in certain sectors face increasing labour shortages. According to the European Business Survey, the share of firms in industry reporting that labour is a ‘factor limiting production’ has increased significantly since 2013 (surpassing 50 % in 2016) and is now the highest in the EU. Labour productivity growth has been weak in recent years (see Section 3.4). Low participation in adult learning as well as insufficient support via active labour market policies may contribute to skills mismatches and low productivity growth. The employment rates of older workers and people with disabilities are very low and the duration of working life is one of the shortest in the EU. ⁽⁶⁾

Recent wage developments are symptomatic of a tightening labour market. Wage growth accelerated in 2015 and especially in 2016, indicating an increasingly tight labour market (*National Bank of Hungary, 2016b, p. 30-33*). In 2016, wages are projected to have increased faster than expected, due to inflation, productivity and unemployment developments (update of the original calculations by *Arpaia and Kiss, 2015*, see also section 1.).

⁽⁶⁾ The employment rate for older workers was 45.3 % in 2015, substantially below the EU average (53.3 %). The duration of working life is the second lowest in the EU at 31.8 years, about 3.5 years lower than the EU average. The employment rate for people with disabilities was 34.2 % in 2014, against the EU average of 48.7 %.

Graph 3.3.1: Relative dispersion of employment rates by education level, 2010, 2014 and 2015



Source: Update of calculations by European Commission (2013) and Kiss and Vandeplas (2015). European Commission calculations based on Eurostat data.

A significant increase in the minimum wage is being introduced in 2017 and 2018. In November 2016 the government reached an agreement with social partners to increase the minimum wage by 15 % in 2017 and an additional 8 % in 2018 (see details in Box 1.1). Increases in the minimum wage have the potential to reduce in-work poverty and reduce wage inequality. At the same time, available evidence about past minimum wage increases in Hungary points to a small negative effect on employment in the small enterprise sector (5 to 20 employees). There is also evidence of adverse effects on the job-loss and job-finding probabilities of low-wage workers in the short run (*Kertesi and Köllő, 2003; 2004*). Possible negative effects may be counterbalanced to some extent by the reduction in employers’ social security contributions and ongoing labour market dynamics (see sections 1, 3.1 and 3.4).

Measures aiming to improve the transition from the public works scheme to the open labour market are being worked out. The public works scheme (PWS) is the largest active labour market policy measure (ALMP) in Hungary (for over 200 000 participants, around 5 % of the labour force). Yet, despite some improvement recently, its effectiveness in facilitating transitions to the open labour market continues to be limited. According to the data compiled by the Ministry of Interior, the rate of successful exit from the scheme was 12.2 % in 2015 and 14.5 % during the first five months of 2016. The aim of the authorities is to

decrease gradually the spending on public works and to increase the budget allocation for other ALMPs in the coming years. This is already visible in 2017: after having increased significantly in the past years, the budgetary allocation for public works is set to stabilize broadly. In recent years, the authorities adopted a set of measures to facilitate the transition from the PWS to the primary labour market; including financial incentives and enhanced training (see *European Commission, 2016c*). As of January 2017 further activation measures were introduced, such as the reimbursement of travel costs or the increased gap⁽⁷⁾ between the minimum wage and the public employment wage which may incentivise transitions to the open labour market. The authorities are considering a more ambitious set of measures but details are not yet available.

Other active labour market policies are also being reinforced, partly with the support of EU funds. Planned spending on ALMPs is to be increased in 2017. A number of programmes have recently been launched with the support of the European Social Fund (ESF) and the Youth Employment Initiative (YEI). Since 2015 two large scale programmes exist. They aim to improve the employability and supporting the labour market entry for jobseekers and inactive people. Smaller programmes provide supplementary support. More than 34 000 PWS participants received ESF co-financed training in 2016, and a mentoring service has been introduced to improve efficiency.

The profiling system for the unemployed is operational. As required in the YEI and other ESF programmes the compulsory use of Individual Action Plans has recently been extended to all jobseekers. However, the public employment service faces organisational and staff capacity constraints that might not allow for the intensive use of face-to-face meetings or personalised counselling.

The childcare services system has been reformed to tackle the still high impact of parenthood on women's employment. While the employment rate for men reached 75.9 % in 2015, the rate for women stood at 62.1 % - a gap that has increased in recent years. The employment rate of

mothers with young children is particularly low (14.8 % for women with children below three, and 39.4 % for women with children below six in 2015). This makes the impact of parenthood on women's employment one of the highest in the EU. In previous years, the gender employment gap could mainly be explained by long parental leave benefits and a lack of childcare services. Enrolment in formal childcare for children aged 0 to 3 is 15%, well below the EU average of 28 %. From January 2017, new forms of childcare facilities have been introduced and a capacity increase has been announced⁽⁸⁾. The rate of women not in the labour market due to caring responsibilities is 26.5 % compared to the EU average of 18.7 %. Support schemes for people with dependent relatives are underdeveloped. Furthermore, there is a significant inactivity trap for second earners.⁽⁹⁾ The gender gap in employment is especially high among Roma, with only 26 % of Roma women in employment, compared to 45 % of men (*Fundamental Rights Agency, 2016*).⁽¹⁰⁾

The participation of social partners in policy making is limited. Since the 2011 reforms, social dialogue lacks a formal feedback mechanism for government proposals regarding employment and social policies. Tripartite negotiations are mostly limited to the minimum wage and wage increase recommendations.

SOCIAL INCLUSION & POVERTY

Some poverty indicators are back to pre-crisis levels but remain high relative to the rest of the EU. After a significant increase in poverty between 2008 and 2013, the situation has improved as the labour market started to recover

⁽⁸⁾ The new measures provide that nurseries, mini nurseries, family nurseries, nurseries at workplace or day-care facilities need to be available in any municipality where the number of children between age 0-3 reaches 40, or where there is a request for such facilities for at least 5 children.

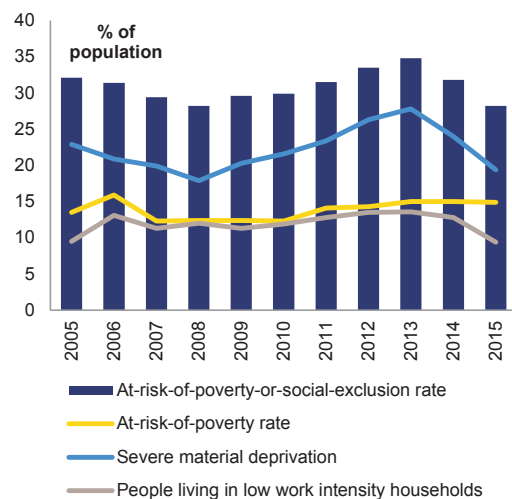
⁽⁹⁾ Second earners face a 36 % marginal effective tax rate (considering the second earner earns 67 % of the average wage, and the first earner 100 %).

⁽¹⁰⁾ The 2016 survey by the Fundamental Rights Agency (FRA) improved the sampling and weighting methods developed for the 2011 Roma survey, so the results are a more accurate representation of the situation of Roma in the countries covered. Indicators used are a close approximation to those applied in standard European surveys (EU SILC, EU LFS) but full comparability was not intended. For more details see FRA 2016.

⁽⁷⁾ The public employment wage was increased by 3 %, while the minimum wage was increased by 5 %.

(Graph 3.3.2). The rate of people at risk of poverty or social exclusion (AROPE) fell to 28.2 % in 2015 ⁽¹¹⁾, close to pre-crisis levels. It is nevertheless still among the ten highest in the EU. In 2015 severe material deprivation fell by 4.6 pps, but at 19.4 % it was still more than twice the EU average (8.1 %). Severe housing deprivation among the poor and in particular among children living in poverty is still high while the social housing stocks are very narrow: only 3 % of the total housing stocks, concentrated mainly in big cities. In-work poverty increased significantly, reaching 9.3 % in 2015, close to the EU average of 9.5 % although the minimum wage increase will likely improve the situation.

Graph 3.3.2: **Main poverty indicators, 2005-2015**



Notes: AROPE: "At-risk-of-poverty or social exclusion" rate (% of total population). People who are "at-risk-of poverty" (AROP) and/or suffering from severe material deprivation (SMD). AROP: At-risk-of poverty rate (% of total population), i.e. people who have an equalised disposable income below 60% of the national equalised median income.

Source: Eurostat, EU-SILC [ilc_peps01, ilc_li02, ilc_mddd11, ilc_vh11]

Poverty among children and Roma is also declining but remains particularly high. Despite a significant decrease since 2013, 36.1 % of children were still at risk of poverty or social exclusion in 2015, above the EU average of 26.9 %. Improved access to childcare services will help decrease child poverty further. The at-risk-of-poverty rate for Roma is almost five times higher

⁽¹¹⁾ International comparison is based on the latest available Eurostat data. National data available for 2016 shows some further improvement.

than for non-Roma, according to various statistics ⁽¹²⁾. This rate is comparable with other Member States with a sizable Roma minority (BG, CZ, SK, RO) where the rate of poverty for Roma is estimated to be between three to more than six times higher than for the general population (FRA, 2016). According to Hungarian data around two thirds of Roma suffer from severe material deprivation. ⁽¹³⁾ This is linked to the high residential concentration of Roma in areas characterised by lack of access to drinking water (29 %) and basic amenities (43 %), which remain high in regional comparison, further worsening their living conditions (FRA, 2016) The employment of Roma is one of the highest in the EU (36%, FRA 2016), but a significant proportion (41.6 %) of Roma in employment work in the public works scheme. Their effective integration in the open labour market thus remains so far limited.

