

**OVERVIEW** 

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# **Executive summary**

- Strong economic growth has returned
- Investment has started to pick up
- Low-skilled have weak labour market outcomes

### Strong economic growth has returned



# Investment has started to pick up



Macroeconomic imbalances are being corrected with the public debt-to-GDP ratio falling and the current account moving to a surplus. Financial vulnerabilities have been reduced, but non-performing loans still hamper bank lending. Growth has been strong since 2012. However, income levels are still well below those in more advanced economies and as economic slack disappears, sustaining growth will require structural reforms to strengthen the business sector and upgrade skills.

A key driver behind faster growth is more rapid business capital accumulation. Inward FDI and EU structural funds are strong investment drivers. On the other hand, domestic business investment, particularly by SMEs, is held back by a frequently changing regulatory environment and entry barriers in network industries. Reforms on these fronts could increase the integration of domestic firms, which are overwhelmingly SMEs, into global value chains.

#### Low-skilled have weak labour market outcomes



Employment rates of people with below upper-secondary education Skill requirements in the labour market are changing rapidly as the economy becomes increasingly knowledge based. The education system has reacted slowly, leaving many graduates without needed skills and unprepared to apply knowledge in novel and unfamiliar settings. Training in public work schemes has not been effective enough in generating relevant labour market skills. Women's skills are underutilised, as many do not participate in the labour market.

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MAIN FINDINGS	KEY RECOMMENDATIONS							
Macroeconomic policies								
Public debt is still high, considering the openness and vulnerabilities of the economy. Public spending is high, especially given Hungary's income level.	Gradually reduce spending over the medium-term to further lower the structural deficit. Monitor and limit contingent public liabilities in the electricity sector.							
Non-performing loans are high and credit growth remains subdued, particularly to domestic SMEs.	Implement a strategy for the asset management company to step-up offloading of non-performing assets. Expand capital surcharges on non- performing loans detained by banks beyond a certain period. Bolster competition in the banking sector by selling stakes in state-owned banks.							
The tax system still relies a lot on labour taxation, which is distortive.	Step up the fight against VAT fraud. Rely more on non-distortive consumption taxes while monitoring the income distribution consequences.							
Bolstering private investment	and the business environment							
Frequent changes in the regulatory framework undermine investment incentives.	Improve transparency, stability and formulation of regulatory policies. Continue efforts to cut red tape and make better use of regulatory impact assessments.							
The effectiveness of the competition framework is reduced by exemptions to the application of competition policy and entry barriers in network industries.	Remove sector exemptions to apply the modern competition policy framework as widely as possible. Systematically review mergers that might reduce competition and only allow competition limiting mergers on clear public interest grounds. Secure non-discriminatory third party access in network sectors.							
Enhancing skills	s to boost growth							
Public work schemes aim at increasing labour market inclusiveness. However, few participants find jobs on the primary labour market.	Increase the focus on training and identify programmes that get workers into the primary labour market.							
Women with younger children have low labour market participation.	Expand early childhood care. Reduce the effective length of parental leave and provide incentives for paternity leave.							
Changing technologies are increasingly making workers' skills obsolete.	Creating a tool set, including individual learning accounts, to promote lifelong learning.							
Graduates from the vocational training programmes face high unemployment.	Assess recent reforms and continue integrating the vocational training programmes into secondary vocational schools.							
Enrolment in tertiary education has increased sharply over the past decades, while graduation rates remain low and labour market outcomes are uneven.	Increase funding and expand means-tested support for disadvantaged students. Provide incentives to tertiary institutions to better respond to labour market needs.							

# **Assessment and recommendations**

- Resuming inclusive growth
- The recovery is broadening
- Bolstering business investment
- Enhancing skills to boost growth

# **Resuming inclusive growth**

Prior to the 2008 global crisis, the Hungarian economy was performing well compared with other countries in the region, partly due to unsustainable external lending, which led to macroeconomic imbalances (Figure 1). Subsequently growth was slower than in most other countries in the region, before accelerating strongly more recently. Moreover, imbalances have been reduced, notably the current account deficit was turned into a surplus and exposure to foreign currency denominated loans was sharply reduced. Nonetheless, the level of real GDP only surpassed its pre-crisis level in 2015. In addition, there has been no significant income convergence vis-a-vis the five richest European countries since the crisis, leaving Hungarian per capita incomes among the lowest in the OECD (Figure 2).



## Figure 1. Growth has recovered recently

Source: OECD (2016), OECD Analytical Database.

Since 2012, the economy has expanded strongly on the back of stronger exports and macroeconomic policy stimulus (Figure 3, Table 1). The associated strong job creation has moved employment to its highest level in two decades and the unemployment rate has been cut by more than a third, in part because of an expansion of public works schemes. In addition to achieving a current account surplus, the public debt-to-GDP ratio has been declining since 2011 (Figure 4). The major potential financial vulnerability posed by a sizeable stock of household loans (notably mortgages) that had been denominated in foreign currency has been eliminated through a new law that required banks to convert those loans to domestic currency. At the same time, the share of foreign currency loans in public debt has been markedly reduced to one-third.

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# Figure 2. Income levels are still low

GNI per capita, 2014

Source: World Bank, International Comparison Program Database.

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# Figure 3. Growth has resumed

GDP growth and domestic demand

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Compared with the OECD average, Hungary is performing well on many aspects of well-being, particularly work-life balance, but also in terms of personal security and environmental quality (Figure 5, Panel A). Despite having a relatively good income distribution, particularly in terms of addressing poverty through the tax and transfer system (Figure 5, Panel B), the areas where Hungary is doing relatively poorly are linked to low incomes, a lack of affordable quality housing, low health status and low self-reported well-being. This picture is broadly consistent with the UN Sustainable Development Goals for Hungary (United Nations, 2015).

Table 1.	Macroeconomic indicators	and	projections
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Annual percentage change, volume (2005 prices)

	2012 Current prices (billion HUF)	2013	2014	2015	2016 (projected)	2017 (projected)
GDP	28 744	2.0	3.6	2.9	2.5	3.0
Private consumption	15 363	0.3	1.8	3.0	3.7	3.7
Government consumption	5 756	2.4	2.9	0.6	0.2	0.6
Gross fixed capital formation	5 548	7.3	11.2	1.9	-1.8	6.9
Housing	581	-27.0	16.8	-4.2	10.6	18.5
Final domestic demand	26 666	2.2	4.1	2.2	1.6	3.7
Stockbuilding <sup>1</sup>	154	-0.6	0.1	-0.3	-0.0	0.0
Total domestic demand	26 820	1.6	4.2	1.9	1.6	3.7
Exports of goods and services	24 855	6.4	7.6	8.4	4.6	5.6
Imports of goods and services	22 931	6.3	8.5	7.8	4.1	6.7
Net exports <sup>1</sup>	1 924	0.5	-0.2	1.2	0.8	-0.4
Other indicators (growth rates, unless specified)						
Potential GDP		1.1	1.5	1.8	1.8	1.9
Output gap <sup>2</sup>		-3.4	-1.4	-0.3	0.4	1.5
Employment		1.7	5.3	2.7	2.2	1.6
Unemployment rate		10.1	7.7	6.8	5.8	5.3
GDP deflator		3.3	3.2	1.7	1.7	2.3
Consumer price index		1.7	-0.2	-0.1	0.7	1.7
Core consumer prices		3.8	2.3	2.0	1.7	2.0
Household saving ratio, net <sup>3</sup>		3.9	4.9	5.9	6.5	6.5
Current account balance <sup>4</sup>		4.0	2.0	4.4	5.4	5.1
General government fiscal balance <sup>4</sup>		-2.6	-2.3	-2.0	-1.9	-2.5
Underlying government fiscal balance <sup>2</sup>		-0.8	-1.9	-2.2	-2.8	-3.3
Underlying government primary fiscal balance <sup>2</sup>		3.3	1.8	1.2	0.5	-0.1
Gross government debt (SNA definition) <sup>4</sup>		96.1	99.0	97.7	96.8	95.9
Gross government debt (Maastricht definition) <sup>4</sup>		76.2	75.7	74.9	74.0	73.1
General government net debt <sup>4</sup>		70.0	71.3	69.0	68.1	67.2
Three-month money market rate, average		4.2	2.2	1.2	1.1	1.4
Ten-year government bond yield, average		5.9	4.8	3.4	3.3	3.7

1. Contributions to changes in real GDP, actual amount in the first column.

2. As a percentage of potential GDP.

3. As a percentage of household disposable income.

4. As a percentage of GDP.

Source: OECD (2016), OECD Economic Outlook: Statistics and Projections Database.

