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**COMMISSION STAFF WORKING DOCUMENT**

**Country Report Hungary 2016**

**Including an In-Depth Review on the prevention  
and correction of macroeconomic imbalances**

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## EXECUTIVE SUMMARY

This country report assesses Hungary's economy in light of the European Commission's Annual Growth Survey published on 26 November 2015. The survey recommends three priorities for the EU's economic and social policy in 2016: re-launching investment, pursuing structural reforms to modernise Member States' economies, and responsible fiscal policies. At the same time, the Commission published the Alert Mechanism Report that initiated the fifth annual round of the macroeconomic imbalance procedure. The Alert Mechanism Report identified Hungary as warranting an in-depth review.

**Hungary is on a balanced, albeit still relatively moderate growth path, gradually reducing its macroeconomic imbalances.** Real GDP has surpassed its pre-crisis peak and the growth potential has been gradually recovering. Nevertheless, Hungary's rate of potential growth remains a full percentage point lower than before the crisis, which was already comparatively low. In 2015, GDP is estimated to have increased by 2¾%, supported by strengthening private consumption and healthy export growth. A decline in EU-funded investment is projected to slow growth in 2016, but continuing support from private consumption and a gradual recovery in EU-funded investment will see growth returning to levels slightly above potential in 2017. As the impact of lower energy prices fades, inflation is projected to revert to the central bank's target rate by the end of 2017.

**Labour market developments have been favourable, recently also in the private sector.** This drove the unemployment rate below its pre-crisis level despite a rapidly increasing activity rate. The long-term unemployment rate followed a similarly favourable path. Stricter policies on social transfers, early retirement and increasing statutory retirement age strengthened labour supply. On the demand side, job creation in the private sector picked up starting late 2013, although emigration and the rapid increase in the public works scheme have also significantly contributed to the fall in unemployment. Because of the increasing activity rate, labour becomes a positive contributor to the potential growth rate despite population ageing. Looking forward, the private sector is expected to increase its share in job creation, helping to lift productivity growth.

**An initially strong pickup in investment, however, proved temporary.** The considerable investment growth experienced in 2013-2014 came to a halt last year and is projected to turn into a slight decline this year as EU-funded investment temporarily subsides. Corporate lending continued to decline despite several policy initiatives of the central bank to promote SME lending, and the trend of private investment recently turned negative again. Private investment is hampered by a still cautious credit environment, a relatively high country risk premium that keeps funding costs high, and an unstable regulatory and tax environment. These factors particularly hinder foreign direct investment. Without a healthy growth of market-driven private sector investment, the contribution of capital accumulation to potential growth and productivity growth is expected to remain moderate, in particular as EU-funded investment gradually subsides.

**The budget deficit has been contained, keeping the public debt ratio on a gradually declining path.** The budget deficit declined significantly in 2015, and is expected to decrease further in 2016-2017, albeit the latter is mostly due to the improving economic situation. Since its peak in 2011 following the crisis, the public debt ratio has declined moderately. Sizeable capital transactions and valuation changes have also contributed to this decline.

**Overall, Hungary has made some progress in addressing the 2015 country-specific recommendations.** It has achieved some progress in the field of taxation by significantly reducing the levy on credit institutions. Substantial progress has been made in putting in place policy measures to combat tax evasion. At the same time, limited progress has been made to reduce the high labour tax burden on low-income earners and to improve the efficiency of the tax administration. However, no progress has been made to reorient budgetary resources from public works to other active labour market policies and to improve the adequacy and coverage of social assistance and unemployment benefits. Moreover, limited progress has been made to improve the employability of disadvantaged groups, in particular to increase their participation in inclusive mainstream education. Overall, the quality of economic policies has improved but important challenges remain in this regard.

Regarding the progress in reaching the national targets under the Europe 2020 Strategy, Hungary is performing well in reducing the greenhouse gases, increasing renewable energy and tertiary education, while more effort is needed to increase the employment rate, R&D expenditure, reduce early school leaving and poverty. The main findings of the in-depth review contained in this country report, and the related policy challenges, are the following:

- **External imbalances have been significantly reduced but several risks remain.** Net external liabilities declined from 116% of GDP in 2009 to 73% by 2014. This is still high by international comparison but it is closer to levels of other converging economies, and the rapid pace of decline is projected to continue. The rebalancing of the economy has been achieved through maintaining large current and capital account surpluses, which reflect private sector deleveraging and a sizeable inflow of EU funds. The improvement in the external balance continued despite a pick-up in domestic demand. This was facilitated by a partial reversal of previous market share losses due to the rapid expansion of the automobile industry and an export-oriented service sector, benefitting from improved cost competitiveness. Moreover, recent policy measures, including the conversion of foreign exchange-denominated household loans and the central bank's self-financing programme, have contributed to a further reduction and better distribution of foreign exchange risks. Nevertheless, the still rather high gross external debt and short-term rollover needs continue to pose risks to the economy. Hungary's limited capacity to attract new foreign direct investment also remains a challenge.
- **Internal financial imbalances have been reduced but challenges remain.** Hungary entered the crisis burdened with a relatively high level of private sector debt, mostly denominated in foreign currencies, but it has made considerable progress in this area as well. Private sector debt was reduced from its peak of 117% of GDP in 2009 to 91% by 2014, albeit at the inevitable price of a continuous decline in private sector lending that hindered investment. In 2015, however, lending to

households showed signs of recovery, albeit a similar turnaround in corporate lending has yet to take place. The conversion of household foreign currency-denominated loans eliminated one of the largest systemic risks. The profitability of the banking sector is recovering helped by the improving economic environment and by a moderation in the previous policies towards taxes on banks. Nevertheless, banks remain cautious in their lending even though they are well capitalized and highly liquid. Going forward, the main challenges are to reduce the high share of non-performing loans and promote healthy growth of market-based private sector lending.

- **Enhancing the growth potential is crucial to further reduce the share of external and internal debt in GDP and avoid depressing domestic demand.** While labour market policies helped in this regard, at this juncture the key challenge facing Hungary is to find new ways to accelerate total factor productivity and promote higher investment in productive assets. Improving financial intermediation and nurturing innovation will assist in addressing this issue.

Other key economic issues analysed in this report which point to particular challenges facing Hungary's economy are the following:

- **The public debt ratio has been declining since the beginning of the decade, but its level remains high, making public finances vulnerable.** Medium-term debt sustainability simulations indicate a steadily declining trajectory reducing public debt towards 60% of GDP. Sustained high primary surpluses and savings from recent pension reforms are the key factors driving this trend. However, the debt-reduction path remains fragile. Hence, maintaining fiscal discipline remains essential in order to mitigate potential risks.
- **Despite considerable recent improvements in tax policies and tax administration, Hungary's reliance on sector-specific taxes remains a potential barrier to investment.** These sector specific taxes pose additional financial and administrative burdens on the sectors concerned. While new sector-specific

taxes were introduced in 2015, the levy on credit institutions has been significantly reduced. On the negative side, several indicators point to potential weaknesses of the tax administration. The labour tax wedge for low-income earners is still high, which may affect their employability.

- **The public works scheme has contributed to a fall in unemployment, but it does not seem to sufficiently improve the employability of the participants.** Active labour market policies rely excessively on the public works scheme, but the programme does not sufficiently help participants acquire necessary new skills and find jobs in the open labour market. This risks locking participants into the scheme, particularly low-skilled workers and people in disadvantaged regions.
- **The labour market is steadily improving, but labour, social and education policies face several challenges.** The duration of unemployment benefits is the lowest in the EU and significantly shorter than the average time necessary to find a job. Social and poverty indicators have not improved in line with the economic recovery. Moreover, the social protection system does not seem to provide adequate support to the most vulnerable. The health system also faces major challenges. The main challenge of the education system is to reduce socio-economic differences and provide all pupils with adequate basic skills and key competences.
- **Competition in public procurement remains limited while unpredictable regulatory changes and administrative burden hamper private business and investment.** A comprehensive e-procurement strategy has not yet been developed and corruption risks remain high. While the government took steps to reduce administrative burdens, Hungary's restrictive regulations in services sectors, such as retail, and a volatile regulatory environment remain concerns for businesses.

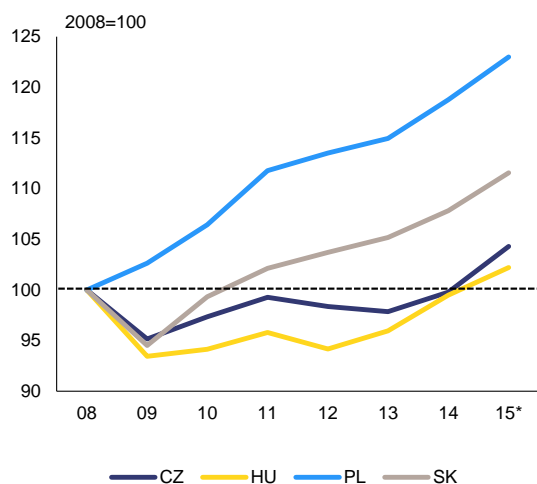
# 1. SCENE SETTER: ECONOMIC SITUATION AND OUTLOOK

## Macroeconomic developments

**In 2015, the Hungarian economy is estimated to have grown by 2.7 %, down from 3.7 % in 2014.** After a deep double dip recession, a steady recovery started in early 2013. The rebound was helped by a modest recovery in Europe and a strong pick-up in EU-funded investment. More recently, economic growth was driven by private consumption and net exports supported by improved cost competitiveness. Despite a solid growth performance in the past three years when Hungary recovered the losses of the double dip recession, the economy keeps lagging behind the best performers among its regional peers (Graph 1.1).

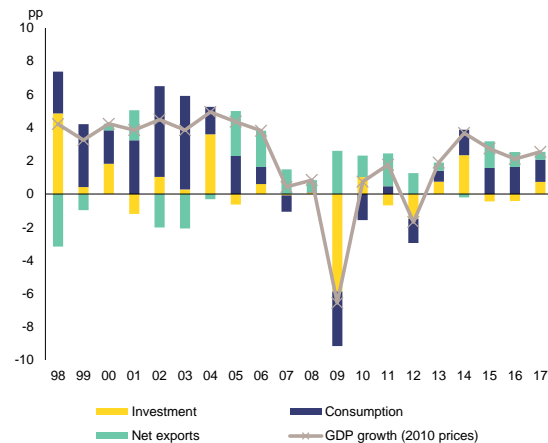
**GDP growth is forecast to remain relatively stable in 2016-2017.** It is set to decrease to 2.1% in 2016 as EU funds disbursement temporarily dips due to a transition between programming periods and the slack in the economy diminishes. However, as the implementation of EU-funded projects gathers steam again, growth is projected to bounce back to 2.5 % in 2017, slightly above potential (Graph 1.2).

Graph 1.1: GDP in constant prices (2010 price level)



**Source:** European Commission  
 Note: Data is based upon European Commission winter forecast 2016

Graph 1.2: External and domestic demand contributions to economic growth

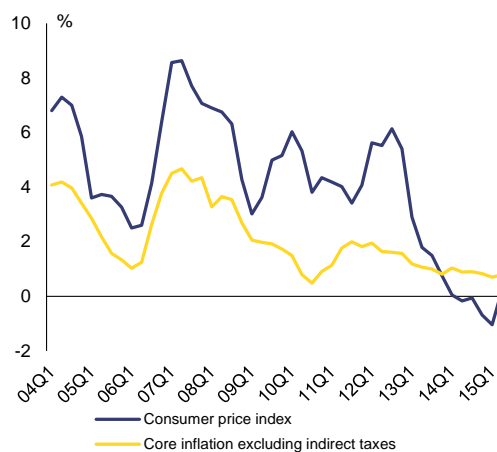


**Source:** European Commission

**Private consumption is expected to drive growth going forward, while the contribution of net exports is expected to decrease.** Measures that eased the burden of mortgage loans on households, low inflation, and high nominal wage growth boosted real disposable income of households in 2015, which in turn stimulated consumption (Graph 1.2). This trend is foreseen to continue in 2016, further helped by a 1 pp. cut in the flat personal income tax rate. Investment is forecast to contract further, mostly driven by the availability of EU funding. Despite solid export growth, the contribution of net exports to growth is projected to gradually decline as domestic demand strengthens.

**Following a sharp decline in recent years, inflation is projected to gradually return to the central bank's target.** Inflation rate stabilised around zero in the past two years, following a steep fall in 2013 (Graph 1.3). In addition to the global factors, low food prices, cuts in regulated energy prices, and a major fiscal tightening in 2012 were the important driving forces of disinflation in Hungary. Despite low domestic inflation, GDP deflator remained above 2% in 2015, mainly due to a positive terms-of-trade effect, helping to maintain a healthy nominal growth. As a positive output gap is slowly opening up and oil prices stabilise, inflation is forecast to pick up to 1.7 % and projected to gradually reach the central bank's target of 3 % by end-2017.



Graph 1.3: **Headline inflation and core inflation**

(1) Inflation and core inflation excluding indirect taxes are based on national definition

Source: Hungarian Central Bank

### Labour market situation

**Recent policy initiatives have significantly improved the labour market situation, albeit private sector job creation remains limited.** The unemployment rate declined from about 11 % in 2010-2012 to 6 ¾ % in 2015, while the activity rate increased from around 63 % in 2010-2012 to 69 % in 2015. On the supply side, a set of policy measures, such as introducing stricter policies on social transfers, increasing the retirement age and tightening the conditions for early retirement strengthened the incentives for people to enter or remain in the labour market. On the demand side, a public works scheme brought inactive or unemployed people to the labour market, albeit not to the private segment of it (Section 3.2). In addition, the number of frontier workers (people working abroad but maintaining a household in Hungary) reached 1% of the population and the number of people leaving the country to work abroad also seems to have increased. While employment in the private sector has also recovered, a considerable part of the improvement has been attributable to the public work scheme.

**Moving forward, these factors will continue to drive down unemployment, but will also create new challenges.** As the economy steadily expands, the unemployment rate is projected to decline to 5 % by 2017. The medium-term budgetary plans envisage the expansion of the public works

scheme, which will help increase employment, but sustained job creation in the medium-term will to a considerable extent hinge on an improvement of the private sector employability of the participants in this scheme. Moreover, while the increase in the number of frontier workers and people working abroad helped reduce domestic unemployment, it also started to create skill mismatches in Hungary. Furthermore, despite the laudable improvement in recent years, the activity rate is still below the levels of regional peers and by some 5 pp. below the EU average.

### Budgetary developments and outlook

#### The fiscal deficit declined significantly in 2015 but future improvement is set to be limited.

While structural measures helped to decrease the deficit, future improvements will be mostly due to better economic conditions. Based on the Commission's 2016 winter forecast, the general government deficit is expected to have declined to 2.1 % of GDP in 2015, from 2.5 % in 2014. The deficit is projected to decrease further to 1.9 % of GDP in 2017. The modest decline in the headline deficit in 2016-2017 is mostly driven by the cyclical upturn, as savings from pension reforms and from declining interest costs are planned to be spent on a new housing support scheme and on sizable tax cuts. As a result, the structural balance remains below -2 % of GDP, and thus it will not reach the medium-term objective of -1.7 % of GDP.

#### Government debt is expected to remain on a declining path.

From its peak level of close to 81 % in 2011, the public debt-to-GDP ratio is estimated to have declined to slightly below 76 % in 2015. While relatively low headline deficits and an improving economy helped reduce the public debt ratio, the above trend masks sizable below-the-line capital transactions and sizable negative valuation changes due the high share of foreign currency debt. The state took over most of the assets of the mandatory second-pillar private pension funds, but it also acquired several private companies and banks. Moreover, delays in the receipt of EU transfers in 2015 had a considerable debt-increasing effect without increasing the deficit as the latter is on accrual basis. The relatively high nominal GDP growth and declining headline deficit are expected to continue driving down the debt ratio, to around 72½ % in 2017.

Nevertheless, the level of public debt remains high compared to regional peers.

**Hungary was affected by the recent refugee influx as a transit country, but apart from a relatively limited budgetary cost, there was little impact on the economy.** These refugees were predominantly transiting through Hungary, and their inflow was almost completely halted in mid-October 2015. The associated extra budgetary costs are estimated to have reached HUF 45 billion (somewhat more than 0.1% of GDP) in 2015, the bulk of which was related to expenditure on border controls.

### Financial sector

**Private sector indebtedness and foreign exchange risk exposure declined significantly.** Private debt was reduced to about 90% of GDP in 2015, from its peak of close to 120% of GDP in 2009, albeit at the inevitable price of a decline in private sector lending that hindered investment. Moreover, the conversion of 15% of GDP foreign currency denominated household debt into domestic currency denominated debt in 2015 fully eliminated the previously large foreign exchange risk exposure of households. These changes together with an improving labour market reignited new lending to households with a particularly strong pick up in mortgage lending, albeit from a low basis. With the introduction of a new government housing support scheme in 2016, this trend is expected to continue. However, corporate lending has not yet begun to grow as there are factors on both the supply and demand sides that hinder lending. The central bank launched various schemes to promote lending to SMEs but so far they only managed to stabilise the outstanding stock of loans to SMEs. Moving forward, the recently announced growth supporting programme and a new market-based lending scheme of the central bank will help promote a more organic and stable investment growth in the private sector.

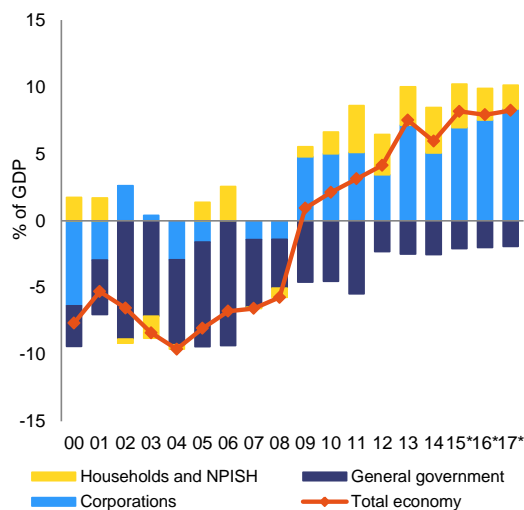
**The banking system's vulnerability declined over the past year.** The banking sector is showing better results helped by the improving economic environment. Nevertheless, banks remain cautious in their lending to the corporate sector even though they are strongly capitalised and highly liquid. The main challenge for banks is to reduce the still high share of non-performing loans that hinder new

lending and put pressure on profits. The newly passed personal insolvency legislation and the two asset management companies that were set up to help reduce non-performing loans can help in this regard (see Section 2.2).

### External balances

**Following the crisis, Hungary's net external position improved significantly.** With high external debt and large net external liabilities, Hungary was particularly vulnerable to external shocks at the outbreak of the financial crisis. Following the crisis, however, there has been a sharp correction on the external side. The adjustment was particularly strong in the private sector, reflecting an increase in gross savings and a fall in the investment rate, which remained below its pre-crisis level despite an increased inflow of EU funds. As a result, net external liabilities declined from 116% of GDP in 2009 to 73% by 2014 and the ratio is estimated to have declined further in 2015. The rebalancing of the economy has been achieved through maintaining high current and capital account surpluses, which reflect private sector deleveraging and a high inflow of EU funds. The strong net lending position of the country remained stable despite the recent pick up in domestic demand (Graph 1.4). This has been facilitated by the reversal of previous market share losses due to the expansion of the automobile industry and improved cost competitiveness. Despite a temporary decline in EU funds inflows, the net lending of the economy is projected to remain high in 2016 and 2017 (at 6.5% and 7.8% of GDP, respectively) as domestic demand continues to be contained compared to the pre-crisis levels. Notwithstanding these improvements, the still rather high gross external debt and short-term rollover needs continue to pose risks to the economy (Section 2.1).

Graph 1.4: Net lending/borrowing by sector



(1) NPISH: Non-profit institutions serving households  
**Source:** European Commission

### Investment challenge and growth potential

**Although improving, the growth potential of the country remains moderate for a catching-up economy.** The current rate of potential growth is a full percentage point lower than before the crisis, which was already comparatively low. The weak growth potential mainly reflects a low total factor productivity growth, which in turn is linked to problems with financial intermediation and to the low level of innovation in the economy (Section 2.3). The level of investment has not yet reached its pre-crisis value (Box 1.1). Low corporate investment – which particularly hinders growth and job creation – is attributable to deleveraging needs and to the perceived deterioration in the business environment. Nevertheless, there have been some improvements in the contribution of labour to potential growth, which is linked to the above-mentioned labour market reforms.

**Hungary's floating exchange rate regime helped facilitate external adjustment, and can do so even more in the future.** The country recorded steadily increasing trade surpluses since 2008. The improvement in trade balance was also supported by the real depreciation of the forint (by 12% and 19% between 2009 and 2015 in terms of consumer prices and real unit labour costs, respectively), which to a large extent resulted from the depreciation of the nominal exchange rate (by 17% over the same period). However, the depreciation simultaneously deteriorated the balance sheet position of the private sector with adverse macroeconomic consequences. This was particularly relevant for the household sector, which had a considerable amount of foreign exchange denominated debt and a limited ability to absorb exchange rate risks. However, the recent conversion of practically all foreign currency denominated household loans into local currency denominated loans has removed this constraint on the exchange rate policy. Although the net foreign asset position of the economy has not changed as the foreign exchange transactions were made directly with the central bank and thus resulted in a concomitant reduction in the central bank's foreign currency reserves, the conversion ensured a better distribution of exchange rate risks. A similar effect could be attributed to the central bank's self-financing programme, which reduces the foreign exchange exposure of the central government (Section 2.1)

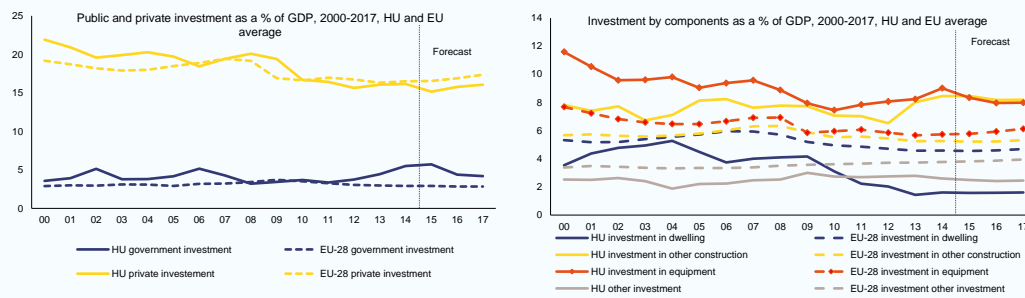
### Box 1.1: Investment Challenges

#### Macroeconomic perspective

**Total investment as a percentage of GDP had been on a steadily declining trend before the crisis and declined even further after the crisis.** Between 2000 and 2007, the decline in the private investment ratio from 21.9% to 19.4% has been partially offset by a slight increase in the public investment ratio from 3.6% to 4.3%. In the post-crisis period, the private investment ratio reported a sharp drop in 2010 and then remained fairly stable in the following years. The government investment ratio on the other hand reported a sharp drop in 2008. The total investment-to-GDP ratio dropped below 20% in 2011 and 2012, compared to an average of 24% between 2000 and 2007.

In 2013, gross fixed capital formation started to grow again, fuelled by investments stemming from accelerated absorption of EU funds (mostly in the public sector). In that year gross fixed capital formation grew by 7.3% year-on-year and contributed to GDP growth with 1.4 pps. In 2014 the pattern continued even more, the growth of gross fixed capital formation was an outstanding 11.2% on year-on-year terms and 2.3 pps. contribution to GDP (out of the 3.7% real growth in 2014). This meant that the investment ratio propelled to 21.7% of GDP in 2014. The Commission's current forecast predicts a small decrease of the ratio in 2015 and a significant drop in 2016 before funds from the new programming period of EU funding will start to positively affect investment again in 2017.

Graph 1: Investment ratio by sector and component



Forecasts for 2015-2017 based on a no-policy-change assumption

Source: European Commission

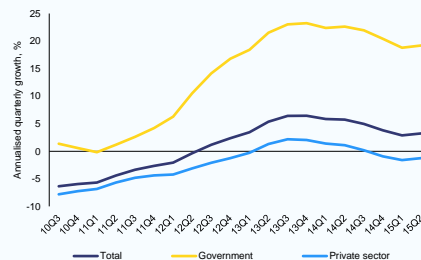
There was a significant change in the composition of investment activity by type of assets over the last years: the relative share of manufacturing and public investments increased, largely at the expense of real estate activities, but the share of market services also declined. For the components of investment, there has been a steady decrease in the equipment investment ratio in the pre-crisis period, which has been halted in 2010. From this point onwards, the ratio continuously recovered. Dwelling investment on the other hand has been fairly stable in the pre-crisis period but decreased from 2009 onwards. The same development was observed for the investment in other construction ratio, which however recovered sharply from 2013 onwards.

The growth of gross fixed capital formation in volume terms was largely driven by the public sector over the last five years. At the same time, the private sector experienced a negative growth apart from a short revival in 2013-2014 (Graph 2).

(Continued on the next page)

Box (continued)

Graph 2: Annualized quarterly trend growth of investment



**Source:** Fiscal Responsibility Institute Budapest, Baseline projection of 08.12.2015

### Assessment of barriers to investment and ongoing reforms

Overall investment activity is dependent on the absorption of the EU funds. EU funds propel investments majorly through public investments. Despite recent progress, investment barriers in Hungary remain in key areas <sup>(1)</sup>:

**Regarding the financial sector low lending activity and the tax burden on financial institutions cause problems (section 2.2).** The private sector is still deleveraging, and lending activity is subdued due to factors on both the supply and the demand sides of the credit market. The financial sector has been substantially weakened by years of extraordinary tax burden, high non-performing loan ratios and high regulatory costs, albeit the sector has remained adequately capitalised.

**On the front of taxation, the high tax wedge on low skilled labour and the reliance on sector specific taxes could have a negative impact on investment (section 3.1 and 3.2).** High tax burden on low income earners can have a negative impact on market employment and thus can hamper investment in an open economy. The heavy reliance on sector specific taxes is a source of distortion across sectors also by generally weakening investors' confidence.

**There are several challenges for public administration and it is likely that the investment activity would benefit mostly from a better business environment (section 3.4).** Overall the high administrative burden, also for start-ups, could negatively affect investment decisions. The volatile regulatory framework, with frequent and unpredictable regulatory changes, creates uncertainty for investors. Overall, the perceived low effectiveness and efficiency of public administration can affect the business climate and weight on investment. Increasing entry barriers in previously open markets in certain sectors could have undermined sunk-cost investments contributing to a general sense of policy-induced uncertainty regarding the security of intangible assets.

**Other areas where challenges for investment can be identified include research, development and innovation and sector specific regulation (sections 3.4 and 3.5).** The resources devoted to science and technology are comparatively low. In addition, there is a lack of spill-over effects from multinational companies. Financing of new innovative companies through venture/seed capital and newer initiatives such as crowdfunding remains marginal. High administrative and tax burden as well as entry barriers the retail sector, hamper investment. Below-cost regulated end-user prices for household consumers in the retail electricity and gas utility sector brought rates of return in the electricity and gas regulated business segments to zero during the past few years, leaving limited funds for investment.

<sup>(1)</sup> See "Challenges to Member States' Investment Environments", SWD (2015) 400 final ([http://ec.europa.eu/europe2020/challenges-to-member-states-investment-environments/index\\_en.htm](http://ec.europa.eu/europe2020/challenges-to-member-states-investment-environments/index_en.htm)).

**Box 1.2: Contribution of the EU Budget to structural change**

Hungary is a major beneficiary of the European Structural and Investment Funds (ESIF) and can receive up to EUR 25 billion for the period 2014-2020. This is equivalent to 3,1% of GDP annually and 62.3% of the expected national public investment in areas supported by the ESI funds.

A number of reforms were passed as ex-ante conditionalities in areas to benefit from the Funds to ensure successful investments. Reforms in areas such as public procurement, capacity building in public administration, employment services, vocational and higher education, early school leaving and social inclusion are still pending and to be completed by end-2016. Where ex-ante conditionalities are not fulfilled by end 2016, the Commission may suspend interim payment to the priorities of the programme concerned.

