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Table of contents

Executive summary 9

1 Key Policy Insights 14
- Leaving the crisis behind 14
- The severe pandemic is countered by strong health measures 17
- Economic prospects are improving 21
  - Growth is accelerating 30
- Monetary policy has become more supportive 33
  - Financial risks require monitoring 35
  - Embracing innovation in the financial sector 38
- Adopting a forward-looking and greener fiscal policy 39
  - Fiscal policy will remain supportive over the near term 39
  - Steps to address long-term fiscal challenges will be needed 42
  - Promoting more environmentally sustainable growth 44
- Stronger domestic business dynamism is crucial for higher productivity growth 52
  - Corruption and lack of public integrity hamper business dynamism 56
- An inclusive and mobile labour market is key for sustained growth 59
  - Improving geographical labour mobility 59
  - Strengthening female labour force participation 62
- References 67

2 Fostering productivity for a stronger and sustained recovery 76
- Low productivity undermines income convergence and future living standards 77
- Support skills and mobility to raise labour productivity and facilitate structural change 79
  - Equip students with the skills demanded in the labour market 79
  - Improve labour mobility 86
  - Ensure a prudent minimum wage policy to support mobility 91
- Promote dynamic and competitive product markets 92
  - Ease market entry and exit in service and network industries 93
  - Strengthen the competition framework 95
  - Embrace e-government solutions for business and public procurement 98
- Strengthen equity-based funding 99
- Improve the quality of local infrastructure 103
- Promote digital adoption 104
- References 112

Tables

Table 1. Macroeconomic outlook 10
Table 1.1. Macroeconomic indicators and projections 15
Table 1.2. The past recommendations on healthcare 21
Table 1.3. Events that could lead to major changes in the outlook 33
Table 1.4. The past recommendations on monetary policy 34
Table 1.5. The past recommendations on easing competition in the financial sector 38
Table 1.6. Fiscal indicators 39
Table 1.7. The past recommendations on fiscal policy 42
Table 1.8. The past recommendations on the pension system 43
Table 1.9. Illustrative fiscal impact of recommended reforms 44
Table 1.10. Illustrative impact on GDP per capita from structural reforms 44
Table 1.11. The past recommendations on greening growth 51
Table 1.12. The past recommendations on the business environment 55
Table 1.13. The past recommendations on public procurement and corruption 59
Table 1.14. The past recommendations on labour market policies 61
Table 1.15. The past recommendations on family policies and female career prospects 65

Figures

Figure 1. Fiscal policy has been supportive 10
Figure 2. Environmental concerns remain 11
Figure 3. Productivity growth has been low 12
Figure 4. Low adoption of advanced ICT 12
Figure 1.1. The COVID-19 pandemic had severe health and economic impacts 14
Figure 1.2. Income convergence has gathered pace 16
Figure 1.3. Violence against women has increased during the pandemic 16
Figure 1.4. The healthcare situation worsened in the second and third waves of the pandemic 18
Figure 1.5. High bed capacity was not matched by similar intensive care capacities 20
Figure 1.6. Capacity reallocation may increase mortality from other causes in the future 21
Figure 1.7. Economy activity contracted sharply in 2020 22
Figure 1.8. Better-targeted measures in the second wave moderated the economic decline, with tourism as a notable exception 22
Figure 1.9. Government support averted bankruptcies 23
Figure 1.10. Production and confidence continue to recover 24
Figure 1.11. Employment growth was driven by the expansion of large firms 25
Figure 1.12. The labour market weakened temporarily as the pandemic spread 26
Figure 1.13. The short-time work scheme provided a relatively low replacement rate 27
Figure 1.14. Unemployment of young and low-skilled workers increased before coming down again 28
Figure 1.15. Wage growth outpaces productivity improvements 28
Figure 1.16. The labour tax wedge remains high despite lower social security contributions 29
Figure 1.17. Wage and inflation pressures remain high 30
Figure 1.18. Supply chain disruptions are slowing down the recovery of the automotive sector 32
Figure 1.19. Automotive products dominate exports 33
Figure 1.20. Monetary policy remains accommodative despite inflationary pressures 34
Figure 1.21. Bank lending is strong and the share of non-performing loans has fallen 36
Figure 1.22. Banks' low profitability and high operating costs remain a concern 37
Figure 1.23. EU funds support many activities 41
Figure 1.24. Spending pressures related to population ageing need to be addressed 43
Figure 1.25. Green growth indicators have mostly improved 45
Figure 1.26. Carbon pricing score 46
Figure 1.27. An aging car fleet is increasingly based on diesel 47
Figure 1.28. Landfill taxes are low 50
Figure 1.29. Tariffs for water and wastewater services are low 51
Figure 1.30. Strong investment drove productivity growth before the crisis 53
Figure 1.31. Business dynamics are low 53
Figure 1.32. The insolvency regime is stringent 54
Figure 1.33. Occupational entry barriers remain high 55

Figure 1.34. Corruption is perceived as high compared with other OECD countries 57
Figure 1.35. Anti-money laundering measures should be enhanced 58
Figure 1.36. Regional differences in employment and unemployment are large 60
Figure 1.37. The minimum wage is relatively high 61
Figure 1.38. Housing supply adjusts relatively slowly 62
Figure 1.39. Nursery enrolment remains low 63
Figure 1.40. The gender pay gap is high for women in their 30s and 40s 64
Figure 1.41. Women's work-life balance hampers their career prospects 64
Figure 2.1. Labour productivity remains low 77
Figure 2.2. The productivity gap between foreign and domestic enterprises is large 78
Figure 2.3. Employment rates of VET graduates are high but few work in high-skill jobs 80
Figure 2.4. Higher education graduates have relatively high skills and wages 83
Figure 2.5. Labour turnover is low 86
Figure 2.6. High unemployment in poorer regions contrasts with labour shortages in richer regions 87
Figure 2.7. The rental market is small 88
Figure 2.8. Labour market policy spending on training and job placements is low 91
Figure 2.9. The minimum wage has grown more strongly than the average wage 92
Figure 2.10. There is scope to ease market entry and exit 93
Figure 2.11. The competition authority's budget is low and its caseload is high 96
Figure 2.12. Stakeholder consultation in formulating regulations could be improved 97
Figure 2.13. Competition in public procurement is low 99
Figure 2.14. Government loan schemes remain abundant 100
Figure 2.15. Venture capital funds for company expansion remain low 102
Figure 2.16. There are large regional disparities in road infrastructure 103
Figure 2.17. Hungary is less digitalised than most other OECD countries 106
Figure 2.18. Mobile broadband prices remain relatively high 107
Figure 2.19. High-speed broadband uptake among businesses is relatively low 108
Figure 2.20. Adoption of digital technologies lags behind 108
Figure 2.21. Streamlining regulations could boost digital technology adoption and productivity 109
Figure 2.22. Restrictions to trade in digital services are relatively high 110

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This Survey is published on the responsibility of the Economic and Development Review Committee of the OECD, which is charged with the examination of the economic situation of member countries.

The economic situation and policies of Hungary were reviewed by the Committee on 28 June 2021. The draft report was then revised in the light of the discussions and given final approval as the agreed report of the whole Committee on 12 July 2021.

The Secretariat's draft report was prepared for the Committee by Jens-Christian Høj, Martin Borowiecki, Federico Giovannelli and László Dósza with contributions from Shizuka Kato, Viktoria Kis and Thomas Weko under the supervision of Mame Fatou Diagne. Statistical research assistance was provided by Federico Giovannelli and editorial assistance by Emily Derry.

The previous Survey of Hungry was issued in January 2019.

Information about the latest as well as previous Surveys and more information about how Surveys are prepared is available at http://www.oecd.org/eco/surveys.

BASIC STATISTICS OF HUNGARY, 2020*

(Numbers in parentheses refer to the OECD average)**

LAND, PEOPLE AND ELECTORAL CYCLE					
Population (million, 2019)	9.8		Population density per km² (2018)	107.1	(38.1)
Under 15 (%, 2019)	14.4	(17.9)	Life expectancy at birth (years, 2019)	76.0	(80.2)
Over 65 (%, 2019)	19.7	(17.1)	Men (2019)	72.9	(77.6)
International migrant stock (%, 2019)	5.3	(13.2)	Women (2019)	79.3	(82.9)
Latest 5-year average growth (%)	-0.2	(0.6)	Latest general election	April-2018	
ECONOMY					
Gross domestic product (GDP)			Value added shares (%, 2019)		
In current prices (billion USD)	155.1		Agriculture, forestry and fishing (2019)	4.0	(2.7)
In current prices (billion HUF)	47 743.5		Industry including construction (2019)	29.5	(26.6)
Latest 5-year average real growth (%)	2.2	(0.7)	Services (2019)	66.6	(70.8)
Per capita (000 USD PPP, 2019)	34.0	(47.6)			
GENERAL GOVERNMENT					
Expenditure (% of GDP, OECD: 2019)	51.6	(40.6)	Gross financial debt (% of GDP,OECD: 2018)	97.6	(107.6)
Revenue (% of GDP, OECD: 2019)	43.5	(37.5)	Net financial debt (% of GDP, OECD: 2018)	61.0	(67.9)
EXTERNAL ACCOUNTS					
Exchange rate (HUF per USD)	307.83		Main exports (% of total merchandise exports)		
PPP exchange rate (USA = 1)	148.01		Machinery and transport equipment	56.7	
In per cent of GDP			Chemicals and related products, n.e.s.	12.6	
Exports of goods and services	79.7	(50.8)	Manufactured goods	9.8	
Imports of goods and services	77.5	(46.9)	Main imports (% of total merchandise imports)		
Current account balance	-0.1	(0.1)	Machinery and transport equipment	47.5	
Net international investment position	-49.2		Manufactured goods	14.0	
			Chemicals and related products, n.e.s.	13.7	
LABOUR MARKET, SKILLS AND INNOVATION					
Employment rate (aged 15 and over, %)	54.5	(55.1)	Unemployment rate, LFS (aged 15 and over, %)	4.3	(7.1)
Men (OECD: 2019)	63.6	(65.6)	Youth (aged 15-24, %, OECD: 2019)	12.8	(11.8)
Women (OECD: 2019)	46.3	(49.9)	Long-term unemployed (1 year and over, %)	1.2	(1.3)
Participation rate (aged 15 and over, %)	62.9	(59.6)	Tertiary educational attainment (aged 25-64, %, 2019)	26.0	(38.0)
Average hours worked per year	1 660	(1 687)	Gross domestic expend. on R&D (% of GDP, 2018)	1.6	(2.6)
ENVIRONMENT					
Total primary energy supply per capita (toe, 2019)	2.7	(3.9)	CO2 emissions from fuel combustion per capita (tonnes, 2019)	4.7	(8.3)
Renewables (%, 2019)	10.3	(10.8)	Water abstractions per capita (1 000 m³, 2018)	0.4	
Exposure to air pollution (more than 10 g/m³ of PM 2.5, % of population, 2019)	100.0	(61.7)	Municipal waste per capita (tonnes, 2019)	0.4	(0.5)
SOCIETY					
Income inequality (Gini coefficient, 2017, OECD: latest available)	0.289	(0.318)	Education outcomes (PISA score, 2018)		
Relative poverty rate (%, 2017, OECD: 2016)	8.0	(11.7)	Reading	476	(487)
Median disposable household income (000 USD PPP, 2017)	12.1	(19.7)	Mathematics	481	(489)
Public and private spending (% of GDP)			Science	481	(489)
Health care (2019)	6.4	(8.8)	Share of women in parliament (%)	12.1	(31.4)
Pensions (2018, OECD: 2017)	8.6	(8.6)	Net official development assistance (% of GNI, 2017)	0.1	(0.4)
Education (% of GNI, 2019)	4.4	(4.4)			

* The year is indicated in parenthesis if it deviates from the year in the main title of this table. ** Where the OECD aggregate is not provided in the source database, a simple OECD average of latest available data is calculated where data exist for at least 80% of member countries.
Source: Calculations based on data extracted from databases of the following organisations: OECD, International Energy Agency, International Labour Organisation, International Monetary Fund, United Nations, World Bank.

Executive summary

The recovery is gathering pace

The pandemic interrupted the strong economic growth performance in 2016-19, which entailed large increases in employment and real incomes, and the lowest unemployment rate in thirty years.

Strong growth is returning (Table 1). The government used general containment measures during the first wave and more targeted and sector-specific measures in the second wave, allowing for more economic activity. Together with stronger international demand, this benefited manufacturing and many service sectors, leaving hospitality as the most affected sector. The swift rollout of vaccine programmes allows a faster recovery from mid-2021 onwards, as pent-up demand is released and external demand strengthens. However, the pace and strength of the recovery is uncertain, reflecting the potential scarring of the economy arising from the prolonged crisis. New variants could add pressures on the health sector and potentially lead to new restrictions and lower domestic spending.

Table 1. Macroeconomic outlook

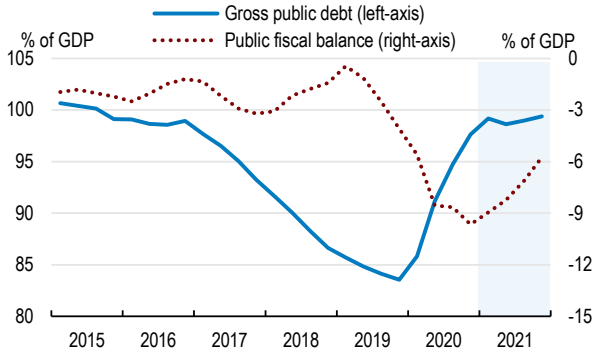
Y-o-y % changes	2020	2021	2022
Gross domestic product	-5.1	4.6	5.0
Final domestic demand	-3.5	2.6	5.0
Net exports (contribution to GDP growth)	-2.1	2.1	0.2
Unemployment rate (% of labour force)	4.2	4.0	3.4
Consumer price index	3.3	3.9	3.9
Current account balance (% of GDP)	0.1	0.8	0.8

Note: Data for 2021 and 2022 refer to projections.
Source: OECD Economic Outlook 109 database (June 2021).

During the pandemic, the government supported jobs and incomes. A new short time working scheme has been the principal measure to contain the rising unemployment rate. Businesses have been supported by a moratorium on loan repayments, reduced interest rates, lower social security contributions and grants, contributing to a historically low number of bankruptcies. Nonetheless, corporate and household loan defaults are likely to increase, requiring the close monitoring of bank vulnerabilities.

Fiscal and monetary policies are supportive. In 2020, discretionary fiscal policy amounted to 5% of GDP, which with the weak economy raised the public deficit (Figure 1). In 2021, the economic recovery and the termination of many support measures should reduce the deficit by ½-percentage point. The release of pent-up demand in the second half of the year should ensure that no new short-term fiscal stimulus is needed. From 2021 onwards, annual inflows of EU funds in the order of 3 ½ % of GDP will support growth. As the recovery becomes self-sustained, the fiscal focus could return to preparing for impending ageing-related spending increases and secure fiscal sustainability. The central bank has appropriately maintained an accommodative monetary policy stance, but inflation pressures remain high.

Figure 1. Fiscal policy has been supportive



Note: National accounts definition of gross public debt. The shaded area denotes projections.
Source: OECD Economic Outlook database.
StatLink https://doi.org/10.1787/888934266590

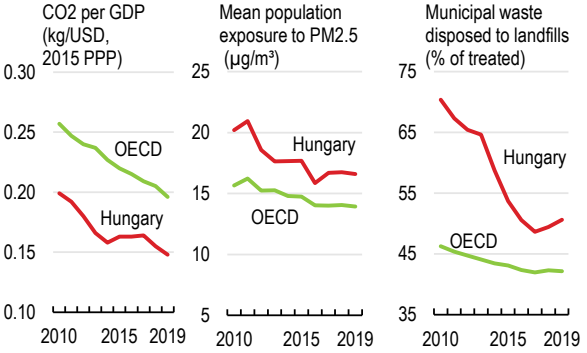
The prolonged pandemic strains people's well-being and threatens social inclusion. Some of the social costs will be temporary. Others will have longer lasting impacts, including the effects of increased domestic violence and the educational damages created by the difficulties of providing all pupils with high-quality distant learning.

Better policy coherence would favour more sustainable growth. The environmental performance has been broadly satisfactorily in meeting 2020 emissions objectives. However, insufficient progress has been made in reducing small particles emissions and the extensive use of landfills (Figure 2). Meeting more ambitious 2030 emissions objectives and an expected increase in road transport add to environmental policy challenges. Environmental policy is based on a combination of regulation, subsidies, and tax rates that vary across sectors and activities. Some energy prices are regulated for affordability reasons, often to below-cost levels, leading to an uneven burden sharing and more costly emission reductions.

Despite reform, taxation of labour income remains high, which is not conducive to

growth. The still high taxation reduces incentives to enter employment or move to jobs with higher incomes. In contrast, environmental and property tax rates are relatively low and their tax bases reduced by numerous exemptions. Likewise, the VAT system is characterised by a high standard rate and multiple reduced rates. Rebalancing the tax system through lower and more unified rates and base broadening, while reducing the reliance on labour taxation would improve incentives and increase efficiency.

Figure 2. Environmental concerns remain



Source: OECD Environment database; and OECD Green Growth database.

StatLink https://doi.org/10.1787/888934266609

Strengthen skills and mobility for a more inclusive labour market

Fostering labour reallocation would strengthen the recovery. The pandemic's impact on the labour market was contained by government intervention. Employment is rising again and unemployment is falling, while wage inflation remains relatively high. When business support is withdrawn, job separations will increase, leaving new job seekers with only 3 months of unemployment benefits and limited support from public employment services to connect with new job openings that match their skills. Geographical mobility is hindered by public work schemes that keep low-skilled long-term unemployed in poorer regions. In addition, population ageing leads to a smaller and older workforce, reinforcing the need for improving allocation of available labour resources to sustain growth.

Skills are poorly matched to labour market needs. Vocational training delivers predominantly traditional crafts and trades skills, whereas labour demand is shifting towards higher skill jobs. Occupational mobility is further hampered by many occupations being subject to licensing and certification requirements. Despite progress, few vocational education students have apprenticeship positions, and access to high-quality work-based learning is a concern. At the same time, many university graduates in humanities and social sciences have difficulties in finding employment in their field, while engineering and ICT graduates are in short supply. This reflects that educational output is not adjusting to labour shortages in expanding sectors and oversupply in shrinking sectors.

Job prospects of graduates are reduced by weak educational outcomes. Half of vocational education and training graduates hold unskilled jobs outside their chosen occupation. This reflects that basic and generic skills of vocational education and training are in many respects weak, including gaps in literacy, numeracy and ICT, hindering students' ability to adapt to changing labour market needs. The higher education system pays little attention to generic skills, such as problem solving, that are key for new graduates' labour market success. Stronger basic and generic skills are key to secure graduates' capacity to be more adaptable and thus their long-term labour market success.

Job mobility is also hampered by rigid housing markets. Hungarians live overwhelmingly in owner-occupied housing and most housing support measures aim at home ownership. Meanwhile, housing supply does not respond to increasing demand because of regulatory issues. The private rental market is dominated by short-term rental contracts, absent balanced regulations that take into account the interests of landlords and tenants.

Geographical mobility is also held back by underdeveloped local transport infrastructures. Funding for maintenance of secondary and tertiary roads is low, as reflected in the poor quality of local roads. Similarly, local train and bus connections are underdeveloped, increasing the costs for people wishing to commute from rural areas to nearby cities with better employment prospects.

Minimum wages have increased fast. Minimum wage growth is important for improving incomes of the poorest. However, fast increases relative to other wages reduce job prospects for the low-skilled and long-term unemployed, while lowering the incentives for low-skilled workers in poorer regions to search for better-paid jobs elsewhere.

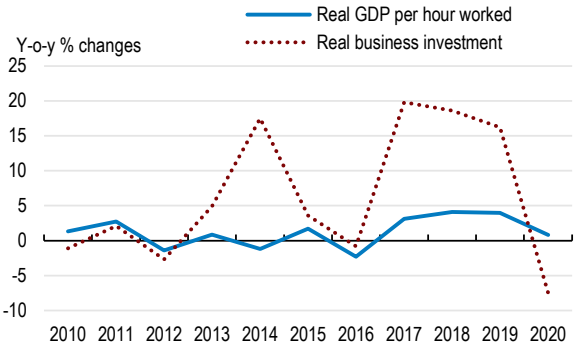
Women's career prospects could be furthered by more childcare services. Female labour participation is close to that of men but gender wage gaps increase with age. This reflects long maternity leaves, which many mothers use in full.

Also, women provide many more hours of unpaid work for domestic and child rearing than men.

Stronger business dynamics and more competitive markets are crucial for higher productivity growth

Long-term productivity growth has been weak. Dynamic business investment has led to a cyclical upswing in productivity growth. Nonetheless, average productivity growth has been weak over the past decade (Figure 3). Despite a recent decrease in the productivity gap, there are still large underlying differences between capital-rich foreign owned investment intensive companies that compete on world markets and domestic capital-poor and low-productivity firms with low investments that are focussed on home markets with few connections to international supply chains.

Figure 3. Productivity growth has been low



Source: OECD Productivity database; and Hungarian Central Statistical Office.

StatLink https://doi.org/10.1787/888934266628

Firm entries and exits have been relatively low, pointing to weak competition. This has allowed low-productivity firms to maintain disproportionally large market shares and has slowed the reallocation of resources to high-growth firms, holding back economy-wide productivity growth and faster income convergence.

The pro-competitive regulatory framework is little used. The competition authority is not sufficiently active in sectors with high risk of collusion, with few market studies and decisions. For example, few decisions have been made in the area of public procurement, despite the high number irregularities reported by the European Commission. This reflects insufficient funding for adequate enforcement and for retaining highly specialised experts. Also, important areas are exempt from competition scrutiny on grounds of national strategic interest.

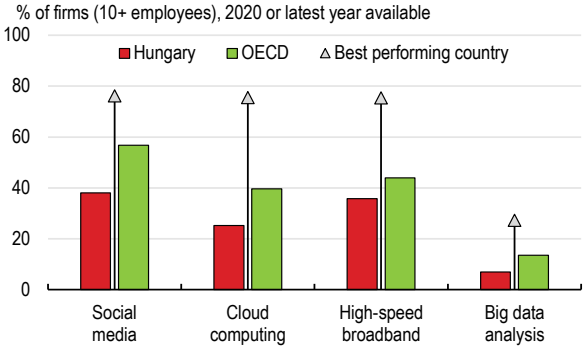
Sectoral taxes on turnover are used in several sectors, including energy, finance and retail. Such taxes hinder new entry and investment, while exits are slowed by lengthy and costly insolvency procedures.

State-intervention in network sectors is extensive. The energy sector is dominated by state-owned quasi monopolies. In the telecom sector, the recent rewarding of new 5G spectrum to incumbents has reinforced market concentration and further reduced competitive pressures.

The formal anti-corruption framework has been enhanced in recent years. However, perceived corruption remains a multidimensional concern and several issues remain to be tackled, including improving trust in institutions and public procurement. Effective anti-corruption oversight is needed to ensure better use of public resources, including the efficient use of procurement in the roll-out of public investments, and fostering stronger business dynamics.

Digitalisation is low. Adaptation of digital technologies in smaller firms and the public sector lags behind other countries (Figure 4). A concern is high mobile internet prices, which reduce mobile broadband usage. In addition, businesses use high-speed broadband less than elsewhere. Low digital preparedness hinders the implementation of new technologies and the integration into national and international supply chains. The public sector can play an important role model by leading the adaptation of digital technologies.