Against this backdrop, the main messages of this Survey are:

- Strengthening medium-term growth with an emphasis on securing inclusiveness is key to sustainably raising living standards and well-being.
- Raising business sector investment, particularly among domestic small and mediumsized enterprises, would raise incomes and well-being by raising productivity (Chapter 1).
- Improving skill formation and better matching of skills to job requirements would also raise productivity and would make growth more inclusive by ensuring that more people benefit (Chapter 2).

## The recovery is broadening

The recovery is being supported by domestic demand and, more recently, a sharp improvement in exports. Domestic demand growth has been underpinned by monetary



# Figure 4. Macroeconomic imbalances are falling

As a percentage of GDP

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easing, which started in 2012 (Figure 6). This also led to a depreciation of the currency that improved exports. Non-orthodox monetary policy in the form of the Funding for Growth Scheme (FGS), by which the central bank directed liquidity to the funding of SMEs (see below), has strengthened firms' balance sheets and, to a lesser extent, business sector investment. Fiscal policy has also been expansionary since 2013, but the fiscal stance is set to become broadly neutral in 2016 before becoming expansive in 2017. Nonetheless, this suffices to maintain the downward trend of the public debt-to-GDP ratio.

The remarkable turnaround in the current account balance after 2010 reflects improving external cost competitiveness as the effects of rising unit labour costs were more than offset by a weaker currency (Figure 7, Panels B and C). Exporters started to gain market shares (Figure 7, Panel A) and the rising trade surplus sharply strengthened the current account balance - a development reinforced by a slowly narrowing deficit on the investment income balance. Contributing factors were strong inward FDI in the automotive sector, which bolstered car exports after 2013.

Source: OECD (2016), OECD Economic Outlook: Statistics and Projections Database.



#### Figure 5. Well-being indicators are mixed





Each well-being dimension is measured using one to three indications from the OECD Better Life Indicator set with equal weights.
 Indicators are normalised by re-scaling to be from 0 (worst) to 10 (best).

Indicators are normalised by re-scaling to be norm 0 (worst) to 10 (best)
 Unweighted average of Czech Republic, Poland and Slovak Republic.

Source: OECD (2015), "Better Life Index 2015", OECD Social and Welfare Statistics Database; OECD (2015), "Income Distribution", OECD Social and Welfare Statistics Database.

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# Figure 6. Monetary policy has been easing

Interest rates

Source: OECD (2016), OECD Analytical Database; Magyar Nemzeti Bank.

Private consumption is supported by higher personal incomes, arising from real wage growth and employment growth, including the strong expansion of public work programmes. Also, household financial positions were improved by legal measures that required banks to compensate households for past unilateral interest rate hikes and costly foreign exchange transactions, which were ruled unfair by the Supreme Court, In addition, foreign exchange risks were eliminated by the conversion of foreign-exchange denominated household loans to domestic-currency loans.

Investment has been rising in recent years. Nonetheless, as a share of GDP investment is lower than before the crisis (Figure 8, Panel A). This reflects partly a surge in public spending on infrastructure as the funding cycle for EU structural funds ended and projects had to be put in place. Housing investment has just started to recover from the collapse that resulted in a one-third drop in real house prices following a curbing of credit and a banking crisis. A relatively large share of corporate investment is by foreign companies (Figure 8, Panel B). As in the Czech Republic and Slovakia, this inward FDI has been particularly directed towards the automotive and electronic sectors (Chapter 1).

Despite the stronger economy, the toll of the recession in terms of foregone output, measured as the differences between continued trend growth and actual output in early 2014, is nearly 25 percentage points (OECD, 2015). This reflects a sharp deceleration in productivity growth (Figures 9 and 10) from a level that was already lower than in other countries in the region. The very weak labour productivity growth reflects partly the inclusion of more low-skilled workers in the workforce. Faster productivity growth requires stronger investment in the business sector and better trained workers. Unless this materialises, there is little prospect of faster sustained growth as the working-age population is set to continue its decline.

Employment creation accelerated early in the recovery and subsequently labour participation increased. The unemployment rate has fallen markedly after a sharp run-up in the recession (Figure 11). This is partly reflecting a large increase in public work schemes (Figure 12). Subsequently, job growth has increasingly been underpinned by the private sector,

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Figure 7. Export market gains reflect improved competitiveness

1. Ratio between actual export volume and the country's export markets.

2. Competitiveness-weighted relative unit labour costs for the overall economy in dollar terms. Competitiveness weights take into account the structure of competition in both export and import markets of the goods sector of 53 countries. An increase in the index indicates a real effective appreciation and a corresponding deterioration of the competitive position. For details on the method of calculation, see Sources & Methods of the OECD Economic Outlook (www.oecd.org/eco/sources-and-methods.htm).

Source: OECD (2016), Analytical Database; Eurostat.

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Figure 8. Investment is recovering

1. Non-financial corporations.

2. 2013 data for Chile, Iceland, Korea, Mexico, New Zealand and Switzerland.

3. Gross investment in tangible goods by multinationals in % of GDP in 2012.

4. 2014 data for Hungary and Poland; 2013 data for Chile and Switzerland.

Source: OECD (2016), Analytical Database; OECD (2016), OECD National Accounts Statistics Database; OECD (2015), OECD Statistics on Measuring Globalisation Database.

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although the public work schemes have continued to expand. Female employment is picking up, but is still well below male employment, despite being less affected by the downturn.

The priority of the public work schemes is to ease the depressed labour market prospects for vulnerable groups, notably Roma, in the poorest (eastern) part of the country to facilitate inclusiveness. Nonetheless, the strong employment growth has still left holes in terms of inclusiveness (Figure 13). The overall poverty rate and income inequality (as





Average annual growth rate, percent<sup>1</sup>

1. Productivity is defined as real gross domestic product (GDP) divided by total employment. The OECD aggregate is calculated as an unweighted average of the data shown.

Source: OECD (2015), OECD Economic Outlook: Statistics and Projections Database.

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#### Figure 10. Total factor productivity remains low

Decomposition of GDP growth into input factors and TFP

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measured by the Gini coefficient, which situates the income distribution between full equality – everyone has the same income – and full inequality – all income goes to one household) are around the OECD average, and the gender wage gap is relatively small. However, long-term and youth unemployment remain high despite recent progress and there is widespread poverty in rural areas in eastern and southern Hungary. This concentration of problems reflects low geographical mobility (OECD, 2014). Moreover, the Roma population, which has nearly three times the probability of poverty of the non-Roma population (European Union Agency for Fundamental Rights, 2014) and much weaker



#### Figure 11. The labour market is improving

1. Employment for those aged 15 and over; participation rates for 15-64. Source: OECD (2016), OECD Employment and Labour Market Statistics Database.

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Decomposition of the cumulative change of employment since 2008



Source: Hungarian Central Statistical Office, Labour Market Statistics, Tables 2.1.6, 2.1.33 and 2.1.60; Hungarian Central Statistical Office (2012), Statistical Reflections 9/2012.

labour-market outcomes, tends to live in disadvantaged rural areas. Such social and economic problems need special attention across a broad range of policies, including educational measures (Chapter 2).

The government's Job Protection Act uses wage subsidies, in the form of cuts in employers' social security contributions, to reduce the tax wedge, covering nearly 900 000 workers to bolster demand for young, old, and long-term unemployed and lowskilled workers, those returning from childcare benefits as well as, more recently,

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# Figure 13. The labour market lacks inclusiveness

2014 or latest year available

median wages. Source: OECD (2016), OECD Social and Welfare Statistics Database.