The Funds will contribute to the Europe 2020 objectives and focus on priorities and challenges identified in recent years in the context of the European Semester and under the Europe 2020 strategy. Hungary's ESIF allocation is concentrated on key issues such as: enhancing innovation and competitiveness of businesses, supporting ICT development, supporting the shift towards a low-carbon economy contributing to the development of the labour market, improving the skills of the labour force, improving efficiency of public administrations, contributing to the reduction and prevention of poverty, supporting equal access to mainstream education, increasing tertiary attainment. Combating early school leaving and supporting youth employment is also addressed through the specific Youth Employment Initiative allocation. Regular monitoring of implementation includes reporting in mid-2017 on the contribution of the Funds to Europe 2020 objectives and progress in addressing relevant structural reforms to maximise the use of EU financing.

Financing under the new European Fund for Strategic Investments (EFSI), Horizon 2020, the Connecting Europe Facility and other directly managed EU funds would be additional to the ESI Funds. Following the first rounds of calls for projects under the Connecting Europe Facility, Hungary has signed agreements for EUR 270 million for transport projects. For more information on the use of ESIF in Hungary, see: <https://cohesiondata.ec.europa.eu/countries/HU>.

Table 1.1: Key economic, financial and social indicators - Hungary

	2003-2007	2008	2009	2010	2011	2012	2013	2014	forecast		
									2015	2016	2017
Real GDP (y-o-y)	3.5	0.8	-6.6	0.7	1.8	-1.7	1.9	3.7	2.7	2.1	2.5
Private consumption (y-o-y)	4.8	-1.2	-6.7	-2.8	0.8	-2.2	0.3	1.8	3.0	3.2	2.5
Public consumption (y-o-y)	1.0	3.1	1.4	-0.4	0.2	-1.5	2.4	2.9	0.3	0.2	0.5
Gross fixed capital formation (y-o-y)	3.5	1.0	-8.3	-9.5	-1.3	-4.4	7.3	11.2	0.0	-2.0	3.6
Exports of goods and services (y-o-y)	14.6	6.9	-11.4	11.3	6.6	-1.8	6.4	7.6	8.5	6.2	6.4
Imports of goods and services (y-o-y)	12.8	6.0	-14.7	10.1	4.5	-3.5	6.3	8.5	7.3	5.8	6.6
Output gap	2.6	2.3	-4.5	-3.4	-1.5	-3.2	-2.3	-0.5	0.2	0.3	0.6
Potential growth (y-o-y)	3.0	1.2	0.1	-0.4	-0.2	0.0	0.9	1.8	2.0	2.0	2.2
Contribution to GDP growth:											
Domestic demand (y-o-y)	2.8	0.3	-5.2	-3.7	0.2	-2.3	2.1	3.8	1.6	1.2	2.1
Inventories (y-o-y)	-0.1	-0.2	-4.0	3.2	-0.4	-0.6	-0.7	0.0	-0.4	0.0	0.0
Net exports (y-o-y)	0.8	0.7	2.6	1.3	2.0	1.3	0.5	-0.2	1.6	0.9	0.5
Contribution to potential GDP growth:											
Total Labour (hours) (y-o-y)	-0.5	-1.4	-1.9	-1.8	-1.4	-0.8	-0.1	0.5	0.6	0.7	0.6
Capital accumulation (y-o-y)	1.4	1.3	0.8	0.4	0.3	0.1	0.4	0.7	0.7	0.5	0.6
Total factor productivity (y-o-y)	2.1	1.4	1.2	1.1	0.9	0.7	0.6	0.6	0.7	0.9	1.0
Current account balance (% of GDP), balance of payments	-7.5	-7.0	-0.8	0.3	0.8	1.8	3.9	2.2	.	.	.
Trade balance (% of GDP), balance of payments	-1.8	0.4	4.1	5.4	6.1	6.8	7.3	7.4	.	.	.
Terms of trade of goods and services (y-o-y)	-0.6	-1.2	1.3	0.1	-1.4	-1.0	0.5	0.7	1.0	0.5	0.0
Capital account balance (% of GDP)	0.4	1.1	1.7	1.8	2.4	2.5	3.6	3.8	.	.	.
Net international investment position (% of GDP)	-87.1	-102.3	-115.7	-108.9	-106.4	-94.2	-83.5	-73.2	.	.	.
Net marketable external debt (% of GDP) (1)	-31.3	-54.7	-56.1	-54.2	-51.4	-45.8	-37.2	-33.7	.	.	.
Gross marketable external debt (% of GDP) (1)	69.1	99.5	111.5	113.9	117.1	100.6	89.0	86.3	.	.	.
Export performance vs. advanced countries (% change over 5 years)	47.5	39.4	22.4	11.8	6.6	-11.9	-13.6	-9.12	.	.	.
Export market share, goods and services (y-o-y)	5.2	3.3	-3.3	-8.0	-3.7	-10.7	4.0	3.5	.	.	.
Net FDI flows (% of GDP)	-2.1	-1.1	-0.5	-3.0	-1.6	-2.1	0.1	-2.6	.	.	.
Savings rate of households (net saving as percentage of net disposable income)	4.1	1.5	3.6	3.6	4.1	2.6	3.9	4.9	.	.	.
Private credit flow (consolidated, % of GDP)	13.6	12.7	6.0	-4.2	-4.6	-6.1	-1.1	-0.5	.	.	.
Private sector debt, consolidated (% of GDP)	79.1	105.6	117.1	115.6	114.9	102.0	95.3	91.3	.	.	.
of which household debt, consolidated (% of GDP)	23.3	36.5	37.7	39.7	37.6	31.8	28.2	25.9	.	.	.
of which non-financial corporate debt, consolidated (% of GDP)	55.8	69.1	79.4	75.9	77.3	70.2	67.1	65.4	.	.	.
Corporations, net lending (+) or net borrowing (-) (% of GDP)	-1.1	-1.4	4.8	5.0	5.1	3.4	7.2	5.1	7.0	7.5	8.4
Corporations, gross operating surplus (% of GDP)	23.5	24.1	23.9	24.6	25.3	24.4	25.6	26.3	26.2	27.0	27.7
Households, net lending (+) or net borrowing (-) (% of GDP)	0.4	-0.7	0.7	1.6	3.5	3.0	2.9	3.4	3.3	2.4	1.8
Deflated house price index (y-o-y)	.	-3.1	-9.0	-5.8	-6.9	-9.3	-4.6	3.1	.	.	.
Residential investment (% of GDP)	4.5	4.1	4.2	3.1	2.2	2.0	1.4	1.6	.	.	.
GDP deflator (y-o-y)	4.4	5.0	3.9	2.3	2.2	3.5	3.1	3.2	2.3	2.4	2.8
Harmonised index of consumer prices (HICP, y-o-y)	5.4	6.0	4.0	4.7	3.9	5.7	1.7	0.0	0.1	1.7	2.5
Nominal compensation per employee (y-o-y)	8.0	7.3	-1.3	-0.3	3.1	2.1	1.8	0.9	3.5	3.5	3.5
Labour productivity (real, person employed, y-o-y)	3.6	2.9	-4.2	1.0	1.7	-1.8	0.9	-0.9	.	.	.
Unit labour costs (ULC, whole economy, y-o-y)	4.2	4.3	3.0	-1.3	1.4	4.0	0.9	0.3	2.8	2.7	2.2
Real unit labour costs (y-o-y)	-0.2	-0.6	-0.9	-3.5	-0.8	0.5	-2.2	-2.9	0.5	0.3	-0.6
Real effective exchange rate (ULC, y-o-y)	2.8	0.7	-9.7	-1.3	0.0	-3.0	-1.6	-4.2	-0.4	-0.2	.
Real effective exchange rate (HICP, y-o-y)	2.9	2.7	-5.3	1.6	-0.4	-2.2	-1.4	-3.5	-2.0	0.5	0.4
Tax wedge on labour for a single person earning the average wage (%)	35.0	38.3	37.8	31.2	35.0	35.1	34.5	34.5	.	.	.
Tax wedge on labour for a single person earning 50% of the average wage (%)	19.4*	23.4	23.8	23.8	26.8	34.5	34.5	34.5	.	.	.
Total Financial Sector Liabilities, non-consolidated (y-o-y)	19.2	28.1	-0.8	-0.3	7.1	-6.7	-4.0	8.2	.	.	.
Tier 1 ratio (%) (2)	.	13.5	13.1	14.1	13.8	16.0	17.0	14.6	.	.	.
Return on equity (%) (3)	.	19.2	16.3	3.7	8.0	7.3	7.1	-15.3	.	.	.
Gross non-performing debt (% of total debt instruments and total loans and advances) (4)	.	3.7	7.7	10.9	12.8	14.1	14.0	14.2	.	.	.
Unemployment rate	6.8	7.8	10.0	11.2	11.0	11.0	10.2	7.7	6.7	6.0	5.2
Long-term unemployment rate (% of active population)	3.0	3.6	4.2	5.5	5.2	5.0	4.9	3.7	.	.	.
Youth unemployment rate (% of active population in the same age group)	17.1	19.5	26.4	26.4	26.0	28.2	26.6	20.4	.	.	.
Activity rate (15-64 year-olds)	61.1	61.2	61.2	61.9	62.4	63.7	64.7	67.0	.	.	.
People at-risk poverty or social exclusion (% total population)	31.0	28.2	29.6	29.9	31.5	32.4	34.8	31.1	.	.	.
Persons living in households with very low work intensity (% of total population aged below 60)	11.3	12.0	11.3	11.9	12.8	12.8	13.6	12.2	.	.	.
General government balance (% of GDP)	-7.1	-3.6	-4.6	-4.5	-5.5	-2.3	-2.5	-2.5	-2.1	-2.0	-1.9
Tax-to-GDP ratio (%)	37.6	39.7	39.2	37.5	36.9	38.6	38.2	38.4	39.1	37.8	37.4
Structural budget balance (% of GDP)	.	.	.	-3.5	-4.5	-1.4	-1.5	-2.5	-2.2	-2.5	-2.2
General government gross debt (% of GDP)	61.4	71.6	78.0	80.6	80.8	78.3	76.8	76.2	75.8	74.3	72.4

(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.

**Source:** European Commission, winter forecast 2016; European Central Bank.

## 2. IMBALANCES, RISKS, AND ADJUSTMENT ISSUES

This section provides the in-depth review foreseen under the macroeconomic imbalances procedure (MIP) <sup>(1)</sup>. It focuses on the risks and vulnerabilities flagged in the Alert Mechanism Report 2016. The section firstly analyses the reasons behind the significant decline of the net external liabilities, the drivers of large surpluses on the external balance and the impact on the ongoing stock adjustment. The focus is on export performance, competitiveness and the role of foreign direct investment. Secondly, the section focuses on the ongoing adjustment in the banking sector. Deleveraging pressures are easing but continue to constrain investment and economic growth. Financial risks have significantly decreased. Thirdly, the section analyses possible ways to enhance potential growth. While labour market policies helped in this regard, it appears crucial to find new ways to accelerate total factor productivity and promote higher investment in productive assets. The section concludes with the MIP assessment matrix, which summarises the main findings.

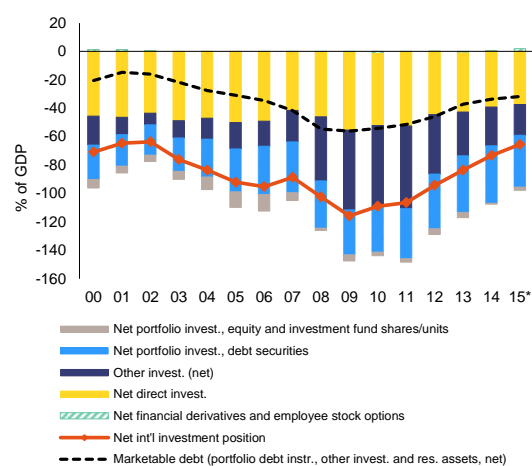
### 2.1. EXTERNAL SUSTAINABILITY: CONTINUED ADJUSTMENT IN STOCK VULNERABILITIES

#### Adjustment in external indebtedness

**Net external liabilities declined from 116% of GDP in 2009 to 73% by 2014** (Graph 2.1.1). This is still high by international comparison but it is closer to levels of regional peers and the rapid pace of decline is projected to continue. The rebalancing of the economy has been achieved through maintaining high current and capital account surpluses (reaching 6-9% of GDP in recent years), which reflect private sector deleveraging and a high inflow of EU funds. While the crisis resulted in sharply increased net savings of households and corporations, the general government deficit also decreased after 2011. The high surplus position remained stable despite the recent take up of domestic demand. Regarding liabilities by sectors, the improvement in the net external liabilities is primarily attributable to a declining external debt of the banking sector accounting for more than two-thirds of the total change. Roughly half of the net external liabilities consist of debt securities and the other half is represented by FDI or portfolio investments.

<sup>(1)</sup> According to Article 5 of Regulation (EU) No. 1176/2011.

Graph 2.1.1: Components of Net International Investment Position



(1) \* indicates estimated figure using quarterly data

(2) invest. = investment; instr. = instrument; res. assets = reserve assets

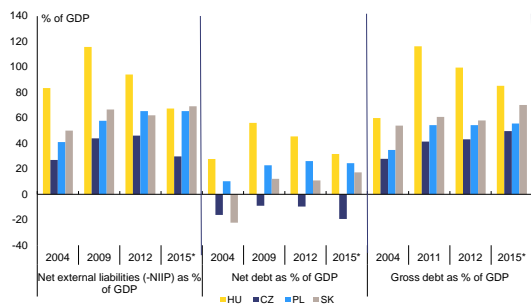
Source: Eurostat

**The rapid improvement in the net external liabilities seems to have continued in 2015.** By mid-2015, net external liabilities declined further to around 68% of GDP backed by a record high level of net lending. Following this trend, net external debt (without intercompany loans) declined to around 30% of GDP, while gross external debt decreased below 85% GDP (from their peak levels of 56% and 111%, respectively). Overall, Hungary is improving fast towards its regional peers regarding the key external vulnerability indicators (Graph 2.1.2). Nevertheless, Hungary's gross external debt remains relatively high, accompanied by considerable rollover needs. Although short term



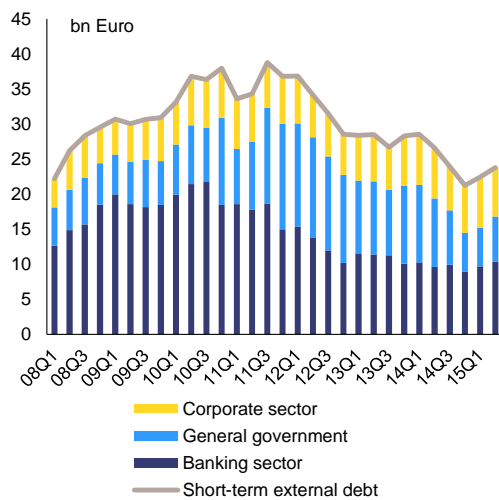
external debt has also declined by some EUR 15 billion (15% of GDP) since 2011, it still exceeds EUR 20 billion (above 20% of GDP) and thus remains a source of vulnerability (Graph 2.1.3).

Graph 2.1.2: **Key external vulnerability indicators: Hungary and regional peers**



Source: Eurostat and own calculations

Graph 2.1.3: **Short term external debt**



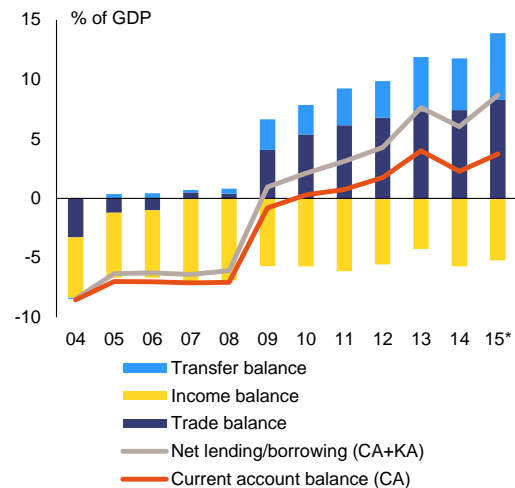
(1) Foreign debt with a maturity shorter than one year (excluding intercompany loans)

Source: Hungarian Central Bank

**Recent policy developments contributed to a reduction in external vulnerabilities.** First, the conversion of almost all foreign exchange-denominated retail loans decreased the share of such household loans from 70% to close to zero since early 2015. It was a two-step conversion process, which started with mortgages in spring 2015 and was followed by the remaining part, mainly car-financing loans in the autumn of 2015. By the end of 2017, the household loan conversion is expected to lead to a reduction in gross external

debt by around 8% of GDP as banks gradually repay their associated foreign currency liabilities (see subsection 2.2). Second, the central bank's self-financing programme aims to increase the role of domestic sources in financing government debt by providing incentives for local banks to channel their excess liquidity from central bank accounts to the sovereign market (Box 2.1.1). Coupled with the stepped-up retail securities scheme, the share of foreign exchange-denominated component in the public debt has decreased from around 40% to 33% (or by some 5% of GDP) since the announcement of the programme in spring 2014. Given that both measures result in a simultaneous reduction in foreign assets as well (mainly the central bank reserves), the country's net external position is not affected. Nevertheless, lower gross external debt leads to lower external refinancing needs, diminishing external rollover risks, and may also help reducing the sovereign risk premium.

Graph 2.1.4: **Components of the external position (current and capital account)**



(1) Value for 2015 is based on latest available quarterly data (q2 2015). Income balance: labour income, income on equity and income on debt. Transfer balance: sum of the capital account, other primary income and secondary income.

Source: European Commission

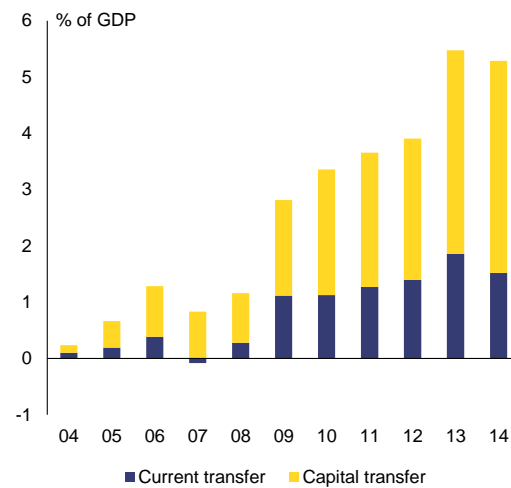
**All key components of the balance of payments have significantly improved since 2008.** Following a sharp reduction of the deficit in 2009, the current account gradually improved and recorded a surplus of 4% of GDP by 2013 (Graph 2.1.4). Although the surplus moderated in 2014 to 2.3% of GDP, largely due to increased reinvested

earnings of foreign-owned companies, it is expected to reach around 4% of GDP again in 2015. The sustained surplus position of the current account in the post-crisis years reflects a steadily rising trade balance. The latter increased from a slightly positive level in 2008 to 7.4% of GDP by 2014, and improved further to above 8% in 2015. The trade balance thus was a key factor driving the correction of external imbalances since the outbreak of the crisis in 2008, but not the only one. Starting from a level of around -7% of GDP, net primary incomes increased by some 1½ pps. between 2009 and 2015. Initially, this was a result of declining income of foreign equity. However, more recently the recovery in equity income is largely counterbalanced by decreasing interest payments as well as the increasing earnings of domestic residents working abroad. In addition, net transfer receipts improved the external balance by some 3½ pps. since 2008 (within this the capital account balance increased from 1% to around 4-5% of GDP in recent years). This primarily reflects the growing absorption of EU funds.

**EU financial flows made an increasing contribution to the improvement in the net external financing, one of the highest in Europe.**

Hungary has recently become the largest net beneficiary of the EU budget among Member States as measured by the operating budgetary balances. Net transfers to the country stood at 5.5% and 5.3% of GDP in 2013 and 2014, respectively (Graph 2.1.5). Current EU transfers – reflecting direct agricultural supports and the current expenditure component of structural funds net of the national contribution to the EU budget – improved the current account by around 1.5-2% of GDP in recent years. Meanwhile, EU structural fund disbursements financing investment activities (recorded in the capital account) reached around 4% of GDP. According to the 2015 convergence programme, EU transfers are expected to stay above 5% of GDP in 2015, and continuously decline to around 3% of GDP by 2019, before rising again. However, this pattern may change as the government has announced an ambitious plan to accelerate the disbursement of EU funds in the new programming period.

Graph 2.1.5: Current and capital EU transfers (% of GDP)



Source: Hungarian Central Bank and Hungarian Central Statistical Office

**Box 2.1.1: How does the MNB's Self-Financing Programme reduce Hungary's external vulnerability?**

The Hungarian Central Bank (MNB) launched the Self-Financing Programme (SFP) in April 2014 with the objective to reduce Hungary's external vulnerability primarily via a reduction in its gross external debt.

The level of gross external indebtedness of a country is a source of vulnerability and it is seen as such by investors and international institutions, including credit rating agencies. Foreign portfolio investment in emerging markets is notoriously unreliable in a market stress situation, as experienced by Hungary in the wake of the 2008 global financial crisis. Less gross external debt results in lower external refinancing needs and a diminishing external rollover risk. Therefore, it can help Hungary to regain its investment grade sovereign credit rating, which in turn could mitigate risks related to future swings in global risk aversion.

The SFP operates primarily via the transformation of the MNB's key policy instrument in order to channel commercial banks' excess liquidity from the central bank to collateralizable assets, i.e. – due to the low level of securitization of the Hungarian financial market – mainly to government bonds. Accordingly, the MNB converted its two-week bill into a deposit facility in August 2014, no longer accepting funds directly from non-residents and not providing overnight liquidity to banks against it. As further elements of the SFP, the MNB introduced a forint interest rate swap (IRS) facility and announced the possibility of other forint liquidity-providing measures to encourage banks to invest in securities. The IRSs of 3-, 5- and 10-years maturity reduce banks' interest rate risk and are offered on auctions at a below-market rate price in exchange for a commitment to hold additional securities. From September 2015, the MNB made it less attractive to keep excess liquidity in the central bank by introducing a three-month policy instrument (not eligible as collateral) and putting a quantitative limitation on the usage of the two-week deposit (allocated in tenders). It also lowered the interest rate corridor to discourage placing funds in one-day deposits and to make it more favourable for banks to access liquidity.

The increased demand by domestic banks for government securities allows the Treasury to refinance maturing foreign currency denominated debt with HUF-issuance. The increase in government bond holdings of domestic banks amounted to about EUR 5.3bn between March 2014 and September 2015, which partly also crowded out foreign investors from the secondary market and covered the net issuance of the Treasury (together with the household sector). The shift to forint issuance improves the currency structure of government debt and reduces the sensitivity of debt ratios to the exchange rate.

The SFP reduces Hungary's gross external debt in various ways. This impact of the transformation of the MNB's key instrument to exclude foreigners from holding central bank liabilities, the increased secondary market government security purchases of domestic banks replacing non-residents and the Treasury's refinancing of maturing foreign debt from HUF-issuance reduce Hungary's gross external debt. The latter directly reduces the MNB's FX reserves as well (the Treasury converts HUF with the MNB for repaying foreign debt). Therefore in all these cases, the 'direct' impact of the SFP on Hungary's net international investment position is neutral (though net external debt decreases if the foreign investor buys equity to stay in Hungary). On the other hand, over time lower gross external debt will reduce interest payments to abroad (possibly also due to the ensuing lower risk premium) Hungary's net external lending position, thereby contributing to a decrease in net external debt.

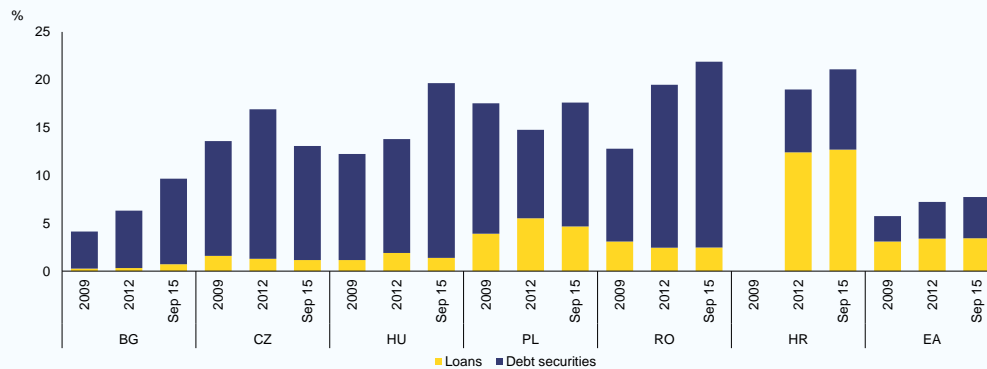
The SFP lowers the MNB's foreign exchange reserves, but it goes against the trend of increasing reserves due to EU fund absorption. International reserve coverage of short-term external debt stood at 146% at end-Q2 2015 and it is projected to remain above the commonly used 100% benchmark in the coming years. However, a lower foreign exchange reserve represents external vulnerability in itself. Long-term debt can quickly turn into short-term during a crisis. Furthermore, the level of foreign exchange reserves can be important not only to preserve the confidence of foreigners, but also that of domestic players (foreign exchange reserves covered 53% of M3 in October 2015).

*(Continued on the next page)*

Box (continued)

Moreover, the SFP strengthens the sovereign-banking sector nexus, which is against the current policy drive in the euro area and represents risks. Hungary's banks have already a relatively high exposure to government securities (Graph 1). If doubts about the government's solvency emerge, banks' access to external funding would deteriorate, thereby the public finance problems could spread to the private sector.

Graph 1: The share of general government in domestic bank assets (% of balance sheet total of MFIs)



Source: ECB

**Current projections suggest that Hungary's net external liabilities position will continue to improve in the coming period, despite the scheduled decrease in EU transfers.** According to the Commission 2016 winter forecast, net lending will remain above 6% of GDP over the forecast horizon leading the next external liabilities to decline to below 45% of GDP by 2017. Building on this, the Commission's medium-term baseline scenario indicates this ratio will decline below 35% by the end of this decade <sup>(2)</sup>. Moreover, the illustrative medium-term scenarios modelled by the Commission show that Hungary would need to achieve a current account surplus of only 1.1% of GDP on average over the next 10 years in order to halve its net external liabilities by 2025 (to reach around 35% of GDP) even without a positive contribution from the capital account. This condition is most likely to be ensured as the cyclically adjusted current account balance is estimated at 3% of GDP on average in 2013-2014, and it is forecast to reach even higher levels in the subsequent years.

<sup>(2)</sup> In the baseline scenario, the nominal GDP is projected to grow at an average rate of 4% over 2016-2026; which is based on the t+10 methodology, the capital account balance is assumed to stay at 1.5% of GDP, while the nominal effective domestic yields are assumed to remain broadly stable at around 4.6%.

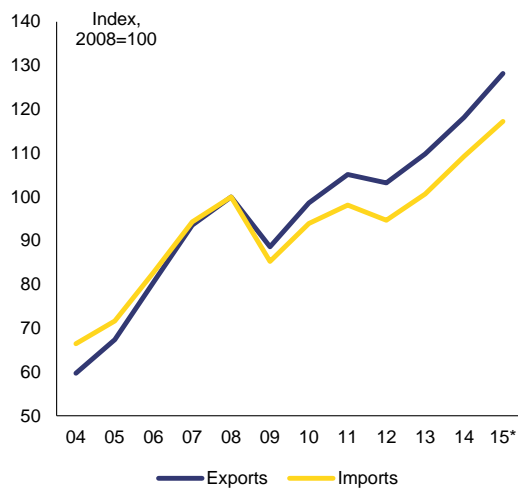
#### Drivers of trade performance

**While until 2012 the improvement in the trade balance had been mainly driven by the compressions of import demand, the positive trend has been maintained alongside the subsequent recovery of domestic demand.** This was made possible by export market share gains and favourable terms of trade effects, creating the room for the growth in import volumes (Graph 2.1.6). Following a sharp correction from -0.8% to 2.9% of GDP in 2009, the balance of goods remained broadly stable during the post-crisis years hovering around 3% of GDP (with a temporary fall in 2014 reflecting increased imports with the surge in investment). Thus the increases in the trade surplus occurred mostly on account of an uninterrupted improvement of the balance of services (altogether 4 pps. in terms of GDP between 2008 and 2015, see Graph 2.1.7).