The adequacy and coverage of social assistance and unemployment benefits is limited. The duration of unemployment benefits is still the lowest in the EU at 3 months (see European Commission, 2016c). The impact of social transfers (other than pensions) in reducing poverty has been declining since 2008, falling to 42 % in 2015, but it remains higher than the EU average. The nominal level of three types of targeted cash benefits increase slightly in 2017, while the minimum income benefit remains unchanged. The 2015 social assistance reform streamlined the benefits system but it does not yet seem to have guaranteed a uniform and minimally adequate living standard for those in need. Studies suggest that the majority of entitlements remain in place, albeit with a high degree of discretion in the eligibility criteria for the benefits administered by municipalities (Mózer, 2016). Public works play a significant role in social policy, particularly in disadvantaged areas of the country. But in those areas it may create a risk of benefit dependency and an inactivity trap for social assistance beneficiaries who tend to transit between living on benefits and participating in public works.

⁽¹²⁾ According to the Hungarian Central Statistical Office the AROP rate was 63.1 % for Roma and 13.7 % for non-Roma in 2015. Based on the 2016 survey of the Fundamental Rights Agency, 75 % of Roma are at risk of poverty (AROP).

⁽¹³⁾ 67.8 % in 2015 (Hungarian Central Statistical Office). According to the Hungarian research institute TARKI it was 87 % in 2014.

EDUCATION AND SKILLS

The 2015 PISA survey of educational systems showed significantly worsening results for Hungary and a very high impact of the socio-economic status on students' performance. Performance in reading and science worsened significantly compared to 2012. Results remained stable, but low, in mathematics. Hungary saw the one of the highest increase in the EU in the share of low achievers in science. The impact of pupils' socio-economic background on education outcomes is one of the highest in the EU. Also the impact of the school type on education outcomes is very significant. Pupils are tracked into different schools according to their performance starting from the age of 10. This leads to significant variations in performance by school type. The choice of school type is in turn heavily influenced by the parents' socioeconomic background (*Education Authority, 2016a, 2016b*). PISA performance was above the OECD-average in general upper secondary schools. It was below the OECD-average in vocational secondary schools and much lower in vocational schools. The reduction of teaching hours of science subjects in vocational grammar schools since 2016 is likely to amplify Hungary's bottleneck in science skills.

The share of early school leavers remained stable in 2016, but varied widely by region and school type. The percentage of early school leavers stood at 11.6% in 2015, close to the EU average, but unlike the latter it has not fallen in the last five years. The level varies by region, with the highest rates in the north-east of the country, the region most affected by poverty. Despite some improvement since 2011, early school leaving remains particularly high among Roma at 59.9% compared with 8.9% among non-Roma. ⁽¹⁴⁾ Only 28% of Roma in upper secondary education attend school at the level corresponding to their age (FRA 2016). 46.9% of all early school leavers drop out of vocational schools, 33% from vocational upper secondary schools and 12.9% from general upper secondary schools (*Fehérvári, 2015*). The decision to lower the compulsory age for participation in early childhood education and care from five to three years was a positive step, as evidence shows

⁽¹⁴⁾ Data provided by the Hungarian Central Statistical Office based on the 2015 Labour Force Survey. A high early school leaving rate was also observed by the 2016 survey by the Fundamental Rights Agency (68%).

that in all countries the share of low achievers is smaller among students who participated in pre-primary education. The Roma participation in early childhood education is one of the highest. However, there is no monitoring system for young people who have already dropped out of school with a view to re-integrate them into society and the labour market.

The distribution of disadvantaged pupils between schools is uneven. As highlighted in the 2016 Country Report, national data indicates growing school segregation, calculated on the basis of possible contacts between disadvantaged and non-disadvantaged pupils in primary schools (*Hungarian Academy of Sciences, 2015*). This development has also an ethnic dimension: national and European surveys indicate that increasing shares of Roma children attend Roma-majority schools and classes. This phenomenon can be partially explained by the higher concentration of Roma population in certain parts of the country. However, separate education exists not only in remote settlements, but also in towns with several schools, which also reflects parental choice (*Kertesi-Kézdi, 2013*). ⁽¹⁵⁾

Legislative changes aiming to prevent segregation have been tabled, but remain to be adopted and implemented. Some specific measures ⁽¹⁶⁾ supporting teacher training, early education, school achievement and fighting early school-leaving of Roma are in place. However, comprehensive and system-level measures to address segregation are lacking.

Teachers' salaries have increased since 2013, but they remain low. They correspond to around 71% of the salaries of other tertiary graduates (*OECD, 2016, p. 422*). Despite an increase in enrolments for teacher training in recent years, the number of teacher training applicants is still insufficient to replace retiring teachers, in particular in science subjects, despite dedicated scholarships for trainee teachers to address the shortage of teachers. More generally, following a decrease in the previous three years, public

⁽¹⁵⁾ 61% of 6 to 15 year old Roma children attend schools where all or most children are Roma, FRA 2016. Of course the choice of the parents might be already biased.

⁽¹⁶⁾ The authorities have drawn up a "Roadmap on desegregation and measures to support school achievement of disadvantaged" (including Roma children).

expenditure in education increased by 12.5 % in 2014.

The growing demand for highly-skilled workforce is not matched by a sufficiently large pool of applicants to tertiary education and adequate completion rates. Hungary's tertiary educational attainment rate for 30 to 34 year-olds stood at 34.3% in 2015. The rate was thus in line with the EU2020 national target of 34%, but below the EU average (38.7%). There has been a decline in applications and enrolment rates for tertiary programmes since 2011 but the drop-out rate from higher education is higher ⁽¹⁷⁾. This may negatively affect tertiary attainment rates in Hungary over the next decade. The low relative number of researchers and tertiary graduates is considered to be one of the main challenges of the Hungarian research and innovation system (*European Commission, 2016d*).

A recent reform has changed the structure of vocational education and training. The different secondary school types were renamed in 2016 with the intention to make vocational education more attractive. However, the revised curricula seem unlikely to lead to an improvement in basic skills and competencies (see also *European Commission 2015a, 2016c*). The proportion of VET students in work-based learning is one of the highest in Europe (about 70%). Adult participation in life-long learning has increased but remains below the EU average (7.1% in 2015 vs 10.7%).

HEALTHCARE

Public expenditure on health is low in Hungary, by EU standards. The share of public expenditure on health was 67.1 % in 2014 (EU average 76.2 %). Public current expenditure on health as a share of GDP was also below the EU average in 2014 and has not increased since 2000. The goals of the Healthy Hungary 2014-2020 Strategy are unlikely to be attained without increased strategic investment in the health care sector. At present, weaknesses in care coordination and the lack of incentives to provide definitive care lead to a high number of referrals to specialists and hospitals, which has implications on the cost-effectiveness of

the system (*European Commission and Economic Policy Committee, 2016*).

Hungary shows weak health outcomes, with negative implications for labour market participation. Despite recent improvements, life expectancy at birth ranks amongst the lowest in the EU for both men and women. Amenable and preventable mortality remain higher than the EU average. Hungary also has the one of the highest mortality rates in the EU relating to non-communicable diseases among the working age population. ⁽¹⁸⁾ This leads to a reduction of the available workforce. While disease prevention and healthy lifestyles have been promoted in recent years, current investments in these areas appear insufficient to improve health outcomes in the long run. Wide inequalities in access to healthcare also contribute to the poor health outcomes.

The shortage of labour in the health sector continues to hamper accessibility. A comprehensive residence support programme was introduced in 2011 and announced again in 2016 to reduce shortages of medical staff. In addition, wages of health professionals have increased substantially since 2012. Nevertheless a comprehensive human resource strategy, focusing on primary care staff and taking into account regional disparities, is not yet in place to ensure an adequate workforce (*European Commission and Economic Policy Committee, 2016*).

Out-of-pocket payments remain high. The share of out-of-pocket payments, which include the estimated amount of informal payment as well, has decreased but remains high by EU standard (26.5 % vs. 17.6 %). The lack of a clear consistent legal framework creates uncertainty and leaves room for legalising post-treatment acceptance of gratitude payments.

⁽¹⁸⁾ Cardiovascular diseases continue to be the main cause of mortality due to the high prevalence of risk factors (smoking, obesity, high alcohol consumption). Cancer mortality remains the second cause of death and it is the highest in the EU (30 % higher than the EU average).

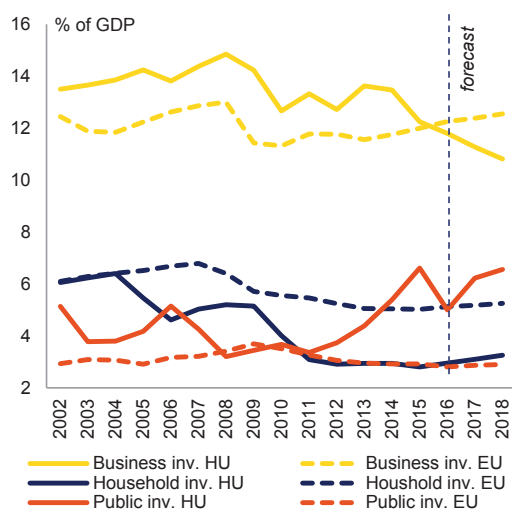
⁽¹⁷⁾ National data from 2015 indicates drop-out rates of 36.4 % in the first cycle, 17.8 % in the second cycle and 38.7 % in undivided programmes.

3.4. INVESTMENT

Investment trends

The private investment share in GDP has fallen since the crisis. While total investment stood at around a quarter of GDP before the crisis, it dropped below 20% thereafter. This drop has been driven by a contraction in private business investment, which dropped below the EU average in 2015. This continuous decline was due to investment contractions in both the corporate and the household sector (*Graph 3.4.1*). Business investment remains 10% below the pre-crisis level in real terms and is forecast to keep contracting. However, household investment is set for a progressive recovery after a decade of weakness. Government investment grew dynamically in recent years, reflecting an increasing level of EU fund absorption. It is expected to keep growing in the years ahead, after a temporary pullback in EU-funded investment in 2016 (*Graph 3.4.1*).