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agricultural workers (Government, 2015b; Chapter 2). This complements the youth guarantee programme that uses targeted personalised counselling to provide qualifications or work experience to young unemployed. At the same time, however, relatively high minimum wages depress employment of the low skilled (Figure 14). The minimum wage is paid to nearly 10% of employees, but an additional 25% to 30% of employees are affected by increases in the minimum wage, making further increases in 2016 (by 4.5%) a concern in terms of employment outcomes. Employment opportunities for low-skilled workers could be enhanced by temporarily letting minimum wages grow at a slower pace than other wages to increase the gap between the minimum and the median wage. As a complementary measure, the government could introduce entry wages for young low-skilled workers, as Denmark and Netherlands have for example, with the



#### Figure 14. Minimum wages are high relative to median wages

Gross minimum wage relative to median wages of full-time workers, 2014

Source: OECD (2015), "Earnings: Minimum Wages Relative to Median Wages", Edition 2015, OECD Employment and Labour Market Statistics Database.

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initially low minimum wage increasing to the regular minimum wage with job experience, contributing to the high youth employment rates in those countries.

Economic growth is projected to slow temporarily in 2016 as public investment contracts, reflecting lower disbursement of EU structural funds at the beginning of a new funding cycle (Table 1). Private consumption will continue to be strong. Higher employment and lower personal income taxes will, together with the new family housing subsidy programme, boost disposable incomes. Exports will also remain vigorous, pushing the current account surplus higher. Unemployment will continue to decline in response to the extensive use of public work schemes and sustained private employment growth. Inflation is projected to continue to edge up as economic slack disappears, reaching the central bank's 3% target in 2017.

Domestic risks to the projections are broadly balanced. If the employment content of growth surprises on the upside, private consumption could accelerate further. Real incomes could also be boosted if energy prices remain low. If the effects of supportive monetary policy prove stronger than expected, the recovery in business and housing investments could be faster than projected. On the downside, a return to ad hoc and difficult to predict policies could have a negative impact on investor confidence. External risks are tilted towards the downside. Hungary remains vulnerable to shocks to the automotive sector until the government's new industrial plan succeeds in diversifying industrial production. If the growth pause in China induces a slower-than-expected recovery in world trade, this would also depress Hungary's export growth. Financial turmoil in Europe or a faster-than-expected monetary policy normalisation in the United States could force the central bank to tighten its policy rate earlier than expected.

In addition to these risks, the economy may suffer some shocks, the effects of which are difficult to factor into the projection (Table 2).

Shocks	Possible impact
Decline of free movement of goods and labour in the EU	Hungary is strongly involved in global value chains, particularly with Germany, and the imposition of any trade barriers and border identity checks would therefore have an impact.
Sharp increase in refugee flows	If a renewed increase in refugees to Europe hampered the free movement of goods and cross-border labour, this would have negative economic impacts as shown above. It can also entail significant fiscal costs.

#### Monetary policy is still supporting the recovery

Bottlenecks have started to appear in the labour market, including for some lessskilled groups (such as truck drivers) and in some regions (MNB, 2015) (Figure 15). To some extent, bottlenecks reflect shortcomings in the education system, increasing emigration of younger skilled workers (Chapter 2) and low geographical mobility, which has opened wide regional gaps in economic performance and well-being. Nonetheless, nominal wage growth has remained subdued. Consumer prices fell early in the second half of 2015, reflecting the temporary effects of falling energy prices, and started to accelerate at the end of the year. Core inflation, by contrast, has trended upwards to about 2%. Nonetheless, the real exchange rate remains broadly in line with medium-term fundamentals (IMF, 2015). In early 2016, the central bank resumed its easing cycle to bring inflation back to its 3% target. Looking forward, if the economy evolves as projected by the OECD with economic slack disappearing and inflation going up, the central bank may need to consider at the end of the projection period moving towards to a more neutral policy stance.



#### Figure 15. Labour shortages have been increasing

Source: Eurostat (2016), Industry Database.

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During 2015, monetary easing was accompanied by new policy measures, including switching the key policy rate from a two-week to a three-month deposit rate and creating a 10-year interest rate swap facility to put downwards pressure on short- and long-term market rates (MNB, 2015a). In addition, the unorthodox monetary policy instrument the Funding for Growth Scheme that provides liquidity at zero cost to banks for lending to SMEs at a maximum rate of 2½% was complemented by "Funding for Growth Scheme Plus" to ensure financing for riskier borrowers that had not benefited from the first scheme. The first and second phases of the schemes provided more than 30 000 SMEs with financing, amounting to more than HUF 2 100 billion (6% of GDP). Nonetheless, the effectiveness of monetary policy is hampered by a still high share of non-performing loans (Figure 16).

A. New loans and share of non-performing loans % 20 Billion HUF 1800 New loans (right-axis) FGS (right-axis) - Share of non-performing loans, 90+ days (left-axis) 18 1600 16 1400 14 1200 12 1000 10 800 8 600 6 400 4 200 2 0 0 2008 2009 2010 2011 2012 2013 2014 2015 % B. Share of non-performing loans (90+ days) to total gross loans, latest available data 35 35 30 30 25 25 20 20 15 15 10 10 5 5 0 CZE GRC SP SVN NN ΠA X SVK PRT Ч БŅ R ULD III AUT BEL Ы S Śſ đ 贤 F

Figure 16. Monetary policy transmission is hindered by a high share of non-performing loans

Source: Magyar Nemzeti Bank (2016), Trends in Lending 2/2016; IMF (2016), Financial Soundness Indicators Database. StatLink 📷 3 http://dx.doi.org/10.1787/888933349413

In the longer run, the central bank lending cannot substitute for the market. Therefore, at end-2015, the central bank announced the gradual termination of the Funding for Growth schemes, beginning in 2016, and a new Growth Supporting Programme to help banks to return to market-based financing through a Market-Based Lending Scheme. Under this scheme, the central bank will: assume some of the interest rate risks of banks' loans to SMEs; reduce supervisory risk weights on loans to SMEs; and provide banks access to credit data so they can better assess risks. These measures should increase credit to SMEs, and to that extent have merit as a structural measure to raise inclusive growth. However, the associated macroeconomic stimulus may no longer be needed given robust economic growth. Moreover, the reduction in risk weights may raise financial stability concerns to the extent the reduction leads to systematic underestimation of actual risks. As a monetary policy institution and as a supervisor, the central bank will have to monitor both issues closely.

The Hungarian capital market is under-developed and does not provide financing to complement bank lending. In addition, the falling number of new issuances and turnover has endangered the viability of the exchange. In late 2015, the central bank bought the Budapest Stock Exchange from the Vienna Stock Exchange and the Austrian Kontrollbank AG to revitalise capital markets. As the central bank is also the financial market regulator, the purchase may raise a perception of a conflict-of-interest between its ownership and regulatory functions. Thus, the ownership of the stock exchange should be temporary and the stock exchange should return to private ownership over the medium-term.

#### Financial stability has improved

Macro-financial vulnerabilities have receded considerably (Figure 17), particularly in terms of the external position (the current account and the international investment position have both improved dramatically) and, relatedly, net saving by households, corporations and the government (the fiscal deficit has declined). Less progress, however, has been made in terms of financial stability and growth sustainability. Particular concerns in these areas are the high level of non-performing loans, which rose sharply in the wake of the global crisis, and low productivity.

Figure 17. **Macro-financial vulnerabilities have diminished significantly since 2007** Deviations of indicators from their real time long-term averages (0), with +1 representing the greatest vulnerability and -1 (the centre point) the least



# Note: Each aggregate macro-financial vulnerability indicator is calculated by aggregating (simple average) normalised individual indicators. Growth sustainability includes: capacity utilisation of the manufacturing sector, total hours worked as a proportion of the working-age population (hours worked), difference between GDP growth and productivity growth (productivity gap), and an indicator combining the length and strength of expansion from the previous trough (growth duration). Price stability includes: headline and core inflation. External position includes: the average of unit labour cost (ULC) based real effective exchange rate (REER), and consumer price (CPI) based REER (cost competitiveness), relative prices of exported goods and services (price competitiveness) and net international investment position (NIIP). Net saving includes: government, household and corporate net saving. Financial stability includes: banks' size as a percentage of GDP, share of more than 1 year overdue loans of households (non-performing loans), external bank debt as percentage of total banks' liabilities, and capital and reserves as a proportion of total liabilities (leverage ratio). Due to data availability data for non-performing loans refer to 2009 instead of 2007 and the deviation from long-term average is not calculated in real time.