**At around 5% of GDP, the trade surplus in services already exceeded the positive balance of goods by 2 pps. in 2015.** This is the result of expanding service exports, while the value of service imports has remained broadly stable relative to GDP since 2008. Nevertheless service exports are much smaller (around one-fifth) than the country's exports of goods. While tourism has

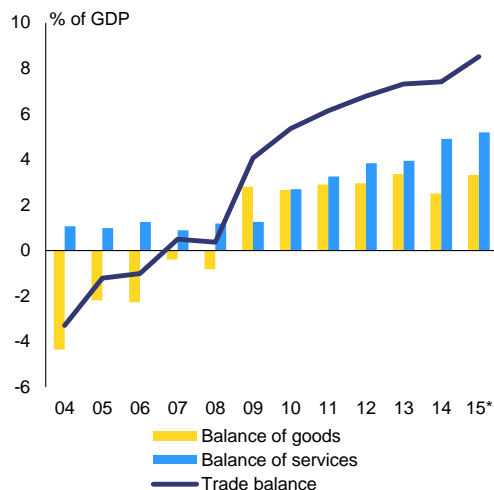
the highest share in the balance of services, the more recent gains were mainly linked to the growing exports in transportation, manufacturing services on physical inputs owned by others as well as in other business services (such as legal and accounting services).

Graph 2.1.6: **Export and import growth in volumes (2008=100)**



\* Based on European Commission 2016 winter forecast  
**Source:** European Commission

Graph 2.1.7: **Evolution of trade balance**



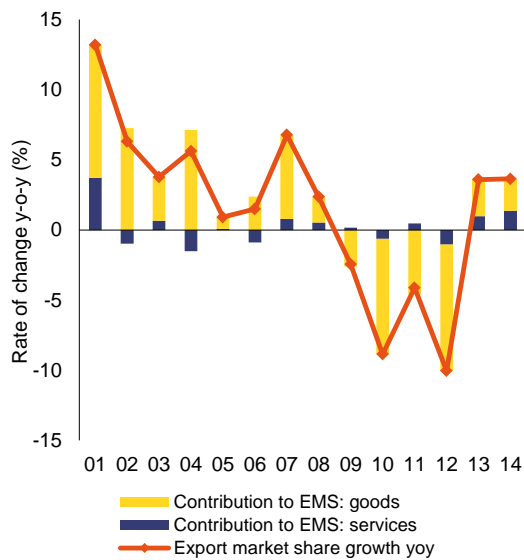
\* The value for 2015 is based on quarterly figures  
**Source:** Hungarian Central Bank

**The improvement in the trade balance in the aftermath of the crisis went in parallel with a considerable fall of export market shares, but**

**more recently there has been a turnaround.** Following a cumulative decline in market share of 23% between 2008 and 2012, Hungary recorded a cumulative growth of 7.5% in 2013 and 2014 (Graph 2.1.8). This positive trend is expected to continue. The recovery in export performance has resulted from an expansion in services and goods markets with a relatively stronger contribution by the latter segment. As far as the goods market is concerned, previous market share losses mainly occurred in the machinery and electronic equipment subsectors (accounting for 70% of the total decline between 2008 and 2012). On the other hand, recent export market gains have predominantly been driven by the increased production capacity in the automobile industry (with an estimated contribution of around 150% by the vehicle manufacturing sector to the total market share growth between 2012 and 2014<sup>(3)</sup>). Furthermore, the favourable developments in the goods market are attributable to market share gains in individual country and product markets rather than simply to the initial geographical or product distribution of exports (Graph 2.1.9). Market share gains in the geographical dimension are linked to intra EU trade. Meanwhile, the government's recent efforts in trade policy aim at facilitating the entry of Hungarian companies to new markets outside the EU as well (under the heading of "Eastern and Southern opening").

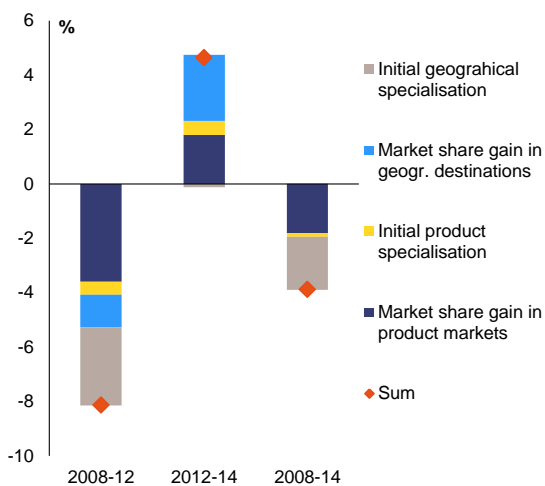
<sup>(3)</sup> The contribution is above 100 per cent as other subsectors where incurring market share losses in the same period.

Graph 2.1.8: Evolution of Hungary's export market share (year-on-year)



Source: Eurostat

Graph 2.1.9: Components of export market share change - goods (2008-2014, annual averages)



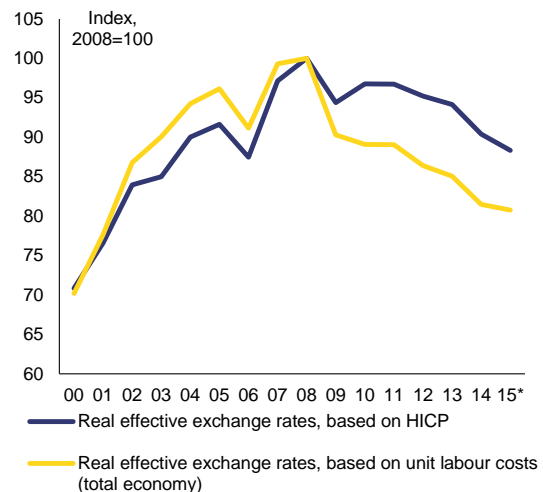
(1) The graph shows the role of market share gains as opposed to the impact of initial export market distribution on market share growth by adding together the components of average market share change for the product and geographical dimensions. Thus the sum of these components is the double of the average annual market share change in a period.

Source: European Commission

**Breaking a trend of real appreciation, Hungary's price and cost competitiveness has markedly improved since the onset of the crisis. Between 2008 and 2015, the consumer price and**

the unit labour cost based real effective exchange rate (REER) of the country depreciated altogether by around 12% and 19%, respectively (Graph 2.1.10). This was mainly driven by the nominal depreciation of the forint, but the moderation of unit labour costs also contributed to this development. The REER is forecast to remain broadly stable in the coming years. Nevertheless, the positive effects of the REER depreciation are likely to be attenuated by two important factors. First, given the initially high volume of foreign currency debt in the corporate sector (above 50% in 2009), the deterioration in firms' balance sheet position due to nominal depreciation could have resulted in an offsetting effect. Second, the import share of Hungarian exports is traditionally one of the highest in the EU (at around 45-50%), implying that the impact of the exchange rate on exports is proportionally weaker. In this respect, the increased cost and price competitiveness could have had a significantly stronger impact on the trade surplus of services as the correlation between exports and imports is typically much weaker for services than for goods.

Graph 2.1.10: The evolution of real effective exchange rate (2008=100)



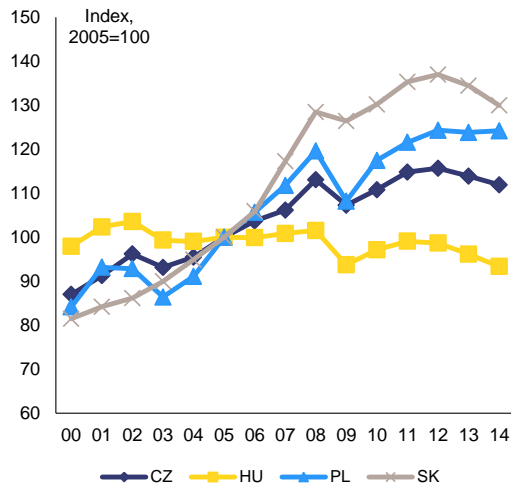
\* 2015 based on European Commission 2016 winter forecast

Source: European Commission

**However, there seems to be little improvement in Hungary's non-cost competitiveness.** Hungary's export deflators in euro terms have remained broadly unchanged since the beginning of the last decade. By contrast, other converging

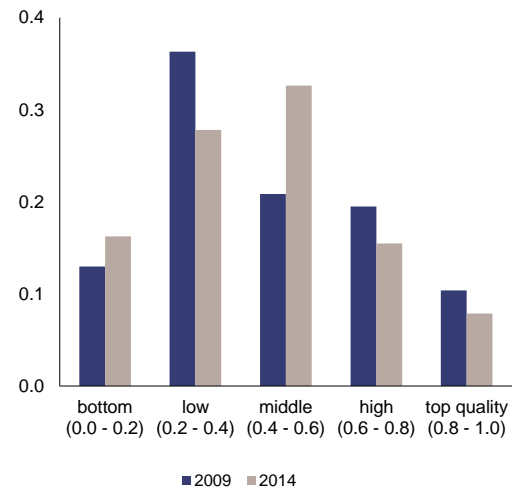
economies in the region managed to increase their export prices by around 30 to 60% percent (Graph 2.1.11). This phenomenon may be linked to Hungary's inability to improve the quality of its products, albeit from a comparatively high initial level. The traditionally significant weight of high-technology products in the Hungarian export sector has been declining since the last decade. The share of high and top quality products in export value decreased from around 30% in 2009 to 23% by 2014, while the quality distribution shifted towards the middle with a potentially greater exposure to cost competition (Graph 2.1.12).

Graph 2.1.11: Export deflators (Euro based)



Source: Eurostat

Graph 2.1.12: Share of export value by quality category (2009-2014)

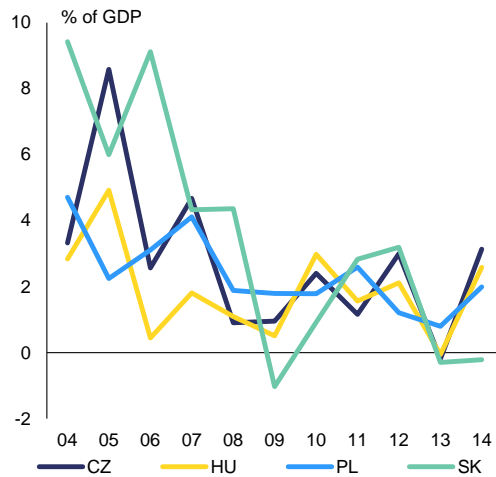


Source: European Commission

### Trends in foreign direct investment

**Following the crisis, the level of foreign direct investments (FDI) remained at historic lows, but more recent developments show some signs of a recovery.** Attracting foreign direct investment is an important source of technology transfer and productivity growth for the catching-up EU Member States. Moreover, foreign investment is a source of non-debt financing of the external position and thus enhances the shock absorption capacity of the country. Following years of very high inflows, annual net foreign direct investment in Hungary got below the levels seen in other countries in the region already before EU accession. Since the crisis, net FDI inflows remained low in Hungary, yet in line with its regional peers relative to GDP ( Graph 2.1.13).

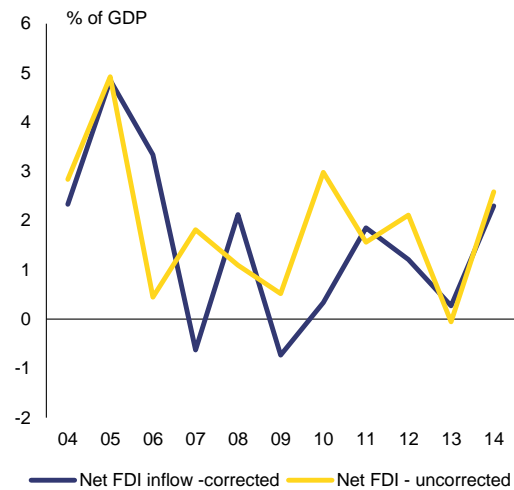
Graph 2.1.13: Net foreign direct investment: Hungary and regional peers



(1) The corrected net FDI filters out the effect of special purpose entities, capital injections in the financial sector, mergers and acquisitions and capital-in-transit.  
**Source:** Hungarian Central Bank

**Estimates for the underlying trend in net FDI inflows also show a decline since the beginning of the last decade and low levels after the crisis.** Several confounding factors could distort the assessment of FDI including the effects of capital in transit and acquisitions as well as capital injections by parent banks to offset the capital shortfalls of their subsidiaries. After adjusting for these effects using calculations by the Hungarian Central Bank, the decrease in net inflows after 2008 becomes somewhat more pronounced (1.5% of GDP on average compared with the 2004-2008 period; Graph 2.1.14). At the same time, the estimates on underlying FDI suggest that the upturn seen in 2014 is not attributable simply to transactions affecting financial flows. However, in the light of the incoming data from the first three quarters of 2015, which show a weakening in net FDI again, it would be premature to draw any firm conclusion regarding an evolving trend yet.

Graph 2.1.14: Corrected and uncorrected net FDI inflows as % of GDP



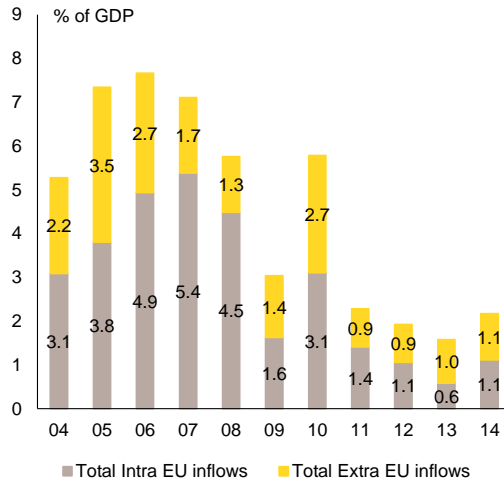
**Source:** Hungarian Central Bank

### The developments in greenfield FDI inflows to the country paint a less favourable picture.

Until the crisis, greenfield FDI (linked to the establishment or expansion of production base) in Hungary averaged 5-7% of GDP, but has declined sharply since to around 2% of GDP in recent years (Graph 2.1.15). While greenfield FDI in the EU also declined, the fall in Hungary was more significant. Greenfield investment has numerous benefits for Hungary as it increases the country's production capacity, therefore exerting a positive impact on economic growth and job creation.



Graph 2.1.15: **Greenfield foreign direct investment inflows into Hungary**



**Source:** Financial Times FDI Markets database, European Commission

**A better business environment could help Hungary to attract more FDI.** Among the Member States in the region, the OECD PMR <sup>(4)</sup> indicators show Hungary as having one of the highest legal barriers to entry. In addition, recent international competitiveness surveys rank the country as having one of the least transparent policy-making compared to regional peers. According to the latest World Economic Forum Competitiveness Report, Hungary did not perform well regarding institutions and business sophistication.<sup>(5)</sup>

<sup>(4)</sup> OECD PMR indicators. OECD, <http://www.oecd.org/eco/growth/indicatorsofproductmarketregulationhomepage.htm>

<sup>(5)</sup> The Global Competitiveness Report 2015-16, World Economic Forum, <http://www.weforum.org/reports/global-competitiveness-report-2015-2016>

## 2.2. PRIVATE AND BANKING SECTOR ADJUSTMENTS

### Private sector deleveraging

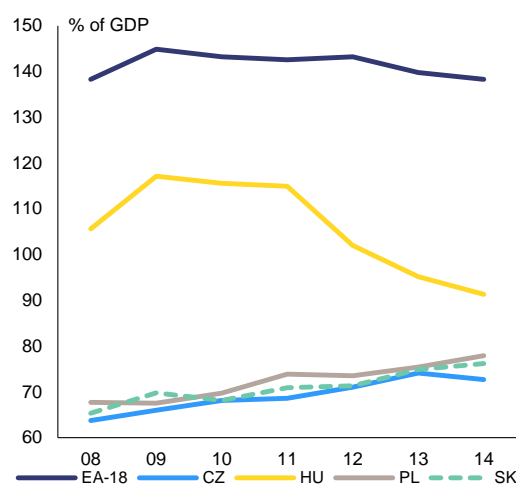
**Hungary's private sector debt has been significantly reduced.** The country entered the financial crisis with a moderately high level of private sector debt, mostly denominated in foreign currencies. The financial sector that was profitable, but heavily dependent on wholesale funding. Since then an important adjustment took place.

**Non-financial corporations (NFCs) and households deleveraged considerably since the crisis.** NFCs reduced their debt from the peak of over 80% of GDP in 2009 to 62.7% of GDP by mid-2015. This level is significantly below the EU average but somewhat above the average of regional peers (Graph 2.2.1). The funding for growth scheme (FGS) – run by the central bank – stabilised lending to non-financial corporations. Further deleveraging needs of the NFCs are estimated below 10%.<sup>(6)</sup> Hungarian firms do not point out "access to finance" as the single most pressing issue in doing business.<sup>(7)</sup> On average, business environment, responsiveness of the administration, and workforce skills are causing more concern than business financing. As to households, they reduced their debt from the peak of 40% of GDP in 2010 to 30% of GDP in 2014/2015 and have one of the lowest debt-to-GDP ratio in the EU. Nevertheless, for some households, the repayment burden remains significant and impacts both new lending and consumption trends. Household sector lending resumed growth in 2015 following five years of deleveraging.

**Hungary's deleveraging has been supported by growing GDP.** The change in the debt-to-GDP ratio can be attributed to four main drivers: net credit flows, real GDP growth, inflation through the GDP deflator and other changes such as valuation changes or write-offs (Graph 2.2.2 and Graph 2.2.3). Since the peak of indebtedness in 2009, Hungary's corporations actively reduce their debt, resulting in negative credit flows. In addition, Hungary has benefited from a positive contribution from nominal GDP growth. This has gradually eliminated the need to actively deleverage, while

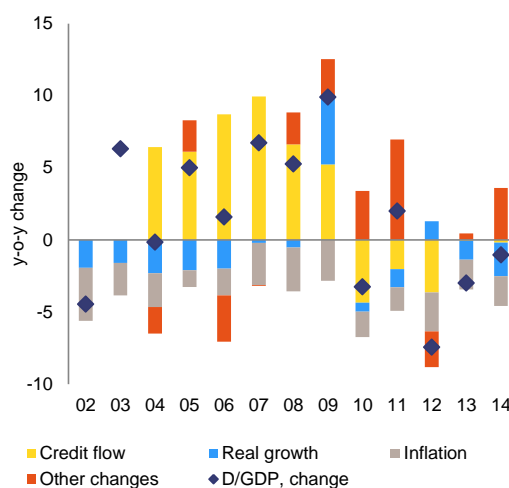
continuing to decrease the debt-to-GDP ratio "passively" through the denominator effect.

Graph 2.2.1: Private sector debt in relation to GDP - comparing East-Central European countries to Euro Area



Source: Eurostat

Graph 2.2.2: Non-financial corporations' y-o-y changes in debt-to-GDP

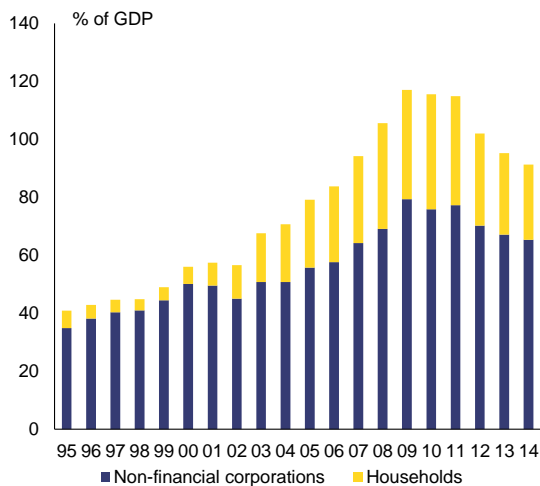


Source: Eurostat

<sup>(6)</sup> [http://ec.europa.eu/economy\\_finance/publications/european\\_economy/2014/pdf/ee7\\_en.pdf](http://ec.europa.eu/economy_finance/publications/european_economy/2014/pdf/ee7_en.pdf)

<sup>(7)</sup> SAFE Survey 2015 edition, ECB and European Commission

Graph 2.2.3: Private debt in relation to GDP, boom and gradual adjustment



Source: Eurostat

### Households' outstanding loan stock dropped in 2015 but new lending resumed growth.

The drop in stocks is attributed to the conversion of essentially all foreign currency denominated mortgages, in Q1 2015. As a result of the conversion and also of the settlement introducing new, fair banking principles, households' loans declined by HUF 947 billion (on a transaction basis)<sup>(8)</sup>. Nonetheless, the gross volume of combined new household lending amounted to HUF 286 billion in the first half of 2015, a 19% expansion y-o-y and as much as 50% y-o-y growth in the mortgage segment of the market.

### Households' demand for credit is forecast to grow.

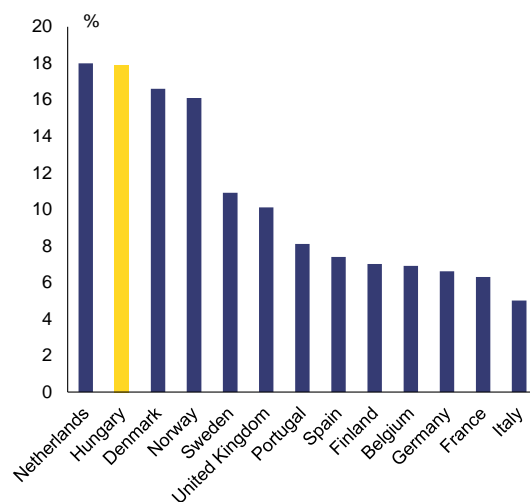
Several factors explain the pick-up in demand for new household loans. The loans settlement and the resetting of lending interest rates had a major impact on the debt servicing burden of households<sup>(9)</sup> (a drop by about 20-25% on average), which in turn boosted household consumption. Households' real incomes have been increasing for the past four years and income taxes will decrease in 2016. The economy is expanding and the outlook is positive creating a better environment for household spending.

<sup>(8)</sup> Over 70% of this figure is explained by the impact of the settlement arising from nullification of the exchange rate spread and unilateral contract modification.

<sup>(9)</sup> According to the MNB, Financial Stability Report November 2015.

Nevertheless, the debt service ratio<sup>(10)</sup> assessing the debt repayment burden of Hungarian households remains very heterogeneous and on average still high in international comparison (Graph 2.2.4). An average Hungarian has to spend 18% of his or her monthly income on debt repayment.

Graph 2.2.4: Debt service ratio in Hungary, international comparison



(1) Based on end-Q1 2015 data.

Source: Hungarian Central Bank

### The corporate sector's deleveraging is bottoming out.

The Hungarian NFCs debt-to-GDP ratio was 62.7% in mid-2015 and just 25.9% if only domestic lending is taken into account (Graph 2.2.5). The y-o-y decline was on average -3.4%. However, this aggregate figure masks two trends. Credit to the SME sector increased as a result of the FGS. A major drop was observed in outstanding loans to large corporations in 2015, in part attributable to some one-off effects<sup>(11)</sup>. Overall, in a context of record low interest rates, corporate sector's deleveraging is bottoming out, which trend is also confirmed by recent central bank's lending surveys<sup>(12)</sup>. In December 2015 60% of banks claimed to have eased supply

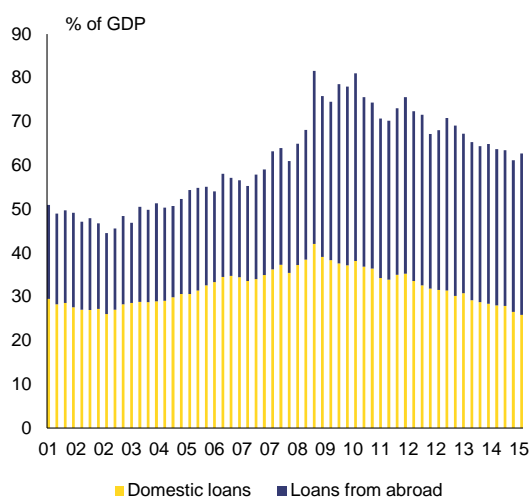
<sup>(10)</sup> The indicator captures household indebtedness as proportion of households' net income spent on servicing principal and interest repayment.

<sup>(11)</sup> The concentration level in the Hungarian corporate credit market is very high with over 50% of the corporate loan stock belonging to less than 1% of loan contracts according to the MNB.

<sup>(12)</sup> MNB Lending Survey, December 2015 and previous editions.

constraints. In parallel banks see a 50% improvement in perceived demand for corporate loans. The SME sector is expected to remain shielded from potential unfavourable credit conditions through a targeted growth supporting programme (GSP) initiated by the central bank, which aims to promote an increase in total corporate lending of up to 10%.

Graph 2.2.5: **Indebtedness of non-financial corporate sector as a proportion of GDP**



Source: Hungarian Central Bank

**The Funding for Growth Scheme allowed SMEs to have access to affordable credit.** According to the survey of access to finance of enterprises (SAFE)<sup>(13)</sup>, Hungary has better access to finance than the EU average. The FGS (Table 2.2.1) was initiated by the central bank in June 2013 as a way of extending credit to small and medium-size businesses. As in many Member States, Hungarian SMEs, and in particular micro-SMEs, which account for 94.3% of all companies in Hungary, have struggled with the recession over the past years. Under the FGS scheme, the central bank provided credit to commercial banks at zero interest for the banks to lend onward to SMEs at a maximum annual interest rate of 2.5%. The scheme radically improved access to affordable credit by small businesses<sup>(14)</sup> but its effect was

<sup>(13)</sup> The Survey on the Access to Finance of Enterprises is being published jointly by the European Commission and the European Central Bank (ECB) since 2008 and covers all Member States.

<sup>(14)</sup> According to the central bank, about 28,000 micro, small and medium-sized enterprises accessed FGS funding

not large enough to boost market-based corporate lending. Governmental support programmes including the guarantee schemes also had a rather limited effect on loan growth.<sup>(15)</sup> Altogether, loans with preferential conditions account at present for about a half of the SME loan stock. As the second phase of the FGS ended in December 2015, the central bank announced the launch of a new GSP designed to help domestic banks return to market-based financing. This is expected to be achieved by gradually phasing out the FGS and by announcing a new market-based lending scheme – an incentive for banks to boost their lending business. The extended programmes encourage lending to new projects, as opposed to refinancing, and widen the scope of eligible SMEs.

#### Banking sector adjustment

**The banking system's vulnerability declined over the past year.** The conversion of households' foreign currency loans was a major change. It eliminated the most important systemic risk stemming from foreign currency exposures. The sector is showing better results driven by a stabilisation of the operating environment. There have been improvements in the country's economic performance and moderation in the policies and taxation towards the banking system. Nevertheless, in 2015, banks were on average, highly cautious and had low risk appetite, hindering the recovery of market-based corporate lending. This cautiousness was present despite high capital ratios and abundant liquidity. Non-performing credit remains a pressing issue, driven by low profitability in the corporate segment. The key concerns at this stage are: (i) re-engaging market lending, (ii) resolving the bad debt issue and (iii) putting banks' profitability levels at par with regional averages. Addressing these concerns would help reignite growth and the catching up potential of the Hungarian economy

increasing domestic output by some 1–1.5 percentage points in the 2013–2015 timeframe.

<sup>(15)</sup> Anecdotal evidence and the banking community point to the excessive amount of administration involved in guarantee schemes and the need to revise the administrative burden in order to make guarantees easier and more efficient.

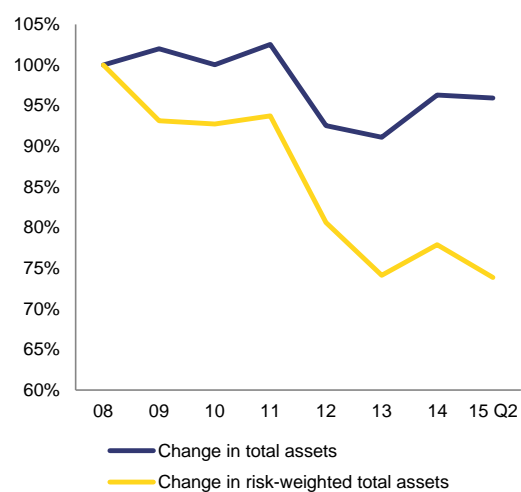
Table 2.2.1: **Funding for Growth Scheme**

Funding for Growth Phase	Timeframe	Total Funds Contracted (in HUF bn)
First	June - September 2013	HUF 701
Second	October 2013 - December 2015	HUF 1183 (until November 2015)
Third (Growth Supporting Program)	2016	Both HUF and foreign currency denominated loans pillars with a target amount of HUF 300 billion

**Source:** Hungarian Central Bank

**Domestic banks have significantly reduced their size and business volumes.** Hungarian credit institutions have been in adjustment mode for far longer than the two-year period (2008-2009) when Hungary struggled with its debt crisis and benefited from the EU/IMF financial assistance programme. The banking sector's deleveraging and de-risking continued until 2014, the year with lowest net result for the Hungarian banking sector as whole.<sup>(16)</sup> The downsizing of the banking business was severe, going well beyond the drop in general economic activity. Total assets of Hungarian banks decreased by over EUR 20 billion between 2010 and 2015 (Graph 2.2.6). At the same time, the drop in lending to the economy by nearly a third of the total outstanding loans was even more pronounced. It is to some extent the result of a correction from the pre-crisis boom years when banks' lent abundantly to Hungarian borrowers –heavily exposing them to foreign currency risk – and when credit risk standards were loose because of ample liquidity in the market. Nevertheless, credit institutions also reacted to the unfavourable and often unpredictable operational environment, very high taxation and the lack of proper dialogue between the government and the local credit institutions. Local banks' lack of risk appetite reached unprecedented levels resulting in a credit crunch on the one hand and in rapid deleveraging of foreign banks on the other hand.