Figure 4. Low adoption of advanced ICT



Note: Firms from the financial sector are excluded. High-speed broadband are subscriptions with 100+ Mbps.

Source: OECD ICT Access and Usage by Businesses database.

StatLink https://doi.org/10.1787/888934266647

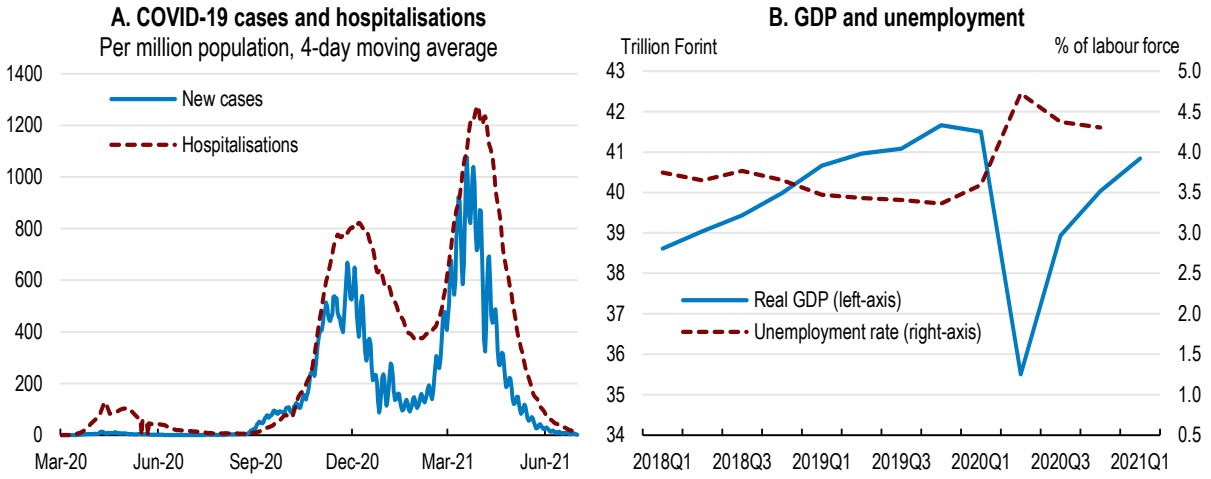
Main Findings	Key Recommendations
Macroeconomic and financial policies to support the recovery	
Inflation is above the inflation target of 3% and moved outside the central bank's upper tolerance band of +/- 1% in spring 2021.	Continue to increase policy interest rates if inflation expectations becomes unanchored. Gradually exit from unconventional monetary policy measures.
Fiscal policy is supportive.	Continue to provide targeted fiscal support as needed, while preparing for fiscal consolidation once the recovery has become self-sustained. Adopt a medium-term strategy to reduce debt and prepare for the long-run fiscal challenges of ageing.
Population ageing is accelerating, boosting ageing-related spending pressures.	Complete the ongoing increase of the statutory retirement age to 65 by 2022. Thereafter link it to gains in life expectancy.
Structural reforms for stronger and more sustainable growth	
High labour taxes deter labour market participation and investment in skills. The effective VAT rate is lower than the standard VAT rate.	Make the tax system more growth-friendly by further reducing the reliance on labour taxation, continuing to increase the reliance on consumption taxes and raising immobile property taxes, while addressing adverse distributional impacts. Simplify the VAT system by moving towards a broader-based and lower standard VAT rate.
The tax system imposes heterogeneous abatement costs across sectors and activities.	Gradually unify carbon taxes and set non-carbon environmental taxes and fees according to the polluter pays principle.
Low regulated prices (often below cost) of energy, water, wastewater and waste collection services do not incentivise investments.	Ensure cost recovery in regulated energy and introduce targeted affordability measures to help low-income households. Increase waste collection fees and water and wastewater service tariffs to help finance needed investments.
Support skills development and mobility for a more inclusive labour market	
Skills of vocational graduates do not meet labour market needs. Few vocational students have apprenticeships.	Link funding for vocational schools to the number of students in work placements. Allow apprenticeships to start only once a placement with a company for the work-based part of the programme is secured.
Rental housing is underdeveloped.	Regulate tenancy to better balance the interest of tenants and landlords.
The short (3 months) duration of unemployment benefits discourages geographical mobility.	Consider increasing the duration of unemployment benefits.
Local train networks are underdeveloped and local roads are poorly maintained.	Increase investment in local train networks. Increase funding for maintenance of secondary and tertiary roads. Introduce cost-benefit analysis and co-funding for infrastructure projects.
Employment among young mothers is low.	Expand the availability of affordable, high-quality childcare. Reduce the effective length of parental leave and continue to facilitate more flexible working arrangements.
Ensure dynamic and competitive markets	
Exemptions from competition policy reduce the effectiveness of the competition framework.	Subject all mergers that fulfil the merger threshold to full reviews. Establish limited and explicit public interest grounds for exemptions.
Sectoral taxes discourage expansions and new entry.	Phase out distortionary sector taxes in energy, finance and retail sectors.
Public procurement lacks competition.	Increase the use of e-invoicing through the electronic procurement system. Further enhance transparency and continue to increase the share of public procurement subject to competitive tendering.
Prices for mobile internet are high.	Phase out levies on phone calls and messages. Strengthen network competition through auctioning of additional spectrum to expand the number of mobile network operators.
The anti-corruption framework needs further strengthening to be more effective.	Establish an independent anti-corruption authority or a strong coordination committee.

1 Key Policy Insights

Leaving the crisis behind

In 2016-19, Hungary had strong economic growth with large increases in employment and real incomes, while unemployment fell to its lowest level in the past 30 years. At the same time, public finances improved: public deficits and the public debt-to-GDP ratio shrunk. This strong economic performance came to an abrupt halt in 2020 (Table 1.1). While the first wave of the COVID-19 pandemic was relatively mild from a public health standpoint, containment restrictions and reduced international demand hit economic activity hard. The second wave of the pandemic had more severe health impacts, but milder economic consequences, reflecting more targeted containment measures and robust international demand. The third wave had severe health consequence despite a relatively fast roll out of vaccine programmes. The economic downswing and supportive fiscal policy widened the budget deficit and increased public debt (Figure 1.1)

Figure 1.1. The COVID-19 pandemic had severe health and economic impacts



Source: OECD calculations based on Ourworldindata; and OECD Economic Outlook: Statistics and Projections database.

StatLink https://doi.org/10.1787/888934266666

Table 1.1. Macroeconomic indicators and projections

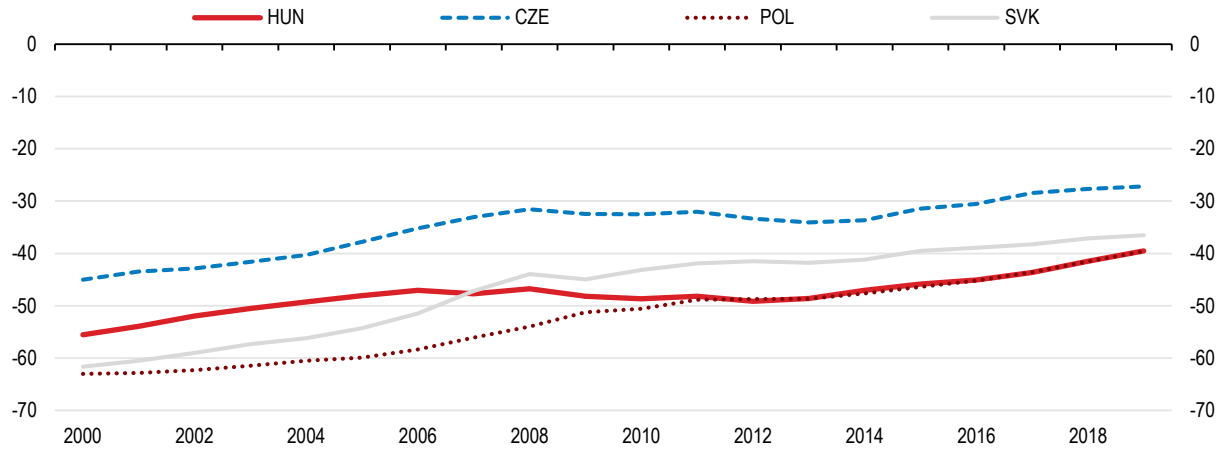
	2019	2020	2021[1]	2022[1]
	Current prices (HUF billion)	Annual percentage change, volume (2015 prices)		
Gross domestic product (GDP)	47524.0	-5.1	4.6	5.0
Private consumption	23455.2	-2.3	-0.1	5.7
Government consumption	9409.4	-1.0	1.6	2.5
Gross fixed capital formation	12890.0	-7.3	8.3	5.7
Housing	1522.5	16.6	10.2	0.7
Final domestic demand	45754.6	-3.5	2.6	5.0
Stockbuilding[2]	434.0	0.4	0.0	0.0
Total domestic demand	46188.6	-2.9	2.8	4.9
Exports of goods and services	39104.5	-6.8	9.9	5.7
Imports of goods and services	37769.1	-4.4	7.5	5.7
Net exports[2]	1335.4	-2.1	2.1	0.2
Memorandum items				
Potential GDP	. .	3.0	2.8	2.7
Output gap (% of potential GDP)	. .	-5.9	-4.2	-2.2
Employment	. .	-1.1	0.8	1.1
Unemployment rate (% of labour force)	. .	4.2	4.0	3.4
GDP deflator	. .	5.9	5.6	3.8
Index of consumer prices	. .	3.3	3.9	3.9
Index of core inflation[3]	. .	3.0	3.4	3.9
Household saving ratio, net (% of household disposable income)	. .	8.7[1]	8.8	6.6
Current account balance (% of GDP)	. .	0.1	0.8	0.8
General government fiscal balance (% of GDP)	. .	-8.1	-7.5	-5.9
Underlying general government fiscal balance (% of potential GDP)	. .	-4.7	-6.4	-6.3
Underlying government primary fiscal balance (% of potential GDP)	. .	-2.6	-4.3	-4.1
General government debt, Maastricht definition (% of GDP)	. .	80.4	81.9	81.9
General government net debt (% of GDP)	. .	61.0	62.8	63.5
Three-month money market rate, average	. .	0.5	0.4	0.4
Ten-year government bond yield, average	. .	2.2	2.4	2.4

1. OECD estimates unless otherwise stated.
2. Contribution to changes in real GDP.
3. Index of consumer prices excluding food and energy.
Source: OECD Economic Outlook 109 database (June 2021).

The strong pre-COVID-19 upswing accelerated income convergence (Figure 1.2). This reflected mostly strong real wage and employment increases. Growth was supported by faster productivity growth in 2017-2019, although with the onset of the pandemic, there was a strong contraction in productivity. A concern though is that despite the strong labour market performance, there are still underutilised labour resources, particularly in poorer regions.

Figure 1.2. Income convergence has gathered pace

GDP per capita gaps to the upper half of OECD countries. Upper half is weighted by the population.



Source: OECD Going for Growth.

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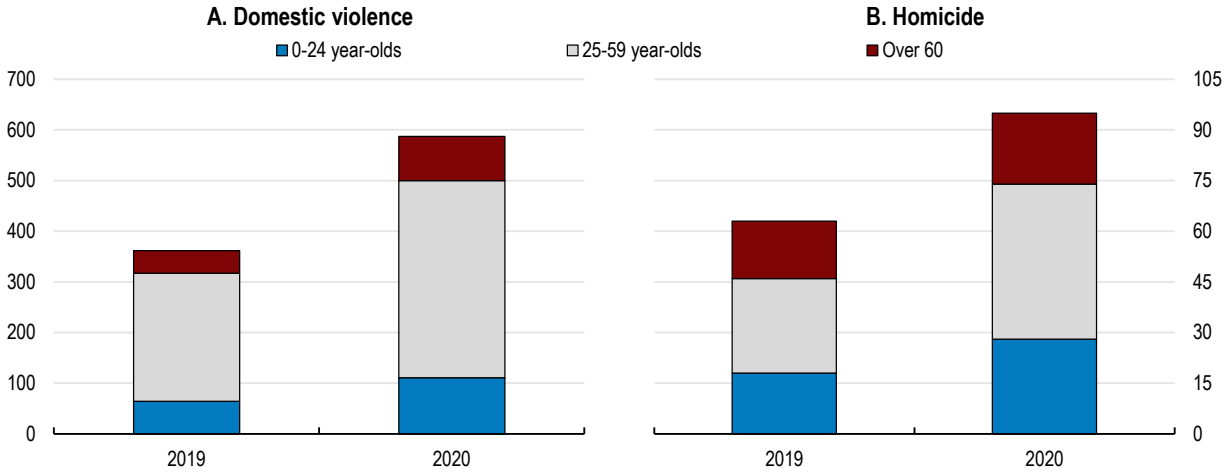
The social costs of the pandemic are still unfolding, as a variety of impacts on people's lives and well-being have the potential to exacerbate social disparities. The number of victims of illegal activities have increased significantly (Ministry of Interior – bsr.bm.hu). More specifically, domestic violence reported by women increased by 62% and homicides by 51% in 2020 (BSR, 2021[1]) (Figure 1.3). The government has reacted by reinforcing the capacity of national hotlines and opening two new victim support centres outside of Budapest (EU Council, 2020[2]). Women have also been negatively affected in other dimensions. During the lockdown, women increased time spent on non-paid domestic activities by 5 hours (Fodora, 2020[3]). One consequence of the disproportionate increase in women's household and care responsibilities was a decline in female entrepreneurship (HÉTFA, 2020[4]; Gender & Society, 2020[5]).

Figure 1.3. Violence against women has increased during the pandemic

Number of female victims



Source: Ministry of Interior (BSR database).

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The crisis has exposed weaknesses in digital preparedness and skills. Internet usage and uptake of telework was relatively low before the crisis and ICT skills of vocational students were weak (Chapter 2). During the second wave, distance learning became mandatory in upper secondary schools, creating social exclusion concerns from unequal access to the Internet and IT equipment (OECD, 2020[6]). Indeed, regional differences in remote working are higher than in other OECD countries, pointing, inter alia, to unequal access and equipment (OECD, 2020[7]). Moreover, teachers were not able to reach nearly 20% of their students, and only 60% of students are enrolled in schools with teachers that have the technical and pedagogical skills to integrate digital devices in instruction (OECD, 2020[8]; DiO, 2020[9]). Learning may have been negatively impacted. For example, the 2021 secondary school admission exams exhibited much lower results than previous years (OKTATAS, 2021[10]; OKTATAS, 2020[11]). An open question is whether the so-called "tanoda" network for disadvantaged students, including Roma, will be able to respond effectively to the additional educational challenge associated with distance learning (OECD, 2019[12]; EC, 2013[13]; EC, 2020[14]). Failure to do so may exacerbate already large existing regional differences in educational outcomes. During the first lockdown, adults had higher levels of stress, anxiety and depression than in harder hit countries like the United States, Colombia and China (Szabó, 2020[15]). These findings of high psychological effects represent serious health risks that may have protracted effects.

The impressive employment and income gains achieved before the pandemic need to be restored by stepping up structural reforms. Strong real income gains can only be sustained through a marked improvement in productivity performance. Looking ahead, a key structural challenge is the need to improve the employment prospects of low-income workers through higher labour mobility and skills upgrading, thereby improving allocative efficiency of the labour market. These efforts should complement policies, including measures to improve the quality of vocational and tertiary education, to facilitate the shift to cleaner energy and new technologies, particularly in the all-important automotive industry, and accelerate the digital transformation process. More generally, a better alignment of fiscal policy would lower the cost of securing better environmental outcomes. These policies should be implemented alongside measures to prepare public finances for the fiscal challenges associated with population ageing.

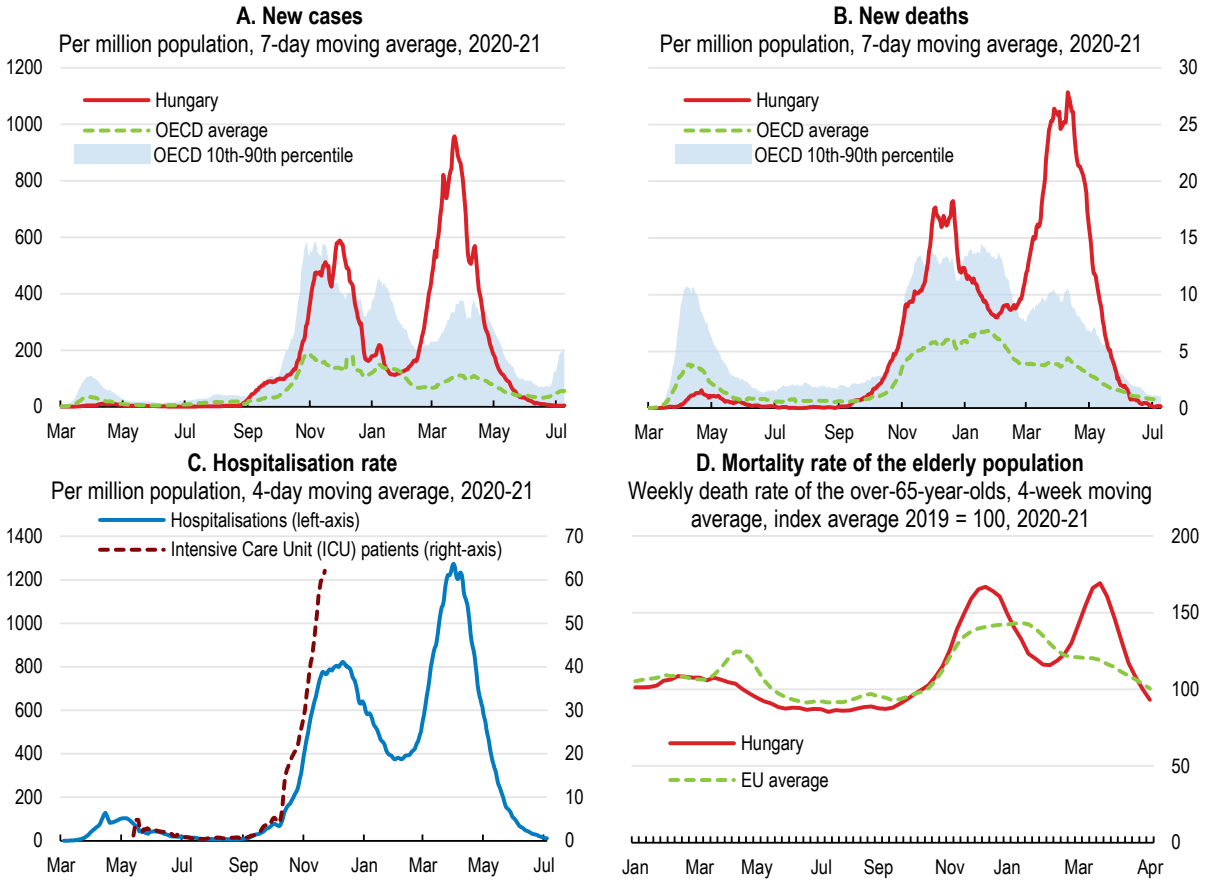
Against this background, the Survey has three main messages:

- As vaccine programmes are completed, the government should focus on enhancing and cementing the gains in incomes and inclusiveness achieved before the pandemic and counter the high social costs of the crisis. Long-term fiscal sustainability needs to be secured in face of the large fiscal challenges of population ageing.
- Bolstering productivity growth requires improved labour allocation, more competitive markets, enhanced skills formation, and faster adoption of new technologies, particularly to accelerate the digital transformation of the economy.
- Greener growth requires further efforts to reduce emissions in a cost-efficient manner by realigning incentives embodied in environmental policies.

The severe pandemic is countered by strong health measures

Following a comparatively mild first wave of the COVID-19 pandemic in spring 2020, Hungary experienced a severe second wave in autumn 2020, when infection and mortality rates increased sharply (Figure 1.4). During the first wave, broad containment measures were introduced early. In contrast, a more targeted approach was used during the second wave, leading to multiple phases of containments (Box 1.1). As the pandemic continued to unfold in a third wave during spring 2021, second wave measures were prolonged, before containment measures began to be gradually lifted.

Figure 1.4. The healthcare situation worsened in the second and third waves of the pandemic



Note: In Panel D, the EU average includes the following 21 countries: Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Poland, Portugal, Slovak Republic, Slovenia, Spain, and Sweden.
Source: Ourworldindata; Eurostat Demography and Migration database; and OECD calculations.

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A number of factors have contributed to the severity of the pandemic. Two of the most important comorbidities for COVID-19-related fatalities are age and obesity (World Obesity, 2021[16]). In both cases, Hungary is at a disadvantage with some of the highest shares of elderly people in the population and of obesity rates in the OECD (OECD, 2019[12]). Another potential factor is that the high level of small particles pollution may have increased the probability of virus infections, potentially accounting for up to a quarter of COVID-19 fatalities (Pozzer, 2020[17]).