Source: OECD calculations based on OECD (2015), OECD Economic Outlook: Statistics and Projections Database; and Datastream.
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Banks have improved their capital adequacy ratio to more than 20% – well above international requirements. In addition, the loan-to-deposit ratio has been reduced from above 150% in early 2009 to below 100% today, making banks less reliant on market funding. The underlying private sector deleveraging has lowered the sector's indebtedness somewhat (Figure 18). Nonetheless, financial losses in the banking sector were substantial in 2010-14, before the sector became barely profitable. Indeed, the ratio of non-performing loans remains high, representing a significant risk to the financial system. The commercial estate sector accounts for half of the all distressed corporate loans.



# Figure 18. Financial sector vulnerability has declined A. Outstanding loans by debtor<sup>1</sup>

1. Non-financial corporation loans exclude inter-company loans and loans from households and government. Source: Magyar Nemzeti Bank.

Several measures have strengthened the banking system. In addition to the Funding for Growth schemes and the reduction in loans denominated in foreign exchange, the central bank established the Hungarian Restructuring and Debt Management Ltd. (MARK) with a 10-year mandate to purchase bad commercial real estate loans and properties at market prices to the tune of HUF 300 billion (of an estimated total bad debt of HUF 800 billion). MARK started its activities via a bridge loan from the central bank. Its reliance on the central bank is expected to diminish gradually through a market refinancing of the bridge loan.

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This works similar to other asset management companies dealing with impaired loans, although there is no explicit strategy for offloading of non-performing assets, and will reduce the large stock of non-performing loans. Developing a strategy for selling assets would increase transparency and reduce public sector contingent liabilities.

Sales of impaired assets could be encouraged by imposing capital surcharges on banks that keep their impaired loans beyond a certain duration and threshold – effectively increasing capital requirements for holding on to non-performing loans. The effect of this measure would be to give banks incentives for selling impaired loans to the asset management company at market prices, facilitating the restructuring of the banks' balance sheet. Such charges are already in place in the Euro area for global systemically important institutions. The central bank already imposed such a systemic risk buffer to commercial real estate loans as of 1 January 2017. For mortgages, the government has introduced personal bankruptcy (Chapter 1) and the central bank introduced regulation on payment-toincome and caps on loan-to-value ratios. The central bank also published guidelines for financial institutions on sustainable restructuring of non-performing households loans. In addition, the government lowered the levy on larger banks, from 0.53% to 0.24% of assets, although the tax on small banks, of 0.15% of assets, remains unchanged.

The government has reached a Memorandum of Understanding with the EBRD in early 2015 to sell public stakes in large banks within three years, which will improve the functioning of the banking sector. The government should implement the sell off as rapidly as possible as state-owned banks can hamper the financial sector's ability to contribute to growth. Particularly in cases where state-owned banks are required to finance loss-making (state-owned) enterprises, provide financing on non-commercial terms to regions or sectors, or extend credit based on other factors than risk assessments (Andrews, 2005). Such problems can be further compounded if state-owned banks have a cost advantage in terms of funding, arising from an implicit or explicit government guarantee.

# Putting the debt-to-GDP ratio firmly on a downward path will require further consolidation efforts

Since Hungary left the European Union's excessive deficit procedure in 2013, the public debt-to-GDP ratio has continued to decline (OECD, 2015). For 2016, the stance of policy is set to be broadly neutral, before becoming expansive in 2017 (Table 3). Given the projected strength of the economy and diminishing slack the 2016 stance is appropriate. In 2017, the stance is set to be expansionary despite the rapid disappearance of economic slack.

Hungary's debt-to-GDP ratio has been falling since 2011 and is lower than the European Union average. Moreover, general government contingent liabilities amount to a quarter of GDP – a relatively low level by European standards (Eurostat, 2015). However, it is high compared to similar countries, and it is prudent for small open economies like that of Hungary to have relatively low levels of public debt to ensure resilience (Fall and Fournier, 2015). Indeed, Hungary was out of international bond markets for almost two years until early 2013, when a large US dollar denominated bond issuance took place. The government's commitment to gradually reduce the debt-GDP ratio is therefore welcome, but ensuring it will, in the medium term, require a lower deficit than today.

Assuming a medium-term fiscal deficit of 1.7% of GDP (which corresponds to Hungary's medium-term objective under the Stability and Growth Pact) and that nominal GDP over the long-term grows at 3.8% (consistent with OECD estimate of potential growth

Per cent of GDP									
	2013	2014	2015	2016 <sup>1</sup>	2017 <sup>1</sup>				
Spending and revenue									
Total revenue	46.7	47.3	48.4	46.9	46.0				
Total expenditure	49.3	49.5	50.5	48.9	48.6				
Net interest payments	4.3	3.8	3.5	3.3	3.2				
Budget balance									
Fiscal balance	-2.6	-2.3	-2.0	-1.9	-2.4				
Cyclically adjusted fiscal balance <sup>2</sup>	-0.9	-1.6	-1.9	-2.1	-3.3				
Underlying fiscal balance <sup>2</sup>	-0.8	-1.9	-2.2	-2.8	-3.3				
Underlying primary fiscal balance <sup>2</sup>	3.3	1.8	1.2	0.5	-0.1				
Public debt									
Gross debt (Maastricht definition)	76.2	75.7	74.9	74.0	73.1				
Net debt	70.0	71.3	69.0	68.1	67.2				

# Table 3. Fiscal indicators

1. Projections.

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2. Per cent of potential GDP. The underlying balances are adjusted for the cycle and for one-offs. For more details, see OECD Economic Outlook Sources and Methods.

Source: OECD (2016), OECD Economic Outlook: Statistics and Projections Database.

and a technical assumption that inflation gradually reaches 2%), the debt-GDP ratio will fall gradually (Figure 19, baseline scenario). But if growth were 1 percentage point lower, perhaps because productivity growth does not recover fully, then debt would only decline slightly ("lower growth scenario" in Figure 19). On the other hand, a sustained deficit of 1% of GDP would sharply reduce debt ("higher fiscal consolidation" scenario in Figure 19). Aging costs will rise in Hungary as elsewhere, and these will have to be dealt with by





1. The baseline scenario shows projections is based on the OECD Economic Outlook: Statistics and Projections Database until 2017, and subsequent real GDP growth of 1.8% during 2018-60, in line with OECD estimates for long-term potential growth, and nominal GDP growth of 3.8%. Baseline fiscal policy assumes a deficit of 1.7% of GDP from 2018 onwards, which corresponds to the country's medium-term objective (MTO) as required by the Stability and Growth Pact. The "lower growth" scenario assumes real GDP growth of 0.8% over 2018-60. The "without offsetting ageing-related costs" scenario adds changes relative to 2017-levels of net public pension costs, health costs and long-term care costs to the baseline budget deficit. The "higher fiscal consolidation" scenario assumes a fiscal deficit of 1% over 2018-60, which is the lower limit for the structural deficit set by EU budgetary rules.

Source: OECD calculations based on OECD (2016), OECD Economic Outlook; and European Commission (2015), The 2015 Ageing Report. StatLink and http://dx.doi.org/10.1787/888933349449 raising revenues or cutting spending (in age-related programmes or elsewhere). To illustrate the problem, if the estimated changes in aging-related spending were entirely deficit financed, under the baseline growth assumption the debt-GDP ratio would fall until the late-2030, as these expenditures are initially projected to fall, but then increase unsustainably (the "without offsetting ageing-related costs" scenario in Figure 19).

Public spending is relatively high, at half of GDP, especially considering Hungary's relatively low income (Figure 20). The government plans to lower overall spending as a share of GDP by more than offsetting the effects of higher wage for public employees through a freeze on social spending. A relatively large share of spending goes to general public services, reflecting high interest payments on public debt and the relatively high share of the labour force employed by the public sector (including those in the public works programme) (OECD, 2015a). By contrast, relatively low spending on health (Figure 20, Panel B) may contribute to low health status and to emigration of health-care workers (Chapter 2; OECD, 2015a). Education spending is also relatively low (Chapter 2).