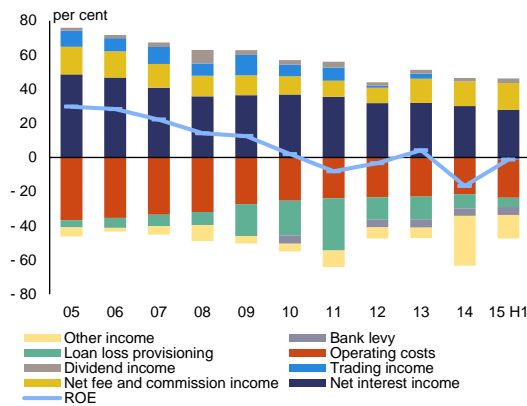
<sup>(16)</sup> In 2014 banks heavily provisioned their lending book following the "fair banking" legislation.

Graph 2.2.6: **Banking sector's total assets and risk-weighted assets (2008 = 100)**

**Source:** Hungarian Central Bank

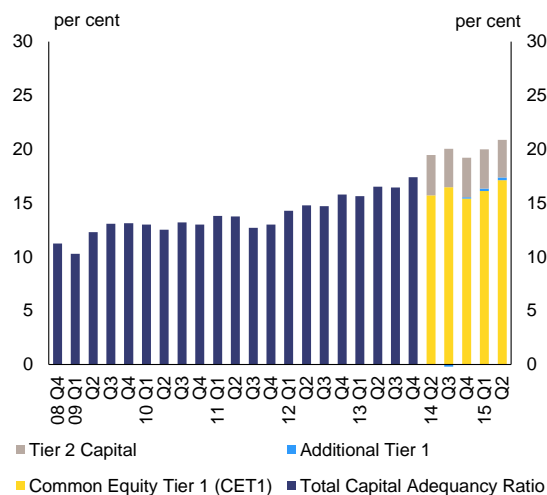
**In terms of profitability, 2015 was a turnaround-year for the Hungarian banking sector.** The aggregated Q1-Q3 2015 income figures suggest that the sector is on track to close 2015 with a profit (Graph 2.2.7). Also, the positive changes in the government's unfavourable policies towards the banking system help the banks to return to profitability. From the financial stability standpoint vulnerabilities of the banking sector declined. The system is at present adequately capitalised - with a Tier 1 capital ratio of 20.5% - and liquid (Graph 2.2.8). At the height of the crisis, beginning 2009, banks' capital adequacy was only at 10%.

Graph 2.2.7: Banking sector profitability



Source: Hungarian Central Bank

Graph 2.2.8: Average capital adequacy ratio in the Hungarian banking system



(1) CDR IV CRR as of 2014 Q2

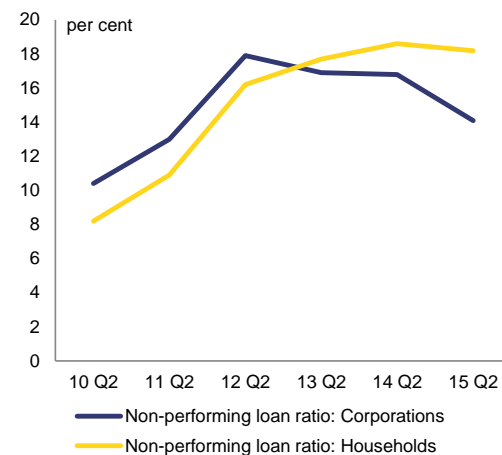
(2) Capital ratios measure the financial strength of a bank. The regulatory capital ratios in the EU are based on a directive (Capital Requirements Directive, CRD IV) and a regulation (Capital Requirements Regulation, CRR), which apply as of 1 January 2014.

Source: Hungarian Central Bank

**Systemic risks decreased but the quality of the loan portfolio remains low.** A considerable amount of loans denominated in foreign currencies (mainly Swiss franc) was converted into forints. This significantly decreased financial systemic risks. However, asset quality remains a major concern with non-performing loans ratios of over 18% and 13% in the retail and corporate sectors respectively (Graph 2.2.9); the coverage ratio in both segments is about 60%, which in international

comparison is average to high. The restructuring and work-out of non-performing loans remain high on the agenda of Hungarian authorities but improvements in this area are not yet detectable in aggregate data. In the case of mortgage loans a recent adjustment of the personal bankruptcy legislation and the expansion of the National Asset Management Agency for mortgage loans may facilitate the resolution of some of the bad mortgage loans. Nevertheless, there still is the need for further incentives that would promote market solutions, in particular a more intense effort regarding mortgage loan restructuring. The quality of the corporate portfolio remains an unresolved issue with high impact on new lending. The activities of MARK<sup>(17)</sup> may be one of the steps in a complex solution that could, similarly to the household segment, entail work on debt restructuring.

Graph 2.2.9: Non-performing loan ratios



Source: Hungarian Central Bank

**The operating environment of the Hungarian financial system remains challenging.** Overall, Hungarian banks continue to function in a difficult business environment that remains characterised by a high tax burden on financial institutions and poor investment prospects as shown by the negative year-to-date investment figures (down 3.4% y-o-y in Q3 2015)<sup>(18)</sup>. Nevertheless, foreign

<sup>(17)</sup> MARK is a debt management agency, which was set up by the Hungarian central bank to purchase and deal with project loans.

<sup>(18)</sup> A recent survey published by one of the leading Hungarian lenders estimates the 2016 investment outlook for some 500 companies as weak. Only about a third of the 500

financial groups operating in Hungary stayed committed to support their subsidiaries and to develop their local franchise. This was confirmed by the very sizeable equity capital injections over the recent years (some EUR 4.5 billion in total), in 2014 alone over EUR 1 billion. This additional capital buffer helped Hungarian lenders to face losses stemming from the fair banking legislation that limits fees, commissions and interest rates on lending contracts. The boosted capital base and liquidity levels are in line with local supervisory recommendations and the CRD IV and CRR rules (Graph 2.2.8). The recently published European Investment Bank's (EIB) quarterly bank lending survey<sup>(19)</sup> - a gauge of parent banks views on their CESEE business activities - points to an improving perception of Hungary from the parent banks perspective. This improved market sentiment explains why the speed of steady reduction in exposure to Hungary (observed over the past years), as reported by international lenders to the Bank for International Settlements (BIS), started to increase in the first quarter of 2015.

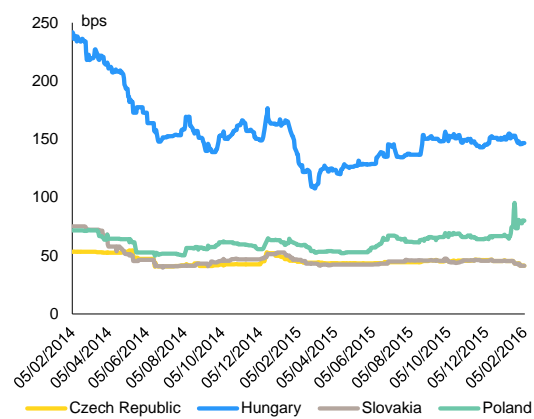
**The change in market sentiment is reflected in the further decrease of Hungarian sovereign risk spreads,** which moved significantly closer to the level of regional peers (Graph 2.2.10). Nonetheless, even though the recent EIB survey for the second quarter of 2015 developments shows more optimism than the previous first quarter edition, the prospects for the Hungarian market are described as being worse compared to the other countries in the region. About 33% of the surveyed respondents still believe that the potential of the Hungarian market is low. Parent banks also stress that the profitability of the Hungarian operations is still below the regional standards, with roughly 50% of the banks reporting risk-adjusted returns on equity in Hungary as being significantly lower than the overall group level.

companies surveyed plans some investment in the next 12 months. This percentage is even lower when focusing on large companies – in that segment only 26% intend to launch some type of higher investment in 2016. The Commission notes that the 2016 survey strongly resembles the 2015 edition in which only 30% of Hungarian companies mentioned they did plan investments for 2015 while 61% responded they did not foresee to change the level of capital investment in 2015. Some 9% planned to decrease capital investments in 2015.

<sup>(19)</sup>

[http://www.eib.org/attachments/efs/economics\\_cese\\_e\\_bls\\_2015\\_h2\\_en.pdf](http://www.eib.org/attachments/efs/economics_cese_e_bls_2015_h2_en.pdf)

Graph 2.2.10: 5 year credit default swap (CDS) in Hungary and regional peers



Source: Thomson Reuters

**The State plays an important role in financial intermediation.** Since the outbreak of the financial crisis much of the debate around the banking system in Hungary focused on two key matters: foreign exchange (FX) loans, which grew exponentially with the appreciation of the Swiss franc and the recession and on boosting lending, mainly to the small and medium sized enterprises. Since market based lending continued to contract and the FX loans problem would take decades to be resolved (most FX loans were long term mortgage contracts), the Hungarian authorities took an increasingly active role in repairing the financial system that had been perceived as not supporting economic growth and burdening households with currency risk (Box 2.2.1). The authorities focused their policies on "right-sizing" through consolidation, refocusing on national currency lending, boosting the efficiency of banks and promoting the development of a domestically owned banking sector with a soft target of up to 60% of domestic ownership. Based on recent calculations the share of financial institutions owned by domestic actors is now close to the 60% target<sup>(20)</sup> and the state was over the past year the most active investor in the financial sector. This activity entails a contingent liability element for the Hungarian state budget.

<sup>(20)</sup> MNB, Financial Stability Report, November 2015.

**Box 2.2.1: The 2015 foreign exchange denominated loans conversion schemes**

The foreign exchange (FX) debt settlement schemes affected in total some 730 000 contracts, including some 500 000 mortgage contracts and an additional 230 000 consumer and leasing contracts. As a result of the conversion, one of the highest household foreign currency-denominated exposures in the EU dropped to one of the lowest, from 15% of GDP down to essentially nil. The conversion of foreign currency-denominated household debt took place in two stages. The initial flagship programme of the government initiated in November 2014 covered only mortgage loans and came into effect with the fixing of the exchange rate for instalments - as of January 2015. Following an agreement between the authorities and the banking sector it was the central bank that provided the required foreign exchange funds (in total EUR 9 billion) to the counterparty institutions, in order to enable them to close their open FX position at market rates and avoid impacting the market exchange rate of the forint. The timing of the first FX debt conversion scheme covering ultimately some HUF 3,000 billion in mortgages was matched with the start of the law on "fair banking", which defined stricter conditions for unilateral changes in interest rates, charges and fees. As a result of the settlement and the resetting of the lending rates, the debt servicing burden of a typical Hungarian household decreased by about 20% on average. The conversion of the households' foreign currency debt – over half of all household debt in Hungary – coincidentally, took place just a few weeks before the Swiss central bank announcement of unpegging the Swiss franc. With hindsight, the conversion of households' FX debt was definitely the most successful move by the Hungarian authorities to foster financial stability over the past few years. The pledge to free Hungarian households from FX debt was made complete with the second debt settlement scheme that focused on converting foreign-currency car and personal loans into forint debt at the rates in effect on August 19. The scheme was the outcome of a deal negotiated between the authorities and the banking association. Similarly to the first FX conversion scheme, the required funds to close the FX open positions worth some EUR 1 billion were provided by the central bank, whereas the costs of a rebate compensating borrowers for the weakening of the national currency were jointly shouldered by the banks and the Hungarian state. Consequently, lenders are allowed to reduce their 2016 and 2017 tax bills by the corresponding amount.

**In 2015 the Hungarian authorities announced their plans to reduce burden on banks.** This was emphasised in a memorandum of understanding (MoU), signed on 9 February with the European Bank for Reconstruction and Development (EBRD) in which the government committed to reducing bank taxes, to disposing of two lenders recently acquired by the Hungarian state, assisting in solving the issue of non-performing credit and refraining from implementing new laws or measures that may have a negative impact on the profitability of the banking sector. A further commitment was made to ensure that there is fair competition between and equal treatment of all financial institutions in Hungary, irrespective of size or nationality of ownership. A lower rate for the bank tax was announced in late 2015. The levy is projected to decrease from 0.53 % in 2015 to 0.24 % in 2016 and be capped at 45% of the 2015 tax obligations. The base for the tax, however, remains anchored in the end-2009 balance sheet of banks. For the years 2017 and 2018 the Hungarian legislator announced plans to further reduce the tax rate to 0.21 %. The new bill announced in

December stipulates that banks' 2017 and 2018 tax payments cannot exceed their 2016 payments.

**Nevertheless, Hungarian banks continue to deleverage.** The loan-to-deposit (LTD) ratio peaked in 2009 at 160%. It dropped below 100% by the end of 2014 and estimated to decline further to 94% by mid-2015.

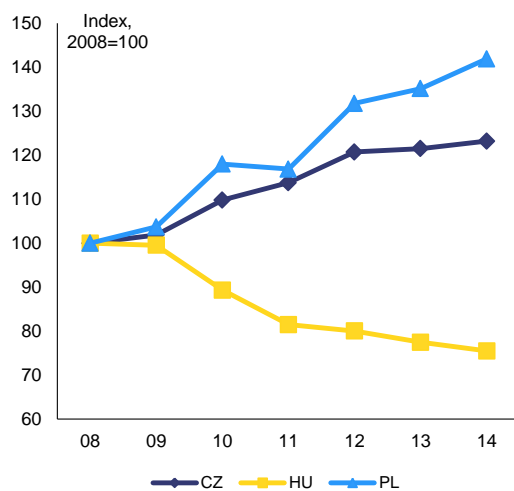
*The adjustment of banks' business models to the new operating conditions*

**The "rightsizing" of the banking system in Hungary helped improve profitability but further efforts are needed to improve the cost structure of banks.** Comparing the cost base of the Hungarian banking sector to regional peers shows the extent of the adjustment of the sector over the past six years. The 2014 total operating expenses of Hungarian banks show a 20% decline compared to the 2008 figures. Banks operating expenses in Poland and the Czech Republic increased during the same period by 12% and 9%, respectively. This is partly explained by the decrease in employment in the Hungarian banking



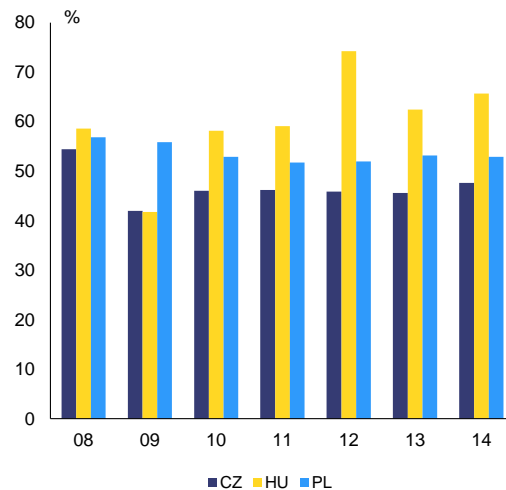
sector, from 34 500 employees in 2008 down to 30 000 at the end-2014 and the closing of some 300 branches across the country (from almost to 1700 outlets to 1400) in the same period. Nevertheless, the efficiency of the banking sector has not improved unlike in Poland and in the Czech Republic. The increase in the total operating expenses to total assets ratio (2.6% and 3.5% in 2008 and 2014 respectively) points to the fact that total assets diminished faster than operating expenses (Graph 2.2.11). Likewise, the cost to income ratio is very high in Hungary, at 65% in 2014 (59% in 2008), whereas both Poland (53%) and Czech Republic (48%) managed to lower their respective cost base (Graph 2.2.12). These developments reflect the fact that the other countries in the region did not have such deep and prolonged recessionary periods as Hungary. Moreover, the income generating capacity of Hungarian banks was heavily affected by government policies including various schemes to assist FX borrowers.

Graph 2.2.11: Evolution of total assets in Hungary, Poland and the Czech Republic



Source: European Central Bank

Graph 2.2.12: Evolution of the cost-to-income ratio in Hungary, Poland and the Czech Republic

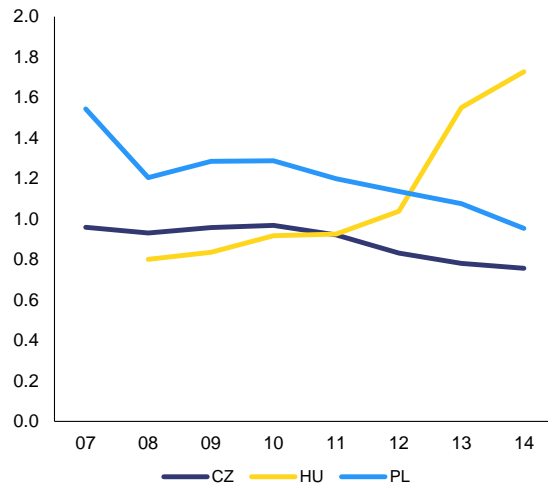


Source: European Central Bank

**Banks' resilience was strengthened and sensitivity to shocks decreased.** Banks managed to correct some of their imbalances through eliminating much of the reliance on wholesale funding and by lowering the aggregated cost base and somewhat increasing their income from fees and commissions <sup>(21)</sup> (Graph 2.2.13), against the backdrop of low net interest margin.

<sup>(21)</sup> Both in nominal terms and relative to total assets, according to ECB data.

Graph 2.2.13: Fees and commissions as percentage of total assets - comparing Hungary to Poland and the Czech Republic



Source: European Central Bank

## 2.3. ELEVATING GROWTH POTENTIAL

### A faster decline of Hungary's accumulated imbalances hinges on the successful implementation of growth enhancing reforms.

The Commission examined in a dedicated chapter the issue of potential growth three years ago in an IDR section <sup>(22)</sup>. This chapter presents the latest results of the potential output calculation of the Commission, based on the commonly agreed methodology <sup>(23)</sup>. In addition, it makes a comparison with other countries and draws policy implications on how to enhance potential growth.

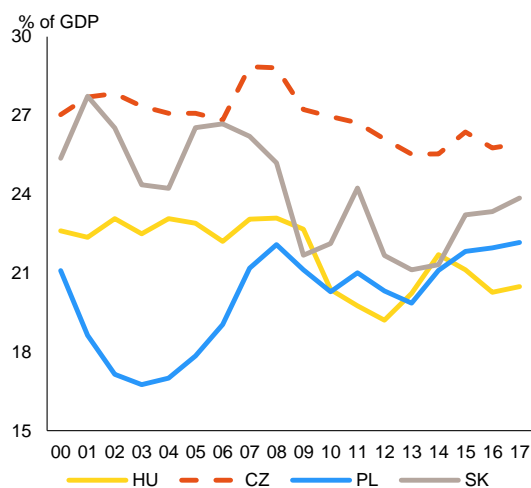
**Hungary's growth potential has been recovering since 2010** (see Graph 2.3.4 at the end of the section). Data suggest that the Hungarian economy had been overheating until 2008, characterised by high capacity utilisation and massive net borrower position. During the crisis, capacity utilisation fell below its historical average, while weak domestic demand led the economy to become a net lender. However, the economy is projected to return to its potential level over the forecast horizon, yet with a lower contribution of total factor productivity (TFP) and capital accumulation than before the crisis.

**While total factor productivity growth and capital accumulation have not fully recovered, labour contribution has improved.** The deceleration in TFP growth is likely linked to weaknesses of financial intermediation, relatively low productive investment and a low level of innovation. Capital accumulation also remains below the pre-crisis level reflecting lower investment growth. Deleveraging inherently reduced investment rates (see Graph 2.3.1), but the slowdown also partly stems from the perceived deterioration in the business environment (see box 1.1). However, contribution of labour to potential growth has considerably improved. This is linked to structural reforms, namely the extension of the retirement age, the tightening of the eligibility for unemployment benefits and disability pensions.

<sup>(22)</sup> Macroeconomic Imbalances - Hungary 2013, European Economy, Occasional Papers 137, March 2013.

<sup>(23)</sup> Economic Papers nr. 535. (November 2014) "The Production Function Methodology for Calculating Potential Growth Rates & Output Gaps" – Throughout the section this is referred to as the "commonly agreed methodology" (methodology of the Output Gap Working Group).

Graph 2.3.1: Investment rate (investment/GDP) in Hungary and regional peers



Source: Eurostat

### The estimated labour contribution to potential growth reflects several opposing trends.

Demographic trends are similar to those of other ageing European countries. The working-age population has been decreasing by more than 0.3 % year by year since 2012, and is foreseen to keep declining until 2020. This is partly compensated by an increasing participation rate. The participation rate reached 59% in 2014, which is a record high for Hungary, even if it is still low in international comparison. It is projected to increase gradually to 63% by 2020. In parallel, overall employment is at its long term high. Average hours worked per employee have been decreasing due to an increase in part-time employment. <sup>(24)</sup> The unemployment rate has decreased substantially and is at its all-time low, moving smoothly together with the non-accelerating wage rate of unemployment.

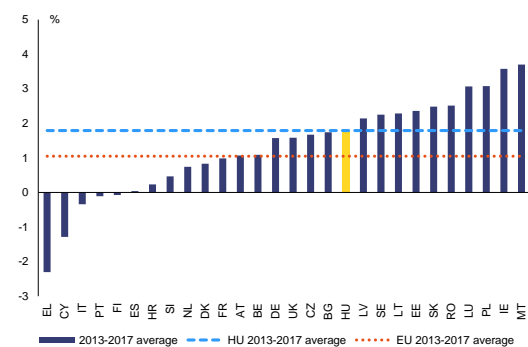
### Hungarian potential GDP growth is estimated above the EU average but below those of the best performing regional peers.

The almost 2 % average potential GDP growth estimation between 2013 and 2017 is higher than the EU average (1.1%). Outperformers among peers are Latvia, Slovakia, Lithuania, Romania, Estonia and Poland (Graph 2.3.2). The Czech Republic and Slovakia

<sup>(24)</sup> The considerable fall in the average hours of work per employee recorded in 2010 reflects a methodological change (Graph 2.3.4, fourth row, right side).

display a similar rate of growth, which is mostly driven by fast TFP growth, making it more sustainable in the medium term (Graph 2.3.4). Since its EU accession, Hungary has been lagging behind in convergence relative to regional peers.

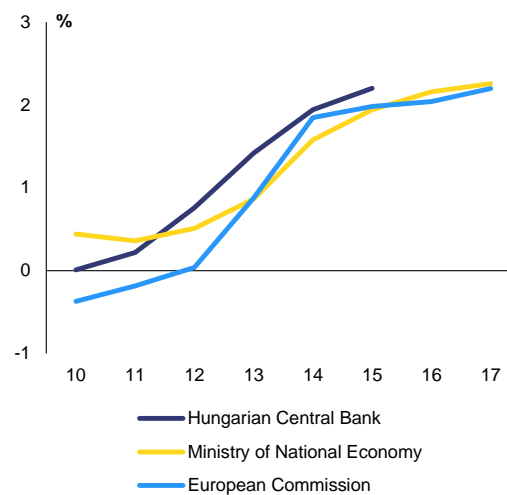
Graph 2.3.2: Potential GDP in the EU



Source: European Commission

The estimates by the Hungarian Central Bank and the Ministry of National Economy are similar to those of the Commission's (Graph 2.3.3). It seems that Hungary's potential growth returned to the positive territory around 2010-2011. After a steady increase, potential growth slowed down, reaching 2% in 2015. On the forecast horizon, it is estimated to remain around this value. According to the Commission's forecast, potential growth slightly increases in the short term and then returns to 2% for the outer years of the forecast period.

Graph 2.3.3: Different estimates of potential growth

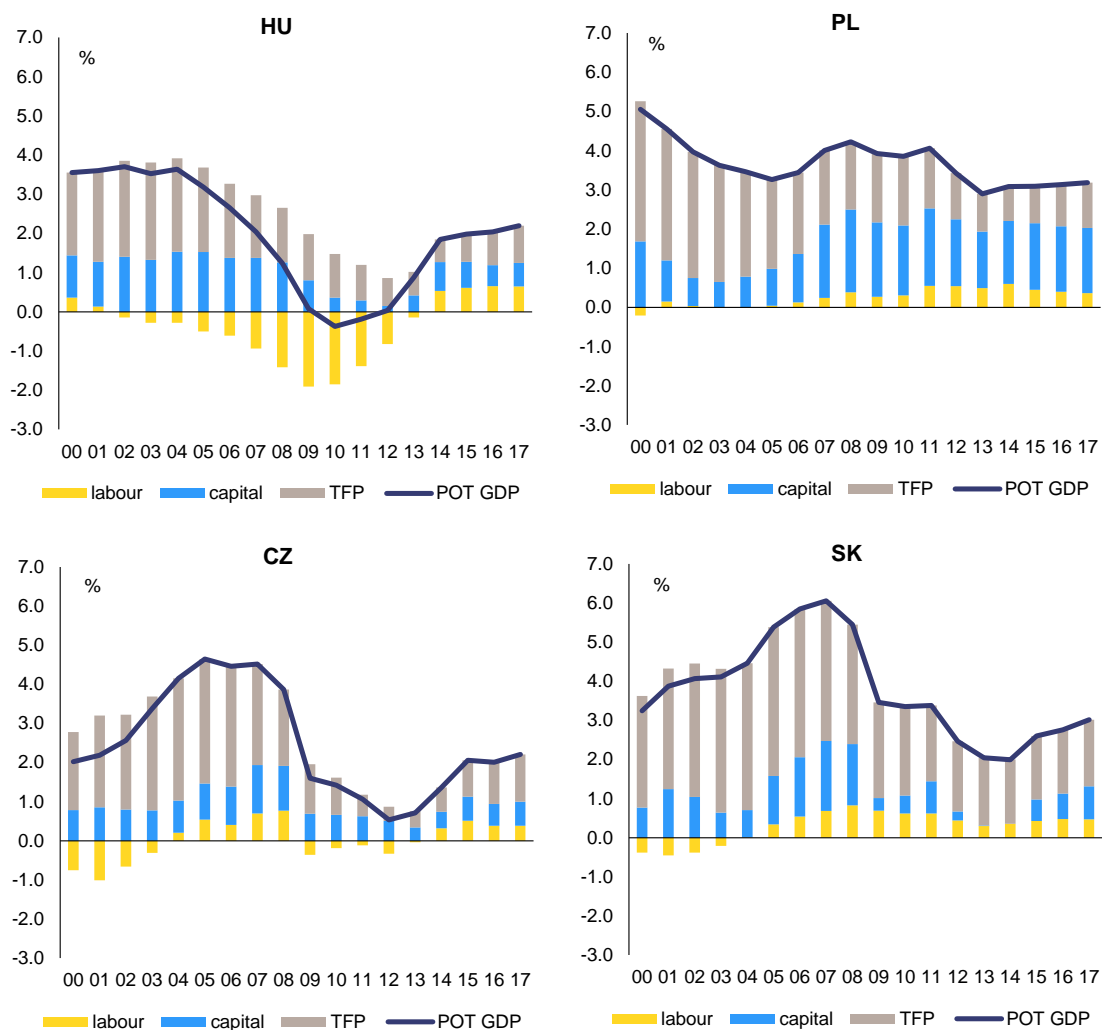


Source: MNB, MoNE, European Commission

**There is some consensus across institutions regarding Hungary's potential GDP and the policies that could enhance it.** Hungary's potential GDP is currently estimated at around 2%. It is mainly the TFP that makes the country lag behind some of its regional peers. The most important factor of future potential growth may be linked to TFP, while labour and capital may support potential GDP as well. There is a significant catch-up potential in labour productivity, mainly in the subsectors of manufacturing and among SMEs. There is potential in human capital accumulation through reforms in education as well, with the main focuses such as raising the share of tertiary education graduates; the reduction of the proportion of early school leavers. Incentives for higher R&D activity in the private sector; and more competitive product markets would definitely be beneficial (see section 3.4). In parallel with qualitative factors, quantitative factors such as the increase in participation rate may have a significant contribution to potential growth. Employment among the low-skilled and the elderly (over 50 years) could be elevated by the further decrease in labour taxes and contributions. High technology investments (related mostly to German automotive producers) that were realized in the recent years could also have a positive spill over effect to the overall economy, however recent data has not yet maintained this hypothesis. The integration of domestic SMEs in the global value

chain would be a key development in this regard. The government has conducted reforms in the public administration too, although there is still room for improvement (see box 1.1).