Box 1.1. From general social distancing measures to targeted limitations

The first wave (starting in March 2020) was characterized by strict restrictions:

- General stay at home order with a few exceptions such as work, essential shopping activities and outdoor recreation
- Distance learning in all educational institutions
- Postponement of all non-vital healthcare treatment
- Mandatory use of masks in shops and public transport from May onwards
- Closure of boarders and strict home quarantine rules
- Exclusive shopping hours for elderly people. Restricted opening hours for non-essential shops
- Military officers took control over hospitals, to facilitate logistics and inventory management

Measures in the second wave (starting in November 2020) were more targeted:

- Night curfew between 8 pm and 5 am
- Private events permitted for max. 10 persons and all public assemblies prohibited
- Individual outdoor activities allowed, sports events held behind closed doors
- Restaurants only allowed to provide takeaway services. Canteens remained open
- Hotels were only allowed to receive business guests until end-April 2021
- Closure of leisure and entertainment facilities until 1 May 2021
- Distance learning introduced for secondary schools, universities and colleges
- Hospitals non-vital treatments postponed but outpatient care, fertility programmes, cancer and cardiovascular treatments, cancer screening and transplantation continued as usual

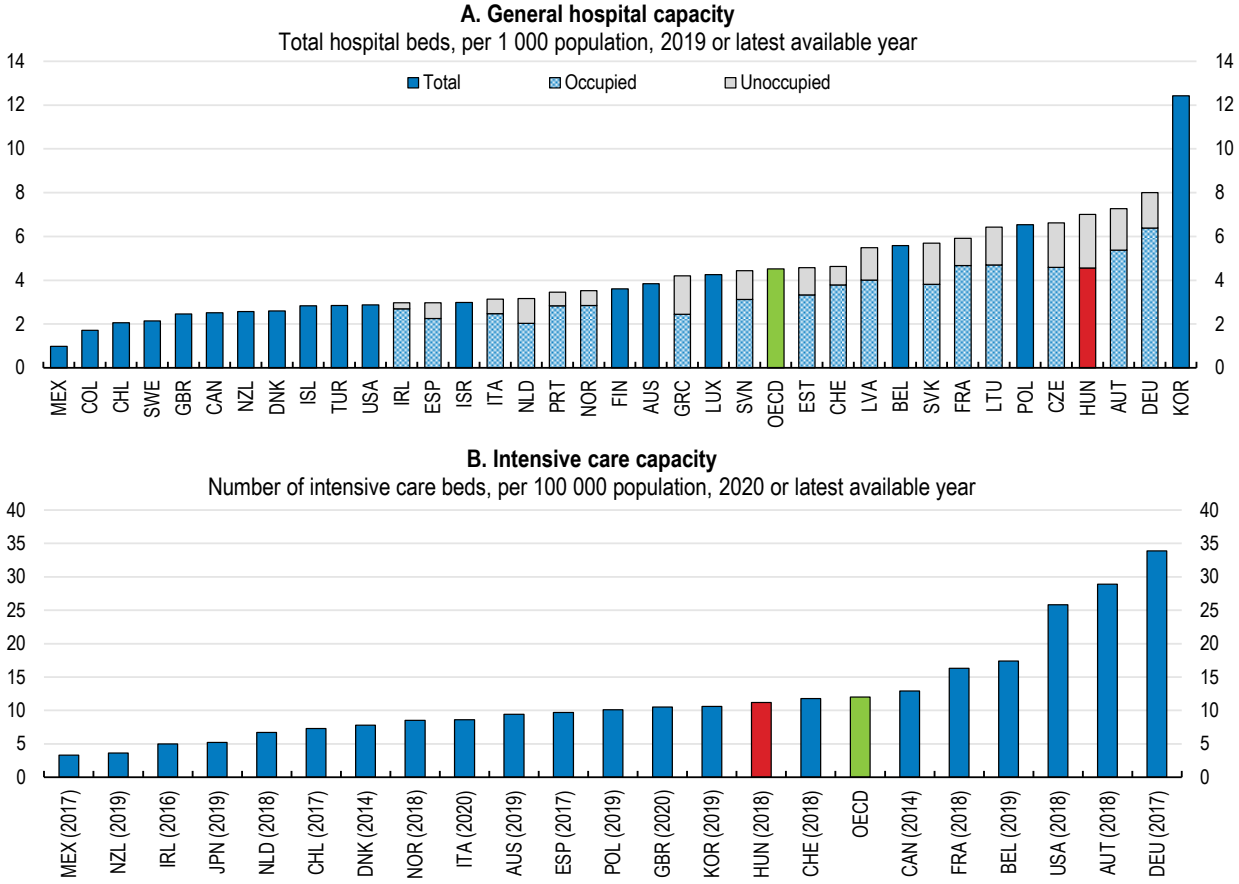
New restrictions in the third wave (starting in March 2021):

- Closure of shops (except for food stores, pharmacies, drugstores and fuel stations) and service providers until 8th April, however, with many exceptions
- Closure of all schools with distance learning for primary schools until 19 April for grades 1-4 and until 10 May for grades 5-8 as well as for secondary schools. Closure of kindergartens

Source: (koronavirus.gov.hu, 2020[18]; Portfolio, 2020[19]; Portfolio, 2020[19])

Prior to the pandemic, hospital capacities were characterised by a high number of hospital beds with intensive care capacities slightly below the OECD average (Figure 1.5). The relatively low number of doctors and other skilled health care workers was only partially compensated for by the reallocation of healthcare workers to COVID-19 treatment (OECD, 2019[12]). The government took several measures to respond to the health crisis, including expanding testing and intensive care capacity (see below). It also raised the wages of nurses by about 20% and nearly doubled the base salaries of doctors as part of a three-year wage rise programme to reward and retain health professionals. In all, health spending was raised by about 2.4 percentage point of GDP in 2020. If necessary, the government should be ready to further raise remuneration levels to retain and attract health professionals, as recommended in the last *Survey*.

Figure 1.5. High bed capacity was not matched by similar intensive care capacities



Note: In Panel B, the OECD aggregate is an unweighted average of other 22 available countries included in the figure. Data for GBR refer to England.

Source: OECD Health Statistics database; OECD/European Union (2020), Health at a Glance: Europe 2020: State of Health in the EU Cycle, OECD Publishing, Paris, https://doi.org/10.1787/82129230-en; and OECD (2020), "Beyond containment: Health systems responses to COVID-19 in the OECD", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/6ab740c0-en.

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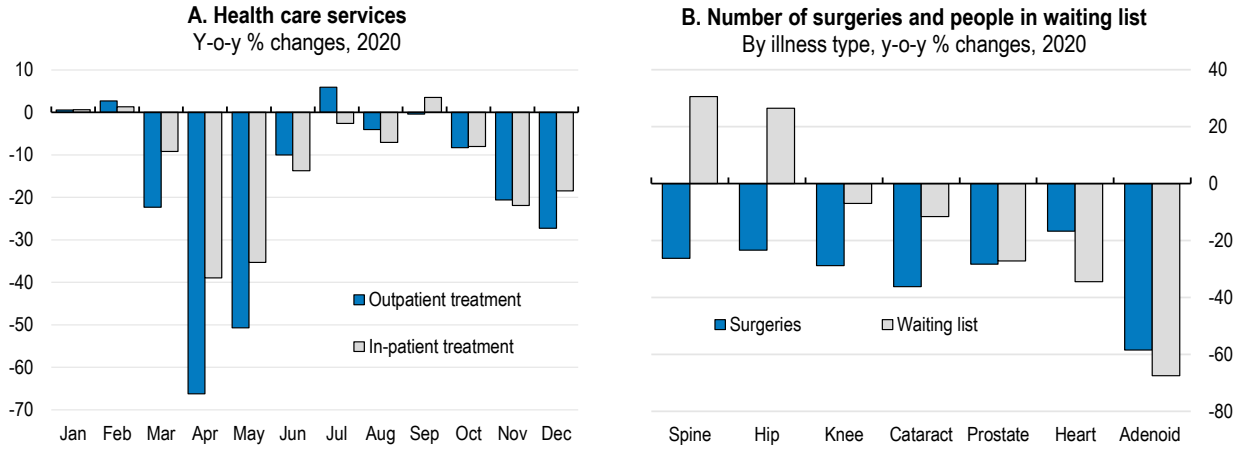
The reallocation of health resources reduced the supply of outpatient and inpatient treatments, notably in the first wave (Figure 1.6, Panel A). This led to a substantial decline in surgical interventions and shorter waiting lists for elective surgeries, such as heart and prostate problems (OECD/European Union, 2020[20]) (Figure 1.6, Panel B). This suggests a reduced capacity to detect symptoms for many diseases, such as cardiovascular problems, potentially later leading to more treatments and higher mortality, putting additional strains on the health sector (OECD, 2021[21]). Looking ahead, capacity constrains in hospitals should be addressed by raising investment and enhancing the role of hospital managers through performance-related bonuses and in investment decisions, as recommended in the last *Survey* (Table 1.2) (OECD, 2019[12]).

The rollout of the vaccination programme began in early 2021 and was accelerated by administrating the Russian Sputnik V and the Chinese Sinopharm coronavirus vaccines despite absence of approval by the European Medical Agency, securing a relatively swift and broad-based vaccine roll-out (HCSO, 2021[22]). Looking ahead, better preparedness for future surges in healthcare needs and other non-standard events, like a mass vaccination, calls for a greater flexibility of healthcare system. This would require measures to reduce hospital stays by enhancing outpatient care as was discussed in the previous *Survey* (Table 1.2) (OECD, 2019[23]).

Figure 1.6. Capacity reallocation may increase mortality from other causes in the future



Source: National Health Insurance Fund (NEAK); and OECD calculations.

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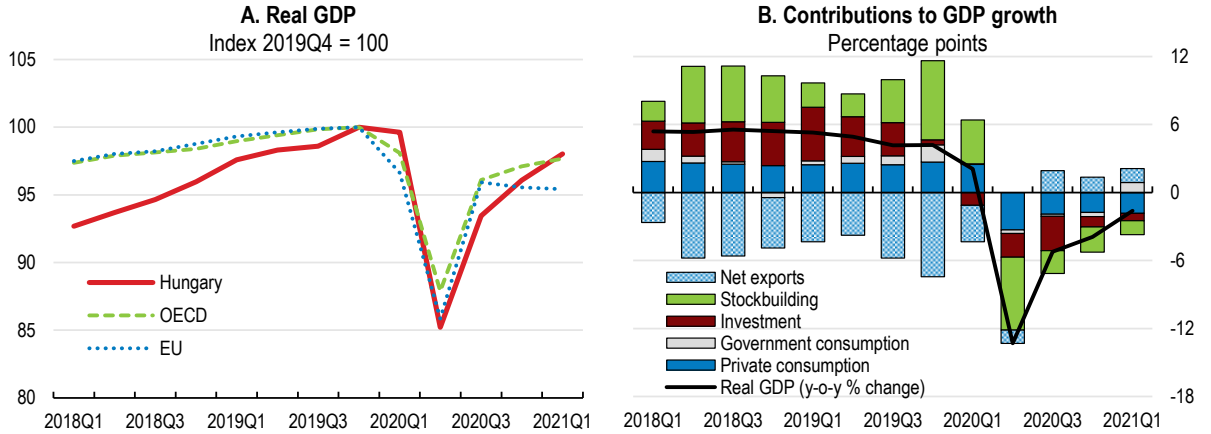
Table 1.2. The past recommendations on healthcare

Recommendations in previous survey	Action taken
Reduce hospital stays by enhancing outpatient care and concentrate inpatient care in fewer, better-equipped and more specialised hospitals.	In 2020, a new health authority, the National Hospital Directorate-General, was established to create a new national health care management system. Reorganisation of hospitals with focus on creating county integrated systems with country hospitals given greater autonomy in organising local care. Introduction of telehealth services to facilitate outpatient treatment.
Strengthen price signals in health care provision by regularly updating the DRG tariffs.	The update of DRG tariffs started in 2019. New tariffs were introduced in certain fields.
Phase out the use of output volume limits.	Output volume limits were phased out. Case-based frameworks were introduced and will be reviewed annually.
Increase hospitals autonomy by enhancing the role of hospital managers through performance-related bonuses and greater autonomy in investment decisions.	County hospitals have been given greater autonomy for local care organisation.
Strengthen the gatekeeper role of GPs by increasing the share of pay-for-performance financing.	No action taken
Promote group practices for GPs.	Program to set up group practices launched in 2020. Group practice participation led to higher wage increases for doctors.
Increase taxes on alcohol and tobacco products.	Taxes on alcoholic drinks increased by 20% in 2019. Excise duty on tobacco increased in several phases.
Continue to raise remuneration levels in order to retain and attract health professionals.	Remuneration of doctors increases in three steps by 2023. Salaries of nurses increased by 30 percent in 2022.
Update and clearly define the publicly funded health benefit package as part of an approach to limiting informal out-of-pocket payments.	According to a modification of law, informal payments are considered as bribe and are to be strictly punished.
Establish a voluntary health insurance market that can supplement the publicly funded health benefit package.	No action taken
Integrate the various long-term care systems.	A LTC strategy has been prepared and submitted for approval.
Improve access to home and institution-based care.	No action taken

Economic prospects are improving

During the first wave of the pandemic in spring 2020, the economy contracted sharply under the impact of containment measures and slower international demand (Figure 1.7). During the second wave, growth picked up as new containment measures became more targeted, enabling more economic activity. This was helped by a recovery in world trade, particularly supporting the important automotive industry. On the other hand, the important tourism sector remained depressed in face of international travel restrictions (Figure 1.8).

Figure 1.7. Economy activity contracted sharply in 2020



Source: OECD Economic Outlook: Statistics and Projections database; and OECD calculations.

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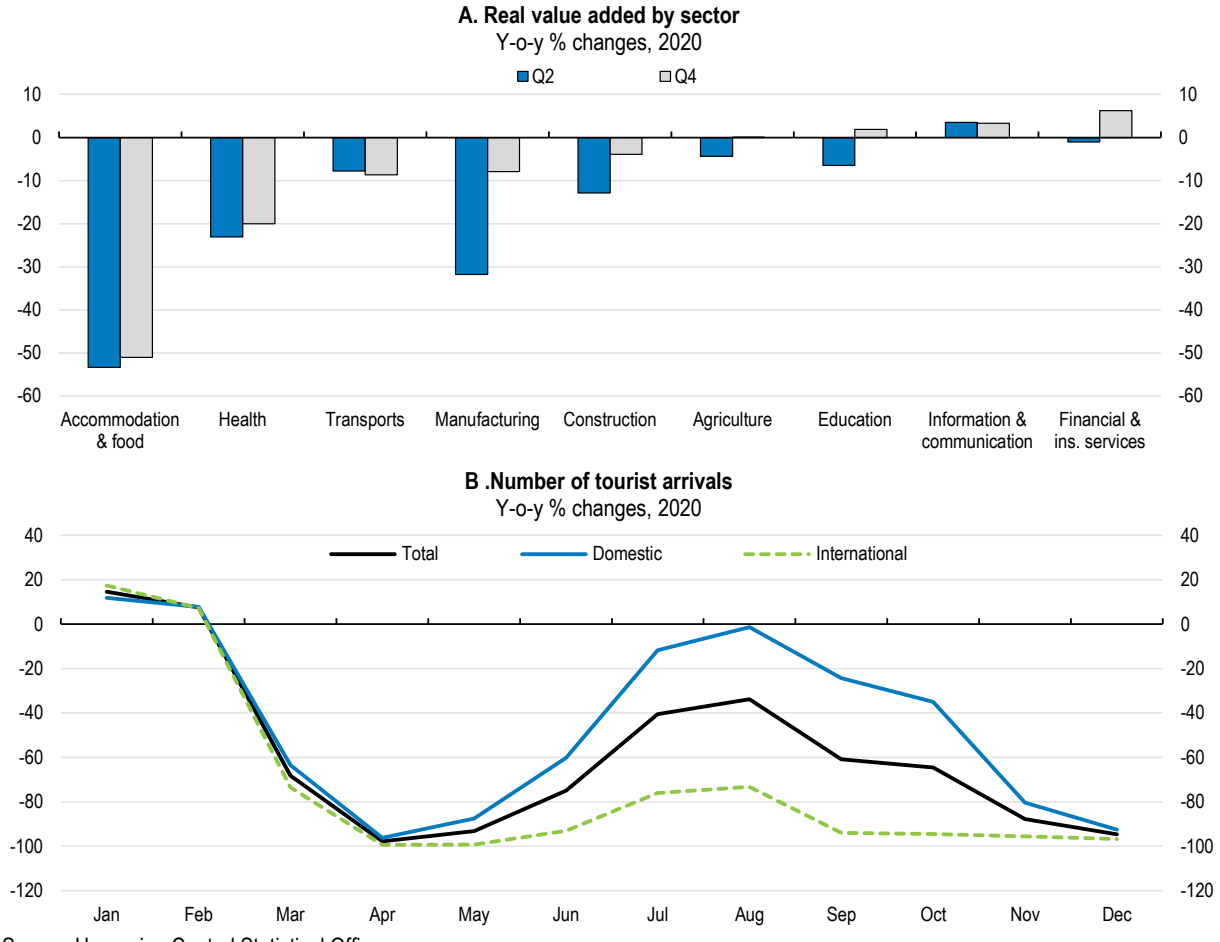
Figure 1.8. Better-targeted measures in the second wave moderated the economic decline, with tourism as a notable exception



Source: Hungarian Central Statistical Office.

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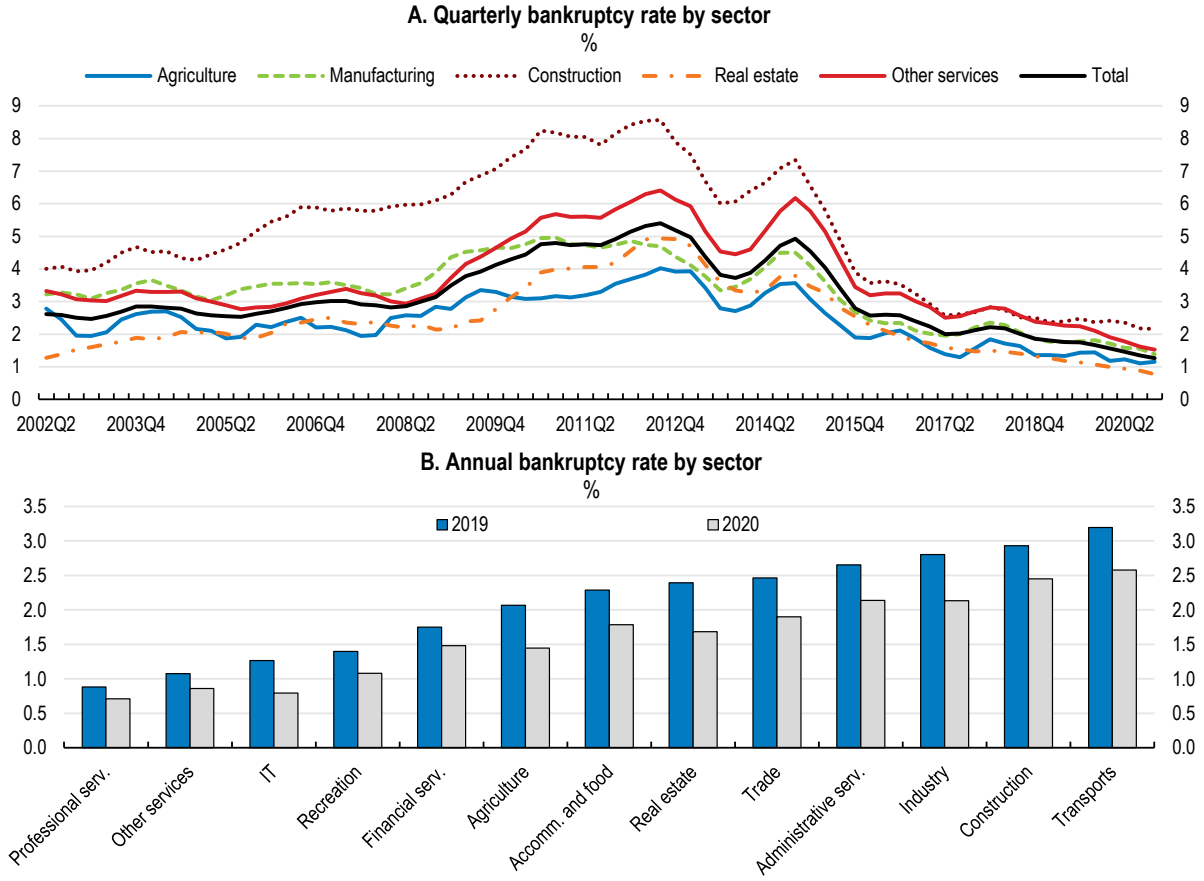
In 2020, private consumption contracted sharply as containment measures and uncertainty following the COVID-19 outbreak restrained household spending and increased the private savings rate. Private investments and exports fell markedly, despite a strong rebound in the second half of the year as faster international trade bolstered the export sector and generous government subsidies boosted construction activity. Public consumption increased as the government raised support to businesses, wage support and home-building subsidies. The number of bankruptcies fell by 50% year-on-year in 2020, suggesting that government support has also prevented the exit of unproductive businesses (Figure 1.9). The economy avoided a second dip at the end of 2020 and in early 2021, as restrictions affected mostly service sectors, while industrial production, construction and exports continued their recovery (Figure 1.10, Panel A). Business confidence continued to strengthen despite the onset of a third wave in spring 2021 (Figure 1.10, Panel B).

Figure 1.9. Government support averted bankruptcies



Note: The bankruptcy rate is defined as the number of bankruptcy proceedings of legal entities (aggregated as of the date of publication and cumulated for 4 quarters, in Panel A) divided by the number of legal entities operating (a year before in Panel A and same year in Panel B).

Source: Opten; Magyar Nemzeti Bank (Hungarian Central Bank); and Hungarian Central Statistical Office.

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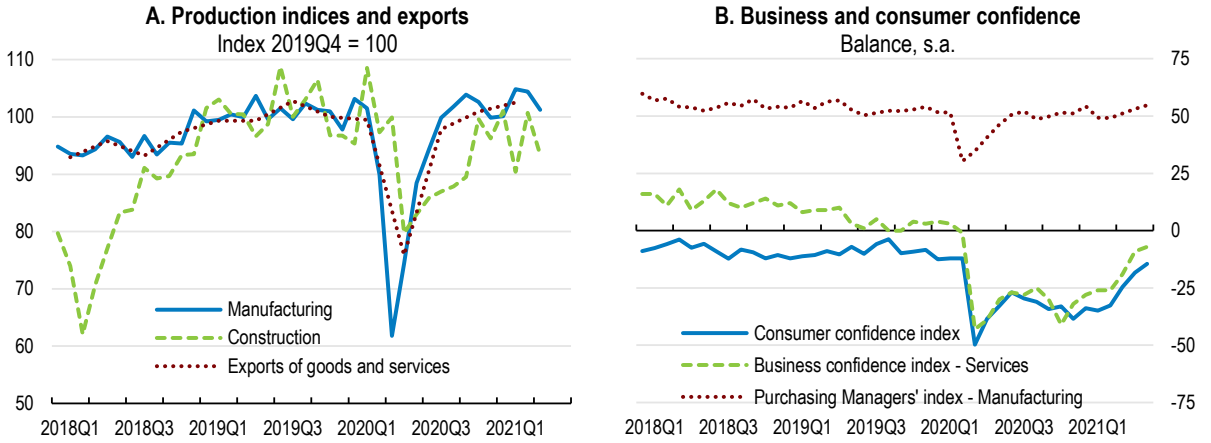
Figure 1.10. Production and confidence continue to recover



Note: In Panel A, manufacturing and construction refer to production indices s.a., while exports of goods and services are expressed in real terms. In Panel B, the headline PMI is a number from 0 to 100. A PMI above 50 represent an expansion when compared with the previous month. A PMI reading under 50 represents a contraction, and a reading at 50 indicates no change.
Source: OECD Economic Outlook: Statistics and Projections database; OECD Main Economic Indicators database; GKI; and Refinitiv Datastream.

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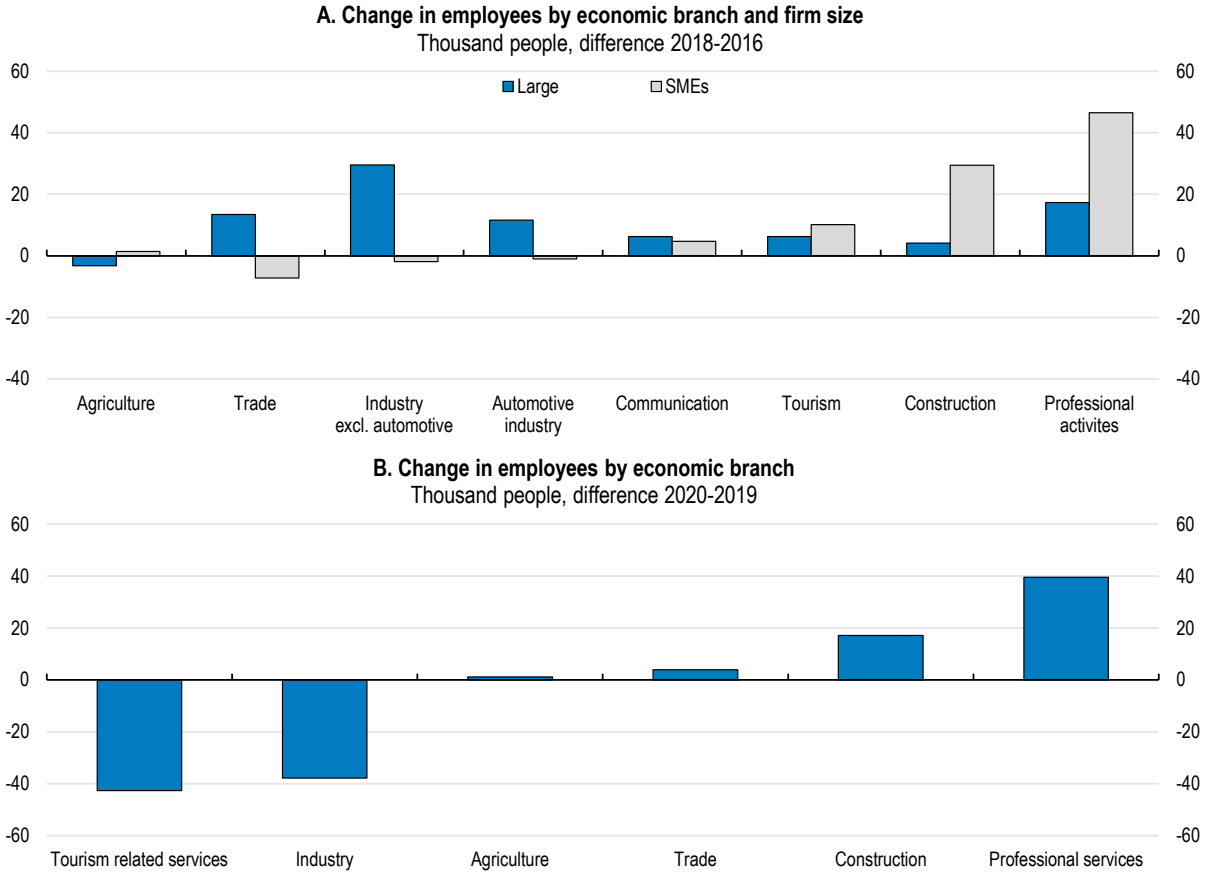
The strong 2016-2019 recovery led to strong employment growth across the economy, particularly in services, construction and traditional manufacturing sectors. Hiring was mostly in larger firms in export-oriented manufacturing and trade sectors between and 2016 and 2018, before SME hiring became more dynamic, particularly in the service sectors (Figure 1.11, Panel A). In addition, the number of self-employed rose sharply in 2019, which partly reflected tax advantages of self-employed. Despite important (temporary) employment losses in 2020, many sectors continue to be faced with important labour shortages. Moreover, employment growth continued in sectors that were less exposed to restrictions and/or where telework was more feasible, returning employment levels to pre-pandemic levels (Figure 1.11, Panel B). This helped to ensure that unemployment only increased temporarily in 2020 before falling back towards its historically low level (Figure 1.12, Panel B).