Graph 3.4.1: Private and public investment in HU and the EU



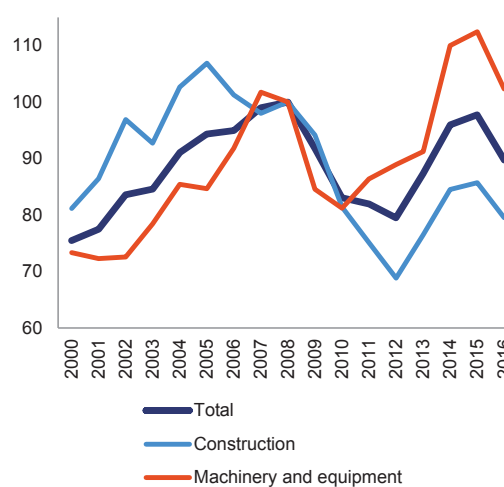
(1) private investment = corporations + households
 (2) private + public investment = total investment

Source: European Commission, staff calculations based on the 2017 winter forecast

The sizeable decline in private investment reflected a drop in construction activity as house prices dropped. The peak-to-trough decline in construction investment was 36 % (2005-2012). It was especially marked in investment in dwellings, which contracted by 63 % between its peak in 2004 and its ebb in 2013. Household investment started to recover thereafter, and is expected to receive a boost from recovering house

prices (*Box 3.2.1*). Productive investment in equipment did not contract as much and outgrew the pre-crisis peak already in 2014. Yet, it is estimated to have fallen considerably in 2016, as EU disbursements declined. Total investment remains below its pre-crisis levels in terms of both GDP and absolute volume (*Graph 3.4.2*).

Graph 3.4.2: Investment volumes, index 2008=100



Source: Eurostat

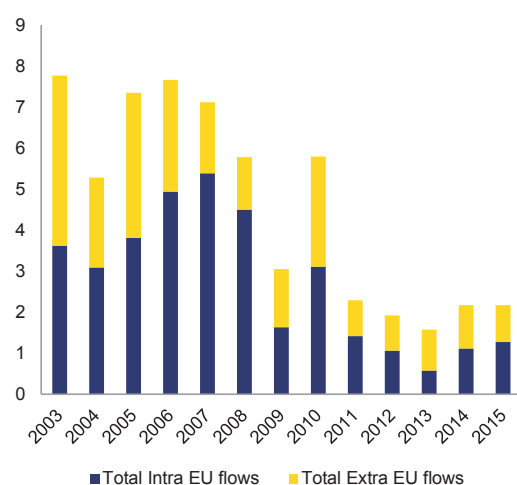
Equipment and machinery investment is important for making the economy more productive and competitive. Hungary's high dependency on EU funds creates risks of postponing business investment, which could happen without external support, as companies wait for new funding opportunities or outcomes of their applications for EU funds. This leads to a dependency culture, which may be hard to break. Grants or co-financing support from EU funds involves much less risk for the recipient, but greater risks that the funds are not used on higher productivity- or growth-enhancing investment.

From a macroeconomic perspective, the decline in private investment can be explained by deleveraging, banks' limited willingness to lend and low domestic demand. Deleveraging pressures have started to ease but continue to constrain firms' capacity to invest. The debt of non-financial corporations decreased from 79.3 % of GDP in 2009 to 62.3 % in 2015. Yet, it remains relatively high and limits the appetite of those firms to borrow, as they seek improvements in their balance sheets. In addition, the crisis was

followed by several years of subdued domestic demand and tight financing conditions, which limited investment. More recently, domestic demand has been recovering and the lending capacity of banks has increased substantially. However, the willingness of banks to lend remains limited (*section 3.2*).

Net foreign direct investment (FDI) flows decreased in 2015 but greenfield FDI inflows remained stable. Net FDI flows amounted to 1.6 % of GDP in 2015, down from 2.7 % in the preceding year. The net flows amounted to 2.3 % of GDP in the first three quarters of 2016. The stock of net FDI was at 35 % of GDP in 2015, which is about 6 pps. below the weighted average of the regional peers (Czech Republic, Slovakia, Poland). Greenfield FDI inflows remained stable in 2015 at 2.2 % of GDP (*Graph 3.4.3*). FDI can be an important source of technology transfer and productivity growth. It is also a source of non-debt financing of the external position and thus enhances the country's shock absorption capacity.

Graph 3.4.3: **Greenfield FDI inflows into Hungary**



Source: Financial Times FDI Markets database, WEO database Oct2016, European Commission

Low investment has a dampening impact on Hungary's potential growth (*Graph 1.10*). The low rate of potential growth was discussed in Section 1. It mainly reflects low total factor productivity growth, which in turn is linked to the low level of innovation in the economy. Without sustained growth in market-driven private sector investment, the contribution of capital

accumulation to potential growth and productivity growth will remain moderate. Private investment is particularly important as EU-funded investment gradually subsides.

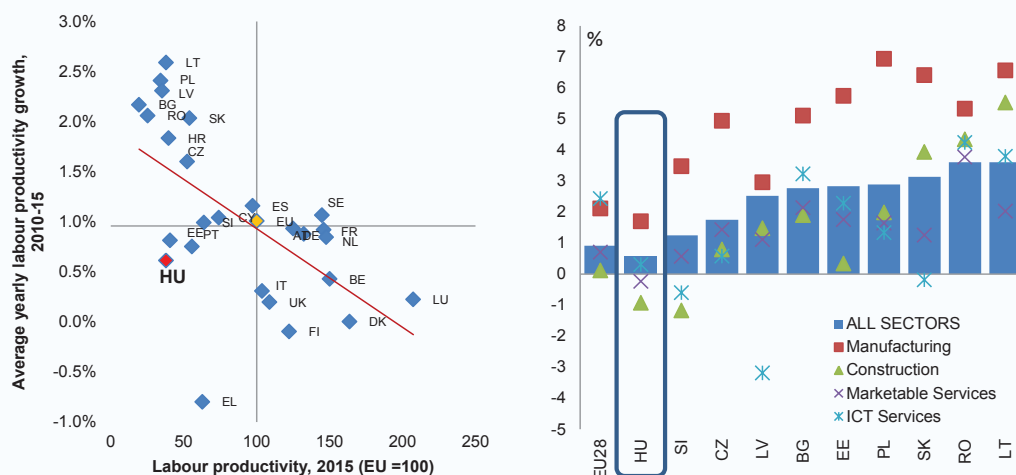
Low investment limits productivity gains, which may make Hungary less competitive in the medium term. The cost competitiveness of the Hungarian economy has improved in the recent years due to the depreciation of the real effective exchange rate. This led to a partial reversal of previous market share losses, as the automobile industry and an export-oriented service sector expanded rapidly. However, recent and forecasted wage growth is significantly above productivity growth. This is expected to result in deteriorating cost competitiveness in the medium term, unless productivity increases significantly. In addition, there has been little improvement in Hungary's non-cost competitiveness (*more information in Box 3.4.1 and section 3.4.2*)

The minimum wage reform is planned to increase labour productivity but its outcome is uncertain. The reform was discussed in box 1.1 and section 3.3. The increase in minimum wage risks eliminating some low-productivity jobs and shifting labour to more productive jobs. In a closed economy, if labour becomes more costly, capital can substitute part of the labour as production input. However, in an open economy, the situation may be different. If labour costs increase or there are labour shortages, capital can move to other countries where labour is cheaper. This can be illustrated by the recent decision by a major multinational company to move their low-skilled production factory from Hungary to Ukraine. In real world, a mix of the above may happen. Nevertheless, traditional structural measures to enhance productivity, such as upskilling the labour force and promoting entrepreneurship, may achieve more predictable results.

Box 3.4.1: Hungary's weak post-crisis productivity growth hinders competitiveness

Labour productivity growth in Hungary has fallen markedly over the past 15 years, to a level which is very low for a catching-up economy. While labour productivity (in terms of gross value added per hour worked) in the Hungarian economy grew by an annual average of 4% between 2000 and 2008, its growth rate dropped to 0.6% in the post-crisis years 2010-2015. With this performance, Hungary belongs to the small group of countries where both the level and the growth rate of labour productivity are below the EU average (*Graph 1, LHS*). This mirrors the nature of the post-crisis recovery, which has been characterised by dynamic employment growth, while investment remained moderate. The employment dynamics have been strongly shaped by the expansion of the public works scheme. When the effect of the public works scheme is filtered out, the estimated labour productivity growth amounts to an annual average of 1.1% between 2010 and 2015: this is somewhat above the EU average, but remains below the growth rates which have been recorded in other catching-up countries (distance from the regression line in *Graph 1, LHS*).

Graph 1: **LHS: Grouping of countries by labour productivity level (2015) and growth (2010-2015).**
RHS: Labour productivity growth in the 10 new Member States (2005-2014)



Source: Commission's calculations, Eurostat, OECD

The observed decline in labour productivity growth during the post-crisis years is closely related to a significant deterioration in total factor productivity (TFP) growth in the Hungarian economy. The estimated TFP for Hungary has not yet returned to its pre-crisis level after a deep drop in 2009.¹

Analysis by sector suggests that the service sector has been a drag on Hungarian productivity growth (*Graph 1, RHS*). Hungary appears to perform less well than the EU average and its regional peers with respect to labour productivity improvements in all key service sectors. In particular, labour productivity has been declining for marketable services and in construction. In manufacturing, Hungary's estimated productivity growth is close to the EU average, but lags behind most of the other catching-up economies.

Firm level analysis reveals increasing productivity differentials among Hungarian firms operating in the same sector, both in services and manufacturing (*OECD, 2016c*). This divergence may reflect an insufficient diffusion of knowledge across firms, in particular between foreign and domestically owned companies

¹ In a simple growth-accounting framework, taking the 2008 level of the TFP component in the economy-wide production function as 100%, TFP is estimated to have reached only 97% by 2015. The estimate improves somewhat, to 98.5%, when filtering out the effect of the public works scheme (European Commission calculation). Based on a different methodology, the Conference Board (2016) estimates negative annual TFP growth for the whole post-crisis period (2009-2014).