Graph 2.3.4: Contributions to potential growth in Hungary and in regional peers



Source: European Commission

## 2.4. MIP ASSESSMENT MATRIX

This MIP assessment matrix summarises the main findings of the in-depth review in this report. It focuses on imbalances and adjustment issues relevant for the MIP.

Table 2.4.1: MIP Assessment Matrix (\*) - Hungary

	Gravity of the challenge	Evolution and prospects	Policy response
Imbalances (unsustainable trends, vulnerabilities and associated risks)			
External balance	<p>The NIIP improved from -116% of GDP to -73% by 2014. However, gross external debt remains relatively high (around 80% of GDP) and the associated rollover needs still pose risks to the economy (pp. 14-15)</p> <p>The improvement in the trade balance in the aftermath of the crisis went in parallel with a considerable fall in export market shares. Between 2008 and 2012, the cumulative loss amounted to 23%, reflecting structural weaknesses (pp.18-19).</p> <p>The country has been experiencing a slowdown in FDI since the last decade, which limited an important source of non-debt financing for the economy (pp.20-21).</p>	<p>The improvement in the NIIP has recently continued, altogether by some 15 pps. over 2014-2015. High net lending (6-9% of GDP) has been maintained (pp.13-14). All key components of the balance of payments contributed to the adjustment. EU transfers (increasing to 5-6% of GDP) have played an important role (p. 17.). The NIIP is likely to decrease below -35% over the next 10 years (pp. 17-18.)</p> <p>Previous export market losses have been partially reversed with a combined 7.5 pps. growth in 2014 and 2015, and this trend is expected to continue. (pp. 18-19.). Cost competitiveness has improved (the ULC based REER depreciated by 19% since 2008), but there has been a little improvement in non-cost competitiveness (pp. 19-20).</p> <p>Net FDI inflows have overall declined further in the post-crisis years (by 1.5% of GDP on average). More recent balance of payment data may point to a recovery, but statistics on greenfield foreign invest paint a less favourable picture (pp.21-22).</p>	<p>The reduction of general government deficit has supported the maintenance of the stable net lending position of the economy. (p.13)</p> <p>The conversion of foreign exchange denominated loans and the reduction of foreign exchange denominated debt reduce external rollover risks (pp.14-15. and Box 2.1.1).</p> <p>Recent trade policies aim at opening the country's export markets outside the EU. Wage and exchange rate policies overall have facilitated the improvements in cost competitiveness. (p. 19)</p> <p>A more stable business environment would improve the country's capacity to attract FDI. (p.20)</p>
Financial sector	<p>The country entered the financial crisis with a relatively high level of private debt (close to 120% of GDP in 2009). This was accompanied by a high share of foreign currency denominated loans both in the corporate and household sectors (55% and 70%, respectively), resulting in a considerable currency mismatch in the economy (pp. 23)</p> <p>Uncertainties related to the regulatory and tax environment keep both country risk and banks' risks at elevated levels. In parallel, the aggregated capital base remained adequate for most credit institutions and liquidity conditions were favourable, but net lending declined. The banking sector has been affected by low profitability and limited capacity to generate capital (p.26).</p> <p>Asset quality remains a major concern with non-performing loan (NPL) ratios of over 18% and 13% in retail and corporate sectors respectively. (p.27).</p>	<p>Private debt-to-GDP ratio has been reduced to 90% of GDP by 2014. Deleveraging has been supported by growing nominal GDP (p.23)</p> <p>The banking systems vulnerability declined over the past year with an improved profitability outlook (pp.25-26) (The systemic risks generated by the considerable stock of loans denominated in foreign currencies on the banks' balance sheets have been moderated through converting foreign currency denominated credit into forints (Box 2.2.1)</p> <p>New lending to households started to grow again (19% y-o-y growth in 2015). The repayment burden on households is still high. Household's demand for credit is expected to grow While credit to the SME sector increased in recent years, overall corporate lending has not saw a revival yet reflecting uncertainty (pp.24-28).</p> <p>The adjustment of bank's business models helped to improve profitability conditions, but further efforts are needed to improve their cost structure (pp.30-31).</p>	<p>The authorities have announced their readiness to improve relations with the banking community and to discuss any future measures that could affect banks' profitability (p. 29).</p> <p>The authorities stepped in with a set of measures – the key initiative being the launch of the Funding for Growth Scheme – to increase lending to the economy (p.25).</p> <p>A lower bank tax was announced and the government insists on the compliance with key commitments as agreed with the European Bank for Reconstruction and Development (EBRD) in a Memorandum of Understanding signed in February 2015. The authorities have also committed to lower the bank tax in 2016 and further in 2017. (p.29)</p> <p>Asset quality of banks' balance sheet is being addressed in various initiatives but results are not yet visible. New personal insolvency legislation is now in place The National Asset Management Company has more capacity (35 000 dwellings) and MARK (dedicated to purchasing bad debt in the commercial real estate segment) will start operations soon. (p. 27)</p> <p>Moving towards a lower bank tax could boost the sluggish returns on equity. Increased state ownership in the banking sector is a source of a contingent liability risk (p. 29).</p>

(Continued on the next page)

Table (continued)

<p>Potential growth</p>	<p>Given the large stock of external liabilities and public debt, subpar potential growth may pose a problem of macro-financial stability as the resources needed to finance debt may be insufficient. The growth potential of the country remains moderate (p.32).</p> <p>Weak real convergence has been driven by weak productivity growth (Chart 2.3.4).</p> <p>The main factor responsible for low growth potential is total factor productivity (contribution of 0.7 pps. in 2015) which might be linked to problems with financial intermediation as well as to the low level of innovation in the economy in general. (p.32).</p>	<p>Hungary's potential output growth has been negative after the crisis, having returned to positive territory around 2012 according to estimates. After a steady increase potential growth stabilised at around 2% in 2015. Forecasts points to potential growth around this value. (p.36)</p>	<p>Hungary's relatively low grow potential could be addressed with appropriate financial market policies, including the restoration of market-based lending in the economy (e.g. implanting the policy commitments made in the recent Memorandum of Understanding) and accelerating portfolio cleaning. The Funding for Growth Scheme also helped the lending activity of SMEs.</p> <p>Structural reforms have been made, namely the extension of the retirement age, the tightening of unemployment benefits eligibility and disability pensions. These elevated the contribution of labour to potential growth.(p.32)</p> <p>On the other hand the expansion of the number of enrolees in the Public Works Scheme has a limited contribution because of the low productivity of these workers. The continued reliance on extra sector specific taxes and the unstable business environment hinder investment. (Box 1.1)</p> <p>There is a scope for improving factor productivity through education reforms as well. Reducing the number of early school leavers would also help. Enhancing incentives for increased R&amp;D activity in the private sector; and more competitive product markets can lead to higher growth potential. (p.37)</p>
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Conclusions from IDR analysis

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- Hungary is on a balanced albeit still relatively moderate growth path, gradually working off its macroeconomic imbalances. Both external and internal financial imbalances seen at the outset of the crisis have been significantly reduced, but important risks and challenges remain, including the relatively high external debt rollover needs and the still high share of non-performing loans in the banking sector.
  - A marked reduction in net external liabilities is on-going, driven by high current and capital account surpluses, supported in particular by recent export market share gains. The banking sector's outlook is improving and non-performing loans, although elevated, are declining. Credit flows to the private corporate sector remain subdued in a context of low bank profitability. The banking sector is showing better results helped by the improving economic environment and by a moderation in the previously harsh policies towards the sector. The main challenges are to reduce the high share of NPLs and to promote the growth of market-based private lending.
  - Policy measures have been taken in order to make the regulatory environment more predictable in the financial sector, lower the tax burden on banks, reduce the proportion of debt held in foreign currency and introduce subsidised lending schemes. The impact of these measures has yet to translate into sustained bank lending. Moreover, policy gaps remain in the area of non-cost competitiveness, productivity and the overall business environment. Enhancing the growth potential is crucial to further reduce the share of external and internal debt in GDP and thus escape policies that would achieve the latter by depressing domestic demand.
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(\*) The first column summarises "gravity" issues which aim at providing an order of magnitude of the level of imbalances. The second column reports findings concerning the "evolution and prospects" of imbalances. The third column reports recent and planned relevant measures. Findings are reported for each source of imbalance and adjustment issue. The final three paragraphs of the matrix summarise the overall challenges, in terms of their gravity, developments and prospects, policy response.

**Source:** European Commission

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## 3. ADDITIONAL STRUCTURAL ISSUES

In addition to the macroeconomic imbalances and adjustments issues addressed in section 2, this section provides an analysis of other structural macroeconomic and social challenges for Hungary. Focusing on the policy areas covered in the 2015 country-specific recommendations, this section analyses issues related to firstly the tax system, the tax wedge of labour and tax compliance as well as the improvement of public debt and the lagging implementation of the medium-term budgetary framework. Second, it analyses the challenges of labour market, social and health policy. The public works scheme is not adequately targeted and does not appear to be effective in leading participants back to regular employment. Education policy is also examined, reflecting on the increasing educational inequalities and its possible negative social and economic consequences. In addition, the quality of the regulatory framework and deficiencies in public procurement are evaluated in the business environment part. Finally, the section reviews network industries policy.

### 3.1. FISCAL POLICY

#### Taxation

**Hungary's reliance on sector-specific taxes continues to put an additional burden on the sectors concerned.** Since 2009, Hungary has increasingly relied on revenues from sector-specific taxes. Sector-specific taxes have been identified as a factor for businesses deferring investment decisions <sup>(25)</sup>, and weakening investor confidence in general. Such taxes have been criticised as causing distortions across sectors given the selectiveness of their design. In addition, many of the sector-specific taxes in Hungary have been introduced without proper stakeholder consultation or an impact assessment as to their potential adverse effects. The taxable base for sector-specific taxes has often been established based on retroactive sales revenue figures, causing disruptive effects for businesses. While new sector-specific taxes were introduced in 2015, the levy on credit institutions is to be significantly reduced from 2016 pursuant to an agreement with the European Bank for Reconstruction and Development (Box 3.1.1).

**The labour tax wedge is still high, in particular for low-income earners, which may affect their employability.** The tax wedge for low earners was the highest in the EU in 2014. <sup>(26)</sup> For average

earners (singles or couples without children) it was one of the highest. While the family tax credit reduces the tax wedge for earners with children, the effect is substantial only for those with at least three children. The tax wedge for a two-earner couple with two children (both earning the average wage) is above the EU average. The 2013 Job Protection Act introduced targeted reductions in social contributions paid by employers for specific groups (low-skilled, young and elderly employees, the long-term unemployed and women returning from maternity leave), reducing their tax wedge. Yet for those earning low incomes, the tax wedge remains above the EU average. From 2016, the personal income tax rate has been reduced from 16% to 15%. Furthermore, a further extension of the family tax credit benefiting families with two children has also been adopted. While these measures will also benefit those with lower incomes, no targeted measures are foreseen for this specific group.

**There is a potential to shift tax away from labour.** Hungary is heavily reliant on consumption taxes, with revenues from consumption taxes the second highest in the EU according to the latest figures. Revenues from recurrent property taxes are however relatively low at 0.6% of GDP compared to an EU average of 1.6%. While revenues from environmental taxes as a percentage of GDP are around EU average, the implicit tax rate on energy is relatively low. A recent study <sup>(27)</sup>

<sup>(25)</sup> OECD Stat, FDI flows by industry, Hungary. [http://stats.oecd.org/Index.aspx?DatasetCode=FDI\\_FLOW\\_INDUSTRY](http://stats.oecd.org/Index.aspx?DatasetCode=FDI_FLOW_INDUSTRY)

<sup>(26)</sup> Defined for a single person without children earning 50 % of the average wage. The tax wedge for a person earning the average wage was the 4th highest. All data in this paragraph from European Commission, ECFIN, Tax and benefits indicators database

[http://ec.europa.eu/economy\\_finance/db\\_indicators/tax\\_benefits\\_indicators/index\\_en.htm](http://ec.europa.eu/economy_finance/db_indicators/tax_benefits_indicators/index_en.htm)

<sup>(27)</sup> Study on Assessing the Environmental Fiscal Reform Potential for the EU28 (forthcoming 2016), draft final report 10.11.15, Eunomia Research and Consulting, IIEP.



suggests considerable revenue potential from environmental taxes. However, despite persistently low energy market prices, Hungary does not levy excise duties on the supply of gas and electricity to non-business customers. The respective excise rates on unleaded petrol and gas oil are among the lowest in the EU<sup>(28)</sup>. Environmentally-harmful tax allowances (including the low taxation of company cars) persist in Hungary.

**Tax compliance costs remain high.** In particular, the administrative burden in terms of hours needed to prepare, file and pay taxes (especially labour taxes) is relatively high compared to the EU average.<sup>(29)</sup> An OECD study also finds that Hungarian SMEs are particularly adversely affected by tax compliance costs.<sup>(30)</sup> Despite recent efforts to ease the administrative burden on businesses, no major improvements have been reported by businesses in this field.

**Despite improvements in recent years, Hungary still faces challenges regarding the efficiency of tax collection.** VAT compliance remains relatively low. Cross-country comparable data put the VAT gap as a percentage of the theoretical liability at 24.4% in 2013 compared to an EU average of 14.5%.<sup>(31)</sup> Recent measures put in place to combat VAT avoidance seem to have produced significant revenue yields over the last two years (estimated at around 0.5-0.7% of GDP). Several indicators point to potential weaknesses in the efficiency of the tax administration. The administrative cost to net revenue ratio in 2013 was relatively high (1.15) compared to the EU average (1.09).<sup>(32)</sup> Undisputed tax debt, at 21.1% in 2013 was significantly higher than EU average (4.4%). An investigation by the State Audit Office into the

activities of the National Tax Authority revealed a number of shortcomings in the period from 2009 to 2013 regarding adherence to internal regulations in particular in the fields of risk assessment and debt collection.<sup>(33)</sup>

**Several measures have been taken to improve compliance and reduce compliance costs.** An online cash register system was introduced and is scheduled to be extended to further sectors. Businesses classified as ‘reliable’ under a new classification system of tax compliance risks, are expected to be granted shorter VAT refunds and tax inspection periods as a benefit. A real time cargo monitoring system for public road shipments was introduced in 2015. The Hungarian government announced a major institutional reform, to be launched in 2016, targeting tax administration with a view of promoting administrative efficiency.

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<sup>(33)</sup> <http://www.aszhirportal.hu/hu/hirek/>

<sup>(28)</sup> European Commission, Taxud, excise duty tables as of July 2015.

[http://ec.europa.eu/taxation\\_customs/resources/documents/taxation/excise\\_duties/energy\\_products/rates/excise\\_duties-part\\_ii\\_energy\\_products\\_en.pdf](http://ec.europa.eu/taxation_customs/resources/documents/taxation/excise_duties/energy_products/rates/excise_duties-part_ii_energy_products_en.pdf)

<sup>(29)</sup> World Bank 2015, Doing business, <http://www.doingbusiness.org/data/exploretopics/paying-taxes>

<sup>(30)</sup> OECD, 2015, Hungary, Towards a Strategic State Approach.

<sup>(31)</sup> Case, CPB, 2015, Study to quantify and analyse the VAT gap in EU Member States. - [http://ec.europa.eu/taxation\\_customs/resources/documents/common/publications/studies/vat\\_gap2013.pdf](http://ec.europa.eu/taxation_customs/resources/documents/common/publications/studies/vat_gap2013.pdf).

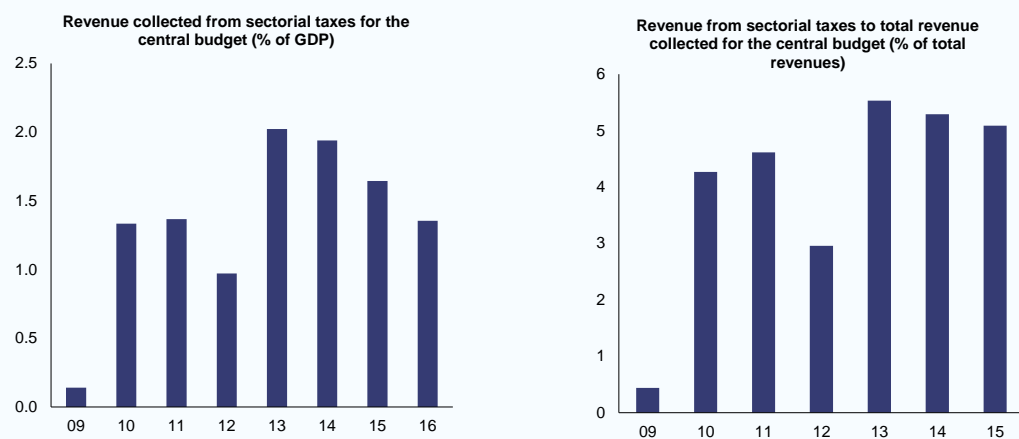
<sup>(32)</sup> OECD, Tax administration 2015. <http://www.oecd.org/tax/forum-on-tax-administration/database>

### Box 3.1.1: Developments in sector-specific taxes

Increased reliance on sector-specific taxes started in 2009 with the introduction of the tax on energy providers. The tax on financial institutions came into force in September 2010. Additional taxes were introduced in the following years with the special tax on the retail, telecommunications and energy sectors, applicable between 2011 and 2013, the telecommunication tax (since July 2012), the public utilities tax (since 2013), the financial transaction duty (since 2013) the insurance tax (since 2013) and the advertisement tax (since 2014). The extension of sector-specific taxes continued in 2015, which brought the introduction of steeply progressive rates in the food inspection fee <sup>(1)</sup> as well as the introduction of a tax on tobacco manufacturers and distributors. <sup>(2)</sup> However, the European Commission suspended the collection of these levies on the claim that they give unfair competitive advantage to certain companies. In response to another action by the Commission, the Hungarian government abolished the progressive design of the advertisement tax as of July 2015. <sup>(3)</sup> Finally, pursuant to an agreement with the European Bank for Reconstruction and Development, the rate of the financial tax imposed on credit institutions has been significantly reduced from 2016. The measure is expected to lower the levy by almost a half.

The revenues collected from sector specific taxes reached a peak in 2013 at somewhat above 2% of GDP and also in terms of their contribution to total revenues (Graph 1) <sup>(4)</sup>. Apart from the relatively low elasticity of these taxes, the subsequent decline reflects the effect of measures, including the phasing out of a one-off component of the financial transaction duty in 2014, the elimination of the duty paid by the State Debt Management Agency (which was levied within the central government) in 2015, and reduction of the tax on financial institutions in 2016. At same time, the revenues from sector-specific levies would still exceed corporate income tax receipts.

Graph 1: Sectorial tax revenues



(1) The data are based on the cash returns of the central government and the budgetary appropriations for 2016

Source: Hungarian Central Statistical Office

<sup>(1)</sup> The flat rate of 0.1% calculated on sales revenue was replaced by progressive rates going up to 6%.

<sup>(2)</sup> For the highest tax band (applicable to sales revenue over HUF 20 billion), the tax rate was set at 40%.

<sup>(3)</sup> The previous progressive rates were replaced by a dual system in which no tax is applied on taxable base between HUF 0-100 million and a rate of 5.3% applies of the taxable base in excess.

<sup>(4)</sup> These include: the levy on credit institutions, tax on energy providers, tax on the retail, telecommunications and energy sectors, sectorial tax on financial institutions, public utilities tax, advertisement tax, telecommunication tax, financial transaction duty and the insurance tax.

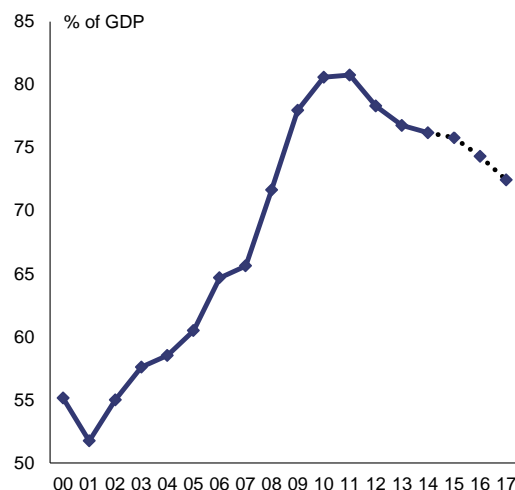
## Public debt

**Hungary's general government debt, while declining remains a source of vulnerability to the economy.** Hungary's short-term sovereign financing needs are among the highest within the group of emerging and middle-income economies. The public debt-to-GDP ratio fell below 76% of GDP in 2015 from a peak value of close to 81% in 2011. The reduction of debt has been largely facilitated by the takeover of private pension assets, the effect of which was partly offset by negative revaluation effects. In addition, the primary balance moved to a surplus position since 2012 (Graph 3.1.1).

**The European Commission 2016 winter forecast projects the debt ratio to decrease further to around 72½% of GDP by 2017.** Adverse stock flow adjustment effects (most notably the delays in the receipt of EU funds) are expected to result in a moderate decline in 2015, but the pace of debt reduction is projected to speed up over 2016-2017 reflecting also decreasing interest outlays and a relatively high nominal GDP growth (at about 5% on average). At the same time, the primary balance is forecast to stabilize slightly below 1% of GDP.

**Over the short term, Hungary does not appear to face risks of fiscal stress.** Net public debt and the net international investment position as a percentage of GDP point to possible short-term challenges, but overall, short-term risks do not appear to emerge. The relatively high share of debt owned by non-residents, as well as the share issued in a foreign currency (at around 40% in 2014), are sources of potential vulnerability risks, especially with exchange rate volatility. However, recent policy developments (including the central banks self-financing program) provide the prospect of rapidly reducing exchange rate risks and challenges related to external funding regarding public debt. The proportion of foreign currency denominated debt is expected to decline to 30% in 2015 and the latest Convergence Programme indicates that it will be reduced further to approximately 20% by 2018.

Graph 3.1.1: **Gross government debt ratio: historic data and short term projection**



(1) Gross government debt as % of GDP

Source: European Commission

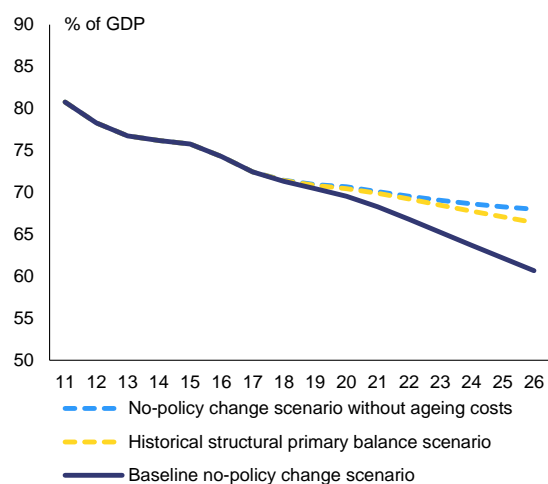
**The Commission services' baseline scenario indicates a steadily declining debt trajectory with the debt ratio falling close to the Treaty's 60% of GDP reference value by 2026** (Graph 3.1.2).<sup>(34)</sup> Around two-third of the projected debt reduction over the ten-year period is attributable to a fall in demography-related public expenditure. This mainly reflects the impact of previously implemented pension reforms. The remainder of the estimated reduction of government debt is due to the underlying primary surplus (which fixed at 0.9% GDP for the forecast period). However, this is projected to be partly offset by a debt-increasing snowball effect. The estimated potential growth of the country remains low to counteract the impact of the implicit interest rate on debt, given the macroeconomic assumptions of the baseline scenario.

**Hungary's debt-reduction path displays some fragility to potential adverse macroeconomic developments.** If adverse shocks to nominal growth or interest rates were to occur (in the order of a -0.5 pp on growth, +1 pp on interest rates on new and rolled over debt from 2016 onwards), the debt ratio would be 5 pps. higher in 2026 compared to the baseline. Moreover, stochastic debt simulations incorporating the joint effects of

<sup>(34)</sup> European Commission (2015) "Fiscal Sustainability Report 2015" European Economy Institutional Paper No. 018.

historically observed shocks point to 26% probability that Hungary's debt ratio will be greater in 2020 than in 2015.

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



Source: European Commission

**Sustainability risks would be higher if the structural primary balance was to revert to values observed in the past.** If the primary balance deteriorated to the average level observed in the past (i.e. 0.1% of GDP), the debt ratio would remain close to 70% of GDP in 2026. Hungary has displayed considerable fiscal discipline since the onset of the crisis. Nevertheless some notable budgetary risks remain. This includes the potential debt increasing effect of the construction of the planned nuclear power plant, considerable wage pressures in the public sector following years of nominal freezes as well as the prospect of further corporate acquisitions by the state increasing contingent liabilities.

**On the basis of the Commission's medium and long-term sustainability indicators, Hungary appears to face low fiscal sustainability risks.** The medium-term sustainability gap as measured by the S1 indicator <sup>(35)</sup> is at -0.5 pp of GDP, implying that no further fiscal effort would be needed under a no-policy change assumption to achieve the Treaty's threshold by the end of 2030.

<sup>(35)</sup> S1 indicator shows the adjustment effort required, in terms of a steady adjustment in the structural primary balance to be introduced of the five years after the short-term forecast horizon to bring the debt ratio to 60% of GDP in 2030.

In the long run, Hungary faces a low risk to fiscal sustainability. Based on the S2 indicator, the long-term sustainability gap is at 1.5 % of GDP, which shows a relatively low level of upfront fiscal adjustment needed ensure that the debt-to-GDP ratio will not move on an ever increasing path.

### Fiscal framework

**The long overdue implementation of the new medium-term budgetary framework (MTBF) was initiated in late 2015.** Its first test of effectiveness will be the deliberation and adoption of the 2017 budget. The new MBTF was legislated for in December 2013, but its implementation has been delayed. In late December 2015, the government finally adopted a resolution, stipulating the expenditure and revenue plans for each budgetary chapter in a two-year horizon. Both the 2015 and 2016 budgets were still prepared in the traditional way: neither the indicative 3-year plans contained in the justification of the previous years' budget, nor the Convergence Programmes played a meaningful role in the determining of budget allocations. The main novelty of the new regulation is that differences between the medium-term figures as laid down in the resolution and the draft budget bill must be justified in written format by the government (i.e. a form of the 'comply or explain' principle). The planning and deliberation of the 2017 budget (which is foreseen to be advanced to spring 2016) will serve as a critical first test of the new framework.

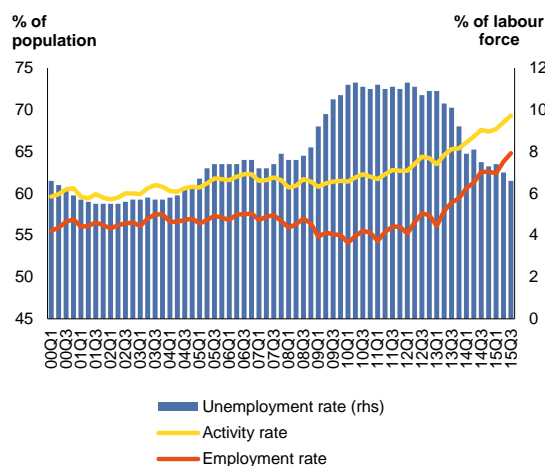
**Despite some gradual reinforcements in recent years, the Fiscal Council appears to focus on qualitative risk assessments.** Despite the existing broad mandate to comment on any relevant public finance issues, its decisions continue to be primarily based on qualitative risk assessments. The Council has significantly increased the number of commissioned external studies, such as short-term forecasts and analytical papers from partner institutions, and started to commission medium- to long-term macro-fiscal baseline papers as well as regular monthly monitors from research institutes.