The wage distribution is being compressed as the strong wage dynamics is more pronounced in low-wage sectors, such as construction and accommodation services, and less so in the high-wage financial services and IT sectors (Figure 1.12, Panel C). In 2016-21, labour costs grew less rapidly as employers' social security contributions have been reduced by a total of 11.5 percentage points. As the reductions were not accompanied by other revenue increasing measures or spending reductions, the public sector's structural balance was eroded. In addition, growth in unit labour costs was more moderate as productivity was bolstered by an investment surge. Some of the increase in labour costs were transferred to consumers through higher prices. Nevertheless, not all types of firms fared well during the expansion. Notably, foreign-owned large companies in the industrial sector grew amidst increasing wage pressures, although employment gains in the service sector became more important as the upswing matured.

Figure 1.11. Employment growth was driven by the expansion of large firms



Note: Tourism refer to the categories "Transportation and storage", "Accommodation and food service activities " and "Arts, entertainment and recreation"; while Industry refers to "Mining and quarrying", "Manufacturing", "Electricity, gas, steam and air conditioning supply" and "Water supply, sewerage, waste management and remediation activities", according to the economic branches classification NACE Rev. 2.
Source: Hungarian Central Statistical Office.

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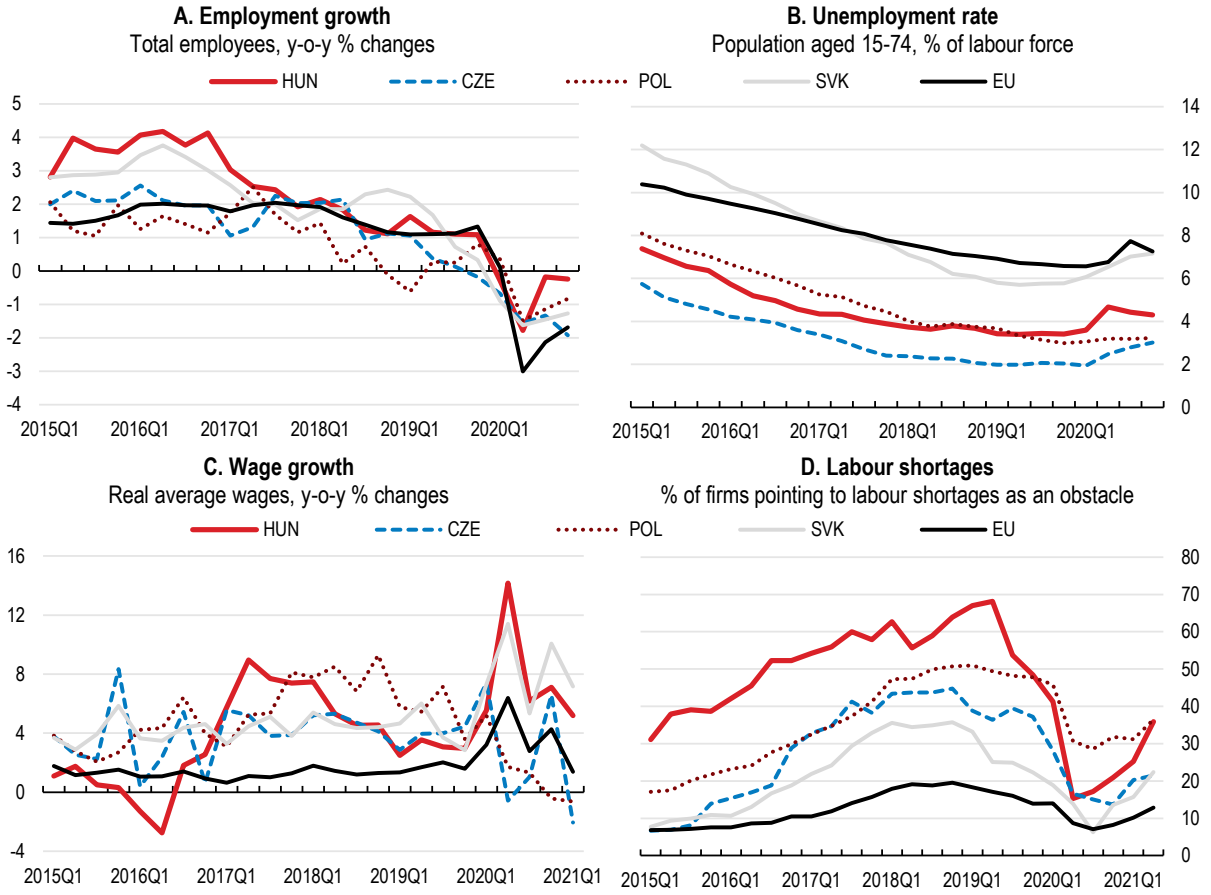
Figure 1.12. The labour market weakened temporarily as the pandemic spread



Note: Data are seasonally adjusted. In Panel C, real average wages refers to the national-accounts-based total wage bill divided by the number of hours worked in the total economy, deflated by a price deflator for private final consumption expenditures in 2019 prices.
Source: OECD Main Economic Indicators database; OECD Labour Statistics database; OECD National Accounts database; and OECD calculations.

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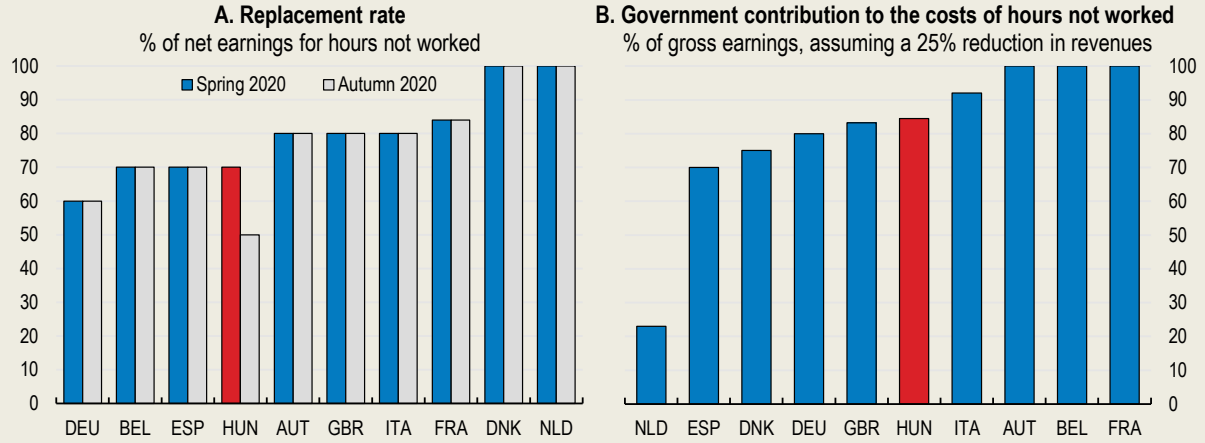
A major factor in minimising the rise in unemployment in 2020 was the introduction of a short-time working scheme for the duration of the first wave of the pandemic (Box 1.2). The OECD secretariat estimates that the 2020 unemployment rate could have been more than 4 percentage point higher without the scheme that provided a wage cost subsidy to employers that kept their workers employed during the pandemic. In the second wave, the scheme was replaced by a sectoral wage subsidy, focussing on the most affected sectors as in many other OECD countries.

Box 1.2. Hungary's short-time work scheme

The short-time work scheme was introduced in early 2020 and subsidised 70% of net earnings (up to a maximum of 70% of two times the minimum wage) of furloughed workers for up to 3 months, conditional on a fall in work time of at least 15% (OECD, 2020[24]) (Figure 1.13). Employers continued to pay social security contributions for hours worked, while the government subsidised the remaining labour costs. At the end of 2020, the scheme was replaced by a new wage support scheme, which provided a subsidy of 50% of wage costs to enterprises in the most-affected sectors to strengthen incentives for using the subsidy only for viable jobs and to increase working hours. Over time, the subsidy has been prolonged and the list of covered sectors expanded. One characteristic of the scheme may have dampened employment transitions as employers had to commit to retain supported workers.

Figure 1.13. The short-time work scheme provided a relatively low replacement rate



Note: Replacement rates for Belgium, Netherlands, Spain, and the United Kingdom are shown in percent of gross earnings. In Hungary, employers pay social security contributions of 15.5% since July 2020 (down from 17.5%). In France, only wages up to 450% of the minimum wage were subsidised. In the United Kingdom, employers continued to pay pension and employers' social security contributions.
Source: OECD COVID-19 Country Policy Tracker https://www.oecd.org/economy/; and WIFO (2021) "Kurzarbeit als Kriseninstrument in der COVID-19-Pandemie", Austrian Institute of Economic Research, Vienna, March.

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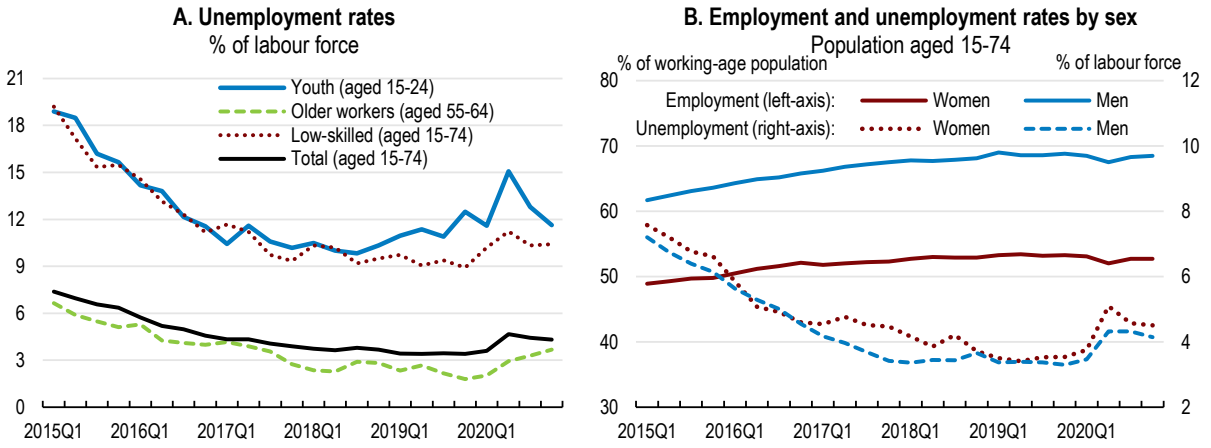
During the first wave, part-time work and flexible telework arrangements increased but only temporarily, so that flexible employment opportunities that could improve work-life balance remained limited (Hungarian Central Statistical Office, 2021[25]). Teleworking is less prevalent than elsewhere in the OECD due to the high share of manufacturing jobs, but also due to the weaker digital preparedness of companies and workers (Chapter 2). During the second wave, a growing problem was that nearly half of new job seekers did not receive financial assistance as their unemployment benefits expired or they were not eligible for social assistance (Hungarian National Employment Service, 2021[26]). Initially, there was a sharp increase in the unemployment rate of young and unskilled workers, before it came down again (Figure 1.14). Younger workers also had a higher job separation risk because they are twice as often on temporary work contracts than other workers (HÉTFA Research Institute, 2020[27]; OECD, 2021[28]).

Wage agreements point to slower but still relatively high wage growth, estimated at around 6% in 2021, and continuing to be higher than in neighbouring countries (Figure 1.15, Panel A). Prior to the COVID-19 crisis, the tight labour market and high minimum wage increases fuelled real wage growth and income convergence. However, real wage growth has consistently outpaced labour productivity growth since 2015, reducing the sustainability of continued rapid wage increases (Figure 1.15, Panel B).

Figure 1.14. Unemployment of young and low-skilled workers increased before coming down again



Source: OECD Labour Statistics database; Hungarian Central Statistical Office; and OECD calculations.

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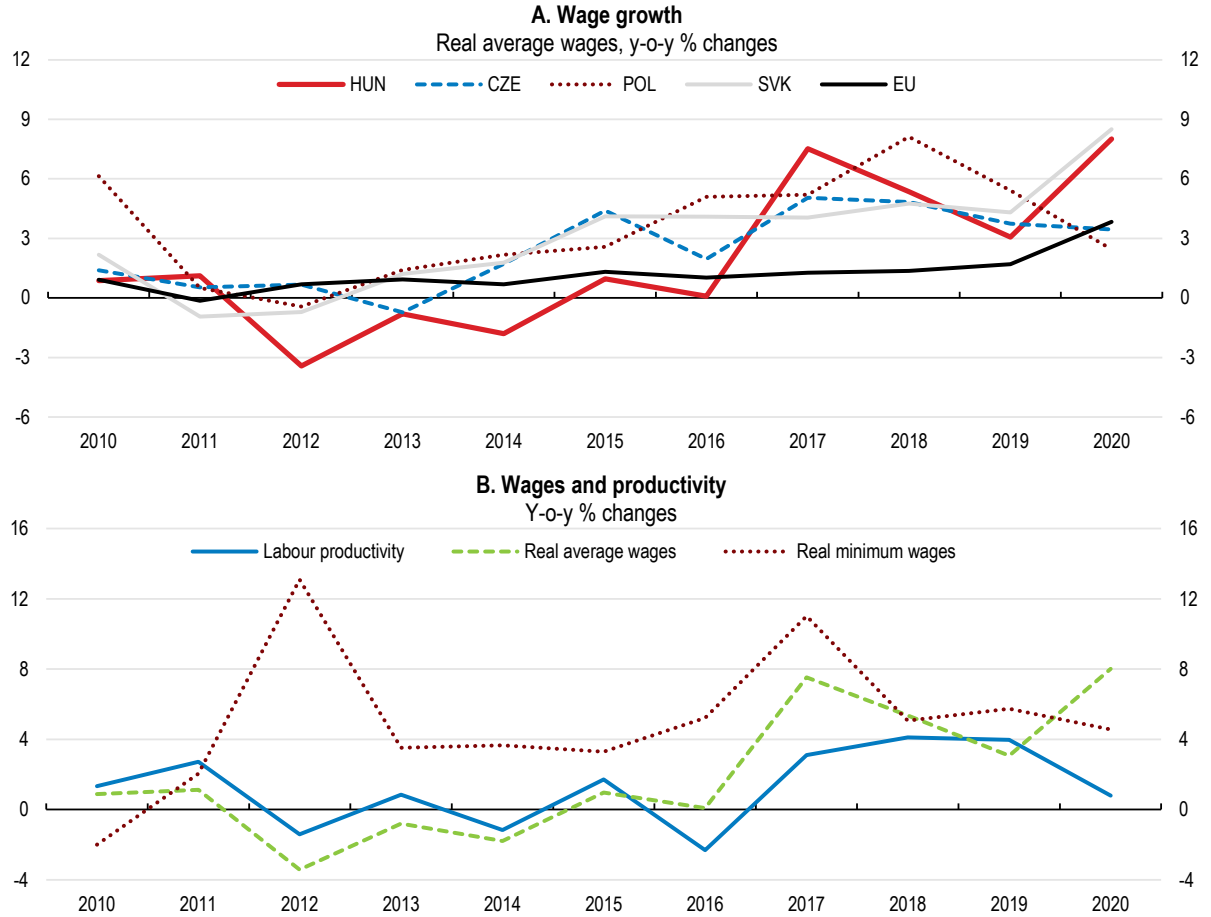
Figure 1.15. Wage growth outpaces productivity improvements



Note: Labour productivity refers to real GDP (2019 prices) per total hours worked. Real average wages refers to the national-accounts-based total wage bill divided by the number of hours worked in the total economy, deflated by a price deflator for private final consumption expenditures in 2019 prices. Real minimum wages refers to the hourly minimum wage deflated by the consumer price index taking 2019 as the base year.

Source: OECD National Accounts database; OECD Labour Statistics database; and OECD calculations.

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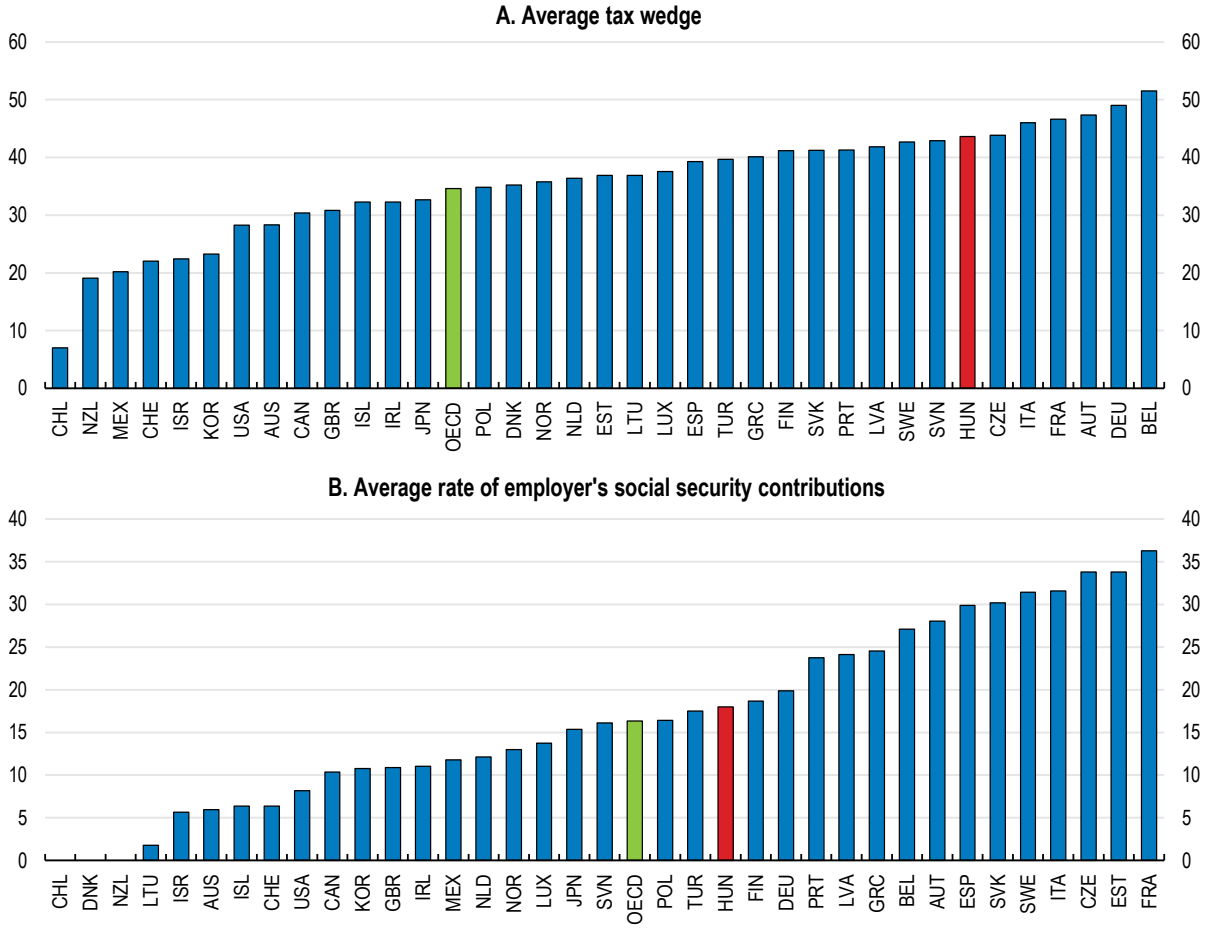
The tripartite wage-agreement raised minimum wages (for unskilled and skilled workers) by 8% in 2020 and 4% in 2021. To avoid excessive labour cost increases, the government compensated employers by lowering their social security contribution rates again (Figure 1.16). Moreover, further cuts in social security contributions will be implemented if real wage growth in the private sector exceeds 6%. Such a development would also trigger an additional percentage point increase in the minimum wage. On the other hand, external competitiveness was aided by a 10% depreciation of the forint against the Euro since early 2020.

Headline inflation remains above the central bank's target of 3%, and went outside the upper tolerance band of plus 1 per cent as it reached 5.3% in early summer 2021. The elevated inflation was underpinned by higher energy prices. Looking ahead, the effects of indirect tax increases will add 0.7 percentage point to inflation during 2021 and 0.2 percentage point in 2022 (MNB, 2021[29]). Core inflation reached 4.8% in early summer 2021. Surveys from early 2021 indicate rising household inflation expectations (European Commission, 2021[30]). The currency depreciation will add to price pressures in 2021 (Figure 1.17).

Figure 1.16. The labour tax wedge remains high despite lower social security contributions

For a single person with average earnings, as a percentage of gross wages, 2020



Note: The tax wedge is the sum of personal income tax and employee plus employer social security contributions together with any payroll tax less cash transfers, expressed as a percentage of labour costs for a single person (without children) on average earnings.
Source: OECD Taxing wages database.