(Continued on the next page)

Box (continued)

(*Bisztray, 2016*). The productivity differentials mainly reflect a dual economic structure with larger and typically foreign owned companies alongside a firm structure heavily dominated by SMEs with a very limited involvement in global value chains (*Palocz, 2016*). The persistence of wide productivity differences also highlights potential obstacles to shifting resources to more productive, frontier firms. Regulatory restrictions and entry barriers affecting retail, professional services or public utilities are among such potential obstacles.

Existing structural problems in the innovation system, the labour market, education and health care also weigh on productivity growth (see Sections 3.4 and 3.5). Given the unfavourable demographic outlook, improving productivity is crucial for the catching up process, for securing Hungary's international competitiveness and for maintaining growth.

Business environment

Factors adversely affecting the business environment are linked to weaknesses in institutional performance and governance. The effectiveness of Hungary's public administration appears to be relatively low by international standards (see section 3.6). The total administrative burden for businesses is estimated to be significantly above the EU average (*OECD, 2015a*). An unpredictable regulatory environment with frequent changes increases uncertainty and high compliance costs that weigh on investment. Some aspects of the competition framework, such as exception clauses in the application of competition law, also increase regulatory uncertainty. In addition, inefficiencies in public procurement generate corruption risks to the detriment of the business climate.

Business dynamics are constrained by institutional and regulatory obstacles. Hungary displays a relatively high share of fast-growing companies. At the same time, the level of entry remains moderate as measured by the birth and survival rates of new firms (*Eurostat, 2016*). Overall, Hungary's level of entrepreneurship ranks below the EU average (*European Commission, 2017a*). Firm entry and exit are hampered by the high costs of resolving insolvency (*European Commission ibid; World Bank, 2016*). The availability of alternative financial sources to bank lending such as venture and seed capital is about on par with the EU average, however a higher volume of venture capital would help more innovative firms to enter into the market and grow. Regulatory barriers introduced in recent years have made market entry more difficult in service sectors (see section 3.5). In the energy sector, below-the-

cost regulated end-user prices coupled with the burden of sector-specific taxes significantly reduce the return on investment. The lack of a guiding framework for companies wishing to transfer their registered offices across borders is also a constraining factor.

International rankings continue to flag challenges in the business environment and competitiveness. The World Economic Forum's global competitiveness index ranks Hungary 69th out of 138 countries, a deterioration in the country's relative position over the past ten years. Hungary appears to perform particularly weakly on institutional soundness. The World Bank's 2017 Doing Business Report, which sheds light on how easy it is for entrepreneurs to open and run businesses, places Hungary 21st among all EU Member States (*World Bank, 2016*). The 2016 IMD world competitiveness scoreboard ranks Hungary 46th among the 61 economies. While Hungary's ranking has stabilised in the last 5 years, indicators related to government efficiency have been on a declining trend.

Box 3.4.2: Investment challenges and reforms in Hungary

Section 1. Macroeconomic perspective

Total investment in Hungary (measured as gross fixed capital formation) fell following the crisis and has failed to return above its pre-crisis level. Private investment started to decrease in 2008 and its share in GDP has continued to shrink since then. To date, it remains markedly below the EU average. Public investment has played a stabilising role, owing to a strong EU fund support, but dropped in 2016 as EU disbursements slowed (see Section 3.4.1). The post-crisis sizeable decline in total investment largely reflected a sharp drop in construction investment, mainly residential construction. In contrast, productive investment in machinery and equipment showed more resilience. Over the years after the crisis weak consumption and unfavourable financial conditions hindered investment, while since 2013 these factors are rather supportive.

Section 2. Assessment of barriers to investment and ongoing reforms

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

Barriers to private investment in Hungary are overall relatively high as confirmed by the European Commission assessment (2015c). Hungary made limited progress in assessing most of the relevant investment barriers addressed to it in the country specific recommendation. Reforms have been adopted in the area of labour market and corporate taxation (see Section 1. and 3.3).

Main barriers to investment and priority actions underway

1) According to a survey conducted by Kopint-Tárki (2017), commissioned by the Commission to assess investment barriers, labour shortage in both skilled and unskilled categories is deemed to be the most important investment barrier in Hungary as stated by company managers. The dynamic wage increase could ease the obstacle created by the tight labour market among other things by decreasing incentives for foreign job taking. Nevertheless, structural measures would be needed to facilitate the process.

2) The survey also highlights that administrative burden, low efficiency of tax administration and high tax wedge generate additional cost for investment. The tax administrative cost to net revenue ratio is relatively high compared to the EU average. The gradual cut in social security contribution will decrease the high tax wedge and the transformation of the Tax Authority into a client-friendly service is a step in the right direction.

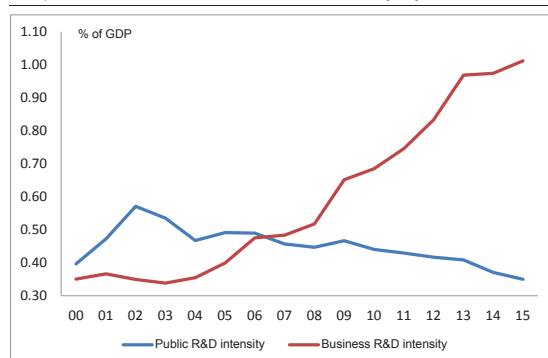
3) The quality of the business environment remains important barrier to investment, mainly due to instability of the regulatory and tax environment. Despite considerable recent improvements in tax policies and tax administration, Hungary's reliance on sector-specific taxes remains a barrier to investment. (see Section 3.2).

3.5. SECTORAL POLICIES

Research and Innovation

Total spending on R&D increased in recent years, but public R&D intensity is falling. Although R&D spending in the business sector is still below the EU average, it has doubled as a percentage of GDP over the past ten years (*Graph 3.5.1*). However, business innovation is highly concentrated in a handful of large foreign-owned companies. At the same time, public R&D has been decreasing, leaving Hungary in the bottom group of EU Member States on this account. This weakens the science base which provides the knowledge and human resources for business development. The low quality of the public research and innovation system contributes to insufficient cooperation between higher education institutions, public research organisations and businesses.

Graph 3.5.1: The evolution of R&D intensity by sectors

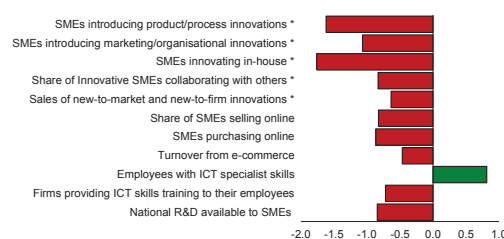


Source: Eurostat

Overall, innovation is not sufficiently embedded in the Hungarian economy. Hungary has been a major beneficiary of foreign direct investments over the past 25 years. This brought in high-technology production, which represents a significant proportion of manufacturing. However, domestically-owned firms have not been able to benefit from technological spill-overs from foreign owned enterprises, and their productivity has remained weaker. The limited knowledge transfer can be partly linked to the orientation of foreign companies towards their global production networks, while relying on low labour costs locally. The very low innovation propensity of small- and medium-size enterprises (SMEs) in terms of adopting new technologies and processes also reduces the scope for technological spill-overs. Similarly, only a small fraction of Hungarian SMEs are involved in in-house

innovation activities (*Graph 3.5.2*). Human resource constraints, including weak entrepreneurship, play a major role in hampering innovation. The lack of highly-skilled professionals is a major obstacle that puts at risk investments in knowledge-intensive activities. ⁽¹⁹⁾ Based on the European Innovation Scoreboard, which reflects the above factors, Hungary ranks 21st of the 28 EU countries in innovation performance (*European Commission, 2016d*).

Graph 3.5.2: Performance of Hungarian SMEs in selected innovation indicators – measured in standard deviations (EU average=0)



(*) Data bars pointing left show weaker performance than the EU average. Data refer to 2015 or 2012.

Source: European Commission

The government's economic strategy puts emphasis on promoting innovation, but weaknesses in policy coordination tend to limit results.⁽²⁰⁾ The National Research and Development and Innovation Strategy (2013-2020) laid down policies explicitly targeting innovation in SMEs. However, there are mismatches between the planned measures and the actual situation of SMEs. Hungarian R&D, especially in the small business sector, is heavily dependent on EU Structural Funds and other external sources. Yet, R&D grants do not appear to have the desired broad effect in stimulating innovation across the economy. Considerable funds are available to support business R&D during the 2014-2020 programming period. Yet, appropriate evaluation and monitoring mechanisms to safeguard the effective utilisation of these resources are missing. There is only limited policy coordination to ensure

⁽¹⁹⁾ The number of new graduates in science and engineering per thousand of population aged 25-34 was at 10.8 % in 2014, 7 pps. below the EU average – placing Hungary 25th in the EU.

⁽²⁰⁾ At the request of the Hungarian authorities, a peer review was conducted on the country's research and innovation system under the Horizon 2020 Policy Support Facility, which concluded in drawing up several recommendations (*European Commission, 2016e*).

the complementarity and continuity of different programmes.

Digital economy

While Hungary scores close to the EU average in broadband connectivity, significant gaps exist in mobile services. Fixed broadband networks now are accessible for 95 % of homes, close to the EU average. At the same time, in 2015, already 75 % of households had a fixed broadband subscription, compared with the EU average of 74 %. However, Hungary performs relatively poorly on mobile services. Take-up rates are by far the lowest within the EU for mobile subscriptions and particularly for mobile internet subscriptions (42.7 % vs. the EU average of 60 %). This does not stem from infrastructure constraints as coverage is already extensive for basic mobile and 4G services. At the same time, prices for mobile phone users are considerably higher than in the rest of the EU (*Van Dijk 2016; OECD 2016a*). This can be linked to the existing regulatory and market structure. The high price level also reflects the effect of the tax burden imposed on the sector, including the sector-specific telecommunication tax (*Deloitte, 2015*).