## 3.2. LABOUR MARKET AND SOCIAL POLICY

### Labour market policies

**The recovery of the labour market continued in 2014 and 2015 on the back of strong economic growth.** Unemployment fell to 6.4 % in the third quarter of 2015 (see Graph 3.2.1) driven by the increase in employment in the market sector, the expansion of the PWS and the cross-border mobility of job seekers. Employment increased by about 107 000 individuals and unemployment fell by about 60 000 y-o-y in the third quarter of 2015. The employment rate increased by 2.2 pps. y-o-y to 64.8 % in Q3-2015 (age group 15-64, Graph 3.2.1), narrowing the gap with the EU average (66.1%). In Q3-2015 the employment rate was 69.7% for the age group 20-64. These improvements can be explained by a strong increase in the labour market participation rate due to some discouraged workers returning to the labour market, changes in demography and past reforms restricting access to early retirement and disability schemes.

Graph 3.2.1: **Activity, employment and unemployment rates**



(1) Activity and employment rates (% of population), total, ages 15-64, non-seasonally adjusted

(2) Unemployment rate (% of labour force), total, ages 15-74, seasonally adjusted

Source: Eurostat, LFS

### Long-term unemployment has decreased since 2014 and it is now back to its pre-crisis level.

The long-term unemployment rate, which increased from 3.6 % in 2008 to 5.5 % in 2010, is on a gradually decreasing path since then, reaching 3.7 % in 2014 (Graph 3.2.2) and 3% in Q3-2015. The number of long-term unemployed was 163 000 in 2014, 94 300 of which were very long-term

unemployed (over 24 months). Employment rates of Roma are low (29 %) and their long-term unemployment is significantly higher, driven by factors including lower educational attainment, a higher concentration of Roma population in disadvantaged regions, spatial segregation and direct and indirect discrimination <sup>(36)</sup>.

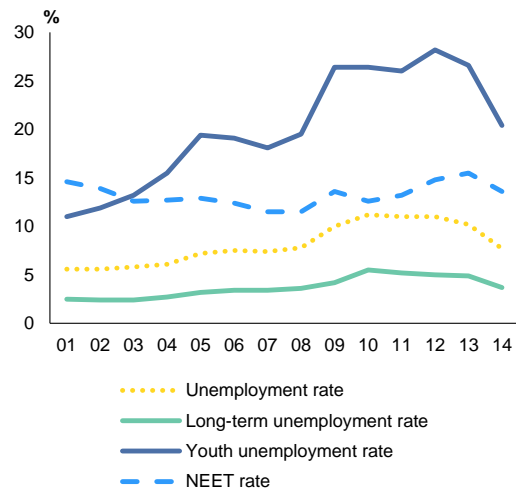
**Youth unemployment has decreased but the rate of youth not in education, employment or training (NEET) remains high.** As shown in Graph 3.2.2, the youth unemployment rate has improved at a fast pace, approximating pre-crisis levels, and falling below the EU average for the first time in 2014 (20.4 % vs. EU average 22.2 %), reaching 16.7% in Q3-2015. The NEET rate has decreased to 13.6 % in 2014, but it remains somewhat above pre-crisis level and the EU average (12.5 %). It stands at 12.1 % for men and 15.3 % for women. The majority of Hungary's total NEET population consists of inactive NEETs, including a large share of young people with family responsibility and discouraged workers <sup>(37)</sup>, mostly women. Young Roma are particularly at risk <sup>(38)</sup>. The above-average share of disengaged young people indicates the continued difficulty of policy measures to effectively reach a sizeable part of their target population.

<sup>(36)</sup> 51 % of Roma experienced discrimination in the past 5 years when looking for work. Fundamental Rights Agency, Poverty and Employment: The situation of Roma in 11 EU Member States. Roma Survey - Data in Focus, 2014. 64 % of Roma experience discrimination according to the Decade of Roma Inclusion Secretariat, Roma Inclusion Index, September 2015.

<sup>(37)</sup> Eurofound, Diversity of NEETs, forthcoming.

<sup>(38)</sup> According to a study from the Fundamental Rights Agency based on self-declaration of current main activity of respondents, 37 % of Roma aged 16-24 were not in employment, education or training. FRA, Poverty and Employment: The situation of Roma in 11 EU Member States. Roma Survey - Data in Focus, 2014.

Graph 3.2.2: **Unemployment, youth unemployment, NEET and long-term unemployment rates**



(1) Unemployment rate and long-term unemployment rate (% of labour force), total, ages 15-74

(2) Youth unemployment rate (% of labour force), total, ages 15-24

(3) NEET: Not in employment, education or training (% of population), total, ages 15-24

Source: Eurostat, LFS

**A profiling system has been introduced in the public employment service but challenges remain.** The overly complex and centralised allocation of responsibilities following the recent reform of the public employment service (PES) is likely to reduce its effectiveness. <sup>(39)</sup> The administrative complexity of the management arrangements significantly compromises effective steering and the use of the profiling system. The quality of offers in the Youth Guarantee is not assured. <sup>(40)</sup> Despite the new mentor network it is still unclear whether the reorganised PES will have sufficient staffing for implementing the scheme.

<sup>(39)</sup> From 1st January 2015 the functions of the head office of the national PES were taken over by the Ministry for National Economy, where the Secretary of State for Vocational Training and the Labour Market has responsibility for professional management of ALMP programmes. However, public works are administered by the Ministry of the Interior, sharing supervision over the PES with the Ministry for National Economy. Overall PES governance is at the Prime Minister's Office as part of a nationwide network of local County Government Offices. There was only a formal procedural consultation of social partners on the PES reform.

<sup>(40)</sup> Public works can be counted as a quality offer based on the individual's request. It is therefore important to monitor the results and show clearly the impact of the Youth Guarantee on youth related macro indicators, particularly for disadvantaged groups such as the Roma.

**Hungary's main active labour market policy is the public works scheme.** Spending on the public works scheme (PWS) has increased significantly in recent years. It has surpassed spending on unemployment benefits. Spending reached about 0.8 % of GDP in 2014, and is expected to double between 2015 and 2018. In recent years 'direct job creation' represented about 80 % of the budget dedicated to active labour market policies (ALMPs). The main instrument in this category is the PWS, which is offered to an increasing number of unemployed people and is aimed at gradually replacing social benefits.

**The public works scheme does not sufficiently support the reintegration of participants into the open labour market.** This risks locking participants into the scheme. According to the Hungarian authorities, the rate of successful exit from the scheme was 12.6% in 2014 and 13.1% in the first half of 2015. 60.5% of individuals who left the scheme during the first half of 2015 were again in public works after 180 days. <sup>(41)</sup> Other ALMP measures appear to be more effective in Hungary. <sup>(42)</sup> In addition to measures adopted last year to facilitate successful exit from the scheme, the government has recently introduced financial incentives for public workers who accept job offers in the open labour market. Training is provided to participants, but it is usually limited to basic technical skills development required for the public works job. Even though public workers are not covered by the Labour Code and their monthly compensation is about 25 % below the minimum wage the scheme may appear more attractive than training for some participants as the income

<sup>(41)</sup> Successful exit is defined as employment in the open labour market 180 days after exit from the PWS. According to the most recent external evaluations, the rate of successful exit from the scheme was around 13.3 % in 2011-2012. Calculations by Cseres-Gergely, Zs., and Molnar, Gy. (2015): Labour market situation following exit from public works. Chapter 2.9 in: Fazekas, K. and Varga, J.: The Hungarian Labour Market 2015, Hungarian Academy of Sciences, pp. 148-159.

<sup>(42)</sup> The latest monitoring report on ALMP measures for the year 2012 distinguishes employment in the primary and secondary labour market when measuring outcomes on the 180th day following exit from an ALMP. For wage subsidies, about 70 % are employed in the primary labour market and only 2 % in the case of public works. Job trials for youth have similar results, while the first job guarantee and training is slightly less effective (54 % and 35 % in regular work vs 9 % and 7 % in PW). See also the 2015 Country Report for Hungary.

support available during trainings is much lower than the public works wage.

**The public works scheme is not adequately targeted.** The main target population for the scheme is the long-term unemployed, the unemployed living in disadvantaged areas and the low-skilled. However according to the authorities 47 % of participants had secondary or tertiary education in 2014 and 2015. While a large share of PWS participants come from disadvantaged regions, the share of unemployed involved in public works is still significant in counties with well-performing labour markets, such as Győr-Moson-Sopron or Vas. The profiling system of jobseekers was launched in January 2016, but the recommendations by the local PES to the individual jobseekers still depend, to a large extent, on the capacity of available ALMPs, and the PWS remains the dominant program. Municipalities can also influence the selection of participants. Substitution (the replacement of employees with public workers) is illegal as public workers cannot undertake any tasks related to the core functions of a municipality. However a comprehensive monitoring and evaluation system is not yet in place.

**Insufficient provision of childcare facilities seems to affect participation of women in the labour market.** In 2014, the impact of parenthood on employment of mothers was the highest in Europe (age group 20-49, with presence of a child aged 0-6) at 41 pps. (significantly above the EU average of 13 pps.).<sup>(43)</sup> The overall employment rate of women aged 25-49 has reached the EU average in 2014 (standing at 73.7 % against 72.5 % in Q3-2015). The share of children aged less than three covered by childcare (by formal arrangements other than by the family) has increased to 10 % in 2013, but it still remains 17 pps. below the EU average<sup>(44)</sup> (Graph 3.2.3). The government has recently announced plans for further improving the availability, quality and affordability of early childhood education and care facilities. Policy action in 2013 made the rules of

maternity leave benefits more flexible to reduce work disincentives.

**Gender inequalities remain significant, partly related to past maternity leave and childcare policies.** The employment rate for women (20-64) stood at 60.2 % in 2014, well below the employment rate for men (73.5 %). Flexible work arrangements, which help parents reconcile family responsibilities and career, are rare in Hungary. 72.2 % of employees report that their working hours are set by the employers with no possibility for change.<sup>(45)</sup> The gender pay gap scores above the EU average (18.4 % vs. 16.4 %), reflecting a high degree of inequalities in the labour market. Women have more interrupted careers, with fewer possibilities to accumulate experience and less access to promotion and senior positions.

**The employment rates of older workers and the duration of working life are very low.** At 49.6 % for men and 35.2 % for women the employment rates for older workers in 2014 was significantly lower than the EU average (men 58.8 %, women: 45.2 %). The duration of working life at 30.8 years is the second lowest in the EU and about 4.4 years lower than the EU average. Early exit routes were closed or narrowed in 2012, and the standard pension age is being gradually increased from 62 to 65 years by 2022 (the retirement age is not automatically linked to life expectancy). Yet, pension reforms have not been underpinned by work place and employment policies to support longer working lives.

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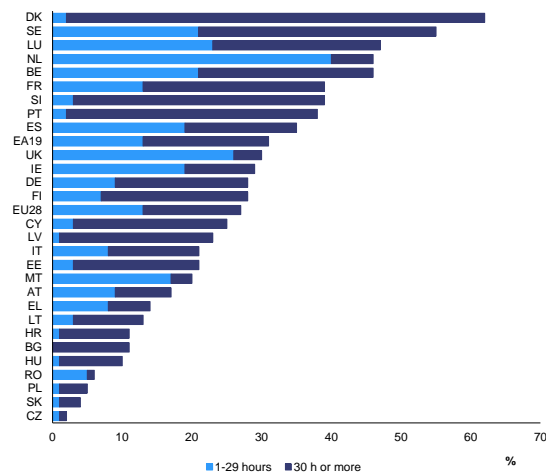
<sup>(45)</sup> European Working Conditions Survey, see [http://www.oecd.org/els/family/LMF\\_2-4-Family-friendly-workplace-practices.pdf](http://www.oecd.org/els/family/LMF_2-4-Family-friendly-workplace-practices.pdf)

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<sup>(43)</sup> The impact of parenthood on employment is the difference, in percentage points, between the employment rate of a individuals without and with children.

<sup>(44)</sup> Most recent national data points to further improvements in 2014:  
<http://www.ksh.hu/docs/hun/xftp/stattukor/kisgyermnapkozbeni/kisgyermnapkozbeni14.pdf>

Graph 3.2.3: Enrolment of children up to three years-old in formal childcare in 2014



Source: Eurostat

### Social inclusion and poverty

**Poverty remains high and social indicators have improved less significantly than the overall economic and labour market situation.** The relative income poverty index (AROP) did not improve significantly and in 2014 it stood at 14.6 %, below the EU average of 17.2 %. The severe material deprivation index was 23.9 % well above the EU average of 9 %. 12.2 % of the population lived in households with very low work intensity (0.4 pps. lower than in 2013, but higher than the EU average of 11 %). As a result, the overall "at risk of poverty and exclusion" (AROPE) index was 2.4 pps. lower than in 2013, however it stood at 31.1 % which is still one of the highest in the EU (EU average 24.4 %).<sup>(46)</sup>

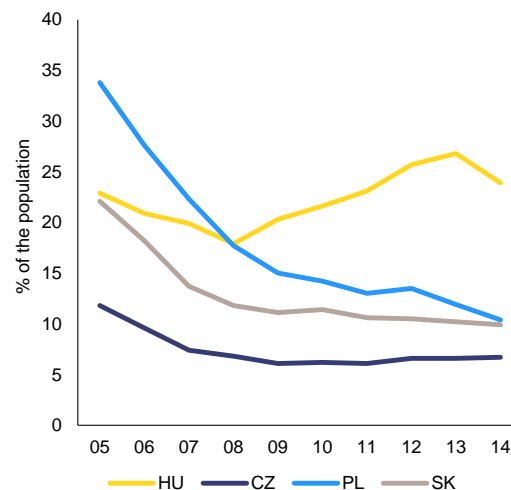
### While some poverty indicators have improved recently, they are high in regional comparison.

In particular, the share of people living in low work intensity households and the severe material deprivation rate in Hungary have been improving since 2013 and 2012 respectively, but both are very high in comparison with regional peers (Graphs 3.2.4 and 3.2.5). The implementation of local equal opportunity programmes could

<sup>(46)</sup> The Hungarian Central Statistical office has recently published social indicators for 2015 (reference year 2014) which, along with updates for the previous three years, are under validation by Eurostat at the time of writing this report. International comparison is based on the latest available Eurostat data.

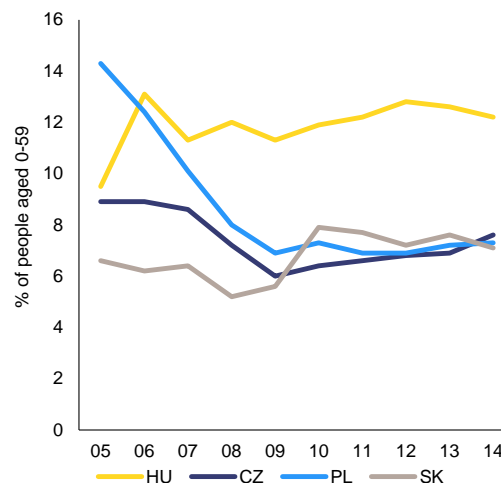
contribute to fight poverty and residential and educational segregation, but their systematic monitoring and sustainable funding is not ensured.

Graph 3.2.4: The severe material deprivation rate in the region (% of the population)



Source: Eurostat

Graph 3.2.5: The share of people living in low work intensity households (% of people aged 0-59)



Source: Eurostat

**Poverty among the most disadvantaged, in particular children and Roma, remains to be tackled.** 4.5 % of the population had an income below 40 % of the median income in 2014 compared to 2 % in 2010. The average poverty gap for the working age population over the period 2012-2014 was 2 pps. higher than the equivalent



EU average. In 2014, 41.5 % of children were at risk of poverty and exclusion (AROPE) and almost one out of four children were exposed to poverty risk. Severe material deprivation among children below 18 was at 32.4 %, the second highest in the EU. The extension of in kind benefits, such as free meals to disadvantaged children on school holidays helps to improve the situation of the most disadvantaged children. Absolute poverty (percentage of people living below the national poverty line) among Roma is 67 %, 44 pps. higher than among non-Roma. The gap between the AROP rates of Roma and non-Roma increased in the past decade. <sup>(47)</sup>.

**The duration of unemployment benefits is the shortest in the EU, significantly shorter than the average time required to find a job.** While the 3 months of maximum duration of unemployment benefits may enhance job search during the first months of unemployment, it may reduce it after the benefits expire. It may also force jobseekers to accept jobs that do not match their qualifications, increasing turnover and reducing overall productivity in the economy. Other jobseekers, facing the limited benefit duration and not having adequate financial savings, may be indirectly forced to join the PWS. Jobseekers must accept the public works offer in order to keep their eligibility for social assistance. The shorter duration and lower replacement rate also affects the adequacy of unemployment benefits. Expenditure on unemployment benefits fell significantly from an already low 0.8 % of the GDP in 2008 to 0.4 % in 2013 despite an increase in the number of unemployed. The net replacement rate of benefits after 6 months of unemployment (for a couple with 2 children) decreased to 19 % in 2013 from a level of 53 % in 2010.

**The adequacy and coverage of social assistance remains a challenge and recent reforms could further restrict access conditions for a number**

<sup>(47)</sup> FRA, Poverty and Employment: The situation of Roma in 11 EU Member States. Roma Survey - Data in Focus, 2014); Decade of Roma Inclusion Secretariat, Roma Inclusion Index, September 2015. The Hungarian statistical office now collects data regarding ethnicity which confirm the challenges facing the Roma population while reflecting some improvement.

[http://www.ksh.hu/docs/hun/xstadat/xstadat\\_eves/i\\_zaa007.html](http://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_zaa007.html)

**of benefits.** The level of many benefits is low. <sup>(48)</sup> In particular, the nominal level of the main social benefit (currently named employment replacement subsidy) has been reduced by 20 % since 2010 and is currently equivalent to 33 % of the at-risk-of-poverty threshold. A recent reform, in force since March 2015, has shifted the main benefits from municipalities up to the district ('járás') level, which has made their administration more uniform. The reform has also abolished a number of supplementary benefits, including a benefit to support the cost of housing and heating for those in need. The reform has given municipalities the right to define the terms of a new municipality benefit which could substitute for abolished benefits. Municipalities must finance this benefit from their own revenue. As a compensation, the government introduced a new grant to municipalities that can document a low revenue potential, although this does not have to be spent on social benefits. The recent reforms do not expand the eligibility to or generosity of social benefits. There is no detailed information available about how municipalities defined the municipality benefit. The law has set an upper limit for the municipality benefit, but it has not set other standardised criteria. As a result, the adequacy and coverage of social benefits could deteriorate. <sup>(49)</sup>

### Health care system

**The share of public expenditure on health is below the EU average and has dropped over the last decade.** The share of government spending over total spending on health decreased by about 6 pps. over the last decade. At 63 %, in 2013 it was below the EU average of 76 %. Overall health

<sup>(48)</sup> The employment replacement subsidy, the nursing fee and the regular social assistance are close to or under the minimum pension level.

<sup>(49)</sup> Hungarian Minimum income Network: The Progressive Realization of Adequate minimum Income Schemes, 2014 <https://eminnetwork.files.wordpress.com/2013/04/emin-hungary-2014-report-en.pdf> p. 6.

For the moment no study of broader scope has been published by the government on this matter, although work is ongoing. A study analysing a small, but representative sample of 1 % of the settlements (31 local decrees) has shown that provisions have become more limited and their allocation more unfair. The study has been deployed by civil initiative. Their focus was on housing costs related support, especially the former normative home maintenance support and debt management services. Kováts Bence (2015): The analysis of housing supports now in the legal authority of local governments. Habitat for Humanity.

expenditure as a share of GDP was also below the EU average in 2013 (8.1 % vs. to 9.5 %). At the same time the share of out-of-pocket payments has slightly increased over the last few years and was well above the EU average (16 %) at 27.5 % of total health spending in 2013.

**Despite substantial improvements during the last decade, poor health outcomes continue being a major challenge.** Life expectancy at birth is among the lowest for both men (72.2 vs. EU average of 77.8) and women (79.1 vs. EU average of 83.3). Cardiovascular diseases remain the main cause of mortality with a standardised rate of mortality of 780 per 100 000 inhabitant (vs. EU average of 394), in a context of high prevalence of risk factors, such as smoking, alcohol consumption, obesity and high blood pressure. Overall, cancer is the second leading cause of premature mortality with the worst score in the EU and about 33 % above the EU average. This trend does not follow the slowly decreasing EU trend. Amenable and potentially preventable mortality are noticeably worse than the EU average. A range of public health measures have been introduced as a response. <sup>(50)</sup>

**The high mortality rates among the working-age population have a negative impact on the available workforce.** Mortality rates before the age of 65 are estimated to reduce the workforce by 1.8 % when compared to its potential estimated by using EU average mortality rates <sup>(51)</sup>. This reinforces the importance of improving the effectiveness of the system.

**Health workforce shortages pose risks to the healthcare system.** Hungary has fewer doctors, nurses and dentists than the EU average (3.21 per 1 000 inhabitants compared to 3.47). The share of general practitioners to specialists is very low (12 %). There has been a significant migration of health professionals in recent years. To reduce

skills shortages, a comprehensive residency support programme was introduced in 2011 and was announced again for 2016. Beyond emigration, attrition puts further pressure on skills shortages. To address this challenge, wages of health professionals were increased substantially in 2012 and 2013. However, they remain low in a European perspective. <sup>(52)</sup>

**Equity in access to healthcare also remains a challenge.** The gap for unmet needs between the first and bottom income quintiles is above the EU average (6.3 % for Hungary vs. 4.9 % EU average). Equity of access is further hindered by the widespread use of informal payments: 10 % of the population who visited public medical facilities in the preceding year reported having to make an extra payment beyond the official fees or offer a gift or donation.

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<sup>(52)</sup> Health Workforce Migration: <http://stats.oecd.org/>  
Health Systems in Transition: Hungary (2011) - [http://www.euro.who.int/\\_data/assets/pdf\\_file/0019/15504/4/e96034.pdf](http://www.euro.who.int/_data/assets/pdf_file/0019/15504/4/e96034.pdf);  
Varga Júlia: [Hova lettek az orvosok?](#)  
(Az orvosok külföldre vándorlása és pályaelhagyása Magyarországon, 2003-2011), LXIII. évf., 2016. január

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<sup>(50)</sup> These include the public health product tax (recently expanded and some alcoholic products as well), the act on the protection of non-smokers more became more stringent, the regulations on limiting the maximum trans-fatty acid content of food-stuffs, and stricter nutritional health rules regarding public catering.

<sup>(51)</sup> European Commission calculations on impact of mortality on labour force size, measured as the number of potential working life years per birth cohort, standardized for population size and age cohort mix, based on Eurostat variable [demo\_mlifetable], 2013 figures.

### 3.3. EDUCATION AND SKILLS

#### Skills and labour market outcomes

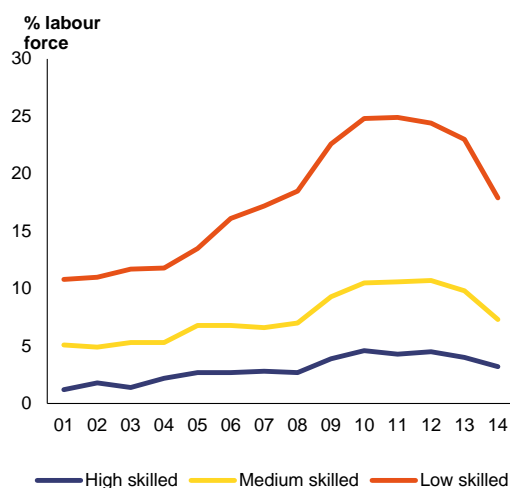
**The discrepancy in employment and unemployment outcomes of high, medium and low-skilled workers points to significant skills mismatches.** In 2014, the unemployment rate of high-skilled individuals was about 3 %, while it was 7% for medium skilled and 18 % for low skilled (see Graph 3.3.1). A similar discrepancy is observed in employment rates. In 2014, the employment rate of high-skilled was about 81 %, while it was 68 % for medium skilled and 44 % for low skilled (see Graph 3.3.2). These discrepancies have been decreasing as a result of the relatively high educational attainment of younger cohorts entering the labour market. Nevertheless Hungary remains among the Member States with the highest skills mismatches based on the differential employment rates (5<sup>th</sup> highest in the EU) and unemployment rates (9<sup>th</sup> highest) of the three broad skill groups.<sup>(53)</sup>

**Substantial earning premiums of high-skilled workers indicate that there is still a shortage of high-skilled workers despite the long-term expansion of higher education.** Such premiums and the elevated employment rate of high-skilled indicate that there is a strong demand for highly qualified workers. This is also supported by previous findings that the earning premiums of workers with tertiary education is very large in international comparison.<sup>(54)</sup> These differences also point to inadequacies in the basic and specific skills of workers with lower educational attainment. The low level of adult participation in lifelong learning may contribute to skills obsolescence and mismatches. In 2014 it remained one of the lowest in the EU (3.2% vs. 10.7% EU average).

<sup>(53)</sup> See more details on the international comparison in Aron Kiss and Anneleen Vandeplass (2015): “Measuring Skills Mismatch”, Analytical Web Note 7/2015, European Commission, Directorate-General for Employment, Social Affairs and Inclusion. <http://ec.europa.eu/social/main.jsp?catId=738>

<sup>(54)</sup> OECD (2015): Education at a Glance, p. 125, 132.

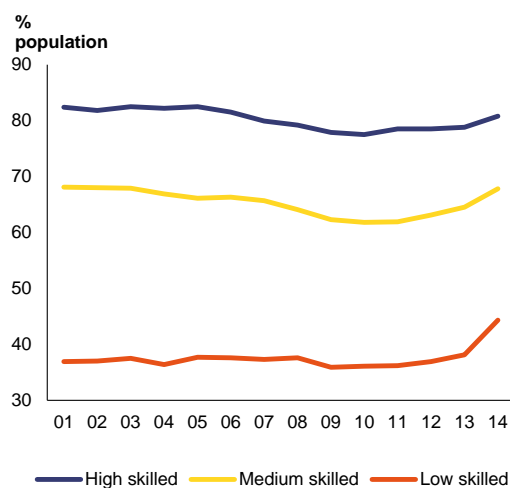
Graph 3.3.1: Unemployment rates by educational attainment in Hungary



(1) Unemployment rates ages 20-64 (% of labour force)

Source: Eurostat, LFS

Graph 3.3.2: Employment rates by educational attainment in Hungary



(1) Employment rates ages 20-64 (% of population)

Source: Eurostat, LFS

#### Education policies

**Low achievement in basic skills is increasing and students' socio-economic background has a strong impact on their performance.** The average performance of students in basic skills was below the EU average in the 2012 OECD Programme for International Student Assessment (PISA) and the proportion of low-achievers

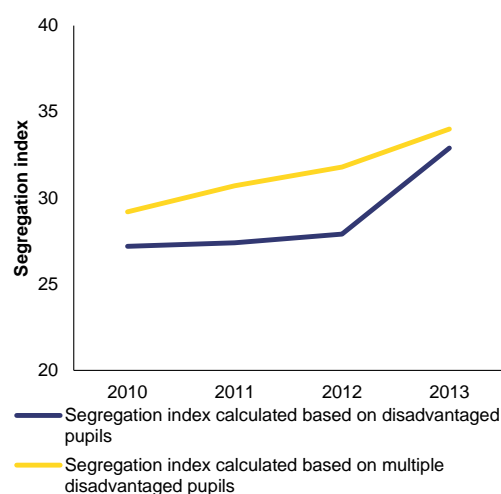
increased between 2009 and 2012. The influence of the socio-economic background and school location (urban vs. rural) on educational performance is one of the highest in the EU. Large performance gaps are already visible at 6<sup>th</sup> grade and become prominent at 10<sup>th</sup> grade. <sup>(55)</sup> Most low achievers live in the north-east of the country, which is hit strongest by poverty and has the highest early school leaving rate.