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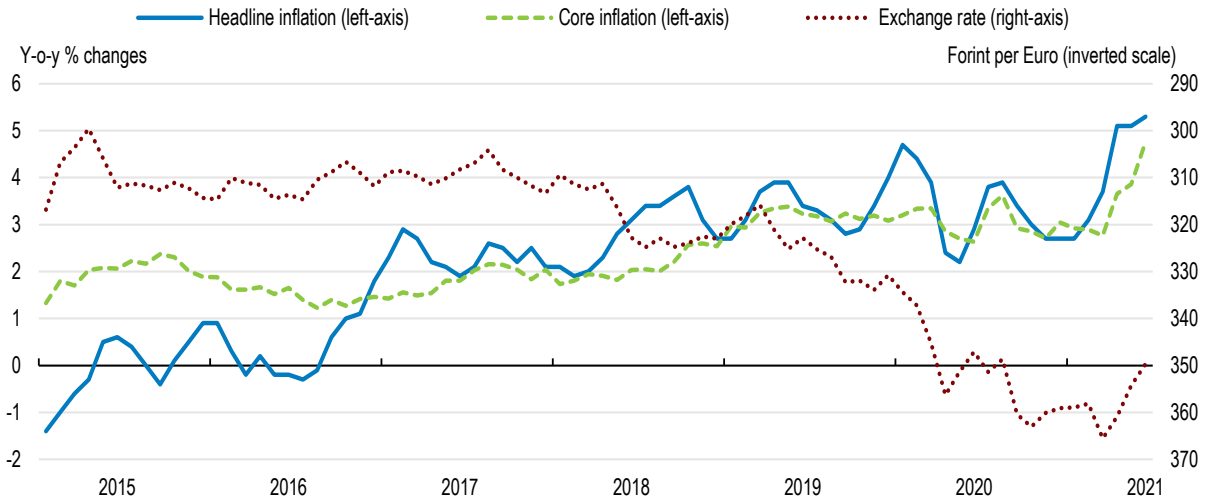
Figure 1.17. Wage and inflation pressures remain high



Note: Core inflation excludes energy and food. The scale is inverted in the right axis for exchange rate, where higher values indicate that the currency depreciates, while lower values that it appreciates.
Source: OECD Main Economic Indicators database; and IMF International Financial Statistics database.

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Growth is accelerating

Growth prospects rely heavily on export demand, as the economy is strongly integrated in global value chains (OECD, 2019[23]). European countries account for the majority of exports, which are concentrated in transport equipment and machinery (Figure 1.19). Exports fell sharply in the first half of 2020 as international demand dropped abruptly and disruptions affected manufacturing supply chains (Box 1.3). Trade in the automotive sector declined as demand for passenger cars contracted by nearly a quarter in the European Union in 2020 (European Automobile Manufacturers Association, 2021[31]). The decline in exports was even more pronounced in tourism, which saw a decline in overnight stays of about 60% in 2020 (Hungarian Central Statistical Office, 2021[32]). At the same time, imports fell, reflecting weak domestic consumption and the high import content of exports. A negative current account balance emerged in the first half of 2020, but turned positive again as exports bounced back to pre-pandemic levels early 2021 on the back of stronger international demand (MNB, 2021[33]).

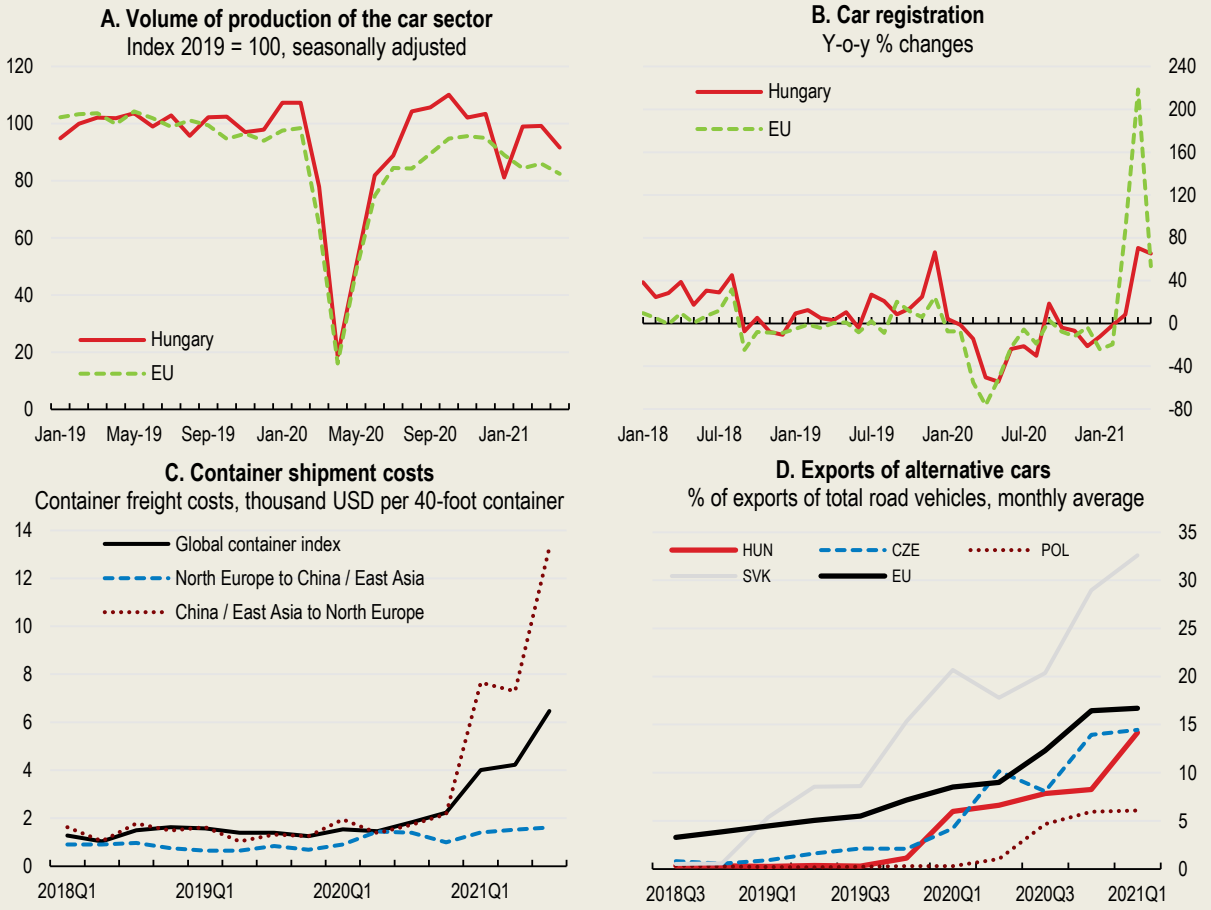
Economic activity is projected to recover in the second half of 2021, with the completion of vaccine programmes and the lifting of restrictions. Private consumption will be boosted by the release of pent-up demand, as uncertainty recedes and real income growth accelerates, before slowing to more sustainable pace in 2022. External demand will strengthen with the projected recovery in major European trading partners in 2021 and 2022. In the same period, investment will be fuelled by stronger inflows of foreign direct investment and EU recovery funds (see below). The labour market will recover and could reach pre-pandemic levels already in late 2021, despite the observed increase in long-term unemployment. Wage growth is projected to remain high, as labour market conditions tighten. In 2021, indirect tax increases and currency depreciation further add to inflation pressures.

Box 1.3. The outlook for the automotive sector is uncertain

The automotive sector has undergone significant economic upheaval since the start of the pandemic. During the first wave in spring 2020, activity contracted sharply as restrictions led to factory shutdowns and international demand for motor vehicles plunged. Since then, activity has recovered, although it is not expected to be fully restored before 2022 (Figure 1.18) (Klein, Høj and Machlica, 2021[34]). Moreover, the recovery has been held back by several bottlenecks in the sector's highly integrated and just-in-time based supply chains:

- An ongoing semiconductors shortage is set to disrupt automotive production well into 2021 (European Automobile Manufacturers Association, 2021[31]). The background for the shortage is a worldwide pandemic-related surge in demand for IT and communication equipment, which led to capacity constraints at semiconductor facilities.
- Rising transportation costs and delivery delays, often connected to shipping container shortages, are pushing up price pressures (Panel C).
- The transition towards electric cars could lead to deep changes for the Hungarian automotive sector. Given the low share of electric cars in total production, Hungary would lose market shares if consumer demand for electric cars increases, for example, driven by government subsidies in major European markets (Panel D), However, it is difficult to predict how global automotive players will adjust their global production chains in response. Adjustments could be rapid. The major firms are all producing hybrid cars and two major carmakers have announced they will start producing full-electric vehicles in Hungary in 2021/22 (UNODC, 2020[35]) (Reuters, 2020[36]). This development is also supported by subcontractors' investment in battery production.
- Looking ahead, other disruptions to international supply chains may appear as production is ramped up to meet increasing demand, reflecting that not all sub-contractors are likely to have survived the crisis. Such disruptions can be difficult to foresee and identify due to the sheer number of first, second and third tier sub-contractors that major car producers typically have (Braw, 2020[37]) (Group, BMW, 2021[38]). Also, the high degree of specialisation means that, in many instances, there are only a couple of sub-contractors that produce to a high standard. Indeed, switching sub-contractor is often a complicated and time-consuming process, implying that supply chain disruptions can be difficult to overcome in the short-term. In the medium term, however, the industry should be able to identify alternatives, as has been the case with Brexit and in response to digitalisation (Karlson, 2018[39]).

Figure 1.18. Supply chain disruptions are slowing down the recovery of the automotive sector



Note: In Panel A, data refer to the Motor vehicles, trailers and semi-trailers industry (i.e. category 29 in the ISIC Rev 4 classification). In Panel D, the alternative cars category refers to motor cars and other vehicles principally designed for the transport of less than 10 persons, including station wagons and racing cars, with both spark-ignition internal combustion reciprocating piston engine and electric motor as motors for propulsion; with both diesel engine and electric motor as motors for propulsion; and with only electric motor for propulsion.
Source: Eurostat; ACEA; Freightos Baltic Index; and Refinitiv Datastream.

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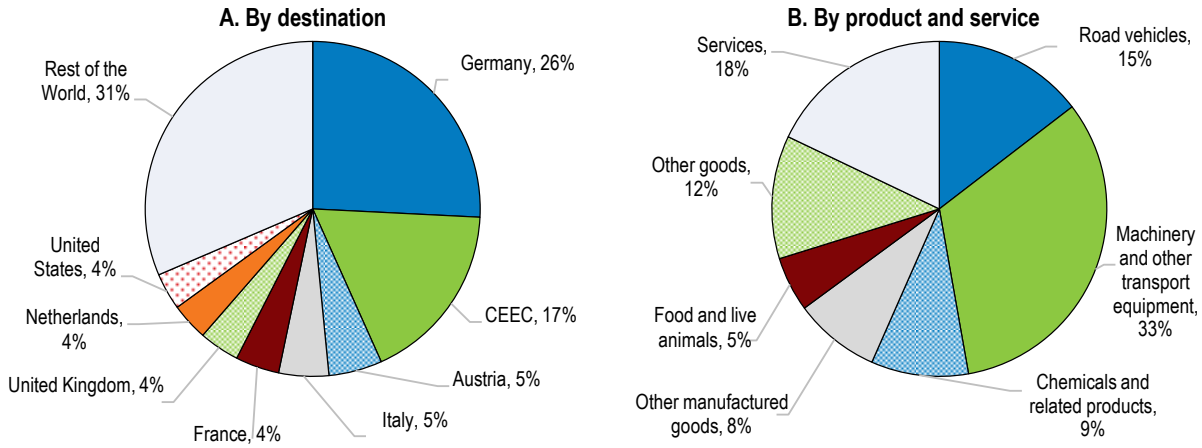
Downside risks include a prolonging of containment measures due to the emergence of new virus strains, which would dampen confidence and household spending. A combination of stronger wage growth and supply shortages could reduce business investment growth and weigh on the labour market. Faster-than-expected wage growth would increase cost pressures on firms, reducing their external competitiveness, and fuel rising inflation expectations, which would require an abrupt tightening of monetary policy. Also, inflation could be higher than expected if the Hungarian Forint depreciates further against the Euro. Slower-than-expected absorption of EU funds may reduce growth. On the upside, stronger-than-expected productivity growth would improve the economy's capacity to absorb rapid wage increases and secure faster income convergence. A faster recovery of major European trading partners would benefit growth, given the economy's dependence on exports. The economy is also faced with a number of low probability risks summarised in Table 1.3.

Figure 1.19. Automotive products dominate exports

Exports of goods and services, % of total, 2019



Note: In Panel A, the CEEC (Central and Eastern Europe Countries) aggregate includes Czech Republic, Poland, Romania and Slovak Republic. In Panel B, the category "Machinery and other transport equipment" includes "Other transport equipment" (i.e. "Railway vehicles & associated equipment", "Aircraft & associated equipment; spacecraft, etc." and "Ships, boats & floating structures") and "Machinery" (i.e. "Power generating machinery and equipment", "Specialised machinery", "Metal working machinery", "Other industrial machinery and parts", "Office machines and automatic data processing machines", "Telecommunication and sound recording apparatus", and "Electrical machinery, apparatus and appliances, n.e.s."), in line with the Standard International Trade Classification (SITC) Revision 3, https://unctadstat.unctad.org/en/Classifications/DimSitcRev3Products_Official_Hierarchy.pdf.

Source: OECD International Trade by Commodity Statistics (ITCS) database; OECD International Balanced Trade Statistics database; and OECD calculations.

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Table 1.3. Events that could lead to major changes in the outlook

Financial amplification of the COVID-19 crisis	A rise in bankruptcies could lead to a significant increase in non-performing loans, with adverse pressures on banks and financial stability.
Turbulences in financial markets	Abruptly rising interest-rate differentials with the US could lead to capital outflows and reduce banks' willingness to lend and dampen investment.
Intensification of global trade tensions	Weak global trade and supply chain disruptions in the automotive sector would weigh on exports and increase costs for businesses, leading to lower investment.

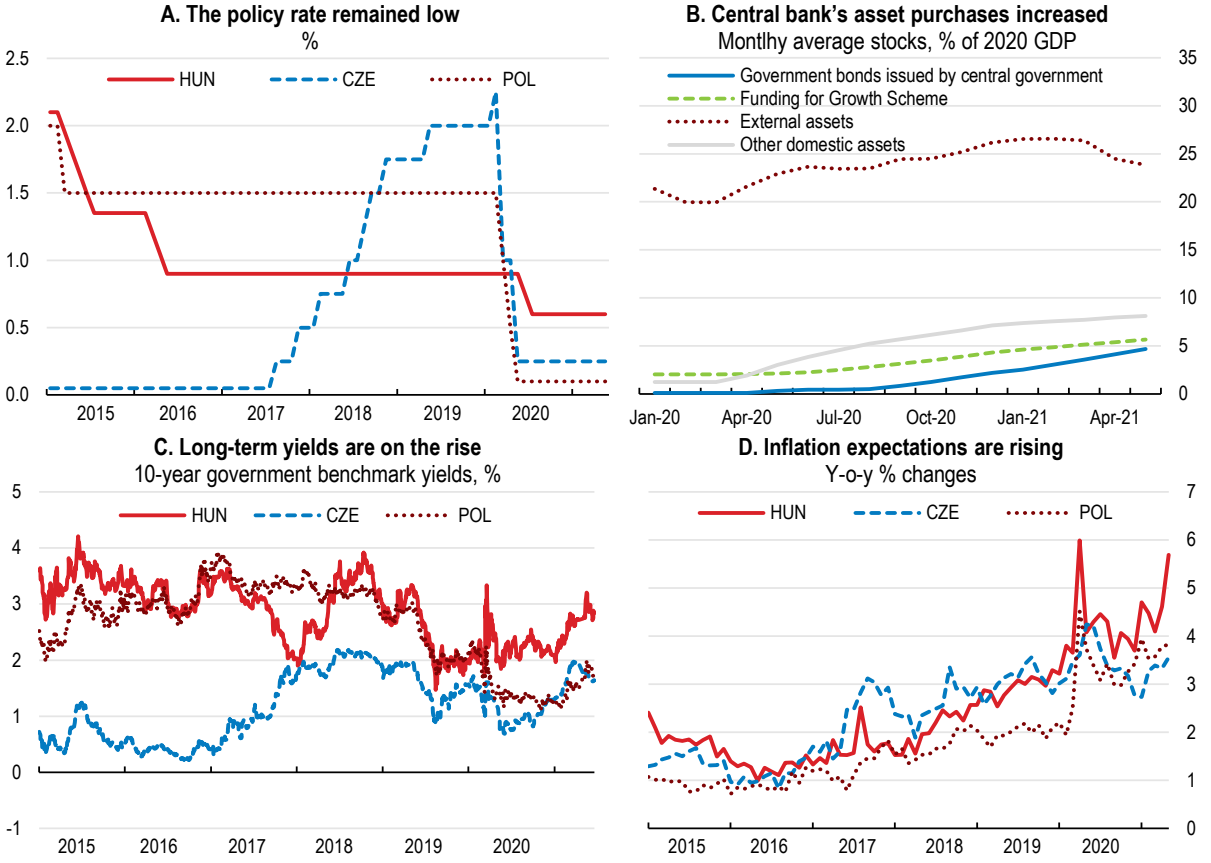
Monetary policy has become more supportive

In 2020, the central bank eased its accommodative monetary policy stance further by reducing the base rate from 0.9% to 0.6%, while keeping the overnight deposit rate unchanged at -0.05% (Figure 1.20, Panel A). Furthermore, the central bank started its bond-purchasing programme to contain a sharp rise in long-term yields in spring 2020 as international investors reduced their demand for government bonds (MNB, 2020[40]) (Figure 1.20, Panel B). Nonetheless, long-term yields rose by 0.25 basis points to 2.8% between late 2019 and spring 2021 (Figure 1.20, Panel C). Moreover, the yield curve is steeper than in other countries in the region, which may reflect higher inflation expectations (MNB, 2021[29]). As part of its unconventional policy measures, the central bank raised the volume of zero interest rate re-financing loans to credit institutions by 240% under the Funding for Growth Scheme with the aim of encouraging lending to SMEs and prevent bankruptcies. In all, the central bank raised the amount of loan programmes to businesses and for corporate bond purchases, reaching 8 ½% of GDP by mid-2021. In June 2021, the central bank announced the phasing out the Funding for Growth Scheme Go! for SMEs once HUF 3 000 will be exhausted, although other unconventional measures such as the Bond Funding for Growth Scheme for large enterprises remain in place. The central bank should eventually exit these unconventional monetary measures to return to market-based credit allocation. To increase the

efficiency of the banking system's liquidity management, the central bank activated its one-week deposit tender facility with a favourable interest rate of 0.9% compared with -0.05% for overnight deposits. Following the introduction, there was a short-lived appreciation in summer 2020 before the depreciation resumed. In June 2021, the central bank announced a tightening cycle and raised its base rate by 30 basis points to 0.9% to prevent a de-anchoring of inflation expectations as inflation moved outside the central bank's upper tolerance band of 3 + 1% in spring 2021.

Looking ahead, the central bank expects headline inflation to peak in the second quarter of 2021 under the impact of higher indirect taxes and rising fuel prices, and in line with rising household inflation expectations (MNB, 2021[29]) (European Commission, 2021[30]) (Figure 1.20, Panel D). In such circumstances, further depreciation of the forint against the euro risks keeping inflation above the central bank's tolerance band. A concern is that a continued depreciation of the forint could trigger capital outflows that induce the central bank to abruptly tighten monetary policy, leading to higher market rates. Also, should inflation expectations be unhinged, a less accommodative stance may be required. (Table 1.4).

Figure 1.20. Monetary policy remains accommodative despite inflationary pressures



Note: In Panel B, other domestic assets include mortgage bonds, loans by credit institutions, and bonds issued by non-financial corporations.
Source: BIS; and Magyar Nemzeti Bank (Hungarian Central Bank).

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Table 1.4. The past recommendations on monetary policy

Recommendations in previous survey	Action taken
Gradually increase policy interest rates.	MNB base rate decreased from 0.9 to 0.6 percent in 2020. In June 2021, the MNB base rate was raised by 0.3 pp to 0.9 percent.
Continue to exit from unconventional monetary policy measures.	The MNB announced the phasing out of the Funding for Growth Scheme Go! while extending other unconventional tools under the Funding for Growth programme.

Financial risks require monitoring

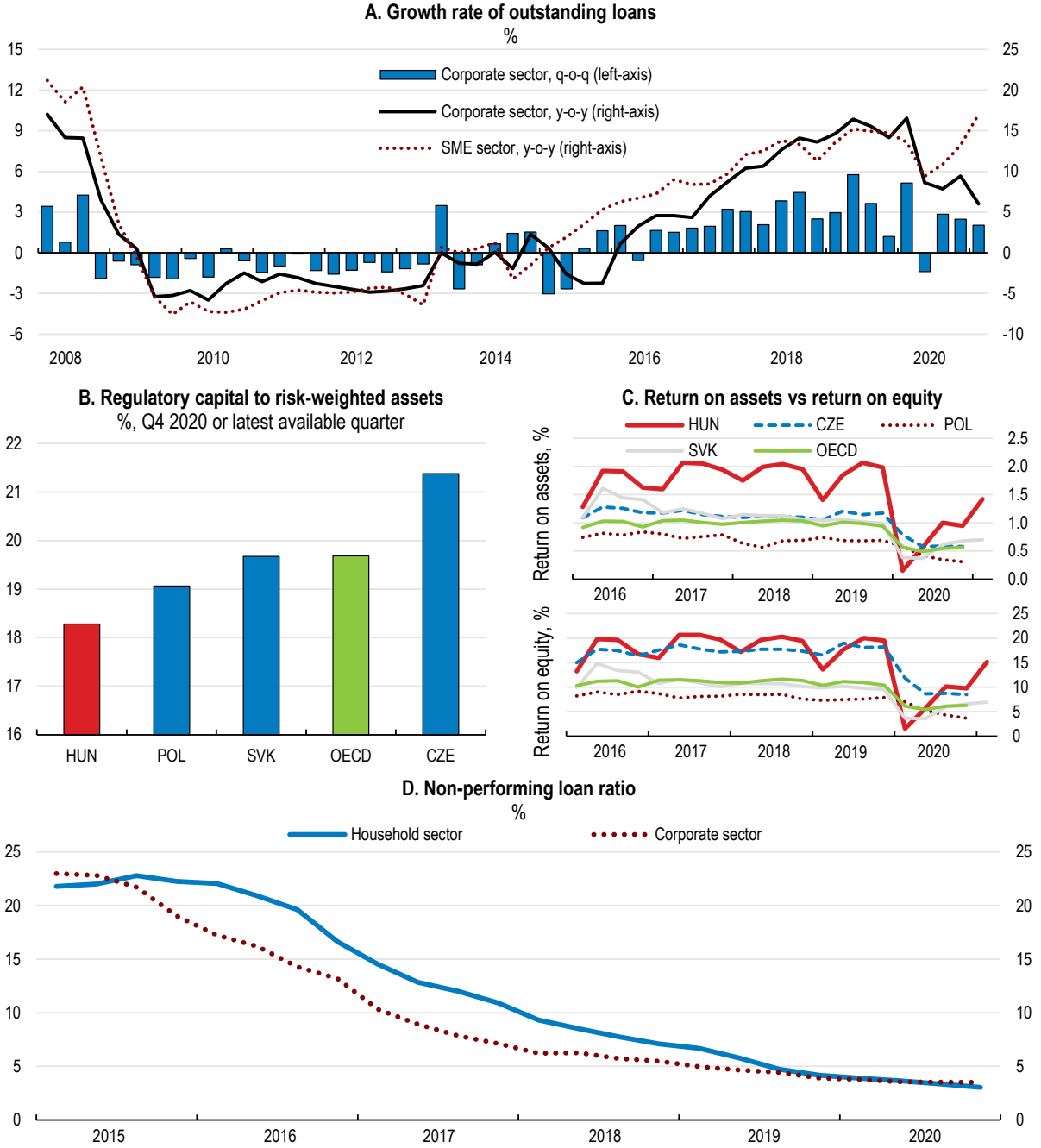
Banks remain well capitalised with sufficient capital buffers to provide credit to the private sector (Figure 1.21, Panel A). At the end of 2020, the banking sector's average capital adequacy ratio was 18.3%, well above national and international regulatory Pillar I requirements of 8% (Figure 1.21, Panel B). A concern, though, is that the banking sector's profitability remained low, while the share of loss-making institutions more than quadrupled to 22% (and 11% in terms of total assets) (MNB, 2020[41]). On a positive note, the share of non-performing loans has continued to decline, preparing banks for the likely increase in loan losses when government support measures (see below) are phased out (Figure 1.21 , Panel D).