The use of information and communications technologies by businesses and public administration stands below the EU average. The proportion of firms relying on technologies such as electronic information sharing (16 %), cloud services (8 %) or social media (13 %) is among the lowest in the EU. Hungarian businesses also take limited advantage of e-commerce. Very few Hungarian SMEs sell online (12 % in 2016), and even fewer sell online to other EU Member States (4.5 %). The reluctance of consumers to engage in electronic transactions is a factor behind this (*Eurostat 2017*). The latest e-Government Benchmark Report reveals that Hungary underperforms in all key dimensions of digital public administration (*Capgemini et al. 2016*).

Regulation in the service sector

Although product market regulation is not particularly strict in general, access to several service sectors continues to be constrained. Over the past years, several segments of the service sector saw the introduction of new regulatory barriers in previously open markets. The affected

areas include retail outlets, tobacco retail, pharmacies, waste management public service, textbook publishing and distribution or mobile payment systems. During 2016, no substantial steps were taken to ease the recently erected entry barriers in service sectors. On the contrary, the government adopted new, tighter requirements for passenger transport services operated by independent dispatching centres. Increasing restrictions to entry in certain service sectors hinder the efficient allocation of resources and innovation-enhancing business dynamics, while also generating uncertainty for investors.

Regulation in the retail sector is restrictive and the transparency of rules is relatively low.

Hungary is the only Member State where the level of restrictiveness in retail has more than doubled over the past decade and is currently above EU average (*OECD, 2016a*). However, the OECD indicator does not capture all the restrictions that were recently introduced. Unclear application of the rules on setting up stores above a certain size ⁽²¹⁾ and the ban on loss-making are significant barriers to market entry and to the expansion. Hungary is one of the few countries in the EU where mark-ups in the retail sector have not declined since 2000 (*Thum-Thysen and Canton, 2015*). Regulatory restrictions weigh on the sector's productivity and also reduce incentives to invest (*European Commission, 2015d*).

Regulation on professional services remains restrictive. Based on an indicator developed by the European Commission (*2016f;g*), the degree of regulatory restrictiveness in Hungary exceeds the EU average for several professions examined, especially for tourist guides, civil engineers, estate agents and patent agents. In addition, for accounting and legal services business the churn rate ⁽²²⁾ was found to be comparatively low. This suggests a relatively weak market dynamism and competition in these services. In November 2016, the authorities submitted an action plan to review the existing regulatory provisions for professions.

⁽²¹⁾ Permissions are required to open outlets larger than 400 m². However, the permission-granting powers have been moved from a ministerial committee to one single local government official with wide discretion in giving derogations from the rule (*LawNow, 2015*).

⁽²²⁾ Churn rate is the ratio of the sum of newly founded and closed companies to the total number of companies in a given year.

It indicated intentions to reform regulation for professions in the tourism and construction sectors.

Energy and environment

Hungary is heavily dependent on energy imports, particularly crude oil and natural gas.

Some 62 % of the country's energy needs are covered by imports. Electricity and gas interconnector projects between Hungary and its neighbours have a beneficial impact on energy security and the energy import bill. However, without a commonly agreed solution for the definition of appropriate bidding zones in Central and Eastern Europe, limitations to cross-border electricity trade are still frequent, with negative consequences for the internal electricity market.

On the retail side, regulated electricity and gas prices for households are not cost reflective, resulting in financial losses to the service providers.

Below-cost regulated prices have prompted energy retailers to return their universal supply licences for household costumers, and the service has been increasingly taken over by state-owned companies. One state-owned company (Főgáz Ltd.) is now practically the sole provider of natural gas to households. This results in a lack of consumer choice and competition. Below-cost prices do not subsidise only the vulnerable households, but also all the wealthier customers. The accumulating potential financial losses in the balance sheet of state-owned energy retailers are not sustainable in the long run and may eventually burden the state budget (*OECD, 2016a*).

Hungary is on the right track to meet its greenhouse emission targets, but the economy is still characterised by high energy intensity.

In 2015, the level of Hungary's greenhouse emissions was 35 % less than in 1990 and expected to decline further. Energy consumption also decreased over the past decade linked to the economic downturn during the crisis. The energy intensity of the Hungarian economy still significantly exceeds the EU average.⁽²³⁾ The current volume of final energy consumption remains above the indicative 2020 target (by around 13 %). There is considerable energy saving potential in

modernising district heating systems and renovating the residential building stock. However, there is a risk that this saving potential will not be properly exploited as EU funds initially allocated to support residential housing renovation are intended to be re-channelled to finance the modernisation of public buildings.

The waste management sector has experienced increased central regulation involving measures, which pose risks to its long term viability.

The scope for competitive arrangements has been reduced by restricting the presence of privately owned operators. As of 2013, waste collection fees for households were capped and reduced generating financial losses for several municipal service providers. In 2016, a new nationwide system was introduced for waste collection. Under the new regime, uniformly set fees are collected by a national holding company, which then redistributes the revenues between local operators. There is a danger that this highly centralised setup will not be able to ensure the right incentives and prices to cover the costs of waste management in locally differentiated markets.

Hungary's circular economy remains underdeveloped.

The existing economic instruments do not effectively support the achievement of the EU's 2020 and 2030 waste management targets.⁽²⁴⁾ The tax system does not facilitate eco-friendly solutions. The landfill tax has remained at a low level since 2013, and no incineration tax exists, which could help prevent waste from being shifted to incinerators. The selective door-to-door collection of municipal waste and the extended producer responsibility schemes are not well developed (*European Commission, 2016h*). The national strategic framework for waste management does not cover all relevant parts of the circular economy and lacks regional plans.

⁽²³⁾ In 2014, the Hungarian energy consumption per 1 million euro gross value added amounted to 201 tonnes of oil equivalent, while EU average was at 114.4 tonnes.

⁽²⁴⁾ The overall waste recycling rate reached only 31 % in 2014, significantly below the EU average of 43 %. The landfilling of municipal waste currently amounts to 57%, well above the EU average of 28 %.

3.6. PUBLIC ADMINISTRATION

Regulatory quality and administrative reform

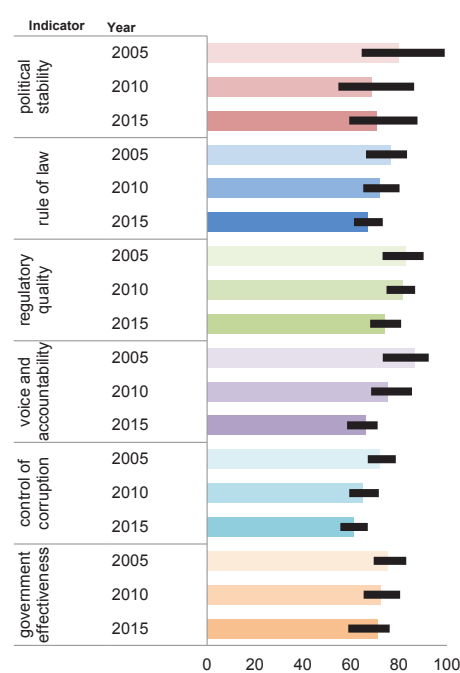
Internationally collated scoreboard indicators point to a low and deteriorating quality of institutions. The Worldwide Governance Indicators data show that Hungary's performance has declined in all the six broad dimensions related to the quality of policy making over the past ten years (*Graph 3.6.1*). Since 2010, the deterioration is particularly noteworthy in accountability, regulatory quality and rule of law. The slide in executive capacity and executive accountability is also shown by the Bertelsmann Institute's governance indicators (*Bertelsmann, 2016*). Institutional quality tends to be closely related to the level of economic development. However, based on these accounts, Hungary is not only amongst the group of lowest performing EU Member States, but also lags behind most regional peers. ⁽²⁵⁾ The weak institutional framework could be a drag on the economy's growth potential.

Policy uncertainty is one of the most important barriers to doing business in Hungary. According to the World Economic Forum, Hungary ranks 136 of 138 countries in the transparency of policy making (*WEF, 2016*). Empirical research on the Hungarian legislative process reveals several critical aspects of regulatory quality (*CRCB, 2015; 2016; 2017*). It finds that, despite a legal requirement, regulatory impact assessments are not available for a significant number of laws. Publicly accessible impact assessments typically contain only a short assessment sheet with little quantitative information on the effects of proposed policies. The research also highlights a deficit in appropriate stakeholder engagement. For government initiated proposals, consultations tend to be limited to very short time periods, around 4.5 days in the last three years. Transition periods allowing the affected parties to prepare for policy implementation are often inadequate. In 2014-2016, on average only 45 days elapsed between the submission of a draft bill and the publication of the adopted new law, significantly shorter (by around 20 days) than in the previous decade.

To address these problems, the government has launched an ambitious reform programme to

improve regulatory quality, but results are still to be seen. In 2015, the government adopted a new public administration and public services development strategy. This aims to increase administrative effectiveness through organisational integration, reducing administrative costs, improving human resource management and digitising public administration. ⁽²⁶⁾ The Commission has set a deadline (31 December 2016) to prepare a detailed action plan in relation to the implementation of the strategy, which will be assessed in early 2017.

Graph 3.6.1: **Hungary: Quality of institutional performance - 2005-2015**



(1) Higher score values indicate better performance on a scale from 0 to 100. Dark bars show the 90% confidence intervals.

Source: The Worldwide Governance Indicators, 2016 Update

A range of justice system reforms have also been recently adopted or initiated. These include reforms of the civil, administrative and criminal procedural code, new rules for electronic communication between public administration and courts and a new regime for attorneys at law. At the same time, plans to set up a new administrative court system raised important concerns on the part

⁽²⁵⁾ Based on the composite governance quality indicator by Bertelsmann, Hungary is placed on the 26th position in the EU with a score somewhat above Greece and Romania.