The government's emphasis on debt reduction is welcome and to ensure a durable decline in public debt, the structural budget deficit should gradually be reduced. This would bring the structural deficit closer to the 1% of GDP commitment for Euro and aspiring Euro members under the European Union's Stability and Growth Pact (European Commission, 2013). The size of government is ultimately a political and social decision, but the relatively large size of government suggests there is room for spending restraint to achieve a lower deficit. This should, of course, go hand in hand with efforts to improve the efficiency of both spending and taxation. The government has initiated steps in both directions. Further progress in these areas, as well as in debt reduction, needs to take place within a long-term strategy. A medium-term budgeting framework with a three year time horizon has already been adopted. Nonetheless, a longer time horizon for spending and debt reductions should be considered, including well-specified policy objectives.

Tax revenues are highly reliant on consumption taxes and social security contributions (Figure 21). The government is continuing to reduce the tax burden with a planned reduction in taxes and social security contributions by three percent of GDP, to below 36% of GDP by 2019 (Government, 2015c). At the same time, it is shifting the tax burden from labour to consumption. The flat income tax rate of 16% was reduced by 1 percentage point in 2016 and the family tax allowance in the case of two children will double between 2016 and 2019. Revenue increasing measures are mostly related to higher fees for public health and environmental taxes.

The VAT rate, at 27%, is the highest in the OECD. On the other hand, tax collection is well below what it should be (Figure 22), in large part because of evasion. The European Commission estimates imply that with full compliance at the current tax rate the VAT would raise an additional 3% of GDP in revenue.

Since 2013, the government has implemented anti-fraud measures, particularly mandatory use of online cash registers and an electronic system to track routes of goods. These measures have already boosted VAT revenues by 0.6% of GDP in 2014 and the government is extending them to some services (such as taxis, wellness-fitness, automotive repairs and medical services) (Government, 2015b). The authorities could consider introducing electronic invoicing, as Slovakia has done. The scope for boosting VAT revenues further is relatively large as the informal economy accounted for between 10%-17% of the economy in the 2000s and possibly more thereafter (Benedek et al., 2013; Semjén et al., 2010; Svraka et al., 2013).







1. 2013 for Australia, Israel, Japan, Mexico, New Zealand, Switzerland, United States. The OECD aggregate is an unweighted average excluding Chile and Turkey.

 Sectors based on Classification of the Functions of Government 99 (COFOG) at 2-digit level of which two sectors are aggregated: Security includes defence and public order and safety; Living environment includes environment protection and housing and community amenities.

3. Unweighted average of Poland, Slovakia, Czech Republic, Estonia and Greece.

4. Unweighted average of Austria, Greece, Iceland, Italy, Netherlands, Norway, Portugal, Slovenia and Sweden where government spending takes 45~55% of GDP as of 2014.

Source: OECD (2015), OECD National Accounts Statistics Database; Eurostat (2016), Annual Government Finance Statistics Database.

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Avoidance could be further limited and revenues increased if reduced VAT rates for selected food, health and cultural products were abolished, particularly as such reduced rates do not typically improve equity much, or at all.

These changes to the tax system should make it less distortive and thereby stimulate long-term growth. However, social security contributions (35% for a single full-time worker on the minimum wage) tend to reduce equity because they damage the employment prospects of low-skilled workers, and are levied on labour income alone. This is partially offset by the Job Protection Act's provision which reduces employers' social security contributions. Equity would be further improved by, for example, substituting these taxes for a broader income tax, which would tax capital income at the personal level as well.



Distribution of tax revenues, 2014



1. Includes payroll tax, property tax, income taxes not allocable to either personal or corporate income. Source: OECD (2015), "Revenue Statistics: Hungary", OECD Tax Statistics Database.

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Figure 22. VAT revenue loss due to tax avoidance and evasion is above the EU average

VAT gap as a percentage of liability, 2013

Source: European Commission (2015), Study to Quantify and Analyse the VAT Gap in the EU Member States.
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Likewise, shifting to consumption taxes can improve economic growth, but its immediate distributional effects can be somewhat regressive when expressed as a percentage of income, as those on lower incomes spend more of their money on consumption (Johansson et al., 2008; OECD, 2014b). These factors, together with the plans to freeze social spending, may result in a deterioration of Hungary's relatively low income inequality.

#### Population ageing increases spending pressures

In the longer run, ageing will be the main driver of spending. Current long-term projections suggest a fall in ageing-related spending until 2030 and thereafter increase by 3.75% of GDP by 2060 (Table 4). Population ageing is more advanced in Hungary than in other countries; indeed, the population peaked in 1981 at nearly 11 million and the fertility rate is one of the lowest in Europe (Figure 23). The population is projected to fall to 9.2 million by 2060 (European Commission, 2015). Until now, the prime age population has been relatively stable, but it is projected to fall to the smallest in Europe as a share of total population, leading to one of the highest old-age dependency ratios. These projections assume an annual inwards migration of 20 000. If income convergence continues to disappoint, inwards migration may fail to materialise and the emigration of young skilled workers may accelerate (Chapter 2).

	Total ageing spending <sup>1</sup>		Gross public pension spending		Health care spending			Long-term care spending				
	2013	2030	2060	2013	2030	2060	2013	2030	2060	2013	2030	2060
Czech Republic	19.1	20.4	22.5	9.0	9.0	9.7	5.7	6.3	7.0	0.7	1.0	1.5
Hungary	20.8	18.2	21.9	11.5	8.9	11.4	4.7	5.2	5.7	0.8	0.9	1.2
Poland	20.9	20.5	22.3	11.3	10.4	10.7	4.2	4.8	5.6	0.8	1.1	1.7
Slovenia	24.7	26.7	31.6	11.8	12.3	15.3	5.7	6.5	7.1	1.4	1.9	2.8
Slovak Republic	17.7	17.9	21.8	8.1	7.6	10.2	5.7	6.6	7.9	0.2	0.4	0.6
EU28	25.6	26.4	27.3	11.3	11.6	11.2	6.9	7.5	8.0	1.6	2.0	2.8
Euro area	26.8	27.7	28.5	12.3	12.9	12.3	7.0	7.5	7.9	1.7	2.1	3.0

Table 4. Long-term projections for ageing related spending (% of GDP)

1. Total ageing spending includes spending on gross public pension, health care, long-term care, education and unemployment benefit Source: European Commission (2015), "Economic and Budgetary Projections for the 28 EU Member States" (2013-2060), The 2015 Ageing Report, 3/2015, Brussels.

Public pension spending is projected to remain around 11.5% of GDP with a nearly unchanged replacement rate of 45%, which is close to 10 percentage points higher than the EU average in 2060 (Table 5). However, pensions are indexed to prices, not wages, leading to a decline in benefits relative to wages by 9 percentage points to 32.5%. This implies increasing inequality between pensioners and a higher risk of older pensioners not having sufficient incomes. This may eventually increase political pressures to raise the benefit ratio, which would lead to higher spending than now assumed.

Other ageing-related spending, such as health care, may also increase faster than projected. Current health spending per capita is lower than the average in the region and less than half of the OECD average. Per capita health spending could therefore increase relatively rapidly as Hungarian incomes catch up to those of richer OECD countries. The emigration of health professionals accelerated in 2000s and a rising number of doctors are leaving the profession. Significantly higher wages may be needed to stem these developments (OECD, 2015b; Varga, 2015). Moreover, low health care investment spending has led to unfavourable working conditions and outdated medical equipment. Such underinvestment is not sustainable. Finally, the bulk of long-term care is currently provided informally by family and friends, but as in other countries this may change, and an increasing institutionalisation of long-term care would raise public spending.



#### Figure 23. Demographic prospects are unfavourable



#### C. Demographic old-age dependency ratio<sup>1</sup> in 2060



<sup>1.</sup> Ratio of 65+ to 15-64 year-olds.

Source: European Commission (2015), The 2015 Ageing Report.