Prior to the crisis, regulations have made banks build up capital buffers. In early 2020, the central bank allowed banks to use these buffers to strengthen their ability to lend to the private sector (MNB, 2020[42]). In addition, funding opportunities for banks were expanded by the Central Bank's long-term collateralised loans. In addition, the overnight and one-week rates were increased by 0.95 basis points to 1.85%. The more attractive rates boosted banks' deposits in the central bank. Moreover, the central bank announced further funding of around 6% of GDP into the financial system via its "Funding for Growth" scheme. The scheme provides banks' with funding at a subsidised zero percent interest rate on the condition that they lend to SMEs at a maximum lending rate of 2.5%. In response to central bank and government measures, the liquidity coverage ratio of the banking sector improved by 56 percentage points to 206% from the end of 2019 to end of 2020.

High operating costs hold down bank profitability (Figure 1.22, Panels A and B). Profitability may temporarily decline further under the impact of a new temporary bank levy of 0.19% on turnover in 2020. High operating costs may be related to low competition in the banking sector, as reflected in low credit penetration with the second lowest household credit-to-GDP ratio in the EU, many small credit institutions, a low level of digitalisation and continued high degree of state involvement. The state maintains a 30% stake in the second largest banking group in Hungary. In addition, government subsidised loans account for about one third of new bank lending, which reduce competition in the sector, as banks have to offer similar conditions as those for subsidised loans (Figure 1.22, Panel C). Subsidised loans expanded already in 2019 driven by the introduction of mortgage subsidies, and remained high during the crisis as the central banks' business loan programmes were expanded. The government could spur competition in the sector through privatisation of its remaining stakes in the banking sector and a reduction of subsidised loans, as recommended in the last *Survey* (OECD, 2019[23]). A more competitive banking sector would also support the emergence of a more dynamic business sector (Chapter 2). A withdrawal of the bank levy would help improve banks' profitability.

To help bridge the temporary payment difficulties of borrowers, the government introduced a loan repayment moratorium in early 2020. Non-performing loans are likely to increase once the loan repayment moratorium ends at the end of September 2021. Three out of four firms in hospitality sector were participating in the moratorium in early 2021 (MNB, 2020[41]). In 2020, banks had put aside provisions for loan losses of 0.7% of GDP. The central bank's stress test of a severe economic downturn's impact on the financial sector indicates that banks would need an additional 1.2% of GDP as loan loss provisions over a two-year horizon. This affects mostly smaller banks. However, the rise in non-performing loans could be even higher and affect bigger parts of the banking system as the central banks considers about 15% of credit institutions' corporate loans as high-risk (MNB, 2020[41]).

Figure 1.21. Bank lending is strong and the share of non-performing loans has fallen



Note: In Panel B, regulatory capital to risk-weighted assets ratio is calculated using total regulatory capital as the numerator and risk-weighted assets as the denominator. It measures the capital adequacy of deposit takers. Capital adequacy and availability ultimately determine the degree of robustness of financial institutions to withstand shocks to their balance sheets. In Panel C, the return on assets (ROA) indicator provides information on the deposit takers' (DTs) profitability relative to total assets and can be an indicator of how efficiently the DTs manage their assets to generate earnings. The return on equity (ROE) indicator is intended to measure DTs' efficiency in using capital. It also offers information on the ability of DTs to internally generate capital through retained earnings, and the attractiveness of the sector to new equity investment.

Source: Magyar Nemzeti Bank (Hungarian Central Bank); and IMF, Financial Soundness Indicators (FSIs) database.

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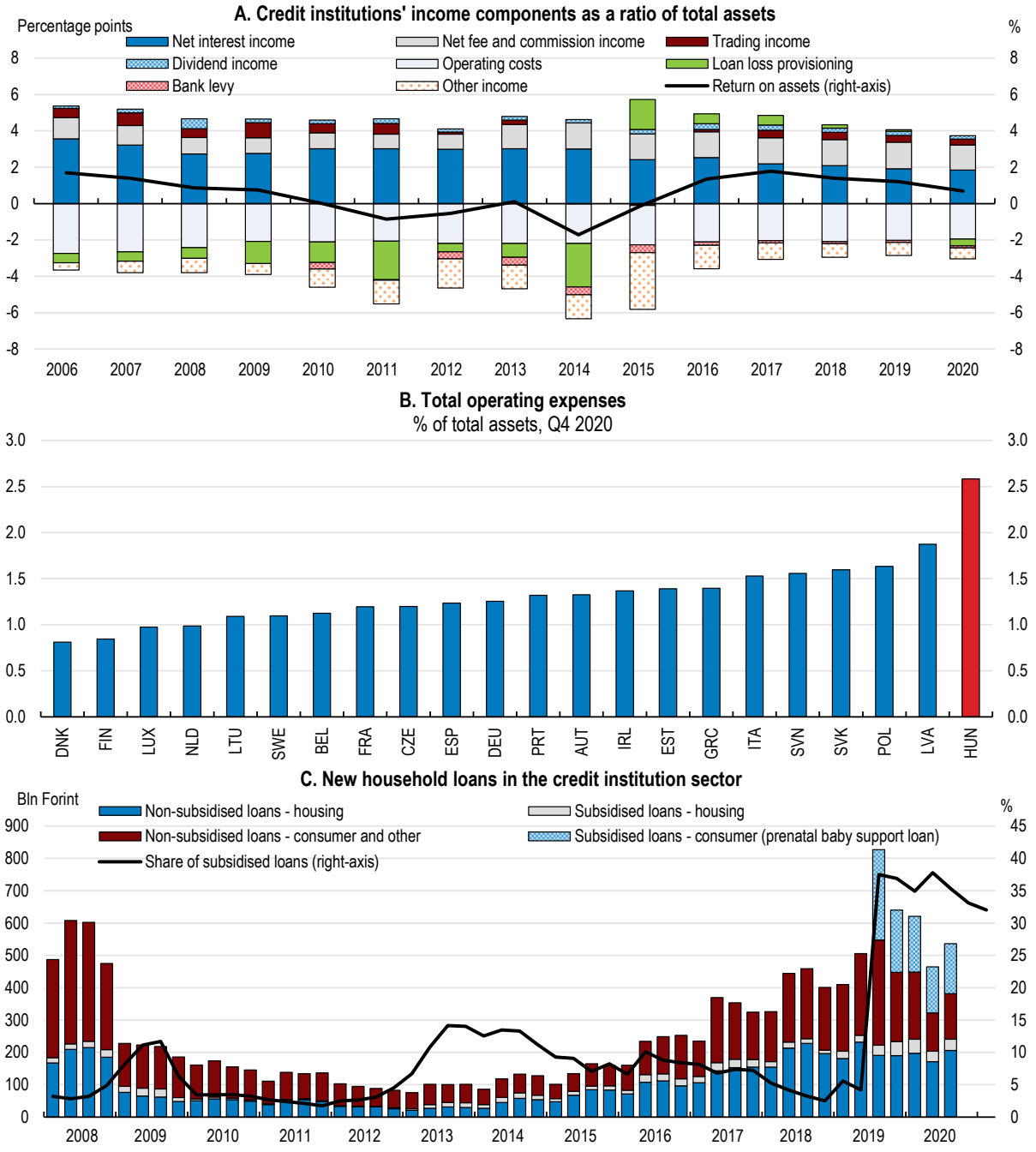
Figure 1.22. Banks' low profitability and high operating costs remain a concern



Source: Magyar Nemzeti Bank (Hungarian Central Bank); and European Central Bank (ECB) database.

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Another potential risk comes from highly indebted households as 10% of household loans are considered to be at a high-risk of default. The loan repayment moratorium aims, inter alia, to support the most vulnerable households. However, about 5% of beneficiaries of the loan moratorium are unemployed or Public Sector Works enrolees (MNB, 2020[41]). Moreover, many other beneficiaries no longer receive social benefits as these have short durations, leaving nearly every second jobseekers without social benefits in early 2021 (Hungarian National Employment Service, 2021[26]).

Once the loan moratoria are phased out at the end of September 2021, the number of non-performing loans is likely to increase, requiring close monitoring. In case of a sharp increase in the share of non-performing loans, the central bank should raise the capital surcharge on banks that keep their non-performing loans to encourage rapid resolution. In addition, measures to facilitate the disposal of non-performing loans could be taken, such as the development of a secondary market and a framework for selling impaired loans, as recommended in the last *Survey* (OECD, 2019[23]).

Embracing innovation in the financial sector

The high regulatory burden in the financial sector hinders market entry, including of new FinTech companies, as discussed in Chapter 2. Evidence shows that stronger competition in the financial sector can increase the sector's profitability by reducing financial services costs (Financial Conduct Authority, 2019[43]). The central bank has stepped up its efforts to ease the introduction of new financial products by providing temporary regulatory waivers for financial institutions on a case-by-case basis (MNB, 2018[44]). However, the legal environment only makes these measures available for financial institutions with a licence for financial activities, such as banks. In contrast, young firms without such licence cannot benefit from easier market entry. Extending the central bank's room for manoeuvre to be able to give waivers to non-licenced FinTech companies within the Regulatory Sandbox environment can promote competition in the financial sector (see Chapter 2). Furthermore, a closer alignment of FinTech regulations in the region can support the regional integration of FinTech markets. Estonia, Latvia and Lithuania, for instance, agreed to harmonise their regulations regarding new FinTech products and technologies to facilitate market entry of new financial players, as recommended in past *Surveys* (Table 1.5). New entry of products and market participants would support the emergence of a more dynamic financial sector.

Many new applications of FinTech remain unregulated, despite their potential risks for financial stability and concerns about consumer and investor protection. The central bank has stepped up its efforts in this regard and established a dedicated unit that monitors the international practise for promoting FinTech products and companies (MNB, 2019[45]). However, the central bank has no mandate to supervise new FinTech activities, including Initial Coin Offerings that raise capital via crypto-assets such as bitcoins. Such a measure would be an extension of the Central Bank's supervision of FinTech activities that include crowd funding services as from November 2021. Extending the central bank's mandate to supervise new FinTech activities would reduce regulatory gaps, particularly with respect to consumer and investor protection, as done in Australia and the United Kingdom. Moreover, a single supervisor would facilitate regular updates of the regulatory framework and the supervisory powers required in view of the rapid evolution of FinTech technologies.

Table 1.5. The past recommendations on easing competition in the financial sector

Recommendations in previous survey	Action taken
Develop a strategy for the asset management company to step-up offloading of nonperforming assets.	A repurchase programme for debtors reduced the real estate portfolio of National Asset Management Agency.
Promote a regional stock exchange.	No action taken
Adjust regulation to facilitate the introduction and adoption of new financial technologies.	Credit institutions have to submit a comprehensive digital transformation strategy to the central bank by 31 October 2021. Regulation of earnings from crypto assets will be introduced from January 2022.

Adopting a forward-looking and greener fiscal policy

Fiscal policy will remain supportive over the near term

A comprehensive fiscal stimulus package supported economic activity in 2020 and early 2021 (Box 1.4). In 2020, the fiscal stance became more expansionary as COVID-related fiscal measures of about 5% of GDP were implemented. Adding the effects of the automatic stabilisers, the public deficit widened by 6 percentage points to 8.1% of GDP. Moreover, the downward trend in the public debt-to-GDP ratio was reversed (Hungarian Central Statistical Office, 2021[46]) (Table 1.6). The bulk of the fiscal expansion consisted of support to firms, including grants, equity injections and subsidies through the Economic Protection Fund (8½% of GDP), while discretionary spending on health (2½ % of GDP) and various wage support programmes (0.3% of GDP) were less sizeable. On the revenue side, a cut in employers' social security contributions from 17.5 to 15.5% and tax deferrals reduced government revenues by nearly ½% of GDP.

Table 1.6. Fiscal indicators

Per cent of GDP

	2018	2019	2020	2021[1]	2022[1]
Spending and revenue					
Total revenue	43.8	43.6	43.5	44.6	45.0
Total expenditure	45.9	45.7	51.6	52.1	50.9
Net interest payments	2.3	2.2	2.3	2.3	2.3
Budget balance					
Fiscal balance	-2.1	-2.1	-8.1	-7.5	-5.9
Cyclically adjusted fiscal balance[2]	-2.5	-3.1	-4.7	-5.2	-4.8
Underlying primary fiscal balance[2]	-0.2	-0.9	-2.6	-4.3	-4.1
Public debt					
Gross debt (Maastricht definition)	69.1	65.5	80.4	81.9	81.9
Gross debt (national accounts definition)[3]	86.6	83.5	97.6	99.4	99.4
Net debt	55.8	53.9	61.0	62.8	63.5

1. OECD estimates unless otherwise stated.
2. As a percentage of potential GDP.
3. National Accounts definition includes state guarantees, among other items.

Source: OECD Economic Outlook 109 database (June 2021).

The 2021 budget introduced new stimulus measures (Hungarian Government, 2020[47]; Hungarian Government, 2021[48]). Revenues will be reduced due to a temporary cut in the VAT rate for new dwellings, while the public wage bill will be boosted by wage increases for health personnel. Most of the 2020 crisis-related fiscal measures were temporary. A noticeable exemption was the two percentage points reduction in employers' social security contributions that permanently reduces the revenue-to-GDP ratio by nearly ½%. The continued lowering of labour taxes is welcome from a growth perspective and helps firms to preserve their competitiveness through the reduction in their labour costs. The continued reductions in social security contributions also increase the structural deficit, which eventually will have to be financed through lower spending or higher taxation. Some of the reductions have been financed through more efficient collection of VAT revenues as shown in the more than halving of VAT gap since 2013 (European Commission, 2020[49]). Looking ahead, the lowering of social security contributions could be part of a growth enhancing and revenue neutral tax reform if compensated by higher taxation of consumption, negative environmental externalities, and real estates (see below). A relatively straight forward increase in consumption taxes to cover the revenue shortfall from the lower labour taxation would be to move towards a broader-based and lower standard VAT rate (OECD, 2019[23]).

Box 1.4. The fiscal response to the COVID-19 pandemics

In 2020 and early 2021, the government put in place a fiscal stimulus package to support the economy during the pandemic. Additional measures were introduced to bolster health capacity.

- Most fiscal spending went to state support for ailing companies: grants, equity injections and subsidies of about 5.1% of GDP provided liquidity support to firms. Enterprises could apply for up to EUR 800 thousand per company. The state-owned Magyar Fejlesztési Bank provided subsidised public loans to companies at a favourable interest rate of 0.1% backed by a 90% government loan guarantee. In addition, the government allocated 2.1% of GDP to keep state-owned enterprises afloat.
- To lower labour costs and incentivise hiring, the government enacted a 2-percentage point cut to employers' social contributions from 17.5% to 15.5%, starting in mid-2020 (0.3% of GDP). A fourth of the tax cut is financed by a new levy on the retail sector.
- To protect jobs, a temporary short-time work scheme subsidised 70% of wage costs of furloughed workers for up to 3 months, conditional on a fall in employment of at least 15% (0.3% of GDP). During the second COVID-19 wave at the end of 2020 and in early 2021, wage support was introduced, covering 50% of wage costs of enterprises in the most affected sectors.
- To boost the construction sector, starting in 2021, the government temporarily exempted home purchases for families that qualify for the Family Housing Subsidy from the asset acquisition tax and temporarily reintroduced the lowest VAT rate of 5% for new dwellings (0.6% of GDP).
- Additional public investment of 1½% of GDP was allocated to infrastructure needs in 2020. In 2021 and 2022, additional public investment of 3.8% of GDP will be financed by the inflow of EU funds.
- Further measures include tax deferrals and the suspension of social security contributions for sectors particularly hard-hit by the pandemic such as hospitality, as well as the extension of existing state guarantee schemes for business loans operated by the central bank: The Funding for Growth scheme Go! (FGS Go!) and the Funding for Growth Scheme Fix (FGS Fix) for SMEs, and the Bond Funding for Growth Scheme (BGS) for large corporations.
- Health measures of nearly 2½ % of GDP in 2020 included the procurement of protective equipment, financial support to step up testing facilities and critical care capacity in hospitals, and a lump sum payment for health workers. Furthermore, the government spent 0.6% of GDP for wage increases for nurses and doctors in order to stem the outflow of health professionals from the public health sector.

Source: (Hungarian Government, 2020[47]; Hungarian Government, 2021[48])

The economic recovery will also be supported by additional EU subsidies from the Next Generation EU Funds and the Recovery and Resilience Fund. These will boost the total EU funds that Hungary will receive to 3 ½ % of GDP annually between 2021 and 2026. The subsidies will mainly go to areas that this *Survey* identifies as important for future growth, such as education, green investment, digitalisation and transport infrastructures (Box 1.5)

Box 1.5. The recovery is boosted by EU new funds

Hungary is a main beneficiary of EU funds. Over the 2021-2027, Hungary will receive standard structural funds of EUR 34.4 billion (a quarter of GDP in 2020) of which nearly two-thirds are from the cohesion policy funds, encompassing the European Regional Development Fund, the European Social Fund and the Cohesion Fund, and the rest is related to the Common Agricultural Policy (European Commission, 2020[50]).

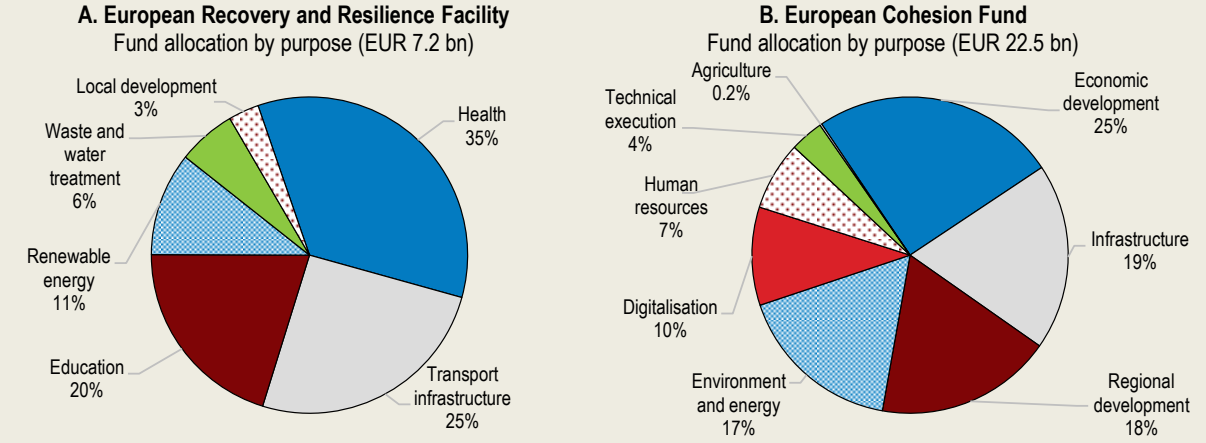
The EU's NextGenerationEU temporary recovery instrument aims at repairing the pandemic's economic and social damages as well as facilitating the green and digital transformation (Figure 1.23). The centrepiece of the NextGenerationEU is the Recovery and Resilience Facility (RRF), which will make available EUR 18.1 billion between 2021 and 2026, of which EUR 7.2 billion are grants and EUR 9.6 billion loans, although the government has renounced the use of the loan facility. In addition, Hungary will receive EUR 0.9 billion from the NextGenerationEU's REACT EU program. In total, Hungary will receive EU funds to the tune of 3 ½ % of GDP every year until 2027, providing a substantial boost to the economy.

The government's draft plan allocates one third of RRF grants to health to improve primary care, expand prevention and chronic disease management, digitalise the administration of health procedures, and finance the recent wage increases for doctors. A quarter of RRF funds will be used to develop railway systems to double the number of passengers and reduce CO2 emission, notably through electrification and a shift toward urban public transport. Education will receive a fifth of the funds to improve education quality, support the digital transition of public education, advance R&D capacity of universities, and, to a lesser extent, vocational education and adult training to develop skills and competencies that are necessary in the labour market.

The remaining RRF funds will be used for the green transformation of the economy. In particularly, energy investments will pursue the EU's 2030 emission reduction objectives. Another important environmental area is waste and water management in the industrial sector, and water management programmes in agriculture to reduce the impact of global warming on production.

Smaller funds are allocated to regional development programmes in the most disadvantaged municipalities to improve social housing conditions.

Figure 1.23. EU funds support many activities



Note: Preliminary information.
Source: Government of Hungary.

StatLink https://doi.org/10.1787/888934267084

The expected strong recovery starting in the second half of 2021 means that the economy is unlikely to require additional temporary fiscal support in 2021 and 2022. Growth in 2022 is sufficiently strong to allow a narrowing of public deficit to 6% of GDP. Nonetheless, the recovery may remain fragile, as the extent of the pandemic's economic scarring is unknown, and the government should abstain from implementing fiscal measures to further reduce the deficit until the recovery becomes self-sustained (Hungarian Government, 2020[47]; Hungarian Government, 2021[48]). Some sectors such as tourism may struggle if international demand does not bounce back sufficiently or if national and international supply chains need to be restored. Expansive fiscal policy in such circumstances is unlikely to gain traction. Instead, the government should rely on structural policies to ease entry conditions and other regulations, while supporting efficient reallocation of labour and capital, as recommended in the last *Survey* (OECD, 2019[23]). Looking ahead, the need for strong fiscal policy intervention during crises could be reduced by strengthening the relatively small automatic stabilisers, for example, by extending the internationally short duration of unemployment benefits (see below) (Maravalle and Rawdanowicz, 2020[51]) (Table 1.7)

Table 1.7. The past recommendations on fiscal policy

Recommendations in previous survey	Action taken
Tighten fiscal policy to avoid overheating of the economy.	No action taken
Continue to lower the tax wedge while increasing the reliance on consumption taxes.	Social security contributions decreased further from 19.5 in 2019 to 15.5 in July 2020. The government has announced an additional reduction by 0.5 percentage point reduction in July 2022.
Move towards a single VAT rate. Particularly, phase out the reduced rates for tourism services.	VAT on new dwellings was temporarily reduced to 5% from 2016-2019 and again in 2021-2022.

Steps to address long-term fiscal challenges will be needed

The government aims at securing a downward trend in the public debt-to-GDP ratio towards the maximum target of 50% as stipulated in the constitution. Over the past decade, vulnerabilities related to public debt diminished. Public debt as a share of GDP was reduced by 15 percentage points to 65% by 2019 (Maastricht definition). Also, the share of debt held by foreigners nearly halved to 34% and the share of foreign currency loans was reduced from about half to 20% by 2020. Over the medium- to long-term, it is also important to reduce public debt to create fiscal space to respond to increasing ageing-related fiscal pressures, including rising health and pension expenditures.