⁽²⁶⁾ Under this program, Hungary plans to invest over €935, including €795 million from EU funding in the next five years.

of the judiciary (*OBT, 2016*) and have been postponed. The impact of these reforms on the effectiveness of the Hungarian justice system requires close monitoring. Challenges remain, as businesses' perception of judicial independence has worsened over the last three years (*European Commission, 2017b*). The performance of the legal system is also adversely affected by the excessive length of civil procedures and the lack of effective domestic legal remedies as established by a pilot-judgment of the European Court of Human Rights. An adequate response by the government to this judgment is still awaited. ⁽²⁷⁾

Public procurement

Public procurement consistently suffers from limited competition and transparency. Empirical research on Hungarian public procurement showed that the intensity of competition declined in 2009-2015, while in that period the share of contracts awarded to a single bidder remained high, at around 30 % on average (*Tóth and Hajdú, 2016; Tóth, 2016*). The study documented that the transparency of procedures had decreased in recent years and there was also a detectable tendency towards price distortion. This analysis also found that procurements involving EU funds had worse performance than domestically funded ones. Comparable data across countries on tenders above the EU threshold value reveal that single-bid contract awards and negotiated procedures without prior publication of the tender have been more extensively used in Hungary than in most other Member States (*European Commission TED database*). Limited competition and transparency in public procurement generates corruption risks and social losses in terms of value for money.

Data on public procurement procedures for 2016 following the adoption of the new procurement act show some improvements, but challenges still remain. In 2016, the proportion of tenders without prior publication above the EU threshold decreased to 9 % from 13 % in 2015. Despite the decline, the proportion of such procedures still remained above the European Economic Area average (5%). At the same time,

⁽²⁷⁾ In December 2016, the Council of Europe's Committee of Ministers noted that the Hungarian authorities had not met the deadline set in the pilot-judgment to take the necessary measures (see also *European Court of Human Rights, 2015*).

there was no significant improvement in the share of contracts above the threshold that attracted only a single bidder. In 2016, 36% of tenders (excluding frameworks) belonged to this category, while 37% in 2015. This value is the 6th highest in the European Economic Area compared to an average of 17% (*European Commission, 2017c*). To assure the effective and efficient use of EU Structural and Investment Funds in 2014-2020, Hungary drew up an action plan where it committed itself to undertake several measures to increase legality, competition and transparency in public procurement. In that context, a new public procurement act was adopted in November 2015 to ensure compliance with EU directives in the area. ⁽²⁸⁾ The new framework gave also an enhanced role to the Public Procurement Authority in checking the legality of direct award procedures and increased the minimum number of invited participants in case of certain negotiated procedures. More recently, Hungary has introduced a possibility to cancel procurement procedures that only attracted a single bidder. It is too early to draw a firm conclusion regarding the impacts of the new regime and the subsequent changes. One of the reasons is a significant drop in the number of calls for tenders in 2016 due to a temporary fall in spending EU funds. ⁽²⁹⁾

Hungary is experiencing delays in the implementation of its e-procurement strategy. Overall, this is likely to have a negative effect on the timely introduction of e-procurement and thereby on the goal to strengthen transparency and increase competition. In the action plan, Hungary made a commitment to develop an e-procurement system and to test the system in a pilot project by the end of 2016. Hungary submitted a revised version of the technical and professional concept document outlining the transition to e-procurement. However, as the system is not yet developed, the pilot project could not be launched. The implementation is behind schedule.

⁽²⁸⁾ The correct transposition of the new public procurement directives will be evaluated by the Commission for all Member States in parallel. The assessment is expected for the 3rd Quarter of 2017.

⁽²⁹⁾ The implementation of the action plan will be assessed by the Commission on the basis of a report that Hungary has to submit by mid-2017.

Fight against corruption

Corruption risks weigh on Hungary's business environment. According to the World Economic Forum, corruption is the second most problematic factor for doing business in Hungary after policy instability (*WEF, 2016*). Based on the Transparency International corruption perception index, Hungary's score has continued to deteriorate over the past few years (*TI, 2017*). Empirical research shows that corruption contributes to allocative inefficiencies adversely affecting the country's productivity (*Gamberoni et al., 2016*). The government's anti-corruption framework relies on an integrity management system, professional ethics training and risk-control systems in public institutions. The impact of these policy tools on curbing corruption has not yet been evaluated. In 2016, the government passed legislation to streamline the integrity management and internal control processes. Yet, no legal measures have been taken to improve protection for whistle-blowers. According to the 2016 Global Corruption Barometer, only 21 % of respondents would report corruption, while 23 % would expect retaliation for doing so (*TI, 2016*). No specific measures have been taken to reduce favouritism among government officials. In that category of corruption risk, Hungary shows a deteriorating trend over time with a score of 1.9 (on a scale from 1 to 7) and a global rank of 135 of 138 countries (*WEF, 2016*). The previously announced reform of the asset declaration system for public officials has not yet been launched.

Some concerns remain regarding the effectiveness of prosecution of corruption. The results of the internal inquiry by the Prosecutor General's Office show that the number of corruption complaints registered and not followed by an investigation has been steadily declining (*Ügyészség, 2016*). Yet, there does not appear to be a focus on prosecuting high-level corruption cases. This is reflected in business perceptions. While 56 % of survey respondents agree that petty corruption is appropriately punished, only 27 % believe this to be the case with senior officials (*European Commission, 2015e*). According to the most recent available data, the number of investigations opened for bribery of national officials decreased in 2014 compared to the 2011-

2013 average⁽³⁰⁾. The proportion of suspended sentences out of the total number of final convictions was 86%. Concerns about the independence of prosecution and prevention of corruption with respect to members of parliament, judges and prosecutors have not yet been addressed (*GRECO, 2015*).⁽³¹⁾

Transparency and access to information in certain areas remains restricted. In the 2015 Open Budget Survey, Hungary improved its ranking from the 60th to the 49th place out of 102 countries. However, Hungary still ranks last among EU countries. With a score of 45/100, the Open Budget Index classifies Hungary as a country in which the government provides the public with limited budgetary information (*IBP, 2015*). The Constitutional Court has rebuffed repeated attempts to restrict access to information by legislative modifications. Recent legislation allows data owners a considerable degree of discretion in granting access and requesting fees for releasing lengthy documents (*GoH, 2016*). The legal rules include safeguards and redress measures, but their impact with respect to ensuring freedom of access to information still requires an assessment.

(30) 314 investigations were opened in 2014, compared to an average of 503 per year in the period 2011-2013 (European Commission calculations).

(31) Hungary should respond to the GRECO recommendations by 30 December 2016.

Box 3.6.1: Selected highlights**Online cash registers in retail services**

From 2014, Hungary introduced the mandatory use of online cash machines to several retail services, such as retail shops, pharmacies, restaurants and accommodation services. Online cash registers are connected to the tax authority. They submit, on a regular basis, sales information, which permits a continuous monitoring of transactions and VAT collection. The government provided financial support for businesses to cover part of the purchase costs of the new registers.

The mandatory use of the online cash registers has been effective in reducing the grey economy. It contributed significantly to better VAT collection and helped reduce tax evasion in the sectors concerned. Since the introduction of the online cash registers, VAT revenue has grown at a higher pace than private consumption expenditure, which indicates the effectiveness of the measure. According to the estimates of the government online cash registers and the Electronic Public Road Trade Control System (EKAER) augmented VAT revenues by approximately 1.2 pp. of GDP since their introduction. In addition, the VAT gap (the difference between the theoretical and the actual VAT revenue) also decreased sharply.

From January 2017, the government extended the use of online cash registers to additional services, such as car repair and maintenance, taxi services, cosmetic surgery, clubs and beauty care services (solariums, wellness centres, etc.).

State Aid Monitor Office (SAMO)

The SAMO is a dedicated office to ensure compliance with state aid rules in public administration. It facilitates the dialogue between the European Commission and public entities (aid grantors) as a one voice communication channel. The SAMO provides assistance to these entities, reducing the resources necessary to obtain specific knowledge on state aid rules and engage in separate communication with the EU. It operates within the Prime minister's office. This arrangement is also beneficial for the EU, since the Commission contacts always with the same professional body, which enables a more efficient negotiation on state aid issues.

The operation of the SAMO is regulated by legislation. Aid grantors are obliged to notify the SAMO of their planned grants. The SAMO assesses compatibility with the EU state aid rules and may provide assistance for aid grantors to make grant schemes compatible. It gives approval if General Block Exemption Regulation or de minimis regulation is applicable, and informs the Commission. Otherwise it submits the grant to the Commission for approval.

ANNEX A

Overview Table

Country specific recommendations (CSRs)

Commitments	Summary assessment ⁽³²⁾
<p>CSR1: In view of the high risk of a significant deviation, achieve an annual fiscal adjustment of 0.3 % of GDP towards the medium-term budgetary objective in 2016 and of 0.6 % of GDP in 2017, unless the medium-term budgetary objective is respected with a lower effort, by taking the necessary structural measures.</p>	<p>The compliance assessment with the Stability and Growth Pact will be included in Spring when final data for 2016 will be available.</p>
<p>CSR2: Further reduce sector-specific taxes and reduce the tax wedge for low-income earners. Strengthen transparency and competition in public procurement through e-procurement, increased publication of tenders and further improvement of the anti-corruption framework. Improve the regulatory environment in the services sector and in the retail sector by addressing restrictive regulations and ensuring predictability.</p> <p>Further reduce sector-specific taxes</p>	<p>Hungary has made limited progress in addressing CSR2:</p> <ul style="list-style-type: none"> • Hungary has made limited progress in addressing the first subpart of CSR 2 as regards the further reduction of sectorial taxes. By means of measures adopted (published) on 15.6.2016 and implemented with effect from 1.1.2017, the bank levy on the taxable base in excess of HUF 50 billion is reduced from 0.24% to 0.21% of the balance sheet total. This reflects a downward trend as the bank levy was first reduced as of 1.1.2016 from 0.53% to 0.24%. At the same time, some distortive sectorial taxes remain, in particular in the telecommunications sector (utilities tax, telecommunications tax,) and the energy sector (Robin Hood tax, utilities tax).