**The selectivity of the education system deepens performance differences among students in different school types.** Tracking based on student performance starts in the 5<sup>th</sup> grade (one of the youngest ages in the EU). Performance differences in basic skills are marked between the different school types and increase over time. In vocational schools students' achievement regarding basic skills lag far behind and even slightly deteriorate in maths. 30% are early school leavers. <sup>(56)</sup> Lack of equal access to quality mainstream education is particularly acute for Roma. With the exception of early childhood education, where there has been significant improvement in the last years, the gap has widened between the completion rate of Roma and non-Roma on all other educational levels, i.e. with respect to completion of primary, secondary, tertiary education. Early school leaving remains high among Roma (82%). <sup>(57)</sup>

**Increasingly higher shares of disadvantaged children, in particular Roma, attend low-performing schools.** While selection is based on performance, the social-economic background often influences school choice. The segregation index used by the Hungarian Academy of Sciences which is based on possible contacts between disadvantaged, multiple disadvantaged and non-disadvantaged pupils in primary education is increasing (See Graph 3.3.3), in particular in the capital and large cities. The Roma Inclusion Index shows that 20 % of Roma children receive

education in segregated schools, both in towns with several schools and remote settlements. Local policies affect the degree of segregation, albeit Hungary performs somewhat better than its regional peers in this regard. <sup>(58)</sup> Teachers are not sufficiently equipped with skills to work in diverse classrooms. Research confirms that separation based on performance or ethnic origin negatively affects students' development and strengthens social exclusion. <sup>(59)</sup>

Graph 3.3.3: Segregation index 2010-2013



**Source:** "Indicators of public education" (in Hungarian: "A közoktatás indikátorrendszer"), Hungarian Academy of Sciences, Centre of Economic and Regional Studies, 2015, figure C3.9.1.

**Tertiary attainment is improving but admission rates need to stabilise to maintain this positive trend.** In 2014, Hungary reached its national tertiary attainment target (34.1 % compared to the EU average of 37.7 %). Between 2005-2006 and 2011-2012 the total number of students in Hungary

<sup>(55)</sup> Education Authority (2015), Országos Kompetenciamérés. 2014. Országos jelentés, [https://www.kir.hu/oknfit/files/OKM\\_2014\\_Orszagos\\_jelentes.pdf](https://www.kir.hu/oknfit/files/OKM_2014_Orszagos_jelentes.pdf)

<sup>(56)</sup> This is partly due to the fact that in the 10th grade, the three-year vocational schools count a higher share of pupils with disadvantaged backgrounds or with learning difficulties amongst their students than other school types (Education Authority, 2015, see previous footnote).

<sup>(57)</sup> Decade of Roma Inclusion Secretariat, Roma Inclusion Index, 2015, [http://www.romadecade.org/cms/upload/file/9810\\_file1\\_roma-inclusion-index-2015-s.pdf](http://www.romadecade.org/cms/upload/file/9810_file1_roma-inclusion-index-2015-s.pdf)

<sup>(58)</sup> Gabor Kertesi – Gabor Kezdi (2013) School segregation, school choice and education policies in 100 Hungarian towns. Institute of Economics, Centre for Economic and Regional Studies Hungarian Academy of Sciences, Department of Human Resources, Corvinus University of Budapest

<sup>(59)</sup> Gabor Kertesi – Gabor Kezdi (2015) On the Test Score Gap Between Roma and Non-Roma students in Hungary and its potential causes. Institute of Economics, Centre for Economic and Regional Studies Hungarian Academy of Sciences, Department of Human Resources, Corvinus University of Budapest

<http://www.econ.core.hu/file/download/bwp/bwp1401.pdf> and Decade of Roma Inclusion Secretariat, Roma Inclusion Index (2015).

fell by 13 %. In recent years there has been a decline in applications and enrolment rates among 18-year-olds for bachelor programmes and a high share of drop-out rates from higher education.<sup>(60)</sup> The rate of graduates in maths, computing, technology, manufacturing and construction, in particular at master and doctoral levels, is one of the lowest in the EU.

**Hungary has introduced a number of measures to better address low achievement.** However, important details on implementation are not available to assess their potential impact. The introduction of compulsory participation in early childhood education and care (ECEC) in September 2015 and the extension of available capacities and staff are important measures to improve the participation and educational outcomes of disadvantaged children. Since 2015, schools are obliged to prepare action plans in response to low results in national competence tests. Several new measures such as teacher appraisals, pedagogical professional inspections and a network of pedagogical education centres were also introduced<sup>(61)</sup>. However, the centralised system may present a challenge in flexibly intervening and allocating resources to schools. The announced implementation plan for the early school leaving strategy was approved in 2015. New methodologies to prepare teachers to teach disadvantaged have been introduced in some schools, but they remain at a pilot stage. This step points to the right direction.

**The Government announced the development of desegregation measures in January 2016.** Grants and scholarships supporting catch-up programmes are continued. A midterm strategy for desegregation and the creation of social inclusion officer posts have been announced but no information is available yet on the content of the plan and further steps in this matter. Legislation calls for the readjustment of school catchment areas in order to avoid uneven distribution of disadvantaged students; nevertheless, specific

steps are not yet known. Both legislation and application, including national case-law, continue to raise questions about how effectively prohibition of discrimination of Roma in education is enforced.<sup>(62)</sup>

**Despite the positive attempt to remove structural barriers from progression, the employability and the chances of students in vocational education training (VET) for further learning may remain limited without improving their basic skills.** The government's new concept paper of March 2015 on initial vocational education and training aims at further increasing the number of students graduating in vocational education and improving dual education. From September 2016 pupils in the 3-year vocational school will have the possibility to stay on for two extra years and sit the upper secondary school leaving examination in the same school. The general knowledge content of the upper secondary vocational schools are planned to be reduced and professional content strengthened, which may hinder access to tertiary education.

**In 2013/2014 only 22% of students in special vocational schools and 9% of students in post-secondary VET schools participated in apprenticeship schemes.** The number of apprentices has increased significantly, but according to the Hungarian Chamber of Commerce<sup>(63)</sup> the number of students undergoing work-based training at firms did not increase between 2010 and 2014. Companies' willingness to provide training is increasing only slowly despite financial and organisational incentives. There is a lack of qualified employees willing to train students. In several professions there are not enough training places and offers are sometimes not adjusted to the demand. The Chamber of Commerce is a strategic partner of the government, but no consultation with other stakeholders has been taking place in this area.

<sup>(60)</sup> See <http://www.felvi.hu> for applications and enrolment, the drop-out rate from higher education was at 47% in 2011 according to UNESCO-UIS/OECD/EUROSTAT data collection in OECD Education at a Glance 2013.

<sup>(61)</sup> Discussions started about extending primary education from eight to nine years and considering dividing the vocational and general tracks from 7th grade which would bring tracking even earlier in the system.

<sup>(62)</sup> In particular Article 28(2) of Act CXXV of 2003 on Equal Treatment and the Promotion of Equal Opportunities as interpreted by the Hungarian Supreme Court (Kuria) in its ruling of 22 April 2015 and the 2014 "authorising" amendment to Article 94(4) of Act CXC of 2011 on National Public Education

<sup>(63)</sup> GVI (2015) A tanulószereződéseket kötő vállalatok profilja. [http://gvi.hu/kutatas/400/a\\_tanuloszerzodeseket\\_koto\\_vallalatok\\_profilja](http://gvi.hu/kutatas/400/a_tanuloszerzodeseket_koto_vallalatok_profilja)

**Current admission measures can narrow access to higher education and limit the pool of future innovators and researchers.** This may have a negative impact on Hungary's attractiveness to investments in knowledge intensive sectors. The higher education strategy has been approved and an action plan adopted. The strategy aims to achieve a 35% tertiary attainment rate by 2023. At the same time, national studies suggest that the annually increasing admission requirements to higher education risk further narrowing the chances of upper secondary vocational graduates and disadvantaged pupils to access higher education. Upper secondary VET students apply to higher education to lesser extent and fewer of them pass advanced upper secondary exams that increase chances of admission. Disadvantaged pupils apply to programmes and institutions with lower admission requirements and thus higher admission chances. While science, technology, engineering and mathematics programmes are a priority the increasing admission requirements result in a decreasing number of entrants. <sup>(64)</sup> The community higher education centres are envisaged to be financed by local economic or social actors, which may prove to be challenging in disadvantaged regions where these centres are planned to be located.

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<sup>(64)</sup> Szemerszki Marianna (2014) A középiskolából a felsőoktatásba. In. Felsőoktatási Műhely. [http://www.felvi.hu/pub\\_bin/dload/FeMu/2014\\_1/femu\\_2014\\_1\\_47-63.pdf](http://www.felvi.hu/pub_bin/dload/FeMu/2014_1/femu_2014_1_47-63.pdf)

## 3.4. BUSINESS ENVIRONMENT

### Public administration and regulatory environment

**Long-standing challenges to the Hungarian competitiveness are the level of the regulatory environment's predictability and that of administrative burdens.** The country performs below the EU average regarding fast-changing legislation, the complexity of administrative procedures and e-government services for businesses. The World Bank 2015 Worldwide Governance Indicators show that the governance score of Hungary for the regulatory quality indicator is below the EU average and has deteriorated since 2006<sup>(65)</sup>. Investors' are concerned<sup>(66)</sup> about the lack of predictability and stability of the regulatory environment. For instance, on average only 46 days elapsed between the adoption of a draft law and its publication in the official journal (*Magyar Közlöny*), which does not allow a proper public discussion and does not give enough preparation time for the affected parties. Public consultations remained limited; the median number of days open for consultation was only 5 days in 2014 and 3.5 days in 2015. Consultations on draft legislation tend to be non-public, informal and take place with selected stakeholders, and there are no publicly available impact assessments underpinning legislation.<sup>(67)</sup>

**Steps have been taken to reduce administrative burdens.** As the overall burden of regulation is still perceived as too heavy in comparison to the EU average<sup>(68)</sup>, the government adopted the Public Administration and Public Services development strategy 2014-2020 in February 2015. Specific targets of the strategy are to reduce administrative burden by 20%, total processing time by 20%, and administrative fees and charges by 10%. The recently adopted bill (Act

CLXXXVI. of 2015) to cut red tape in public administration aims at revising and simplifying applicable rules, administrative deadlines and authorisation procedures with effect from 1 January 2016. Moreover, the government recently launched the reform of the public administrative procedure and the civil procedure in court for appeals against public administration decisions<sup>(69)</sup>. The proposals intend to speed up public administration cases and are planned to be finalised in the first months of 2016. As regards the judiciary, the European Court of Human Rights delivered a pilot-judgment in 2015 concerning the excessive length of civil proceedings in Hungary.<sup>(70)</sup>

**The stability of the implementation system of European Structural and Investment Funds' management improved in 2015 and resulted in an increased absorption of funds.** However, limited transparency of decision-making processes impedes assessing the effectiveness of the delivery system.

**To make public administration more transparent and effective, e-government solutions may play an important role.** According to the Digital Economy and Society Index, Hungary ranks among the lowest performers in the EU with a score also substantially lower than its cluster average in the Digital Public Services dimension<sup>(71)</sup>. At the same time, the government has been active in this area and aims at further developing e-government services. In December 2015, the Hungarian Parliament adopted the new specific e-government law (Act CCXXII of 2015) that will gradually enter into force from January 2016 until January 2017 and provides the legal basis for the planned extension of electronic public administrative services.

### Competition

**Hungary has maintained restrictive regulation on business services.**<sup>(72)</sup> Particular problems in

<sup>(65)</sup> The governance score denotes the estimate of governance measured on a scale from approximately -2.5 to 2.5. Higher values correspond to better governance. Hungary scored 1.21 in 2006 and 0.77 in 2014. The EU average was 1.17 in 2014.

<sup>(66)</sup> See e.g. p. 10 in HECB's 2015 annual report at [http://www.hebc.hu/wp-content/uploads/2015/10/hebc\\_report\\_2015\\_for\\_a\\_stronger\\_hungary\\_in\\_a\\_stronger\\_europe.pdf](http://www.hebc.hu/wp-content/uploads/2015/10/hebc_report_2015_for_a_stronger_hungary_in_a_stronger_europe.pdf) in the US Department of State's 2015 Investment Climate Statement at <http://www.state.gov/e/eb/rls/othr/ics/2015/241591.htm> and in The Global Competitiveness Report 2015-2016

<sup>(67)</sup> The Quality of Hungarian Legislation 2015, Corvinus University, Corruption Research Center Budapest, 2016.

<sup>(68)</sup> 2015 SBA Fact Sheet for Hungary.

<sup>(69)</sup> Resolution of the Government nr. 1352/2015 (VI.2.) Korm. Határozat.

<sup>(70)</sup> European Court of Human Rights, *Gazsó v. Hungary* (application no. 48322/12), 16 July 2015

<sup>(71)</sup> <https://ec.europa.eu/digital-agenda/en/scoreboard/hungary#5-digital-public-services>

<sup>(72)</sup> European Commission, *Business services – Assessment of Barriers and their Economic Impact*, October 2015,

business services stem from the prevalence of the reserved activities, related authorisation requirements as well as tariff restrictions in place. As a consequence, Hungary experiences subdued market dynamics, low competition and allocative inefficiency in several important business services sectors. This factor is also important in the light of the fact that the proportion of fast growing companies in the Hungarian business services sector is significantly below the EU average.

**Establishment and operational restrictions on the retail sector constitute significant barriers to entry and expansion.** The restrictions mainly affect the business model of typically foreign retail chains operating large retail stores. The restrictive and often changing regulatory environment hinders further modernisation of the sector. According to a recent European Commission study the mark-ups in the Hungarian retail sector are the third highest in the EU and have been growing continuously for the last decade. At the same time, the allocative efficiency indicator is among the lowest in EU countries<sup>(73)</sup>. Some changes, however, show an overall improvement; the high rates of the food safety inspection fee which affected in particular foreign retailers were lifted, and the introduction of on-line cash registers contributed to the whitening of the sector. Yet, the overall restrictiveness remains high notably due to measures such as retail establishment authorisation, prohibition of loss-making and restrictions on opening hours.

**Hungary significantly increased the number of professions which are notified to the Database of Regulated Professions.** Currently, Hungary has notified the largest number of professions to this database (over twice the EU average). Although the number in itself is not an indicator on the restrictiveness of the regulation, it raises some questions as to the ease of access to regulated professions in the country. **The lack of sufficient rules and procedures in Hungary, which would allow companies<sup>(74)</sup> to directly transfer their**

**registered office on a cross-border basis<sup>(75)</sup>, weakens the business environment.** With no adequate legal framework, it is difficult for companies to relocate from/to Hungary (e.g. they might need to go through a costly process of winding up in one country and reincorporating in another).<sup>(76)</sup>

### Fight against corruption

**Corruption is one of the top concerns to be addressed as regards Hungary's competitiveness according to the World Economic Forum.** The renewed National Anti-corruption Action Programme (NAP) 2015-2018 continues to emphasise the integrity management framework. However, no changes are envisaged to make the framework more effective in preventing corruption in public institutions. The government has not renewed its earlier commitment to revise the 2013 whistle-blower law, which lacks provisions that adequately protect whistle-blowers from retaliation. The programme plans to revise the asset declaration system lack ambition and new legislative amendments passed in 2015 introduced some further restrictions to public access to information. The Council of Europe's Group of States against Corruption (GRECO) issued in 2015 recommendations on corruption prevention in respect of members of parliament, judges and prosecutors in Hungary, and invited Hungarian authorities to report on the measures taken to implement these recommendations by 30 September 2016<sup>(77)</sup>. On the corrective side, prosecution of high-profile cases of corruption remains exceptional and the time taken to complete judgements is rather lengthy. In 2015, the Prosecutor General's Office opened an internal inquiry as regards the low number of cases; no results have been made public yet. Furthermore,

<http://ec.europa.eu/DocsRoom/documents/13328/attachments/1/translations/en/renditions/native>

<sup>(73)</sup> Anna Thum-Thysen and Erik Canton, Estimation of service sector mark-ups determined by structural reform indicators, Economic Papers 547, European Commission, 2015.

<sup>(74)</sup> Apart from the European Companies (SEs).

<sup>(75)</sup> See the 2013 study on the application of the Cross-Border Mergers Directive ([http://ec.europa.eu/internal\\_market/company/docs/mergers/131007\\_study-cross-border-merger-directive\\_en.pdf](http://ec.europa.eu/internal_market/company/docs/mergers/131007_study-cross-border-merger-directive_en.pdf)); the 2013 European Added Value Assessment on the Directive on the cross-border transfer of a company's registered office ([http://www.europarl.europa.eu/RegData/etudes/etudes/join/2013/494460/IPOL-JOIN\\_ET\(2013\)494460\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/etudes/join/2013/494460/IPOL-JOIN_ET(2013)494460_EN.pdf)).

<sup>(76)</sup> The impact of the 2013 court decision in the VALE case, when the Hungarian Supreme Court set out specific conditions regarding a transfer of registered office into Hungary, still remains to be seen.

<sup>(77)</sup> GRECO, Fourth Evaluation Round, Evaluation Report Hungary, 27 March 2015, published 22 July 2015



although an average of 71% of the investigations opened on bribery of public officials resulted in indictments in the period of 2011-2013, the ratio of suspended custodial sentences for the same category of corruption offences is high. <sup>(78)</sup>

**Businesses' perceptions about corruption in public procurement have improved but are still above the EU average.** In 2015, 81 % of business representatives think that corruption is widespread (EU average: 71%) <sup>(79)</sup>. A significant number of business respondents were concerned about corrupt practices in public procurement, 60% citing tailor-made specifications and 52% collusive bidding as widespread. Some 27% of business representatives who have participated in a public tender recently said that corruption prevented the company from winning a public tender or a public procurement contract.

#### Public procurement

**A low level of competition in public procurement persists.** Available evidence suggests that the direct award of contracts continue to be extensively used. In 2015, Hungary had 13% of negotiated procedures without publication compared to a European Economic Area (EEA) average of 4%. Moreover, for 36% of awards of contract there was only a single bid (excluding frameworks) for above threshold tenders – compared to an EEA average of 21%. These values are the 5<sup>th</sup> highest in the EU.

**The lack of competition between economic operators and insufficient transparency in the procedures raise the costs of procurement.** Moreover, it distorts the functioning of the market by excluding potential contractors. The administrative burden on tenderers seems high in Hungary, which results in a low number of bids per public tender. Hungary ranked among the lowest in market competition according to the

<sup>(78)</sup> ) Suspended custodial sentences accounted for 60-66% of all custodial sentences handed down in final convictions in 2011 – 2013. See in: [http://ec.europa.eu/dgs/home-affairs/what-we-do/policies/organized-crime-and-human-trafficking/corruption/docs/official\\_corruption\\_statistics\\_2\\_011\\_2013\\_jan16\\_en.pdf](http://ec.europa.eu/dgs/home-affairs/what-we-do/policies/organized-crime-and-human-trafficking/corruption/docs/official_corruption_statistics_2_011_2013_jan16_en.pdf)

<sup>(79)</sup> <http://ec.europa.eu/COMFrontOffice/PublicOpinion/index.cfm/Survey/getSurveyDetail/instruments/FLASH/surveyKy/2084>

'Cost-effectiveness study' with an average of 3.5 bids per tender (EU average 5.4).

**The renewed National Anti-corruption Action Programme 2015-2018 promotes the concept of 'open contracting'.** The Hungarian government has set a goal to create an easily searchable and regularly updated database of procurement calls for tender and contracts available online, with each procedure and each bidder given a unique and permanent identifier.

**One of the main challenges for the Hungarian government is to adopt a comprehensive e-procurement strategy in line with the timeline set in the public procurement directives.** Although the adoption of the new Public Procurement Act (the compliance of which with EU law is still to be assessed) is a step forward, the overall strategy of the transition to full e-procurement is missing. E-procurement can generate significant cost savings, improve transparency of public procurement, shorten lead time and increase competition.

#### Research, development and innovation

**Significant bottlenecks remain in the Hungarian Research and Innovation (R&I) system including the instability of the public R&I funding and of the R&I institutional framework <sup>(80)</sup>, as well as skills shortages <sup>(81)</sup>.** Foreign owned business enterprises continue to drive progress towards the Hungarian R&D intensity target <sup>(82)</sup>. At the same time, low expenditure on the public research system put the sustainability of this trend at risk. Public R&D intensity in Hungary has been persistently low and has been even declining over the last ten years, decreasing to only 0.4% of GDP in 2014 (Graph 3.4.1). This decreasing trend undermines the capacity of the public science base in providing

<sup>(80)</sup> Only 10.6% of Hungarian SMEs (EU-28 average 28.7%) carries out innovation activities. [http://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards/index\\_en.htm](http://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards/index_en.htm)

<sup>(81)</sup> New graduates in science and engineering graduates (ISCED 5 and 6) per thousand population aged 25-34 was 9.6% in 2013 which is well below the EU average of 16.3% and places Hungary in the 26th position in the EU.

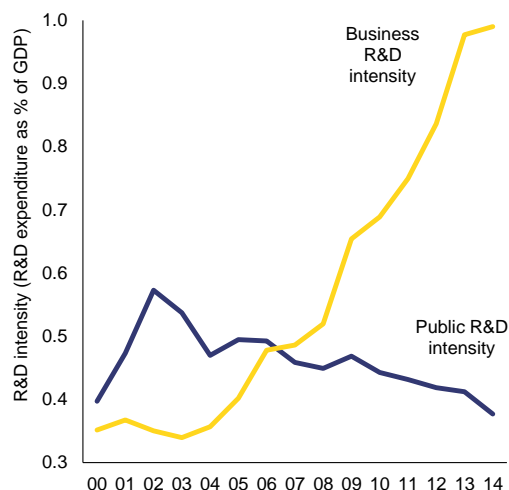
<sup>(82)</sup> Looking at Hungary's economic structure, the country is one of the top performers in terms of value added in high-tech and in medium high-tech manufacturing as % of total value added in the EU.

both skilled human resources and high quality research, which constitute the basis for increased cooperation with the business sector. The availability of highly-skilled professionals particularly in science and engineering has become a major issue in recent years.

**Greater exploitation of the presence of multinational companies for the development of an effective national R&I ecosystem and an improvement of the overall innovation performance of the Hungarian economy remain key challenges.** Partnerships between Higher Education Institutions, Public Research Organisations and business play an essential role in anchoring multinational companies in the national R&I ecosystem. This also requires addressing the low level of innovation among domestic enterprises and the lack of entrepreneurial culture. The National Research, Development and Innovation Strategy (2013-2020) defines measures explicitly targeting innovative SMEs. Yet mismatches between these measures and the situation of SMEs hamper their effectiveness. While the ongoing restructuring of the Hungarian research and innovation system aims to address system fragmentation, it has often led to delays in the implementation of the various strategies, such as the National Research, Development and Innovation Strategy as well as the Smart Specialisation Strategy Action Plan <sup>(83)</sup>.

<sup>(83)</sup> To support the ongoing restructuring process of the national R&I system the Hungarian authorities requested in December 2014 a pre-peer review and subsequent in depth evaluation under the Horizon 2020 Policy Support Facility (PSF). The pre-Peer review was carried out by a high-level independent expert panel between May and October 2015 and identified the scope of the future in-depth Peer Review started in January 2016. The report is available at: <https://rio.jrc.ec.europa.eu/en/library/horizon-2020-policy-support-facility-pre-peer-review-hungarian-research-and-innovation>

Graph 3.4.1: Hungary - evolution of business R&D intensity and public R&D intensity, 2000-2014



- (1) Business R&D intensity: Business enterprise expenditure on R&D (BERD) as % of GDP.  
 (2) Public R&D intensity: Government intramural expenditure on R&D (GOVERD) plus higher education expenditure on R&D (HERD) as % of GDP.  
 (3) Public R&D intensity: Break in series between 2004 and the previous years.

Source: Eurostat

## 3.5. NETWORK INDUSTRIES AND ENVIRONMENT

### Energy and climate policy

**Projects of Common Interest both for electricity and natural gas infrastructure are potential projects in the energy domain of the European Fund for Strategic Investments.** Their main aim is to further enhance the internal energy market and security of supply. The inauguration of the new gas interconnector between Hungary and Slovakia has helped to improve the security of gas supply in Hungary as well as in Central and Eastern Europe.

**Regulated end-user electricity and gas prices are still not fully cost reflective, resulting in financial losses in the regulated business segment of energy utilities.** This is likely to prevent the necessary investments in the sector in order to improve energy efficiency. Retail prices should fully include all energy supply, network, taxes and levies elements. However, in case of Hungary, sector specific levies, taxes and other incurred costs are not allowed to be fully passed through in the final regulated prices paid by household consumers. With below-cost regulated prices the government has reduced incentives for customers to invest in energy saving.

**As unfavourable regulatory changes have resulted in significant financial losses for utilities in recent years, they began to return their household supply licences to the regulator.** In response, at the beginning of 2015 the government set up the state-owned First National Public Utility with a view to providing gas and electricity for household consumers nationwide. In replacing the former utilities and assuming the current regulatory conditions, the new public utility will have to bear financial losses of the household energy segment, resulting in permanent capital injection requirements from the state that might imply budgetary risks and state-aid issues.

**Significant obstacles exist in the deployment of renewable energy sources.** The long-awaited new feed-in tariff system has not yet been adopted. In addition under current regulatory conditions, broader deployment of solar and wind energy is not envisaged. In recent years, the increase in the share of renewables in the energy mix was largely due to the increase in biomass generation. Besides uncertainties regarding the feed-in tariff system, investments in renewables is also hampered by

insufficient grid connection infrastructure. However, Hungary is on track to reach its 2020 renewable energy target.

**Primary energy intensity in Hungary has decreased significantly since 2005, though it remained above the EU average.** Final energy consumption is still slightly above the EU average and projected to decouple from GDP growth and decrease slightly by 2020 compared to 2013. The National Energy Efficiency Action Plan has been adopted by the government and in February 2015 ambitious energy consumption and savings targets for 2020 were set (from 26.6 to 24.1 Mtoe expressed in primary energy consumption and from 18.2 to 14.4 Mtoe expressed in final energy consumption). The new 2020 energy efficiency target is better streamlined to the new economic environment, than the previous version, which was prepared before the 2008/2009 economic crisis and assumed higher economic growth and energy consumption.

**Energy efficiency improvements would be important as residential energy intensity is also higher than the EU average.** Surveys show that many citizens are unwilling to renovate their homes unless non-refundable support is available. Yet the government has decided to allow only preferential loans for this purpose. Between 2005 and 2013 there was a 6.8% annual decrease in combined heat and power generation, which is the second worst performance among EU Member States. Combined heat and power generation is not supported as required by EU legislation.

**Hungary currently spends about 6 % of its GDP on importing energy products<sup>(84)</sup>, which is twice the EU average.** In recent years, Hungary had one of the highest energy import bill in comparison to its GDP in the EU. Decreasing external import dependency, also by supporting wider deployment of renewables and energy efficient technologies, would mitigate the impact of fluctuating fossil fuel prices and would enhance energy security. The country is on track to reach its non-ETS greenhouse gas emission reduction target.

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<sup>(84)</sup> Member State's Energy Dependence: An Indicator-Based Assessment by DG ECFIN, p.12 [http://ec.europa.eu/economy\\_finance/publications/occasional\\_paper/2014/pdf/ocp196\\_en.pdf](http://ec.europa.eu/economy_finance/publications/occasional_paper/2014/pdf/ocp196_en.pdf)

### Transport and telecommunications

**While there is a high quality motorway network in Hungary, the secondary road network has been lacking adequate maintenance.** In this context, the development of new infrastructure or widening of existing expressways appears to be less warranted than the maintenance of the existing network, taking into account the life-cycle costs of new investments. In terms of infrastructure financing, the introduction of network-wide distance-based electronic tolling of heavy goods vehicles in 2013 was a positive development.

**The long-distance rail network and the navigability of the Danube require continuous improvement.** In particular, multimodal transshipment possibilities in the main ports along the Danube constitute significant bottlenecks. In view of the poor maintenance condition of the river, it is positive that Hungary submitted several inland waterway projects under the first Connecting Europe Facility calls for proposals in order to improve its navigability, as well as the fact that Integrated Transport Operational Programme is under modification to include investments into port infrastructure. Nevertheless, the lack of a modern fleet of vessels, river ports equipment and connections to railways currently hamper river logistics. Low quality infrastructure and railway bottlenecks around Budapest, including the connection to the airport lead to increased travel times, lower attractiveness and accessibility. These and other investments in the Budapest functional area are being addressed in the on-going Budapest Node Study which will help select priorities for financing under the Integrated Transport Operational Programme.