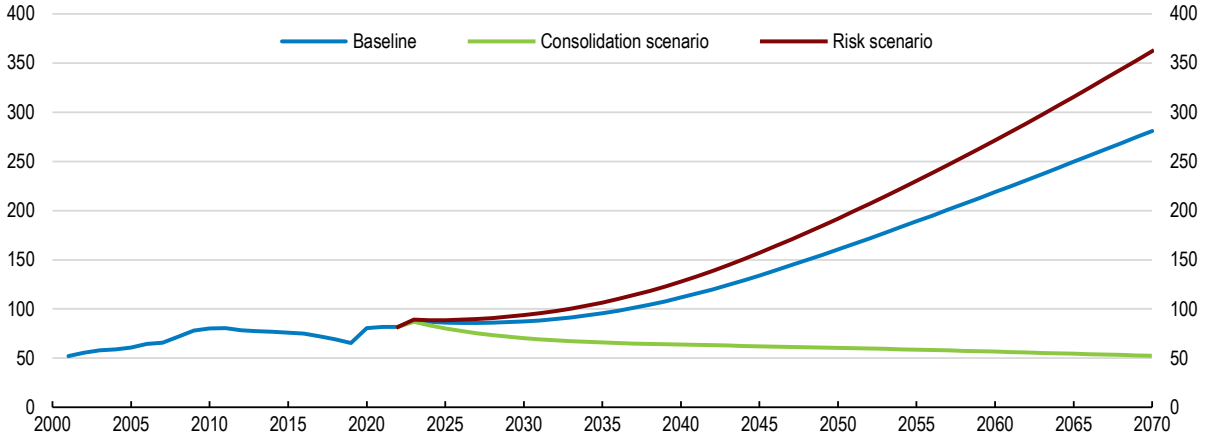
According to OECD estimates, the current fiscal stance will lead to rapid increases in the public debt-to-GDP ratio if ageing-related spending increases are not contained (Figure 1.24, Baseline scenario). Ageing-related costs are expected to reach 12.4% of GDP by 2070, driven by strong increases in pension and care expenditures (European Commission, 2021[52]). Public debt could be even higher in case long-term growth is 1 percentage point lower than expected, for example if structural reforms fail to raise productivity growth (Figure 1.24, Risk scenario). Once the recovery has become self-sustained, a fiscal consolidation effort that includes containment of ageing-related spending increases and which requires an improvement in the structural budget deficit of 2.3% of GDP by 2024, and thereafter a structural surplus of 0.2% of GDP, could achieve the government's debt objective (Figure 1.24, Consolidation scenario). Such a large fiscal challenge requires measures to control expenditure growth and raise revenues, including structural reform to expand the labour force and improve productivity growth.

Higher pension outlays will account for more than half of all ageing-related spending increases by 2060 (European Commission, 2021[52]). The current pension system leads to relatively low effective retirement ages despite recent increases, large variations in benefits between workers with similar careers but retiring at different time, and a high risk of old-age poverty. In order to increase labour participation of older workers and better align contributions with benefits, the last *Survey* recommended linking retirement age to gains in life expectancy, removing exemptions, and promoting flexible

retirement schemes for those beyond retirement age as well as the introduction of a basic state pension (OECD, 2019[23]). So far, however, no substantial measures have been taken (Table 1.8). To contain ageing related spending pressures, the government should complete the ongoing increase of the statutory retirement age to 65 by 2022 and thereafter link it to gains in life expectancy.

Figure 1.24. Spending pressures related to population ageing need to be addressed

General government debt, Maastricht definition, as a percentage of GDP



Note: The baseline scenario assumes that increased spending on health and pensions will add an additional 5.3 percentage point of GDP to annual government spending by 2070, in line with European Commission (2021). The consolidation scenario assumes a primary surplus of 0.2% of GDP from 2024, complying with medium-term objective from the government's Convergence Programme, which is subject to change. The risk scenario assumes that real GDP growth is 1 percentage point lower than currently projected for the entire simulation period, for example if structural reforms fail to raise productivity growth.
Source: Adapted from OECD (2021), OECD Economic Outlook: Statistics and Projections (database), June; Guillemette, Y. and D. Turner (2018), "The Long View: Scenarios for the World Economy to 2060", OECD Economic Policy Paper No. 22., OECD Publishing, Paris; and European Commission (2021), "The 2021 Ageing Report - Economic and Budgetary Projections for the 28 EU Member States (2019-2070)" Directorate-General for Economic and Financial Affairs.

StatLink https://doi.org/10.1787/888934267103

Table 1.8. The past recommendations on the pension system

Recommendations in previous survey	Action taken
Complete the ongoing increase of the statutory retirement age to 65 by 2022. Thereafter link it to gains in life expectancy.	No action taken
Introduce a basic state pension to guarantee a minimum income for all pensioners.	No action taken
Impose a single flat accruals rate of around 2%.	No action taken
Implement flexible retirement, with a symmetrical system of actuarially neutral pension increments and decrements of around 6% a year.	No action taken
Provide incentives for participation in third pillar voluntary pension funds.	No action taken
Introduce a basic state pension to guarantee a minimum income for all pensioners.	No action taken

The recommended reforms in this *Survey* would substantially strengthen economic growth. The reforms would in most cases expand the tax base, creating fiscal space over the medium-term (Box 1.6). The space could be used to further strengthen growth, for example through productivity-enhancing investments in infrastructure, or to counter the fiscal challenges associated with population ageing.

Box 1.6. The impact of selected policy recommendations

Table 1.9 presents estimates of the fiscal impact of selected recommended reforms based on the OECD Economics Department Long-term Model. The results are merely indicative and do not allow for behavioural responses. Table 1.10 quantifies the impact on growth of the main reforms recommended in this *Survey*.

Table 1.9. Illustrative fiscal impact of recommended reforms

Fiscal savings (+) and costs (-) after 10 years

	% of GDP
Reduce labour taxes to the OECD average	-2.5
Withdraw distortionary sector taxes in energy, finance and retail sectors	-0.6
Reduce state-ownership in network sectors to the average of the 5 best performing OECD countries	0.6
Increase competition in service sectors to the average of the 5 best performing OECD countries	1.1
Reduce the time and costs associated with insolvencies to the OECD average	0.5
Ensure that minimum wage growth does not outpace median wage growth to align employment rates of young and low-skilled workers in Eastern regions with the average of Central and Western regions	0.4
Align property taxation with the OECD average	0.9
Reduce VAT exemptions to have a broader-based and lower standard VAT rate	0.7
Increase labour mobility and align employment rates of low-skilled workers in Eastern regions with the average of Central and Western regions	0.7
Total revenues	**1.8**
Withdraw mortgage subsidies	0.6
Exit from subsidised loan programmes	0.4
Total expenditures	**1.0**

Source: Simulations based on the OECD Economics Department Long-term Model.

Table 1.10. Illustrative impact on GDP per capita from structural reforms

Difference in GDP per capita level from the baseline 10 years after the reforms, %

	%
Competition reforms	
Reduce state-ownership in network sectors to the average of the 5 best performing OECD countries	1.2
Increase competition in service sectors to the average of the 5 best performing OECD countries	2.1
Reduce the time and costs associated with insolvencies to the OECD average	0.9
Labour market reforms	
Ensure that minimum wage growth does not outpace median wage growth to align employment rates of young and low-skilled workers in Eastern regions with the average of Central and Western regions	0.7
Reduce labour taxes to the OECD average while increasing less distortive taxes	1.4
Increase labour mobility and align employment rates of low-skilled workers in Eastern regions with the average of Central and Western regions	1.3
Total impact on GDP per capita	**7.6**

Source: Simulations based on the OECD Economics Department Long-term Model.

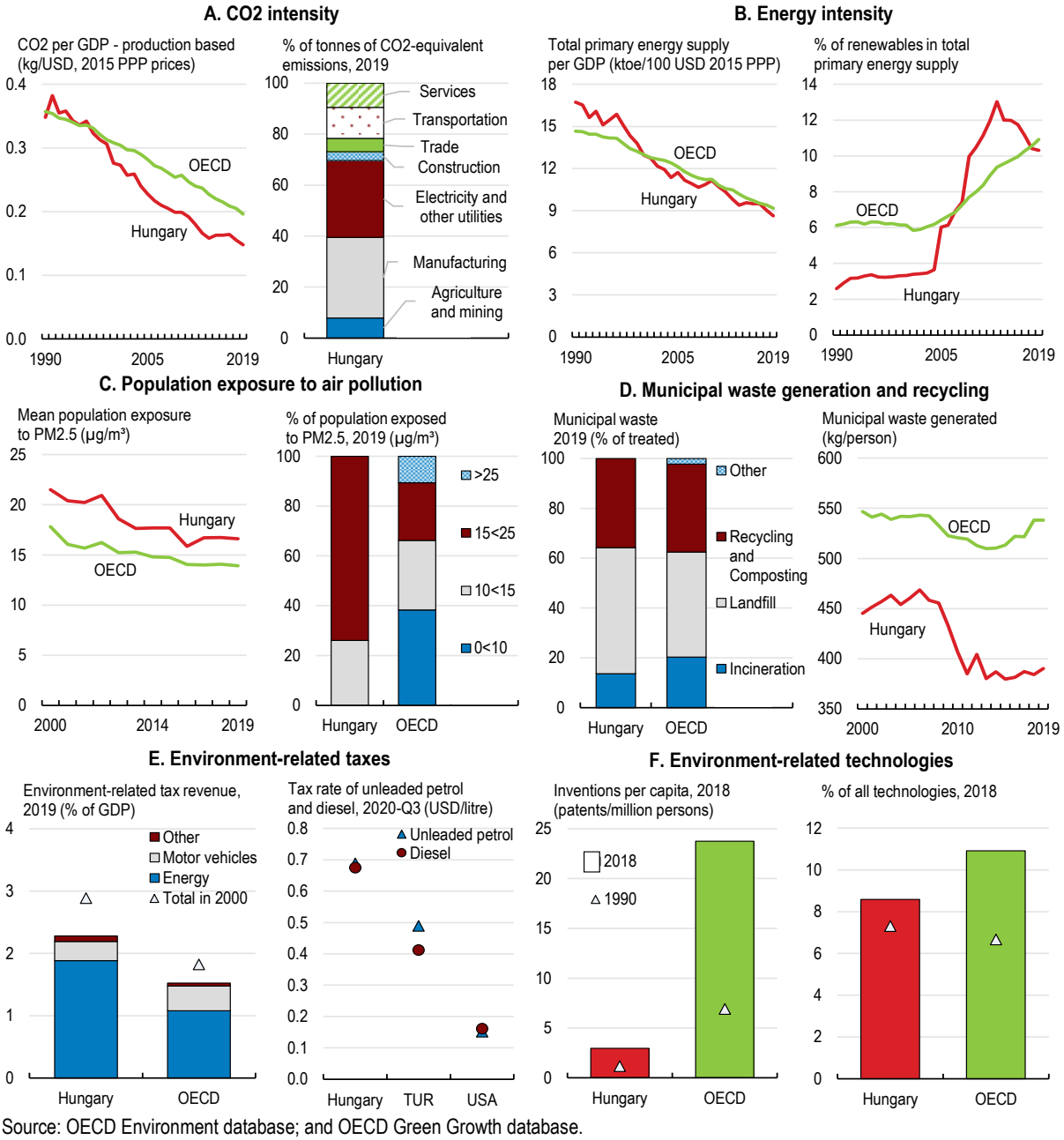
Promoting more environmentally sustainable growth

The government has broadly reached its environmental objectives, such as the 2020 targets for CO_2 emissions reduction and the share of renewable energy in total energy supply (Figure 1.25, Panels A and B). Looking ahead, policies must also be adjusted to reach the EU's new and more ambitious target of a 55% reduction in GHG emissions by 2030. The next National Environmental Programme for 2020-2026 that will determine policies to achieve the 2030 GHG emission reduction objective is still in preparation. Moreover, more progress is needed in some areas, such as in reducing the population's extensive exposure to small particles emission (Figure 1.25, Panels C). Indeed, air pollution is estimated to account for 9000 premature deaths per year and, through increased risk of comorbidities,

many of the COVID-19 related fatalities (Pozzer, 2020[17]) (OECD, 2019[23]). Another area of concern is the continued high reliance on landfills in waste management (Figure 1.25, Panels D).

Environmental objectives are to a large degree pursued through regulatory measures, such as standards and subsidies. Taxation also plays an important role. Indeed, the share of environmental taxes is larger than the OECD average. Most of these taxes are related to taxation of energy and vehicles (Figure 1.25, Panel E). Nonetheless, there is scope for further greening the tax mix by taxing polluting activities in line with their environmental damages, i.e. setting tax rates according to the polluter pays principle to promote more sustainable economic growth. The associated revenue increases could be used to lower the relatively high taxation of labour, offsetting negative labour effects.

Figure 1.25. Green growth indicators have mostly improved



Source: OECD Environment database; and OECD Green Growth database.

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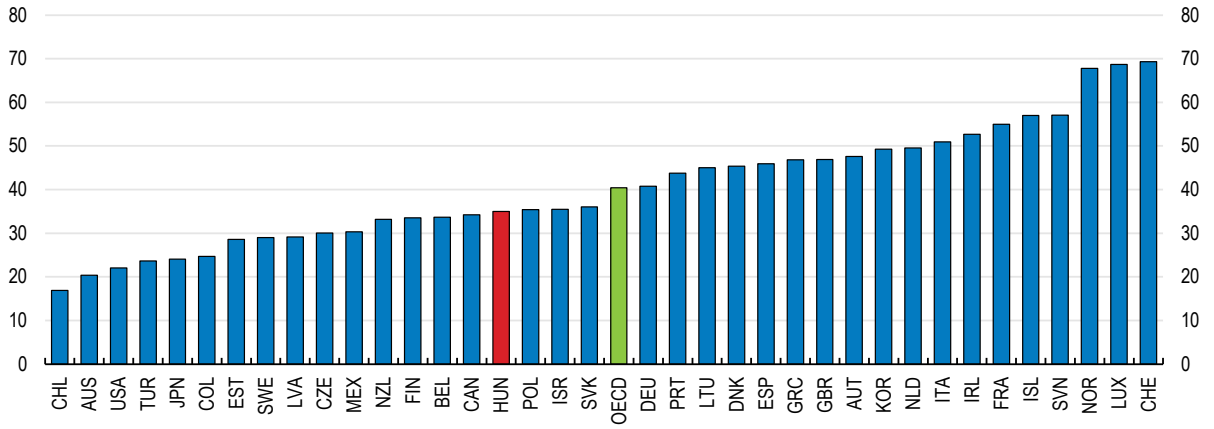
Better aligned environmental policies would be more effective

Energy taxation varies across energy types. As in other countries, tax rates are higher on transport fuels than on fuels for other purposes, but generally rates are relatively low. Non-transport fuel tax rates are mostly close to the EU minimum rates and are not systematically adjusted for inflation. Furthermore, effective rates are lowered by subsidies and exemptions, which includes a reduced VAT rate for district heating (almost entirely produced with fossil fuels); an up to 82% refund (and 83.5% if the international oil price is below 50 USD/barrel) on excise tax for diesel used in agriculture; a lower tax rate on diesel for commercial hauliers; and a subsidy to public heating suppliers. In addition, the regulated prices for electricity, gas and heating are lower than the associated cost of production (OECD, 2018[53]). The subsidies improve affordability but lack targeting. In addition to dis-incentivising improvements to the thermic efficiency of houses, they act as an entry barrier into the highly concentrated energy market and reduce investment incentives (IEA, 2017[54]). From an environmental perspective, the impact of different tax rates and associated subsidies and exemptions are relatively low effective tax rates on CO_2 and higher abatement costs (Figure 1.26).

Figure 1.26. Carbon pricing score

Carbon pricing score at EUR 60 per tonne CO_2, including emissions from the combustion of biomass, %, 2018



Note: The OECD aggregate is an unweighted average.
Source: OECD Tax and Climate database.

StatLink https://doi.org/10.1787/888934267141

The most efficient tax measure to reduce CO_2 emissions would be a uniform carbon tax on all sectors outside the EU's ETS (Box 1.7). Carbon content is already taxed in non-uniform ways, including many exemptions and subsidies, imposing uneven and expensive reduction burdens on sectors and activities. Introducing a unified carbon tax without major economic disruptions requires the simultaneous introduction of a low rate across all activities and sectors and thereafter gradually increase the rate as other taxes and exemptions are gradually removed. Non-carbon taxes can be used to combat other polluting activities such as waste landfill, water pollution and abstraction, to mention a few (OECD, 2018[53]).

Emissions from transportation have increased along with economic activity. This trend is likely to continue. The low number of cars per capita is set to increase with higher incomes. Also, with current policies, labour mobility will continue to be enabled through transport rather than through the rigid housing market (OECD, 2018[53]). Moreover, the average age of the expanding car fleet is increasing, reflecting that most car purchases consist of imported used cars (Figure 1.27, Panel A) (OECD, 2019[55]). Older cars are typically more polluting because of their higher fuel consumption per kilometre and small particles emissions. This is exacerbated by the increasing share of cars with diesel engines (Figure 1.27, Panel B). Moreover, road transportation is encouraged by low transportation fuel taxation

(Figure 1.27, Panel C). In 2016, the government linked excise taxes on transport fuels to world market prices for crude oil, allowing the rates to increase temporarily when oil prices fall below a threshold of USD 50$/barrel, but this provision has rarely been triggered. The government should instead raise the internationally low transport fuel taxes, and taxation of diesel fuel should be higher than taxation of gasoline to reflect diesel's higher carbon contents

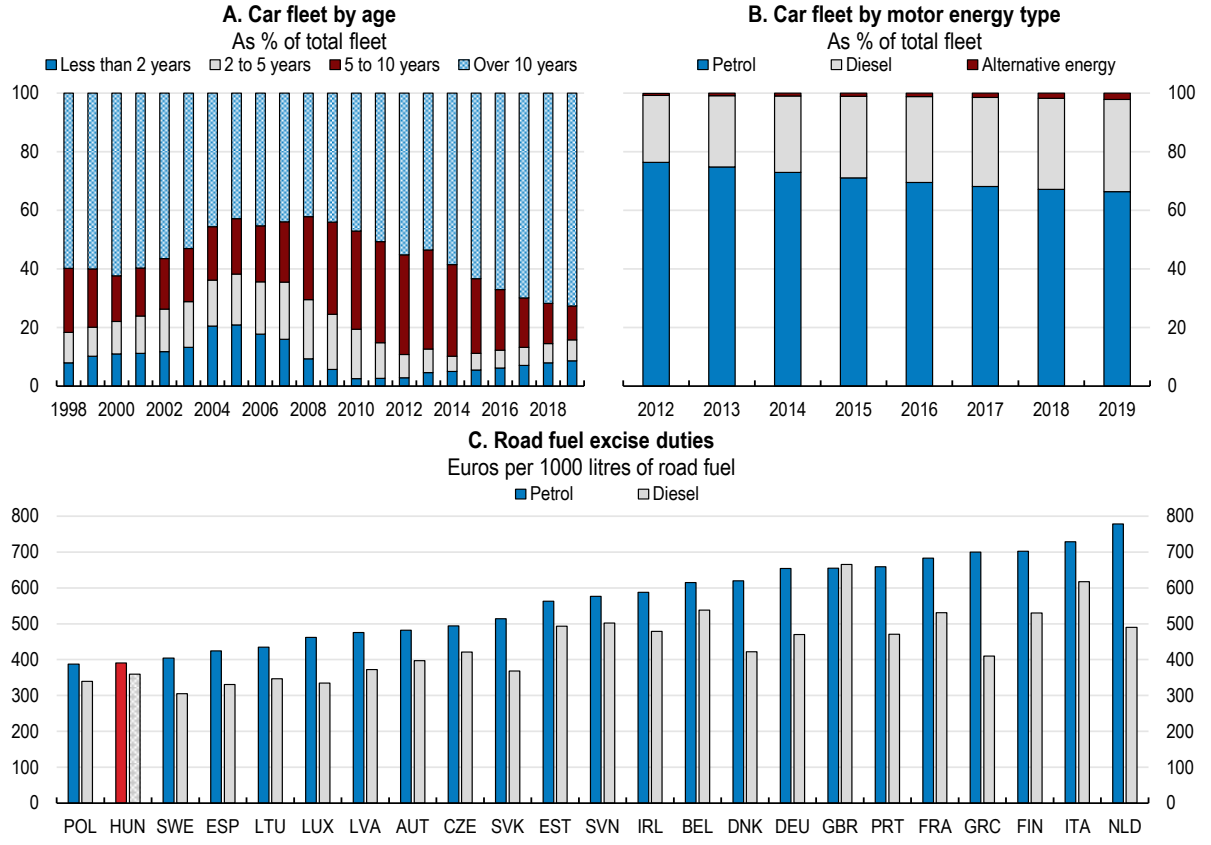
Box 1.7. The EU Emissions Trading Scheme and Market Stability Reserve

The EU Emissions Trading Scheme has operated since 2005, covering CO_2, N_2O and PFC emissions from electricity generation, industry and intra-EEA flights in 23 European countries, amounting to about 40% of total EU emissions. Large emitters are required to hold permits equal to the quantity of their emissions. About a third of Hungarian greenhouse gas emissions are covered in the ETS, compared with 40% on average in the EU. Until recently, an over-supply of emission allowances, free allocation and low carbon prices led to a limited effect on low-carbon investments in Hungary.

The Market Stability Reserve from 2019 withdraws permits from the market if thresholds for the number of permits in circulation are exceeded and, from 2023 onwards, can trigger cancellation of permits. This aims to stabilise permit prices and reduce the "waterbed" effect, where additional abatement in one country allows an increase in emissions elsewhere. Together with the more ambitious emission reduction target of at least 55% by 2030, this has contributed to a fifty percent increase in ETS prices since autumn 2020. In spring 2021, the ETS price reached more than EUR 40/tonnes, approaching the average CO_2 tax in Hungary.

(OECD, 2018[56]); (Flues and van Dender, 2020[57]); (European Environment Agency, 2019[58]) (OECD, 2018[53]).

Figure 1.27. An aging car fleet is increasingly based on diesel



Source: Eurostat; ACEA; and European Environment Agency.

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Some measures have been taken to curb emissions from transportation, including tax exemptions for electric vehicles (EV). Electric city buses are mandatory and subsidised to cover the 40% higher price vis-à-vis conventional buses. Subsidies are also provided for investment in charging stations for buses. The overall costs of installing electric city buses could be higher as more electric buses are required to cover the same range as conventional buses. Heavy-duty vehicles with lower emissions benefit from a discount on the vehicle tax. Company car taxes take into account emission categories. This could be extended with the purpose of achieving a less polluting car fleet by linking *ad valorem* vehicle taxes to cars' environmental performance. Such a measure would also increase incentives for purchasing electric vehicles, which account for less than 0.5% of all passenger vehicles. More electric vehicles would also increase incentives to expand and upgrade the relatively small network of charging stations (IEA, 2020[59]).

Taxing company car benefits in line with the taxation of wage incomes would discourage tax arbitration and reduce driving incentives. Hungary is one of the few OECD countries that do not tax the personal use of company cars, leading to a favourable tax treatment vis-à-vis wage income. In consequence, nearly a quarter of all registered, and more than half of all new, cars are company cars. The associated tax expenditures amount to about half of all vehicle-related taxes. The favourable tax treatment encourages private car use and commuting, leading to higher emissions of GHGs and small particles. Additional problems include noise pollution, more congestion and accidents.

The negative environmental effects of low transportation fuel taxation are not offset by a general distance-based toll system. An electronic toll system is in place for motorways and main roads. On these, heavy vehicles pay toll based on distance and on the vehicle's emissions standards (www.toll-charge.hu). On the other hand, other vehicles are subject to a time-based toll with vignettes valid for a week, a month or a year (13 months). However, time-based toll systems are weakly linked to distance travelled and emissions. Introducing distance-based tolls for smaller vehicles that are also linked to the vehicles environmental performance would better align transportation needs with the full cost of road transportation.