(32) The following categories are used to assess progress in implementing the 2016 country-specific recommendations:
No progress: The Member State has not credibly announced nor adopted any measures to address the CSR. Below a number of non-exhaustive typical situations that could be covered under this, to be interpreted on a case by case basis taking into account country-specific conditions:

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

Limited progress: The Member State has:

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

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

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

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

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

<p>and reduce the tax wedge for low-income earners.</p> <p>Strengthen transparency and competition in public procurement through e-procurement, increased publication of tenders and further improvement of the anti-corruption framework.</p> <p>Improve the regulatory environment in the services sector and in the retail sector by addressing restrictive regulations and ensuring</p>	<ul style="list-style-type: none"> • Hungary has made some progress in addressing the second subpart of CSR 2 as regards the reduction of the tax wedge for low-income earners. By means of measures announced in November 2016 and implemented with effect from 1.1.2017, the employers' social security contributions are cut from 27% to 22% and are set to be further reduced to 20% from 2018. This general measure reduces the tax wedge for all employees. Personal income tax allowance for families with two children is further increased. The tax wedge of low-income earners however remains higher than the EU average and in regional peers. • As regards anti-corruption, Hungary has made limited progress. New measures taken streamline the internal control and the integrity management functions. The real impact of the national anti-corruption programme's approach on preventing and curbing down corruption has not been evaluated yet. No legal measures have been taken to improve the protection of whistle-blowers or to reduce favouritism among government officials. Prosecution of high-level corruption remains limited and affects deterrence. Limited progress can be seen as regards public procurement. Revised versions of the e-procurement strategy were sent in the second half of 2016. Although the document is a solid basis for future developments. Hungary also committed to develop an e-procurement system, and test it through a pilot project. So far, no pilot project has been launched, nor did Hungary draw up a concrete concept of what it intends to do in this regard. • Regarding service sector in the field of energy, the concentration of household gas customers into one gas supplier and regulated end-user prices eliminates retail competition and does not contribute to attract investments in the energy utility sector. No progress has been made on improving the regulatory environment in the services sector and in the retail sector.
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<p>predictability.</p>	
<p>CSR3: Facilitate the transition from the public works scheme to the primary labour market and reinforce other active labour market policies. Improve the adequacy and coverage of social assistance and unemployment benefits. Take measures to improve educational outcomes and to increase the participation of disadvantaged groups, in particular Roma, in inclusive mainstream education.</p> <p>Facilitate the transition from the public works scheme to the primary labour market and reinforce other active labour market policies.</p> <p>Improve the adequacy and coverage of social assistance and unemployment benefits.</p>	<p>Hungary has made limited progress in addressing CSR3:</p> <ul style="list-style-type: none"> • Hungary has made some progress in reinforcing active labour market policies other than the public work scheme. Following legislative changes PWS participants are now entitled to a placement benefit if they find employment in the primary labour market. The training component of the PWS has been enhanced. As of January 2017 further activation measures were introduced. From 2016, the ESF co-financed “Training of Low-skilled and Public Workers” programme supports training for among others public workers. PWS participants also receive training supported by funds from the Ministry of Interior. During the first ten months of 2016 almost 20 thousand public workers were involved in trainings. ESF (and YEI) supported ALMP programmes started to roll out in 2015 and 2016. The two major programmes are the “Path to the labour market” and the Youth Guarantee. Until the end of October 2016, more than 39,000 people have been involved in the first programme, and more than 41,000 young people in the YG. The national expenditure for active labour market policies is planned to be gradually increased, whereas expenditures of the public work schemes will be decreased in the upcoming years. In 2017 the budgetary allocation for public works is set to stabilize while spending on other ALMPs is set to increase. • Limited progress was observed with regards to the improving the adequacy and coverage of social assistance and unemployment benefits. The duration of unemployment benefits is still the lowest in the EU at 3 months. The budget for 2017 foresees an increase (by about 5%) of the nominal value of some benefits: elderly support, care assistance, child support benefit. There has been a 12% increase regarding the so called "home-acquisition" support provided for those young people

<p>Take measures to improve educational outcomes and to increase the participation of disadvantaged groups, in particular Roma, in inclusive mainstream education.</p>	<p>who leave institutional care. The level of the other entitlements is not planned to change in 2017.</p> <ul style="list-style-type: none"> • Hungary made limited progress in improving educational outcomes and increasing participation of disadvantaged groups in inclusive mainstream education. Recent PISA results show a deterioration of educational outcomes. The distribution of disadvantaged pupils between schools is uneven and the corresponding corrective mechanisms are insufficient. National and European surveys indicate that increasing shares of Roma children attend Roma-majority schools and classes. Legislative changes aiming at addressing this have been tabled, but remain to be adopted and implemented.
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Europe 2020 (national targets and progress)	
Europe 2020 national targets	Assessment
Employment rate target: 75%.	<ul style="list-style-type: none"> • The employment rate continued to improve and reached 68.9% in 2015.
Greenhouse gas (GHG) emissions target: +10% compared to 2005 emissions (ETS emissions not covered by this national target).	<ul style="list-style-type: none"> • Hungary is on track in achieving its GHG reduction target in the 2020 climate and energy package.
2020 Renewable energy target: 13%.	<ul style="list-style-type: none"> • In 2014 the renewable share reached 9.5%, being by 2.6% above the 2013/2014 interim target, so Hungary is currently on track to meet its renewable target. However, further efforts need to be made in order to reach the 2020 renewable energy target, as the current share is still below by 3.5% of the target.
<p>Energy efficiency target:</p> <p>Hungary's 2020 energy efficiency target is 24.1 Mtoe expressed in primary energy consumption (14.4 Mtoe expressed in final energy consumption.)</p>	<ul style="list-style-type: none"> • Hungary has to increase its effort to decrease its final energy consumption further in order to achieve its indicative final energy consumption 2020 target (14.4 Mtoe) and to keep its current primary energy consumption below its primary

	energy 2020 target (24.1 Mtoe). ⁽³³⁾
R&D target: 1.8% of GDP and 3% by 2030 ⁽³⁴⁾	<ul style="list-style-type: none"> In the period 2007-2015, thanks to a continuous increase in business R&D expenditures, overall Hungarian R&D intensity showed a significant growth with a compound annual growth rate of 4.6% and it reached a peak of 1.39% GDP in 2013 (1.38 % GDP in 2015). However, contrasting trends in public and private R&D intensities put into question the sustainability of the overall growth of the R&D intensity.
Reducing the rates of early school leaving below 10%.	At 11.6% in 2015 early school leaving is stagnating and shows strong variation by region and school type.
34% of 30-34-year-olds completing third level education (national target 34%)	<ul style="list-style-type: none"> 34.4% of 30-34-year-olds completing third level education (2005 Eurostat data)
Target on the reduction of population at risk of poverty or social exclusion in number of persons: 450 000.	<ul style="list-style-type: none"> The population at risk of poverty and social exclusion was 59 000 lower than in 2008.

(33) 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>

(34) A complementary target is that Business R&D intensity would reach 1.2% by 2020 from 0.99% in 2014.

ANNEX B

MIP Scoreboard

Table B.1: The MIP scoreboard for Hungary

			Thresholds	2010	2011	2012	2013	2014	2015
External imbalances and competitiveness	Current account balance, (% of GDP)	3 year average	-4%/6%	-2.5	0.1	0.9	2.1	2.5	3.0
	Net international investment position (% of GDP)		-35%	-108.8	-106.3	-94.0	-83.5	-75.8	-60.8
	Real effective exchange rate - 42 trading partners, HICP deflator	3 years % change	±5% & ±11%	-1.2	-4.2	-1.0	-4.0	-7.0	-6.9
	Export market share - % of world exports	5 years % change	-6%	3.7	-2.0	-20.8	-22.2	-15.8	-8.0
	Nominal unit labour cost index (2010=100)	3 years % change	9% & 12%	6.1	3.2	4.1	5.9	6.7	3.9
	Deflated house prices (% y-o-y change)		6%	-5.9	-6.9	-9.3	-4.3	3.2	11.6
Internal imbalances	Private sector credit flow as % of GDP, consolidated		14%	-4.2	-4.4	-6.1	-0.9	-0.5	-3.1
	Private sector debt as % of GDP, consolidated		133%	115.5	114.9	102.0	95.4	91.0	83.9
	General government sector debt as % of GDP		60%	80.5	80.7	78.2	76.6	75.7	74.7
	Unemployment rate	3 year average	10%	9.7	10.7	11.1	10.7	9.6	8.2
	Total financial sector liabilities (% y-o-y change)		16.5%	-0.2	6.2	-5.9	-1.9	8.5	0.4
New employment indicators	Activity rate - % of total population aged 15-64 (3 years change in p.p)		-0.2%	0.3	1.2	2.5	2.8	4.6	4.9
	Long-term unemployment rate - % of active population aged 15-74 (3 years change in p.p)		0.5%	2.0	1.6	0.8	-0.6	-1.5	-1.9
	Youth unemployment rate - % of active population aged 15-24 (3 years change in p.p)		2%	8.3	6.5	1.8	0.2	-5.6	-10.9

Flags: i: see metadata. na: not available.

(1) Unemployment rate: for 2008 i = Eurostat back-calculation to include 2011 Population Census results.

(2) Youth unemployment rate: for 2008 i = Eurostat back-calculation to include 2011 Population Census results.