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	Benef	it ratio <sup>1</sup>	Replacement rates <sup>2</sup>		
	2013	2060	2013	2060	
Czech Republic	42.6	40.7	43.3	49.3	
Hungary	41.4	32.6	45.5	45.2	
Slovenia	37.8	32.9	36.1	34.1	
Slovak Republic	46.0	30.4	51.7	49.4	
EU28 <sup>3</sup>	46.5	38.4	43.8	36.0	
Euro area <sup>3</sup>	49.6	40.3	53.0	44.2	

1. The "Benefit ratio" is the average benefit of pensions as a share of the economy-wide average wage.

The "Replacement rate" is calculated as the average first pension as a share of the average wage at retirement.
 Weighted average.

Source: European Commission (2015), "Economic and Budgetary Projections for the 28 EU Member States" (2013-60), The 2015 Ageing Report, 3/2015, Brussels.

#### **Bolstering business investment**

Higher business investment would bolster productivity growth and deepen integration into global value chains. Prior to the crisis, there was a relatively close relationship between economic activity and business investment. During the crisis, this relationship was eroded, leaving today's level of business investment well below what economic growth would suggest (Figure 24). This downwards shift can be explained by a number of factors. The crisis induced a sharp reduction in business profits, which have not yet recovered (Government, 2015c; Bauer, 2014). The fall in profitability was compounded by the introduction of sector specific taxes, which together with frequent changes, particularly in the aftermath of the crisis, in the regulatory environment (see below) reduced predictability and risk tolerance, further dragging down investment (Martonosi, 2013).





1. In real terms. 4-quarter moving average applied. Actual GDP and capital stock series are used to calculate the forecast based on 1996 Q1-2007 Q4 estimation. In the estimations, the level of investment is explained by current and lagged changes in real GDP and replacement investment. For more information on the methodology: OECD (2015), OECD Economic Outlook, Vol. 2015 Iss. 1, June, Annex 3.1.

Source: OECD (2015), OECD calculations based on OECD Economic Outlook: Statistics and Projections Database.

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In addition, financing sources dried up as the banking crisis sharply reduced bank lending. This particularly affected domestic SMEs as multinational companies relied on international financial markets for their funding. The Funding for Growth schemes have resulted in some new investment, particularly by smaller firms, and have also been used to refinance older and more expensive loans (Endresz et al., 2015). Other funding sources, such as equity or corporate bonds, play only a minor role in Hungary, as in other eastern European countries.

Developing capital markets would provide new sources of funding, but it is a slow process that requires improving transparency, reliability and comparability of information (Jäger-Gyovai, 2014). In particular, a critical mass of floated firms will be needed to secure a well-functioning stock market (Adarov and Tchaidze, 2011). In this respect, developing common rules and standards for accounting, corporate credit, insolvency and other capital market regulations could foster capital markets in the region, which could possibly clear the way for making the Budapest stock exchange part of a larger regional stock exchange, as in the Baltic area (Véron and Wolff, 2015). Such a larger stock exchange would be more viable than the Budapest exchange alone. New financing sources should be promoted by adjusting existing or adopting new regulation to new financial technologies. At the same time, investor confidence needs to be strengthened, pointing to the need for creating a more stable regulatory framework that promotes the competitiveness of the business sector.

#### Global value chains benefit relatively few

Hungary's participation in the global value chains is among the highest in the OECD (Figure 25, Panel A). This success is linked to the large presence of foreign firms in the (intertwined) electrical and transport equipment producing sectors, which are characterised by high inflows of inward FDI and intensive links with manufacturing in other countries, especially Germany (Figure 25, Panel B; Chapter 1). The multinational companies behind this inward FDI typically use a high share of foreign produced intermediates in their production or rely on inputs from foreign-owned producers in Hungary.

In contrast, domestically-owned producers of intermediate inputs have been less successful than in other countries in integrating themselves into the production chain of the large foreign-owned exporters, which means that the value added in exports is relatively low. In addition, producers of intermediate inputs have a relatively low contribution to the production of other countries' exports (known as low "forward participation" in GVCs). Moreover, services contribute less to manufacturing exports than in any other European country (Figure 25, Panel D). As a consequence, Hungary has missed out on direct services provision, such as communication, but also indirect services that help to differentiate and upgrade products (such as design, development, and marketing). Better use of such services would help firms to capture more value in the global value chains (OECD, 2013a).

Inward FDI accounts for a substantial part of business investment and over time the inflows have been concentrated in a few sectors. The high concentration in the vehicle production (22% of industrial production and 13% of total exports) and the dominant position of a few German firms involve some exposure to firm, sector and country specific risk. Moreover, there is little investment in intangibles, such as R&D, digital economy and other elements of knowledge-based capital that are needed to foster potential growth and move up the value added chain (OECD, 2015c). Finally, the firm structure is dominated by



Figure 25. Hungary's participation in the global value chains (GVC) is very high

Note: 2009 data unless specified.

1. The indicator measures the value of imported inputs in the overall exports of a country (the remainder being the domestic content of exports). This indicator provides an indication of the contribution of foreign industries to the exports of a country by looking at the foreign value added embodied in the gross exports.

2. The indicator provides the share of exported goods and services used as imported inputs to produce other countries' exports. This indicator gives an indication of the contribution of domestically produced intermediates to exports in third countries. Source: OECD (2013), Global Value Chains Indicators Database.

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A. Number of enterprises by size, total business economy, 2012 or latest available year

1. Enterprise size classes are based on the number of persons employed: a SME employs 0-249 persons and a micro firm employs 0-9 persons.

 Productivity is defined as value added at factor cost (in euros) per person employed. The sector covered is the total business economy (including repair of computers, personal and household goods; excluding financial and insurance activities). 2010 data for Germany, Switzerland and the EU aggregate.

3. 2010 data for Switzerland and the EU aggregate and 2011 data for France.

Source: OECD (2015), Entrepreneurship at a Glance 2015, Fig. 2.1; Eurostat (2015), "Structural Business Statistics – Industry Trade and Services", Eurostat Database, April; and European Commission (2014), "SBA Fact Sheets 2014" for each country, DG Enterprise and Industry. StatLink mg= http://dx.doi.org/10.1787/888933349515

SMEs and many of them are not very competitive, as they suffer from low productivity and innovative activity, hindering their involvement in GVCs (Figure 26).

Broadening participation to other sectors is difficult to achieve through inward FDI, as the comparative advantages in terms of attracting inward FDI have been eroding over time (Chapter 1). Thus, promoting participation of other industries must rely on removing entry barriers and other pro-competitive regulatory reforms (Chapter 1), and by building an education system that is better at matching the needs of a labour market that can support increasingly sophisticated economic activities (Chapter 2).

#### Frequent changes in the regulatory framework holds back business investment

OECD's PMR indicator shows that on average regulation is not particularly strict and the government has a programme to simplify regulation (Figure 27). However, regulation has often changed and at times there has been a lack of coordination across policies, creating regulatory uncertainty and high compliance costs that weigh on investment (OECD, 2015a; World Bank, 2015). The government should strengthen the role of Regulatory Impact Assessments (RIA) to improve the quality and stability of regulation and policies (OECD, 2014d). The general knowledge and transparency of RIA would be enhanced by publishing the government's annual RIA report that is currently for internal consumption. In addition, standardised and more transparent RIA guidelines should be adopted. Charging a body to evaluate and improve RIA processes and to develop a common methodology for measuring the effects of policy initiatives across all proposals would facilitate better regulatory policy making.



Figure 27. **Product market regulation is below average in the OECD** Product market regulation indicator, Index scale of 0-6 from least to most restrictive, 2013

Source: OECD (2014), "Economy-Wide Regulation", OECD Product Market Regulation Statistics Database. StatLink আগ http://dx.doi.org/10.1787/888933349520

Tax policies weigh on investment incentives as the tax system is subject to frequent changes and has high compliance costs for SMEs (OECD, 2014a). Moreover, the sector taxes complicate the tax system, which is otherwise relatively simple, and are often based on turnover, which itself tends to distort activity. In addition, the rates in the sector taxes tend to increase with their tax bases. As a result, the tax incidence is higher for larger and typically foreign-owned companies and incentives for FDI, entry and expansion incentives are reduced. Fostering investment incentives requires a simpler and more predictable tax system for SMEs, while the distortive sector taxes should preferably be phased out or at least have identical rates across competitors in the same sector.