**In recent years road congestion has been reduced by sluggish economic performance, this however is changing.** Urban congestion may become a barrier to productivity in Hungary<sup>(85)</sup> as the employment rate and motorisation<sup>(86)</sup> restarted to grow. Air pollution causes human-health

<sup>(85)</sup> According to JRC calculations, urban areas in Hungary were among the 5 most congested in Europe in 2013 (in terms of average ratio of actual speed versus free-flow speed)

<sup>(86)</sup> EU transport in figures – Statistical Pocketbook 2015, Tables 2.6.2 and 2.6.6, [http://ec.europa.eu/transport/facts-fundings/statistics/pocketbook-2015\\_en.htm](http://ec.europa.eu/transport/facts-fundings/statistics/pocketbook-2015_en.htm) and Hungarian Central Statistical Office, Tables 4.6.11, 4.6.15 and 4.6.17, [http://www.ksh.hu/szallitas\\_kozlekedes](http://www.ksh.hu/szallitas_kozlekedes)

diseases and leads to total external costs in the range of up to EUR 17 billion/year in Hungary.<sup>(87)</sup> Half of the costs are related to road traffic. With regard to the planned road access charging in Budapest, although alternatives have been studied, the introduction of simple yearly and monthly vignettes risks to raise revenues without significant effect on congestion<sup>(88)</sup>.

**Hungary improved its fast broadband infrastructure during 2015.** 78 % of homes have access to at least 30 Mbps (megabit/second) broadband as of June 2015, up by 2 percentage points compared to six months ago. This is considerably above the EU average of 71 %. Whereas, fixed broadband services are available to 95 % of homes (slightly below the EU average of 97 %). At the same time, Hungary is lagging behind in the deployment and use of Digital Public Services and the Integration of Digital Technology in business processes. Hungary's businesses could better exploit the opportunities offered by on-line commerce, social media and cloud-based applications.<sup>(89)</sup>

### Environment policy

**Hungary plans to improve its resource efficiency.** Hungary is performing worse than average in the EU in terms of resource productivity (how efficient the economy uses material resources to produce wealth), with EUR 0.89/kg (EU average 1.95) in 2014.<sup>(90)</sup> In the 2011 National Environmental Technology Innovation Strategy, which is part of the Hungarian National Reform Programme, Hungary stipulates reducing its material intensity to 80% of the 2007 level by 2020.

**Waste management is still inefficient.** Investment planning and prioritisation of

<sup>(87)</sup> Impact Assessment for the Commission Integrated Clean Air Package, 2013.: [http://ec.europa.eu/environment/air/clean\\_air\\_policy.htm](http://ec.europa.eu/environment/air/clean_air_policy.htm)

<sup>(88)</sup> The Cost of Air Pollution, Health Impacts of Road Transport – OECD 2014

<sup>(89)</sup> The percentage of businesses using technologies such as electronic information sharing (ERP – 16%), Cloud services (6%) or social media (11%) in Hungary is among the lowest in the EU. Very few SMEs sell online (10%), even less sell online to other EU Member States (4.5%), and those who do sell online make a very small share of their turnover from those sales (7.2%).

<sup>(90)</sup> Eurostat, <http://ec.europa.eu/eurostat/web/europe-2020-indicators/resource-efficient-europe>

environment projects in wastewater and waste management is lagging behind on EU waste targets and therefore Hungary misses the cost-savings and job creation that accompany good waste management. There is a clear scope to step up exploitation of economic instruments and other mechanisms to promote prevention of waste generation, improve separate collection, recycling and reduce landfilling. Full implementation of the existing EU waste legislation could create more than 13,300 jobs in Hungary and increase the annual turnover of the waste sector by EUR 1.4 billion.

**Hungary does not perform well in using renewable water sources.** Out of 34 countries worldwide, Hungary is ranked 32<sup>nd</sup> for use of renewable water sources. <sup>(91)</sup> Water resources in Hungary show regional and seasonal limitations, which may escalate with climate change (causing also changes in water consumption patterns). The water pricing policy currently in place does not ensure full cost recovery and thereby does not contribute to the efficient use of this resource.

**Management and prevention of floods in particular using green infrastructure and nature-based solutions could improve water management while reducing economic, social and environmental costs.** <sup>(92)</sup> The coordinated preparation and implementation of the 2<sup>nd</sup> River-Basin Management Plan and the 1<sup>st</sup> Flood Risk Management Plan is very important. These two key planning documents in the water sector aim to reduce Hungary's exposure to floods and the damages they cause.

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<sup>(91)</sup> Christian Kroll: Sustainable Development Goals: Are the rich countries ready?, Bertelsmann Stiftung, p.33. [http://www.bertelsmann-stiftung.de/fileadmin/files/BSI/Publikationen/GrauePublikationen/Studie\\_NW\\_Sustainable-Development-Goals\\_Are-the-rich-countries-ready\\_2015.pdf](http://www.bertelsmann-stiftung.de/fileadmin/files/BSI/Publikationen/GrauePublikationen/Studie_NW_Sustainable-Development-Goals_Are-the-rich-countries-ready_2015.pdf) (Also cited in European Sustainable Development Network (ESDN) 2015 Quarterly Report (see pp.55-56)).

<sup>(92)</sup> Between 2002 and 2013, the total direct costs of the 10 major floods recorded in Hungary amounted to €2.7 billion. Study on Economic and Social Benefits of Environmental Protection and Resource Efficiency Related to the European Semester, RPA, 2014. [http://ec.europa.eu/environment/integration/green\\_semester/pdf/RPA%20Final%20Report-main%20report.pdf](http://ec.europa.eu/environment/integration/green_semester/pdf/RPA%20Final%20Report-main%20report.pdf); [http://ec.europa.eu/environment/integration/green\\_semester/pdf/RPA%20Final%20Report-annexes.pdf](http://ec.europa.eu/environment/integration/green_semester/pdf/RPA%20Final%20Report-annexes.pdf)

## ANNEX A

### Overview Table

#### Commitments

#### Summary assessment <sup>(93)</sup>

2015 country specific recommendations (CSRs)	
<p><b>CSR 1:</b> Achieve a fiscal adjustment of 0.5 % of GDP towards the medium-term budgetary objective in 2015 and of 0.6 % of GDP in 2016.</p>	<p>CSRs related to compliance with the Stability and Growth Pact will be assessed in spring once the final data will be available.</p>
<p><b>CSR 2:</b> Take measures to restore normal lending to the real economy and remove obstacles to market-based portfolio cleaning considerably reduce the contingent liability risks linked to increased state ownership in the banking sector.</p>	<p>Hungary has made <b>some progress</b> in addressing CSR 2:</p> <ul style="list-style-type: none"> <li>• <b>Some progress</b> was made in taking measures to restore normal lending and removing obstacles to market based portfolio cleaning. The authorities started to implement of commitments made in the Memorandum of Understanding with EBRD, including the considerable reduction of the tax on financial institutions. However, net lending to non-financial corporations does not show a revival yet. Asset quality of banks' balance sheet is being addressed through various initiatives (e.g. personal insolvency legislation, the capacity of the national Asset Management Company has been extended), but results are not yet visible.</li> <li>• <b>No progress</b> was made in reducing the contingent liability risks. State ownership in the banking sector has rather been extended following the completion of the acquisition of Budapest Bank.</li> </ul>
<p><b>CSR 3:</b> Reduce distortive sector-specific corporate taxes; remove the unjustified entry barriers in the service sector, including in the retail sector; reduce the tax wedge for low-income earners, including by shifting taxation to areas less distortive to growth; continue to fight tax evasion, reduce compliance costs and improve the efficiency of tax collection. Strengthen structures in public procurement that promote competition and transparency and further improve the anti-corruption framework.</p>	<p>Hungary has made <b>limited progress</b> in addressing CSR 3:</p> <ul style="list-style-type: none"> <li>• <b>Some progress</b> has been made in the reduction distortive sector-specific corporate taxes. The tax on financial institutions has been halved. In response to a suspension injunction by the European Commission, the progressive rates in the food inspection fee have been repelled. However, little change has been made regarding other sector-specific levies.</li> </ul>

<sup>(93)</sup> The following categories are used to assess progress in implementing the 2015 CSRs:

No progress: The Member State (MS) has neither announced nor adopted measures to address the CSR. This category also applies if the MS has commissioned a study group to evaluate possible measures.

Limited progress: The MS has announced some measures to address the CSR, but these appear insufficient and/or their adoption/implementation is at risk.

Some progress: The MS has announced or adopted measures to address the CSR. These are promising, but not all of them have been implemented and it is not certain that all will be.

Substantial progress: The MS has adopted measures, most of which have been implemented. They go a long way towards addressing the CSR.

Fully implemented: The MS has adopted and implemented measures that address the CSR appropriately.

	<ul style="list-style-type: none"> <li>• <b>Limited progress</b> has been made in removing the unjustified entry barriers in the service sector. In the retail sector the high rates of the food safety inspection fee were lifted, but the overall level of restrictiveness remains high.</li> <li>• <b>Limited progress</b> has been made to reduce the tax wedge for low-income earners. Steps have been taken (including a 1 pp. cut in the uniform tax rate of the personal income tax, and an increase of the family tax allowance for earners with two children) but measures are not sufficiently well targeted to achieve a significant effect for low-income earners.</li> <li>• <b>Substantial progress</b> has been made to fight tax evasion. Recent policies put in place to combat VAT avoidance and tax evasion seem to have produced visible yields and the 2016 budget counts on further revenue gains.</li> <li>• <b>Limited progress</b> has been made in the reduction of compliance costs and the improvement of the efficiency of tax collection.</li> <li>• <b>Limited progress</b> has been made as regards promoting competition and transparency (e.g. through the adoption of the new Public Procurement Act, the compliance of which with EU law is still to be assessed), important actions are delayed, especially in the field of e-procurement, and the indicators on public procurement show that competition and transparency are still unsatisfactory in public procurement.</li> <li>• <b>No progress</b> has been registered in improving the anti-corruption framework. No changes are envisaged to make the new National Anti-corruption Programme more effective in preventing corruption and applying dissuasive sanctions. Prosecution of high-level corruption cases remains exceptional.</li> </ul>
<p><b>CSR4:</b> Reorient the budget resources allocated to the public work scheme to active labour market measures to foster integration into the primary labour market; and improve the adequacy and coverage of social assistance and unemployment benefits.</p>	<p>Hungary has made <b>no progress</b> in addressing CSR 4 of the Council recommendation:</p> <ul style="list-style-type: none"> <li>• <b>No progress</b> has been made to reorient the budget resources allocated to the public work scheme to active labour market measures to foster integration into the primary labour market. The PWS is the main Active Labour Market Policy (ALMP) measure in Hungary. Its budgetary cost quadrupled</li> </ul>

	<p>over the last four years, to 0.8 % of GDP, and is expected to double again by 2018. Few public workers manage to find a job on the open labour market and there is a significant risk of a “lock-in” effect. In spite of the 2015 CSR, in 2015 the Hungarian government announced a further expansion of the scheme.</p> <ul style="list-style-type: none"> <li>• <b>No progress</b> has been made to improve the adequacy and coverage of social assistance and unemployment benefits. The duration of the unemployment benefit (UB) is 3 months, the shortest in the EU. In addition, the non-adjustment or freezing of amounts in the past years or new calculation rules have reduced the nominal value of many benefits. The recent reforms do not expand and could further restrict access conditions for a number of benefits and social services.</li> </ul>
<p><b>CSR 5:</b> Increase the participation of disadvantaged groups in particular Roma in inclusive mainstream education, and improve the support offered to these groups through targeted teacher training; strengthen measures to facilitate the transition between different stages of education and to the labour market, and improve the teaching of essential competences.</p>	<p>Hungary has made <b>limited progress</b> in addressing CSR 5 of the Council Recommendation:</p> <ul style="list-style-type: none"> <li>• <b>Limited progress</b> has been made in increasing the chances of disadvantaged pupils, in particular Roma in inclusive mainstream education and preparing teachers for this.</li> <li>• <b>No progress</b> has been made in facilitating transitions between different stages of education.</li> <li>• <b>Some progress</b> has been made in facilitating the transition from education to the labour market.</li> <li>• <b>Some progress</b> has also been made in improving the teaching of key competences.</li> </ul>
<p><b>Europe 2020 (national targets and progress)</b></p>	
<p><b>Europe 2020 national targets</b></p>	<p><b>Assessment</b></p>
<p>Employment rate target: 75%</p>	<p>The employment rate increased by 2.2 pps. y-o-y to 69.7 % in Q3-2015 (age group 20-64), almost 1 pp. below the EU average (70.6%).</p>
<p>Greenhouse gas (GHG) emissions target: +10% compared to 2005 emissions (ETS emissions not covered by this national target)</p>	<p>Change in non-ETS greenhouse gas emissions between 2005 and proxy 2014: -30%</p> <p>Based on the latest national projections submitted to the Commission and considering existing measures, it is expected that Hungary will achieve the target by a margin of 40 pp: -30% in 2020 as compared to 2005.</p>



2020 Renewable energy target: 13%	<p>With a renewable energy share of 9.5% in 2014, Hungary is on track to reach the target for 2020 (as the indicative target for 2013-2014 was 6.9%).</p> <p>Hungary is also in line with its indicative trajectory for renewable heating and cooling and transport sectors. However, the share of renewable electricity is below the value envisaged by the National Renewable Action Plan (NREAP). Therefore, additional efforts are needed to ensure meeting the 2020 target.</p> <p>With 6.9% share in 2014, Hungary is half-way in reaching the 10% binding target for RES in transport by 2020.</p>
<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>	<p>Hungary's former 2020 energy efficiency target, being in force until early 2015, did not seem to incentivise improvements as the 2013 annual figures were already significantly lower than the 2020 target. Although the new 2020 target is better streamlined to the new economic environment, Hungary needs to continue its efforts in order to meet the updated target, assuming that the current economic rebound continues.</p>
R&D target: 1.8% of GDP and 3% by 2030 <sup>(94)</sup>	<p>In the period of 2007-2013, thanks to a continuous increase in business R&amp;D expenditures, overall Hungarian R&amp;D intensity showed a significant growth with a compound annual growth of 6.5% and reached a peak of 1.41% in 2013. However, this trend reversed in 2014 with a decrease down to 1.38%. The contrasting trends in public and private R&amp;D intensities put into question the sustainability of the overall growth of the R&amp;D intensity, as the diminishing public R&amp;D intensity undermines the availability of highly skilled human resources in science and technology.</p>
Reducing the rates of early school leaving below 10%	<p>In 2014, early school leaving was 11.4% in Hungary, which was slightly above the EU average. However, in the period 2011-2014, there is no improvement on yearly average in the early school leaving rate (11.4% in 2011).</p>
34% of 30-34-year-olds completing third level education	<p>Hungary updated its tertiary attainment target in December 2014 and it has achieved this target in the same year. Attainment rate is well improving, however, the current admission and drop-out rates may not ensure this trend in a decade.</p>
Target on the reduction of population at risk of poverty or social exclusion in number of	<p>The number of people at risk of poverty or social exclusion decreased from 3.39m in 2013 to 3.10m in</p>

<sup>(94)</sup> A complementary target is that Business R&D intensity would reach 1.2% by 2020 from 0.99% in 2014.

persons: 450 000	2014 although this is still 302 000 higher than the baseline in 2008.
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## ANNEX B

### MIP Scoreboard indicators

Table B.1: **The MIP scoreboard for Hungary**

			Thresholds	2009	2010	2011	2012	2013	2014
External imbalances and competitiveness	Current account balance, (% of GDP)	3 year average	-4%/6%	-5.0	-2.5	0.1	0.9	2.2	2.7
	Net international investment position (% of GDP)		-35%	-116.1	-109.4	-106.7	-94.4	-84.1	-73.8
	Real effective exchange rate - 42 trading partners, HICP deflator	3 years % change	±5% & ±11%	7.8	-1.2	-4.2	-1.0	-4.0	-7.0
	Export market share - % of world exports	5 years % change	-6%	12.8	3.3	-2.0	-20.9	-20.4	-14.9
	Nominal unit labour cost index (2010=100)	3 years % change	9% & 12%	13.1	6.0	3.0	4.0	6.3	6.7
Internal imbalances	Deflated house prices (% y-o-y change)		6%	-9.0	-5.9	-6.9	-9.4	-4.6	3.1
	Private sector credit flow as % of GDP, consolidated		14%	6.0	-4.2	-4.5	-6.1	-1.1	-0.5
	Private sector debt as % of GDP, consolidated		133%	117.1	115.6	114.9	102.0	95.2	91.3
	General government sector debt as % of GDP		60%	78.0	80.6	80.8	78.3	76.8	76.2
	Unemployment rate	3 year average	10%	8.4	9.7	10.7	11.1	10.7	9.6
	Total financial sector liabilities (% y-o-y change)		16.5%	1.9	-0.2	6.2	-5.9	-1.0	8.5
New employment indicators	Activity rate - % of total population aged 15-64 (3 years change in p.p)		-0.2%	-0.8	0.3	1.2	2.5	2.8	4.6
	Long-term unemployment rate - % of active population aged 15-74 (3 years change in p.p)		0.5%	0.8	2.1	1.6	0.8	-0.6	-1.5
	Youth unemployment rate - % of active population aged 15-24 (3 years change in p.p)		2%	7.3	8.3	6.5	1.8	0.2	-5.6

Note: Figures highlighted are those falling outside the threshold established in the European Commission's Alert Mechanism Report. For REER and ULC, the first threshold applies to euro area Member States.

Source: European Commission

## ANNEX C

### Standard Tables

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

	2010	2011	2012	2013	2014	2015
Total assets of the banking sector (% of GDP)	132.8	119.7	119.1	114.6	108.9	103.5
Share of assets of the five largest banks (% of total assets)	54.6	54.6	54.0	51.9	52.5	-
Foreign ownership of banking system (% of total assets)	53.1	54.6	50.0	46.2	40.0	-
Financial soundness indicators:						
- non-performing loans (% of total loans) <sup>1)</sup>	10.0	13.7	16.0	16.8	15.6	12.7
- capital adequacy ratio (%) <sup>1)</sup>	13.9	13.8	16.3	17.4	16.9	17.2
- return on equity (%) <sup>1)</sup>	0.4	-8.5	-1.4	2.3	-20.6	4.5
Bank loans to the private sector (year-on-year % change)	-5.2	-13.1	-5.5	-4.1	-3.5	-8.1
Lending for house purchase (year-on-year % change)	-4.4	-18.9	-9.4	-5.4	-6.1	-10.2
Loan to deposit ratio	136.9	128.0	110.6	102.1	94.8	80.5
Central Bank liquidity as % of liabilities <sup>2)</sup>	0.1	0.4	0.7	3.1	3.8	5.0
Private debt (% of GDP)	115.6	114.9	102.0	95.2	91.3	-
Gross external debt (% of GDP) <sup>3)</sup> - public	46.0	47.6	52.0	47.5	47.2	43.5
- private	69.8	78.5	79.6	75.5	77.3	77.7
Long-term interest rate spread versus Bund (basis points)*	453.8	502.7	639.6	435.3	364.6	293.7
Credit default swap spreads for sovereign securities (5-year)*	282.1	342.5	418.0	269.8	179.2	139.1

1) Latest data Q2 2015.

2) Latest data October 2015.

3) Latest data September 2015. Monetary authorities, monetary and financial institutions are not included.

\* Measured in basis points.

**Source:** IMF (financial soundness indicators); 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

	2010	2011	2012	2013	2014	2015 <sup>(4)</sup>
Employment rate (% of population aged 20-64)	59.9	60.4	61.6	63.0	66.7	68.6
Employment growth (% change from previous year)	-0.3	0.0	0.1	0.9	4.8	2.8
Employment rate of women (% of female population aged 20-64)	54.6	54.7	56.2	56.9	60.2	61.9
Employment rate of men (% of male population aged 20-64)	65.5	66.4	67.3	69.3	73.5	75.5
Employment rate of older workers (% of population aged 55-64)	33.6	35.3	36.1	37.9	41.7	44.8
Part-time employment (% of total employment, aged 15 years and over)	5.9	6.8	7.1	6.8	6.4	6.2
Fixed term employment (% of employees with a fixed term contract, aged 15 years and over)	9.8	9.1	9.5	10.9	10.8	11.1
Transitions from temporary to permanent employment	39.2	39.3	35.3	38.2	-	-
Unemployment rate <sup>(1)</sup> (% active population, age group 15-74)	11.2	11.0	11.0	10.2	7.7	7.0
Long-term unemployment rate <sup>(2)</sup> (% of labour force)	5.5	5.2	5.0	4.9	3.7	3.2
Youth unemployment rate (% active population aged 15-24)	26.4	26.0	28.2	26.6	20.4	17.9
Youth NEET <sup>(3)</sup> rate (% of population aged 15-24)	12.6	13.2	14.8	15.5	13.6	-
Early leavers from education and training (% of pop. aged 18-24 with at most lower sec. educ. and not in further education or training)	10.8	11.4	11.8	11.9	11.4	-
Tertiary educational attainment (% of population aged 30-34 having successfully completed tertiary education)	26.1	28.2	29.8	32.3	34.1	-
Formal childcare (30 hours or over; % of population aged less than 3 years)	8.0	7.0	6.0	9.0	-	-

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

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

(3) Not in Education Employment or Training.

(4) Average of first three quarters of 2015. 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 (cont.)

Expenditure on social protection benefits (% of GDP)	2009	2010	2011	2012	2013	2014
Sickness/healthcare	5.6	5.7	5.5	5.0	4.9	-
Invalidity	2.0	1.8	1.7	1.6	1.5	-
Old age and survivors	10.2	10.2	10.4	11.0	10.8	-
Family/children	2.9	2.9	2.7	2.6	2.5	-
Unemployment	0.9	0.9	0.8	0.6	0.5	-
Housing and social exclusion n.e.c.	0.7	0.5	0.4	0.3	0.3	-
<b>Total</b>	22.4	22.1	21.5	21.2	20.6	-
of which: means-tested benefits	1.2	1.1	1.0	0.9	0.9	-
Social inclusion indicators	2009	2010	2011	2012	2013	2014
People at risk of poverty or social exclusion <sup>(1)</sup> (% of total population)	29.6	29.9	31.0	32.4	33.5	31.1
Children at risk of poverty or social exclusion (% of people aged 0-17)	37.2	38.7	39.6	40.9	43.0	41.4
At-risk-of-poverty rate <sup>(2)</sup> (% of total population)	12.4	12.3	13.8	14.0	14.3	14.6
Severe material deprivation rate <sup>(3)</sup> (% of total population)	20.3	21.6	23.1	25.7	26.8	23.9
Proportion of people living in low work intensity households <sup>(4)</sup> (% of people aged 0-59)	11.3	11.9	12.2	12.8	12.6	12.2
In-work at-risk-of-poverty rate (% of persons employed)	6.2	5.3	6.1	5.3	6.6	6.4
Impact of social transfers (excluding pensions) on reducing poverty	57.1	56.7	52.2	48.3	45.6	44.5
Poverty thresholds, expressed in national currency at constant prices <sup>(5)</sup>	624955	599141	601200	614952	574130	583861
Gross disposable income (households; growth %)	-0.2	1.1	7.4	2.8	3.6	3.9
Inequality of income distribution (S80/S20 income quintile share ratio)	3.5	3.4	3.9	4.0	4.2	4.2

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

(2) At-risk-of-poverty rate (AROP): 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 (HICP) = 100 in 2006 (2007 survey refers to 2006 incomes)

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

Table C.4: Structural policy and business environment indicators

Performance indicators	2009	2010	2011	2012	2013	2014
Labour productivity (real, per person employed, y-o-y)						
Labour productivity in industry	-10.04	17.80	-2.51	2.40	3.44	0.03
Labour productivity in construction	7.65	8.39	4.69	-3.90	6.62	7.86
Labour productivity in market services	-4.60	13.38	1.31	-0.24	0.66	-2.13
Unit labour costs (ULC) (whole economy, y-o-y)						
ULC in industry	7.18	-5.51	7.00	5.21	3.96	-0.01
ULC in construction	0.51	1.58	0.79	6.38	-4.52	-12.21
ULC in market services	6.00	0.53	1.90	2.40	0.70	0.76
<b>Business environment</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Time needed to enforce contracts <sup>(1)</sup> (days)	335	395	395	395	395	395
Time needed to start a business <sup>(1)</sup> (days)	5.0	4.0	4.0	4.0	5.0	5.0
Outcome of applications by SMEs for bank loans <sup>(2)</sup>	0.66	na	1.04	na	0.67	1.01
<b>Research and innovation</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
R&D intensity	1.14	1.15	1.20	1.27	1.41	1.38
Total public expenditure on education as % of GDP, for all levels of education combined	5.12	4.90	4.71	4.07	na	na
Number of science & technology people employed as % of total employment	33	33	35	36	36	36
Population having completed tertiary education <sup>(3)</sup>	17	17	18	19	20	20
Young people with upper secondary level education <sup>(4)</sup>	84	84	83	83	84	85
Trade balance of high technology products as % of GDP	2.32	2.22	2.98	0.94	0.46	0.18
<b>Product and service markets and competition</b>				<b>2003</b>	<b>2008</b>	<b>2013</b>
OECD product market regulation (PMR) <sup>(5)</sup> , overall				2.11	1.54	1.33
OECD PMR <sup>(5)</sup> , retail				0.79	1.44	2.06
OECD PMR <sup>(5)</sup> , professional services				2.86	3.02	3.05
OECD PMR <sup>(5)</sup> , network industries <sup>(6)</sup>				3.31	1.87	1.73

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

<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 codified 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 don't know.

(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 here: <http://www.oecd.org/competition/reform/indicatorsofproductmarketregulationhomepage.htm>

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

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

Table C.5: **Green growth**

<b>Green growth performance</b>		<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b>Macroeconomic</b>							
Energy intensity	kgoe / €	0.29	0.29	0.28	0.27	0.26	
Carbon intensity	kg / €	0.73	0.73	0.70	0.67	0.63	
Resource intensity (reciprocal of resource productivity)	kg / €	1.23	1.12	1.09	0.96	1.10	1.2
Waste intensity	kg / €	-	0.19	-	0.18	-	
Energy balance of trade	% GDP	-4.8	-5.1	-6.0	-6.3	-6.3	-6.
Weighting of energy in HICP	%	13.69	14.73	15.47	16.77	17.04	16.9
Difference between energy price change and inflation	%	3.1	1.6	1.9	0.3	-11.7	-10.
Real unit of energy cost	% of value added	17.0	19.4	20.5	-	-	
Ratio of labour taxes to environmental taxes	ratio	7.1	6.3	6.5	6.5	6.7	6.
Environmental taxes	% GDP	2.6	2.8	2.6	2.7	2.6	2.
<b>Sectoral</b>							
Industry energy intensity	kgoe / €	0.14	0.14	0.14	0.13	0.18	
Real unit energy cost for manufacturing industry	% of value added	32.6	36.1	36.6	-	-	
Share of energy-intensive industries in the economy	% GDP	10.38	10.40	9.44	9.35	8.52	8.4
Electricity prices for medium-sized industrial users	€ / kWh	0.13	0.11	0.10	0.10	0.10	0.0
Gas prices for medium-sized industrial users	€ / kWh	0.04	0.03	0.04	0.05	0.04	0.0
Public R&D for energy	% GDP	0.01	0.00	0.00	0.01	0.04	0.0
Public R&D for environment	% GDP	0.02	0.01	0.01	0.01	0.02	0.0
Municipal waste recycling rate	%	24.9	29.6	32.7	34.6	35.4	
Share of GHG emissions covered by ETS*	%	33.5	34.0	34.1	34.5	33.3	33.
Transport energy intensity	kgoe / €	1.19	1.06	1.03	0.95	0.88	
Transport carbon intensity	kg / €	3.21	2.85	2.72	2.57	2.40	
<b>Security of energy supply</b>							
Energy import dependency	%	58.5	58.1	51.8	52.3	52.3	
Aggregated supplier concentration index	HHI	60.6	59.2	52.9	58.7	61.0	
Diversification of energy mix	HHI	0.25	0.25	0.25	0.24	0.23	

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

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

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

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

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

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

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

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

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

Environmental taxes and labour taxes : from European Commission, '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: 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 000MWh and 10 000–100 000 GJ; figures excl. VAT.

Municipal waste recycling rate: ratio of recycled municipal waste to total municipal waste.

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

Proportion of greenhouse gas (GHG) emissions covered by EU Emission Trading System (ETS): 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: greenhouse gas 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