Source: 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)	119.6	119.0	114.3	108.2	102.5	99.5
Share of assets of the five largest banks (% of total assets)	54.6	54.0	51.9	52.5	53.3	-
Foreign ownership of banking system (% of total assets)	54.6	50.0	46.2	39.9	40.5	-
Financial soundness indicators: ¹⁾						
- non-performing loans (% of total loans)	12.8	14.1	14.0	14.2	11.0	10.3
- capital adequacy ratio (%)	13.8	16.3	17.4	17.0	16.9	16.8
- return on equity (%) ²⁾	-12.0	-5.1	-0.4	-21.9	0.3	7.6
Bank loans to the private sector (year-on-year % change)	-13.1	-5.5	-4.1	-3.5	-8.1	0.4
Lending for house purchase (year-on-year % change)	-18.9	-9.4	-5.4	-6.1	-10.3	-1.2
Loan to deposit ratio	128.0	110.6	102.1	94.8	80.9	78.3
Central Bank liquidity as % of liabilities	0.4	0.7	3.1	3.8	4.9	5.4
Private debt (% of GDP)	114.9	102.0	95.4	91.0	83.9	-
Gross external debt (% of GDP) ¹⁾ - public	47.5	52.0	47.4	46.9	42.1	37.1
- private	78.4	79.5	75.6	78.9	71.9	70.0
Long-term interest rate spread versus Bund (basis points)*	502.7	639.6	435.3	364.6	293.7	305.3
Credit default swap spreads for sovereign securities (5-year)*	342.5	418.0	269.8	179.2	139.1	131.3

Notes:

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 ⁴
Employment rate (% of population aged 20-64)	60.4	61.6	63.0	66.7	68.9	71.2
Employment growth (% change from previous year)	0.0	0.2	1.1	4.8	2.2	2.7
Employment rate of women (% of female population aged 20-64)	54.7	56.2	56.9	60.2	62.1	64.3
Employment rate of men (% of male population aged 20-64)	66.4	67.3	69.3	73.5	75.8	78.3
Employment rate of older workers (% of population aged 55-64)	35.3	36.1	37.9	41.7	45.3	49.4
Part-time employment (% of total employment, aged 15-64)	6.4	6.7	6.4	6.0	5.7	4.9
Fixed-term employment (% of employees with a fixed term contract, aged 15-64)	9.1	9.5	10.9	10.8	11.4	9.9
Transitions from temporary to permanent employment	38.8	35.3	36.8	41.8	36.9	32.8
Unemployment rate ¹ (% active population, age group 15-74)	11.0	11.0	10.2	7.7	6.8	5.3
Long-term unemployment rate ² (% of labour force)	5.2	5.0	4.9	3.7	3.1	2.5
Youth unemployment rate (% active population aged 15-24)	26.0	28.2	26.6	20.4	17.3	13.4
Youth NEET ³ rate (% of population aged 15-24)	13.2	14.8	15.5	13.6	11.6	:
Early leavers from education and training (% of pop. aged 18-24 with at most lower sec. educ. and not in further education or training)	11.4	11.8	11.9	11.4	11.6	:
Tertiary educational attainment (% of population aged 30-34 having successfully completed tertiary education)	28.2	29.8	32.3	34.1	34.3	:
Formal childcare (30 hours or over; % of population aged less than 3 years)	7.0	6.0	9.0	9.0	:	:

Notes:

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	5.7	5.5	5.0	4.9	4.9	:
Disability	1.8	1.7	1.6	1.5	1.4	:
Old age and survivors	10.2	10.3	11.0	10.8	10.2	:
Family/children	2.9	2.7	2.6	2.5	2.3	:
Unemployment	0.9	0.8	0.6	0.5	0.4	:
Housing	0.5	0.4	0.3	0.3	0.3	:
Social exclusion n.e.c.	0.1	0.1	0.1	0.1	0.1	:
Total	22.1	21.5	21.2	20.6	19.7	:
of which: means-tested benefits	1.1	1.0	0.9	0.9	0.7	:
Social inclusion indicators	2010	2011	2012	2013	2014	2015
People at risk of poverty or social exclusion ¹ (% of total population)	29.9	31.5	33.5	34.8	31.8	28.2
Children at risk of poverty or social exclusion (% of people aged 0-17)	38.7	40.4	41.9	43.9	41.8	36.1
At-risk-of-poverty rate ² (% of total population)	12.3	14.1	14.3	15.0	15.0	14.9
Severe material deprivation rate ³ (% of total population)	21.6	23.4	26.3	27.8	24.0	19.4
Proportion of people living in low work intensity households ⁴ (% of people aged 0-59)	11.9	12.8	13.5	13.6	12.8	9.4
In-work at-risk-of-poverty rate (% of persons employed)	5.3	6.2	5.7	7.0	6.7	9.3
Impact of social transfers (excluding pensions) on reducing poverty	56.7	51.4	47.6	44.4	43.6	42.0
Poverty thresholds, expressed in national currency at constant prices ⁵	599154	595657	607544	564058	577231	605976
Gross disposable income (households; growth %)	1.1	7.7	2.8	3.7	4.8	1.8
Inequality of income distribution (S80/S20 income quintile share ratio)	3.4	3.9	4.0	4.3	4.3	4.3
GINI coefficient before taxes and transfers	51.1	51.2	51.0	50.9	52.5	49.9
GINI coefficient after taxes and transfers	24.0	26.8	26.9	28.0	28.6	28.2

Notes:

- 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)

Sources: Sources:

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	19.07	-1.77	2.38	2.46	2.61	7.81
Labour productivity in construction	9.07	4.70	-4.12	6.90	6.25	1.46
Labour productivity in market services	13.97	1.17	-0.54	1.42	-3.91	0.95
Unit labour costs (ULC) (whole economy, year-on-year % change)						
ULC in industry	-5.50	6.95	5.10	3.92	1.54	-2.91
ULC in construction	1.66	0.67	6.40	-4.83	-7.95	-2.72
ULC in market services	0.68	2.02	2.34	0.17	1.78	0.63
Business environment	2010	2011	2012	2013	2014	2015
Time needed to enforce contracts ¹ (days)	395.0	395.0	395.0	395.0	395.0	395.0
Time needed to start a business ¹ (days)	5.0	5.0	7.0	7.0	7.0	7.0
Outcome of applications by SMEs for bank loans ²	na	1.04	na	0.67	1.01	0.39
Research and innovation	2010	2011	2012	2013	2014	2015
R&D intensity	1.15	1.19	1.27	1.39	1.36	1.38
Total public expenditure on education as % of GDP, for all levels of education combined	4.90	4.71	4.07	4.13	na	na
Number of science & technology people employed as % of total employment	33	35	36	37	36	36
Population having completed tertiary education ³	17	18	19	20	20	21
Young people with upper secondary education ⁴	84	83	83	84	85	84
Trade balance of high technology products as % of GDP	2.22	2.98	0.94	0.46	0.28	-0.48
Product and service markets and competition				2003	2008	2013
OECD product market regulation (PMR) ⁵ , overall				na	1.54	1.33
OECD PMR ⁵ , retail				0.79	1.44	2.06
OECD PMR ⁵ , professional services				2.86	3.02	3.05
OECD PMR ⁵ , network industries ⁶				3.31	1.87	1.73

Notes:

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

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

2) Average of the answer to question Q7B_a. '[Bank loan]: If you applied and tried to negotiate for this type of financing over the past six months, what was the outcome?'. Answers were scored as follows: zero if received everything, one if received most of it, two if only received a limited part of it, three if refused or rejected and treated as missing values if the application is still pending or if the outcome is not known.

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

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

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

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

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

Table C.5: **Green growth**

Green growth performance		2010	2011	2012	2013	2014	2015
Macroeconomic							
Energy intensity	kgoe / €	0.26	0.25	0.24	0.23	0.22	0.22
Carbon intensity	kg / €	0.73	0.70	0.67	0.63	0.60	-
Resource intensity (reciprocal of resource productivity)	kg / €	1.11	1.09	0.96	1.08	1.31	1.23
Waste intensity	kg / €	0.19	-	0.18	-	0.17	-
Energy balance of trade	% GDP	-5.1	-6.0	-6.3	-6.3	-6.1	-
Weighting of energy in HICP	%	14.73	15.47	16.77	17.04	16.99	15.97
Difference between energy price change and inflation	%	1.6	1.9	0.3	-11.7	-10.9	-2.7
Real unit of energy cost	% of value added	17.6	19.1	18.8	17.7	17.7	-
Ratio of environmental taxes to labour taxes	ratio	0.16	0.15	0.15	0.15	0.15	-
Environmental taxes	% GDP	2.8	2.6	2.7	2.6	2.6	-
Sectoral							
Industry energy intensity	kgoe / €	0.14	0.16	0.17	0.20	0.19	0.19
Real unit energy cost for manufacturing industry excl. refining	% of value added	21.5	23.1	23.2	21.6	21.2	-
Share of energy-intensive industries in the economy	% GDP	10.36	9.41	9.32	8.50	8.38	8.49
Electricity prices for medium-sized industrial users	€ / kWh	0.11	0.10	0.10	0.10	0.09	0.09
Gas prices for medium-sized industrial users	€ / kWh	0.03	0.04	0.05	0.04	0.04	0.04
Public R&D for energy	% GDP	0.00	0.00	0.01	0.04	0.00	0.01
Public R&D for environmental protection	% GDP	0.01	0.01	0.01	0.02	0.01	0.01
Municipal waste recycling rate	%	19.6	22.0	25.5	26.4	30.5	32.2
Share of GHG emissions covered by ETS*	%	35.1	35.2	35.4	33.2	32.9	32.4
Transport energy intensity	kgoe / €	1.04	0.99	0.93	0.86	0.94	1.00
Transport carbon intensity	kg / €	2.85	2.70	2.58	2.36	2.59	-
Security of energy supply							
Energy import dependency	%	58.2	51.9	52.3	52.4	61.8	55.6
Aggregated supplier concentration index	HHI	57.2	54.2	59.1	63.0	75.6	-
Diversification of energy mix	HHI	0.25	0.25	0.24	0.23	0.22	-

Notes:

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

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

Carbon intensity: greenhouse gas emissions (in kg CO₂ equivalents) divided by GDP (in EUR)

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

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

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

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

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

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

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

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

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

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

Electricity and gas prices for medium-sized industrial users: consumption band 500–20 000 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

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