Better public procurement would enhance the efficient use of EU structural funds. These funds are facilitators for economic growth and business investment (MFB, 2015). The funds are dedicated to underdeveloped part of the country rather than the high growth areas in the middle and western part of the country. Hungarian financed public infrastructure investment should complement the EU funds by promoting agglomeration effects in the high growth areas. This should include upgrading secondary and tertiary networks as well as other measures to promote communication.

However, not all public procurement has been open to tendering. The government has introduced a new public procurement framework, which should ensure that all public procurement follows EU rules in this area. Also, corruption has been a recurrent issue. The National Anti-Corruption Programme could be bolstered with the establishment of a dedicated anti-corruption agency as done in other countries in the region, Australia and Spain. A noticeable example in this area is the success of Hong Kong's anti-corruption agency in reducing corruption (OECD, 2013b).

The role of the competition framework could be strengthened. Not all bills from the government and parliamentarians are submitted to the competition authority for commenting on the competition aspects of the bills. The quality of regulation could be strengthened if the competition authority systematically commented on all relevant proposals. Moreover, a number of sectors are exempted from various elements in the competition law. The agriculture sector is exempt from the competition act's ban on restrictive practices – the exemption is only applicable to local markets where EU-trade is not affected (European Commission, 2014). Nonetheless, the exemption increases regulatory uncertainty with detrimental effects on investment incentives and should be removed. Another area that reduces investment incentives is the government's wide scope for using decree to exempt whole sectors from merger regulation on public interest grounds. This means that market participants in that sector do not know what forces are shaping future market structures. In contrast, the European standard is that governments only after a full merger review can permit the competition decreasing mergers on clear and limited public interest grounds, preserving competition as the main shaper of market structures. Hungary should follow the European merger standard.

Entry into network sectors has become more difficult. State-owned energy companies have taken over energy retailing and the energy regulator imposes universal service obligations and price regulation. The energy market is characterised by low gas and electricity prices for households, but high prices for firms, which reduce competitiveness and investment incentives (Figure 28). Moreover, the state-owned retailers may bear a cost of up to nearly ½% of GDP for providing low retail prices, and if energy prices rise again this cost will rise too. This situation is likely to result in higher government contingent liabilities, as the retailers may eventually have to be bailed out. The government should introduce market-based energy prices by giving the responsibility for regulating prices to the sector regulator, using clear competition-friendly pricing principles. Public service obligations should be met through explicit and transparent compensation to providers. This would reduce distortions and, by increasing transparency, perhaps lead to better decisions regarding public service provision.

Regulation of the retail sector has increased, reducing entry, ICT investment and inward FDI incentives. Permissions are required for opening outlets larger than 400 m<sup>2</sup>. However, the permission granting powers have been moved from a ministerial committee to one single local government official with ample room for discretion in giving derogations from the rule (LawNow, 2015). Media reports that for food outlets, derogation has seldom been granted to foreign-owned outlets, but larger Hungarian owned chains and, less frequently, smaller independent shops have benefited from derogations (Tldr.444; 2015). Transparency could be improved by clarifying the rules for derogations, increasing



Figure 28. Energy prices are high for firms and low for households

Source: Eurostat (2016), Energy Price Statistics.

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the ceiling on surface area, establishing secure clear guidelines, and move permission granting powers to local municipalities. For public policy reasons, Sunday opening hours were restricted to smaller shops and, tourist areas. However, such regulation reduces investment incentives for creating larger and more efficient outlets. The Sunday opening hour restrictions were repealed in spring 2016. Retail efficiency is also hampered by a sector tax (a food chain supervisory fee) which previously had rates that increased with turnover. The sector tax should be reconsidered. Revenue shortfalls could be secured through the broader and less distortionary VAT system.

The telecommunication sector is highly concentrated. The regulatory framework is in line with EU recommendations. Nonetheless, local loop unbundling is not in place and non-discriminatory third party access for MVNOs to networks is not secured. As a result, telecommunication prices are the highest among European member states (Figure 29). This weighs directly on investment incentives both in the sector and in the wider economy (OECD, 2015), and hurts especially poor households. Indeed, Hungary has low telecommunication investment per capita and relatively few households have access to broadband networks or even have a computer at home. A new mobile network operator is entering, but it will have less network capacity and weaker financial backing than the incumbents (BMI Research, 2014). Liberalising the sector and boosting investment incentives requires that the government award a spectrum with full band width to a new mobile network operator and that mobile virtual network operators (resellers of bulk purchases) have non-discriminatory access to networks. The government's effort to have country-wide broadband coverage by 2018 through the Digital Hungary Programme to stimulate broadband penetration would be enhanced by securing local loop unbundling.



Figure 29. Telecommunication prices are high for high-usage consumers

Note: 900 calls + 2 GB mobile basket, August 2014, VAT included. Source: OECD (2015), OECD Digital Economy Outlook 2015, Table 2.92.

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#### More investment is needed to achieve environmental objectives

Hungary has made considerable progress in reducing  $CO_2$  emissions over the past couple of decades (Figure 30). This has allowed greenhouse emission intensity to be lower than many of the other countries in the region, although the intensity remains higher than



#### Figure 30. Emission intensity is declining

 Total emissions of CO<sub>2</sub> (emissions from energy use and industrial processes, e.g. cement production), CH<sub>4</sub> (methane emissions from solid waste, livestock, mining of hard coal and lignite, rice paddies, agriculture and leaks from natural gas pipelines), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF<sub>6</sub>).

Source: IEA (2015), "Indicators for CO<sub>2</sub> Emissions", IEA CO<sub>2</sub> Emissions from Fuel Combustion Statistics Database; OECD (2015), "Greenhouse Gas Emissions by Source", OECD Environment Statistics Database.

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elsewhere in Europe. Thus, there is a need further reduce emissions. Current policies to reduce emissions are mostly focused on renewable energy, with the objective of boosting its share from less than 10% to nearly 14% by 2020. Thereafter more ambitious targets are likely in response to the COP21 agreement. The main instrument in place is feed-in tariffs (with time-varying rates), but other instruments include investment financing and guarantees, and biofuel obligations. The feed-in tariffs tend to be lower than in other European countries and favour smaller plants. The parameters of the electricity grid, including limited capacity to accept wind power (and other weather dependent technologies), may have contributed to the instalment of smaller and less efficient wind mills. As a result, the support system is not always promoting scale effects in the provision of renewable energy. Investments in renewable energy generation could be stimulated by implementing a feed-in tariff system that is not biased in terms of technology, scale, and time of generation. Another approach could be to use competitive auctions for renewable energy projects.

## Enhancing skills to boost growth

Economic restructuring over the past decades has changed the labour market's skill requirements raising demand for high skilled workers as integration in GVCs has shifted manufacturing production towards sectors with more technology content. This dynamic will continue as Hungary continues to catch up to the richer OECD countries, as the associated move up GVCs is likely to create new job opportunities for well-educated professionals (EC, 2015a). Workers with poor and obsolete skills suffer from high unemployment. At the same time, many companies are experiencing growing shortages of labour with relevant technical skills (Manpower Talent Shortage survey, 2015).

However, the education system has not responded at the same pace. Enrolment in secondary education has increased substantially, although graduates have difficulties finding a job; the employment rate for youth age 20-24 is below the OECD average. Enrolment in tertiary education has also increased over the past decades, but graduation rates, while rising, remain low. Thus, relatively few adults have tertiary education, but those who do command one of the highest wage premia in the OECD (Figure 31). Moreover, graduation rates are increasing in fields where employment growth is relatively low, leading to growing mismatches with many workers in occupations that are not directly related to their field of study, weighing on wages and productivity (OECD, 2014a; OECD, 2015a).





Note: Tertiary education includes short cycle tertiary, bachelor's, master's, doctoral or equivalent degrees. Data on educational attainment refers to year 2014 or latest available year.

Source: OECD (2015), Education at a Glance 2015, Tables A1.3a and A6.1a.

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Despite progress, still few women with small children work in the labour market, even though they often have tertiary education. Parental responsibilities keep mothers with two children out of work for one of the longest periods in the OECD (Figure 32). This reflects





Employment rates for mothers with youngest child aged 0-2, 2013<sup>1</sup>

Source: OECD (2015), Pensions at a Glance 2015, Fig. 3.7.

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long parental leave and insufficient availability of care facilities for young children. The government has taken steps to improve women's options to gain paid employment, including tax relief for employers hiring parents with young children, permitting parents to work without losing parental benefits, the introduction of measures that oblige employers to allow returning mothers to work part-time until their children reach the age of three (potentially discouraging the hiring of young women), and expanding nursery capacity. But allowing more mothers to work will require better possibilities for reconciling work and family life. Further expansion of child care for 0-3 year-old children would increase parents' options regarding the choice between jobs and care. Private provision of such services could be promoted by transforming part of the parental leave benefits to a voucher linked to the purchase of childcare services (OECD, 2007). Reducing parental leave would keep women more in touch with the labour market; better transforming part of maternity leave into paternity leave would allow fathers to share in the care of their young children and even the playing field in this respect between women and men.

Only 42% of older workers (55-64 years) are working – one of the lowest figures in the OECD. Older workers are much more exposed to a risk of depreciation of their qualification and skills, as the demand for different skills is subject to constant change. Nonetheless, only few older workers participate in lifelong learning, contributing to the low employment rate (OECD, 2012a). To bolster lifelong learning, the government has introduced an adult training programme for acquiring a second vocational qualification. Experience in other OECD countries, such as Canada, Netherlands and Spain, indicates that creating tool sets, including individual learning accounts, can be effective in facilitating lifelong learning. The accounts could be financed through the vocational training contribution (1.5% of wages) and they would provide older workers with more responsibility and control of their own training to match their needs. This could be complemented with training vouchers to older workers, as is done in Austria (OECD, 2005).

Emigration of young and skilled workers contributes to labour shortages in some professions, such as in the health care sector. Since 2008, the stock of emigrants has tripled to 3% of the labour force. The government is trying to attract skilled young expatriates through the recently launched "Come Home, Youth!" programme, which covers part of resettlement costs and provides a monthly wage subsidy for one year (of EUR 320). Uptake has been limited. Other countries, for example, Denmark, Finland, Ireland, and the Netherlands, have also granted tax concession for returning high-skilled workers (OECD, 2011). Further easing of visa and work permit requirements can help attract skilled labour from outside EU. Special attention in this respect should be given to (the relatively few) international students, who have studied in Hungary and are thus familiar with the language, institutions and culture. These students should be allowed to look for a job after graduation and automatically provided with work permit if they find a job.

Regarding low-skilled workers, the scaling up of public work schemes has provided temporary relief from unemployment of people who have long been excluded from the labour market through mostly menial jobs, notably benefitting low-skilled workers in poor regions with weak labour market prospects. Ideally, public works jobs would lead to jobs in the primary labour market. However, less than 14% of participants have found employment in the primary labour market after terminating work in the scheme, and most participants return to the scheme after another spell of unemployment. This is in line with experiences in other countries, indicating that skills gained in public work schemes are seldom relevant for private sector employment. Indeed, participation in public work schemes can even lower subsequent employment probability as enrolees are prevented from job search or training activities (Card et al., 2015).

To address this issue, the authorities are bolstering the schemes' training component to include one-fifth of participants – an approach that holds the promise of making growth more inclusive by bringing those who have been excluded from the labour market into regular work. A problem is that training has not markedly increase employment probabilities, reflecting large uncertainties concerning the effectiveness of different types of training. Thus, the scaling up of training should be combined with careful evaluation to identify training programmes that favour subsequent employment. Increased transit from the schemes to the private labour market should be the success criterion for the schemes. The effectiveness of the schemes might be bolstered if they were closely coordinated with other job programmes, such as job search assistance and mentoring. Indeed, the new profiling system could be a step in this direction. If such measures were successful, the public works schemes could be scaled back as over time fewer people would need this sort of support.

PISA scores have been deteriorating, including in mathematics, and are now below the OECD average in all assessed subject (Figure 33, Panel A). More worryingly, the education system falls short in preparing students to perform tasks required in today's labour market, such as solving non-routine problems in unfamiliar situation. Indeed, the PISA tests show that problem solving skills are among the weakest in the OECD. Particularly, students perform significantly worse in problem solving than students in other countries with similar performance in core subjects, suggesting that Hungarian teaching remains too content-centred with little space for knowledge application (Figure 33, Panel B). In contrast, the rapid changes in the economy and technology require the ability to adapt to new circumstances and learning in unfamiliar contexts. Empirical research confirms that those with the highest level of proficiency in problem solving also find employment in the occupations with the strongest employment creation (OECD, 2014c).



#### Figure 33. Student performance in PISA 2012 has deteriorated

A. Student performance in mathematics in PISA 2012

1. Each student's expected performance is estimated, using a regression model, as the predicted performance in problem solving given his or her score in mathematics, reading and science.

Source: OECD (2014), PISA 2012 Database, Tables I.2.3b and V.2.6.

StatLink and http://dx.doi.org/10.1787/888933349580

Good learning requires highly qualified and motivated teachers. However, teacher salaries are among the lowest in the OECD and teachers tend to face high administrative workloads. The government has introduced a new career model and promotion system for teachers to increase their salaries. This is step in the right direction. In addition, in countries where teachers have relatively low pay, an element of performance-based pay can improve student performance (OECD, 2012b). This should be complemented with measures to ensure continuous professional development. Recent reforms in Hungary have centralised responsibilities for schools teachers' salaries and career system. In this context, the authorities should restore school autonomy to allow school to adapt to local context (OECD, 2014a). In addition, administrative burdens should be reduced to give teachers more time to teach and prepare as well as enable principals to engage more in pedagogical leadership.

Vocational education has two pathways: vocational training for less academically inclined students and vocational secondary schools with a higher element of general education with the possibility for accessing tertiary education. Vocational training provides practical workplace training, with limited general education content, to prepare students for direct access to the labour market. However, quality is low and vocational training has become the education path for children with weak socio-economic background (Keller and Mártonfi, 2009). Graduates are faced with high unemployment rates, difficulties in finding a first job, and wages that are 25% lower than other secondary school graduates (Hajdu et al., 2015). In addition, the limited general education content reduces graduates' adaptability to changing labour market needs, leading to increasing wage dispersion over time vis-à-vis general education graduates (Hajdu et al., 2015).

The government is reforming VET training by introducing a two-year study extension that leads to the upper secondary degree that gives access to tertiary education. This study programme starts with three years to acquire practical skills followed by two years of general skill studies, rather than an integrated study programme. Integrated study could be achieved by merging the vocational training and vocational school systems. This would increase the emphasis on general skills and improve the reputation of vocational training, helping to close the gap in labour market outcomes between training schools and vocational secondary schools.

Such a reform should be complemented with systematic assessments of students to ensure a basic minimum level of skills and identify those in need of targeted support. A factor behind the poor outcome of workplace training is that often students are allocated to unskilled tasks or only trained in firm-specific skills. To improve the quality of workplace training, subsidies should be introduce to reward companies which have high training quality standards. Also, contractual arrangements should define obligations of trainee and employer to achieve learning objectives, which should be developed by employers and schools.

Tertiary graduates enjoy a favourable labour market situation, but the supply of tertiary graduates remains stubbornly low as less than half of the students are able to finish studies within the required time as completion rate is one of the lowest in the OECD. In addition, labour market outcomes of different tertiary graduates differ greatly. For example, graduates with degrees in informatics and engineering earn more than twice the earnings of graduates in social science or agriculture. Moreover, one in four graduates in tertiary education works in a job that do not need their tertiary degree – a problem also observed in other countries (Nyusti and Veroszta, 2013). This mismatch is the strongest in the fields of social science, agriculture and humanities.

Relatively few financial resources are devoted to higher education. However, both public and private returns to tertiary education are among the highest in the OECD, providing strong incentives for investing in tertiary education. Thus, the government should increasing funding in this area. Moreover, there is a need to enhance incentives for institutions to better respond to labour market needs. This could include better career counselling and strengthen partnership between tertiary education institutions and private companies to facilitate the labour market transition of students (OECD 2014a). Moreover, for equity reasons, means tested support for disadvantaged students, including academic mentoring and financial aid, should be expanded.

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