Transportation is also a major source of small particles emissions. Inner-city emissions of small particles could be reduced by supplementing a distance-based road toll system with traffic congestion charges in urban centres. This could be combined with time-based fees for parking places. Further measures to reduce inner-city pollution include strengthening public transportation with a focus on improving efficiency and effectiveness, such as by having uniform ticket systems and better interconnections between various modes of public transportation (OECD, 2019[23]). In addition, soft transport modes, such as cycling and walking, could be encouraged by developing the associated infrastructures (OECD, 2015[60])

Heating is another important emitter of small particles and GHGs. This reflects that nearly 80% of the housing stock is not meeting modern energy and thermal requirements, with particularly low efficiency in the large share of the housing stock that was constructed between WWII and 1991. As most heating systems are obsolete, many households continue to use coal and wood for heating and cooking purposes. An additional problem is that an estimated one third of household waste is illegally used for such purposes (OECD, 2018[53]).

In line with the EU's Energy Performance of Buildings Directive that targets a highly-energy efficient and decarbonised building stock by 2050, a number of subsidy programmes are in place to improve the energy and thermal efficiency of the housing stock. These include support for replacing doors and windows, improving thermal insulation, while increasing the reliance on renewable energy sources and district heating. The efficiency of such subsidies is reduced by the regulation of prices on energy for heating purposes. Lowering heating prices boost demand for heating, which counters the subsidy schemes' focus on reducing heating demand through efficiency improvements.

A more efficient and effective policy combination would be to ensure cost recovery in regulated energy and introduce targeted affordability measures to help low-income households. The latter would have to encompass helping such households to use cleaner energy. This could include investment support to replace old inefficient boilers, which could be combined with a fee for continued use of high-emission boilers. The illegal burning of waste must be addressed in the waste collection system (see below).

Renewable energy promotion could be improved

Renewable energy is accounting for an increasing share of energy consumption, surpassing the 2020 target. The expansion mostly reflects increased use of biomass, the potential of which is nearly fully exploited. Further increases in the share of renewables thus require the development of other renewable energy sources, such as solar, geothermal or wind technologies (OECD, 2019[55]). The main measure for expanding renewables is the renewable energy support scheme (METÁR) from 2017, which combines feed-in tariffs and feed-in premiums for small and mid-size energy plants, while larger plants have to participate in a competitive bidding process in order to receive the feed-in premium. The new system is transitory as eventually competitive bidding will be in place for all new plants. The system has attracted many small solar plants applications. In 2019, only a single tender for larger plants has been issued. To accelerate the process, the government should follow through with its aim of issuing tenders annually. Moreover, the current focus on solar installation should be broadened to include wind technology to ensure a market based expansion of renewable energy. Prevailing wind patterns do not favour current wind technology. In addition, the construction and grid connection of wind plants is inhibited by a government decree that only allows the installation of new wind turbines outside a 12 km radius from population areas. The decree should reduce the radius and take local factors into consideration when granting permits.

Looking ahead, the focus is on developing solar energy capacity from nearly 700 MW in 2016 to 6400 MW in 2030 and 12 000 MW a decade later, using EU funds for financing. This will be complemented with the instalment of one million smart meters to encourage more efficient electricity consumption with less peak demand. At the same time, coal will be phased out with the conversion to gas of the Matra Power Plant - the last lignite power plant - by 2025.

There is a policy misalignment between the promotion of investments in renewable electricity generation, energy price regulation and the corporate income tax code. Price regulation has led to below-cost prices. The implied reduction in returns on investments in the energy sector effectively constitutes an entry barrier. At the same time, the corporate tax code stipulates that variable costs of new investments are immediately expensed from the corporate income tax base, while capital costs need to be depreciated over time. This discourages investment in renewable energy production, which has higher capital costs and lower variable costs compared with conventional carbon-based energy production (IEA, 2017[54])

Waste and wastewater treatments lack effectiveness

Waste management, water supply and wastewater treatment is the responsibility of local governments. The many, often small, local governments have limited tax powers and rely on EU funds for their capital expenditures (totalling on average 0.4% of GDP/year) and on the central government for technical assistance. Against this background, it is perhaps not surprising that outcomes are relatively poor. Waste management remains more reliant on landfills than elsewhere (Figure 1.25, Panel D). Moreover, a quarter of the population is served with piped drinking water that does not meet the EU quality requirements and nearly as many are not connected to the wastewater network, as the ageing and decaying infrastructure is in need of increasing maintenance investment (OECD, 2018[53]).

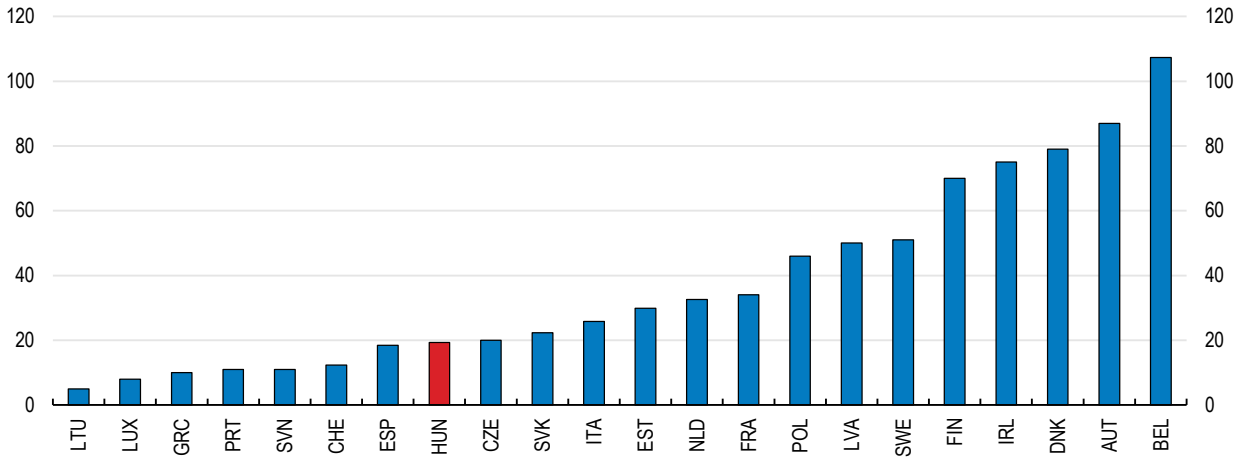
Waste management has been improved through a number of measures, including obligating households to separate waste, typically into five categories, and countering plastic use with the 2021 introduction of a ban on certain single-use plastic products, including some single-use plastic bags. This

complements the system with product fees for other single-use plastic items. However, the key problems in waste management are fragmentation, inefficient control and monitoring, together with low frequency of waste collection and sorting efficiency (OECD, 2018[53]). Looking ahead, the government wants to use financial resources from the EU's Recovery and Resilience Facility to promote the circular economy, particularly in the area of waste management. Indeed, improving waste management requires substantial investment in expanding planning and management capacity of large complex projects at the local level. As already raised in the last *Survey*, a degree of co-financing would also improve project selection to secure the most efficient use of available financial resources (OECD, 2019[55]).

Reaping the full benefit of such investment requires better use of price signals. In 2013, a low landfill tax of EUR 10 per tonnes of non-hazardous waste was introduced. Despite planned regular increases, the landfill tax remains relatively low, effectively frozen at the 2014 levels (Figure 1.28). As a minimum, landfill taxes should be raised to cost-based levels, but preferably further to include environmental damages. Waste collection fees should be set in a similar manner (OECD, 2019[55]). Likewise, the tariffs for water and wastewater services are relatively low and cover only 90% of operating costs (Figure 1.29). Such fees should be raised to cover both current and future costs and provide adequate financial resources to maintain and expand water-related networks.

Figure 1.28. Landfill taxes are low

Landfill tax, Euro per tonne, situation as of 19th March 2020



Note: Data for BEL refer to Flanders; data for FRA refer to the average rates for waste in 'authorized' landfills with 75% energy recovery from captured biogas, in 'authorized' bioreactor landfill cells with biogas recovery and other 'authorized' landfills; data for ITA refer to the maximum tax allowed from national legislation (rates vary from region to region); data for SVK refer to the average of the different progressive rates; data for ESP refer to the average of the different regional rates; data for CHE refer to the average of rates for inert waste, stabilized waste, bottom ash, construction waste and underground landfill in a foreign country. Detailed information is available at the following link: https://www.cewep.eu/wp-content/uploads/2017/12/Landfill-taxes-and-bans-overview.pdf.
Source: Confederation of European Waste-to-Energy Plants (CEWEP).

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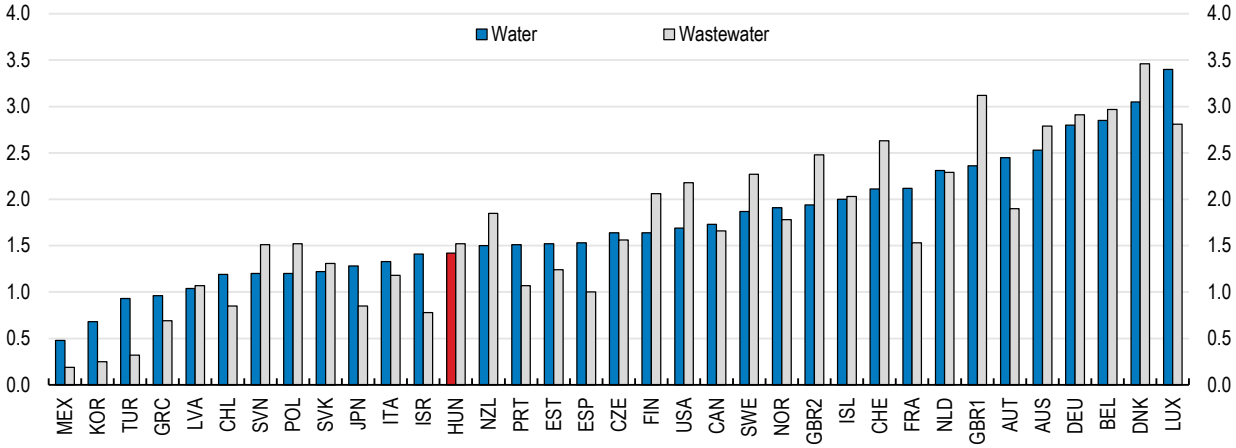
Figure 1.29. Tariffs for water and wastewater services are low

Tariff for water and wastewater services, USD per m³, 2017 or latest available year



Note: Data for GBR1 refer to Scotland, while data for GBR2 refer to England and Wales.
Source: OECD (2018), OECD Environmental Performance Reviews: Hungary 2018, OECD Environmental Performance Reviews, OECD Publishing, Paris, https://doi.org/10.1787/9789264298613-en.

StatLink https://doi.org/10.1787/888934267198

More generally, a wide range of levies is applied on pollution and resource use. Beside the landfill tax, and water and wastewater tariff, there are also levies and fees on emissions of NO_x, and on a number of products, such as batteries, packaging, electric appliances and electronic equipment, tires, etc. to reduce consumption and create a financial source for recycling. These levies have had a limited impact, as rates tend to be low, not systematically adjusted, and the associated income not connected to collection and treatment. In addition, effectiveness is further reduced by exemptions and rebates (OECD, 2018[53]). The landfill tax, water and wastewater tariffs and emission levies should be adjusted according to the polluter pays principle to improve resource utilisation and reduce pollution in line with past recommendations (Table 1.11). In addition, the planned 2023 deposit refund systems for bottles and cans could be extended to other material use.

Table 1.11. The past recommendations on greening growth

Recommendations in previous survey	Action taken
Increase the reliance on road tolls and car taxes that take vehicles' environmental performance into account.	Road tolls were updated in 2019 in accordance with the polluter pays principle.
Use fiscal incentives for replacing households' inefficient heating system.	Smart heating cost sharing systems were introduced in 2019.
Introduce congestion charges and strengthen public transport.	Elaboration of an integrated e-ticket system. Timetable adjustments and vehicle purchases aim to increase quality of public transport.

Better financial disclosure of environmental risks would promote sustainable investments

The financial sector is in general unaware of the extent of its exposure to climate-related risk with only 6% of banks (on a voluntary basis) following European guidelines on the reporting of climate-related information, although other banks report by other standards (MNB, 2021[61]) (Euractiv, 2021[62]). Such risks include potential financial asset losses arising from the implementation of measures to reach zero carbon emissions by 2050. Indeed, sectors with high carbon emissions (such as energy, manufacturing and agriculture) account for nearly a third of all corporate loans (MNB, 2020[41]). Information on environmental risks is necessary to ensure that investors understand their exposure to enable financial markets to adequately price the asset costs of climate change.

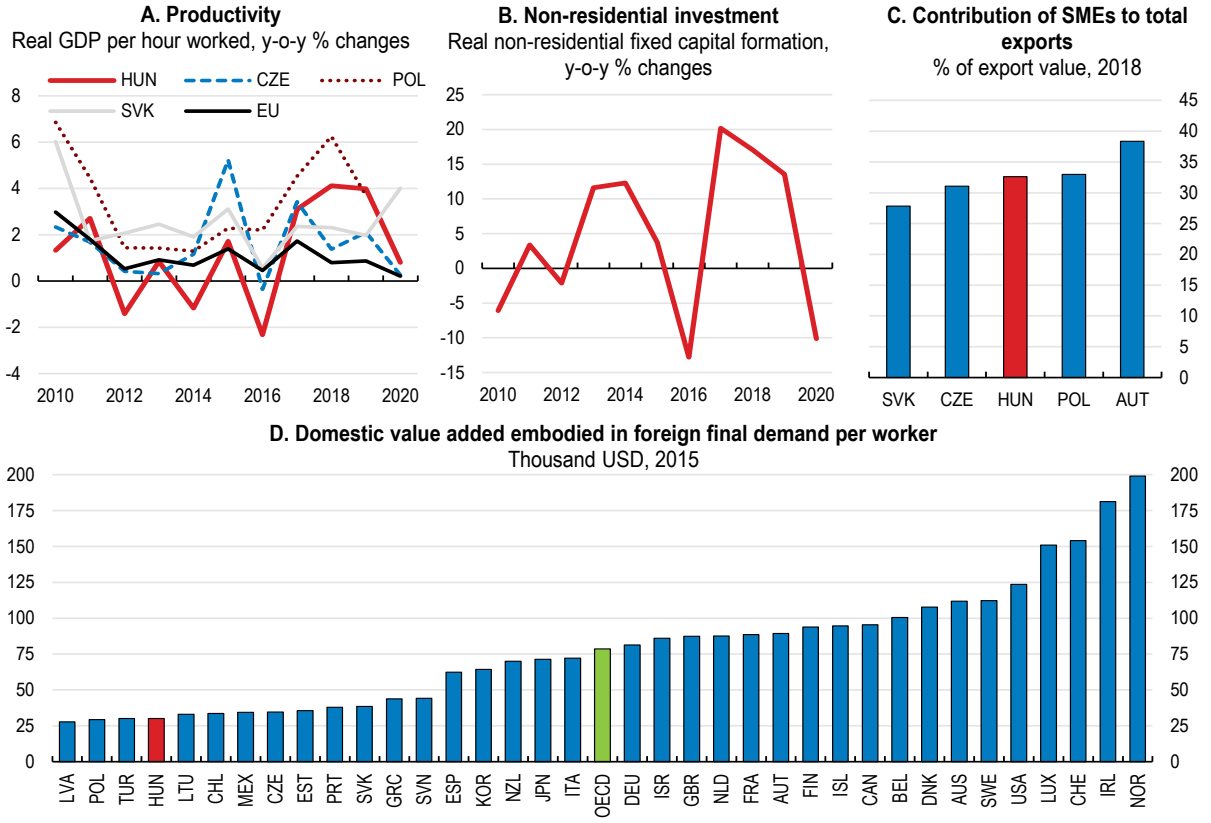
In 2020, the central bank launched the preferential regulatory capital programme to support investment in the green transition. Under this programme, the central bank reduced regulatory capital requirements for banks by the amount of their environmental and sustainable investment. The preferential regulatory capital programme initially covers only investment in green bonds and renewable energy, which banks can easily calculate using EU Taxonomies, excluding other environmental and sustainable investments. Furthermore, a Green Mortgage Purchase Program will be introduced to support demand for green covered bonds issued by banks. Green bonds currently account for 5.6% of total non-financial corporate bonds, slightly higher than the 5% share in the European Union (MNB, 2021[61]). However, this programme does not address the lack of criteria for disclosing climate-related information to obtain green bond status. Thus, to strengthen the allocative function of the financial market, regulation is needed to improve the financial disclosure of climate-change related risks. More generally, the financial disclosure of environmental costs in line with European guidelines should be mandatory for listed companies, banks, insurance companies, and other companies designated by the central bank as public-interest entities (European Commission, 2019[63]). This could be combined with giving the central bank the regulatory power to verify climate-related risks in companies' financial statements as in the United Kingdom.

Stronger domestic business dynamism is crucial for higher productivity growth

Productivity growth was relatively weak in the last decade. Only between 2017 and 2019 did it take off on the back of the cyclical upswing in investment (Figure 1.30, Panels A and B). Despite a recent decrease in the productivity gap, there is still a large difference in productivity levels between larger capital-rich foreign-owned firms that compete on world markets and smaller domestically owned capital-poor and low-productivity firms that are focussed on home markets. While not all domestic firms are small and have low productivity, only few domestic firms innovate and most are poorly integrated into national and regional supply chains. This is reflected in low domestic value added in final foreign demand (Figure 1.30, Panels C and D).

Low business dynamism reflects new entry that has struggled until recently to catch up to levels seen elsewhere in the region, and a marked slowing of business exit rates and bankruptcies (Figure 1.31). This points to weak competition, which has helped low-productivity firms to maintain disproportionally large market shares, which has slowed the reallocation of resources to more productive enterprises (Muraközy, Bisztray and Reizer, 2019[64]) (Bauer et al., 2020[65]). Importantly, higher business dynamism would bolster economy-wide productivity growth and thus faster income convergence.

Figure 1.30. Strong investment drove productivity growth before the crisis



Source: OECD Productivity database; OECD Economic Outlook: Statistics and Projections database; OECD Trade by Enterprise Characteristics (ISIC rev4) database; OECD Trade in Value Added (TiVA) database; and OECD Structural Analysis (STAN) databases.

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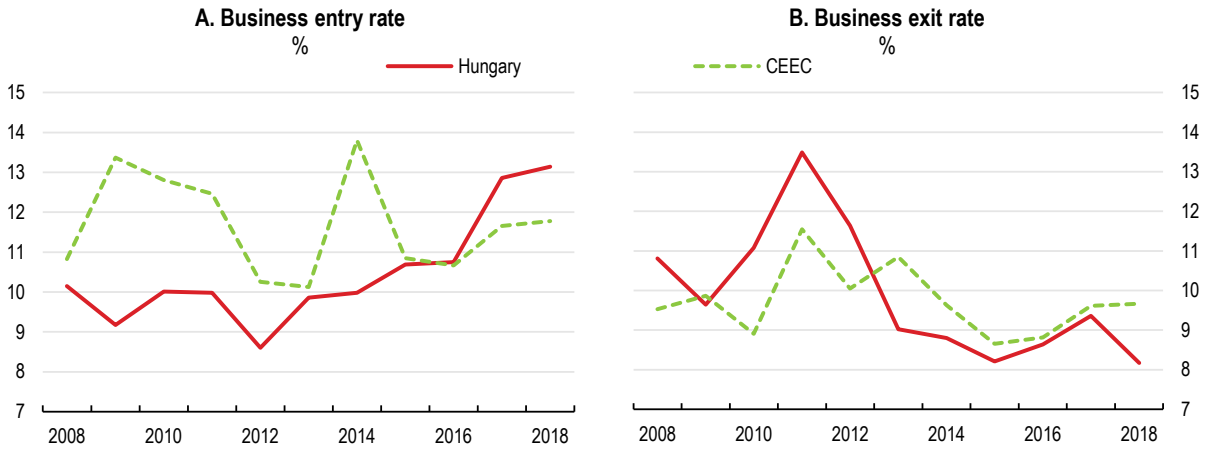
Figure 1.31. Business dynamics are low



Note: Data refer to the business economy except activities of holding companies. The entry rate refers to the birth rate defined as the number of enterprise births in the reference period (t) divided by the number of enterprises active in t. The exit rate refers to the death rate defined as the number of enterprise deaths in the reference period (t) divided by the number of enterprises active in t. The CEEC (Central and Eastern Europe Countries) aggregate includes Czech Republic, Poland and Slovak Republic.

Source: Eurostat Business demography by size class database; and Magyar Nemzeti Bank (Hungarian Central Bank).

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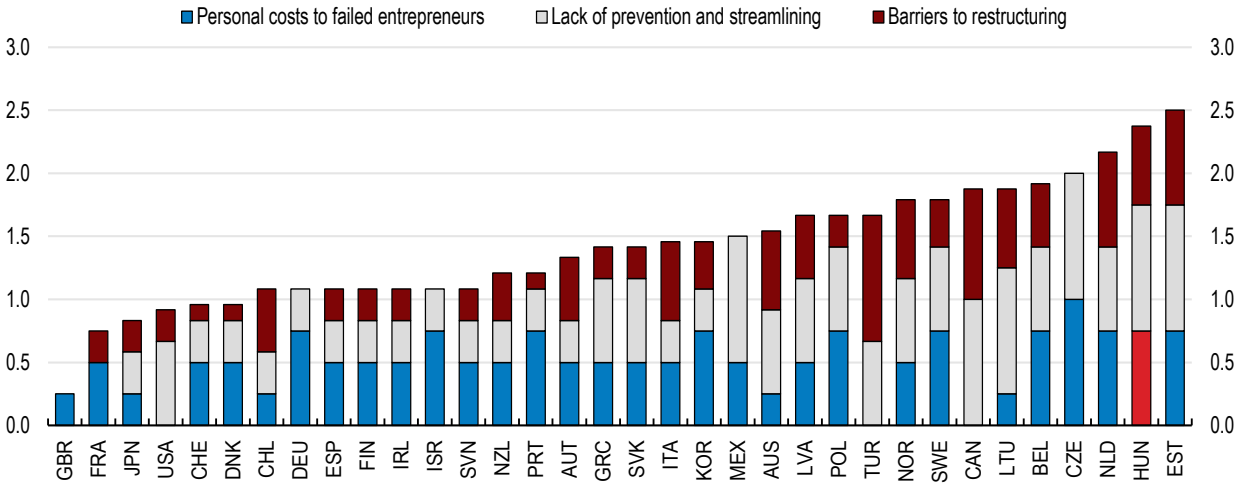
Business dynamics is held back by the weak enforcement of the existing pro-competitive regulatory framework, even in sectors with high risk of collusion, including public procurement. A stronger competition authority should have the financial resources for adequate enforcement, to carry out market studies, as well as the ability to retain highly qualified staff (OECD, 2019[66]; OECD, 2020[67]). In the same vain, business dynamism is reduced by slow and costly insolvency procedures with long discharge periods that hinder the re-entry of entrepreneurs and the orderly reallocation of resources to other activities and more productive firms, particularly a concern in the current economic situation (Figure 1.32) (Adalet McGowan, Andrews and Millot, 2017[68]). Quicker and more efficient procedures would help to accelerate market exits of failed firms and bolster the position of new entrants. Other barriers to business dynamisms include state-intervention in the form of price control and ownership in the energy and telecommunication sector, as well as turnover-based sectoral taxes that hinder entry and expansion of productive businesses (Table 1.12) (Chapter 2).

Figure 1.32. The insolvency regime is stringent

Scores in selected aspects of insolvency schemes, 2016



Source: Andrews, D., M. Adalet McGowan and V. Millot (2017), "Confronting the zombies: Policies for productivity revival", OECD Economic Policy Papers, No. 21.

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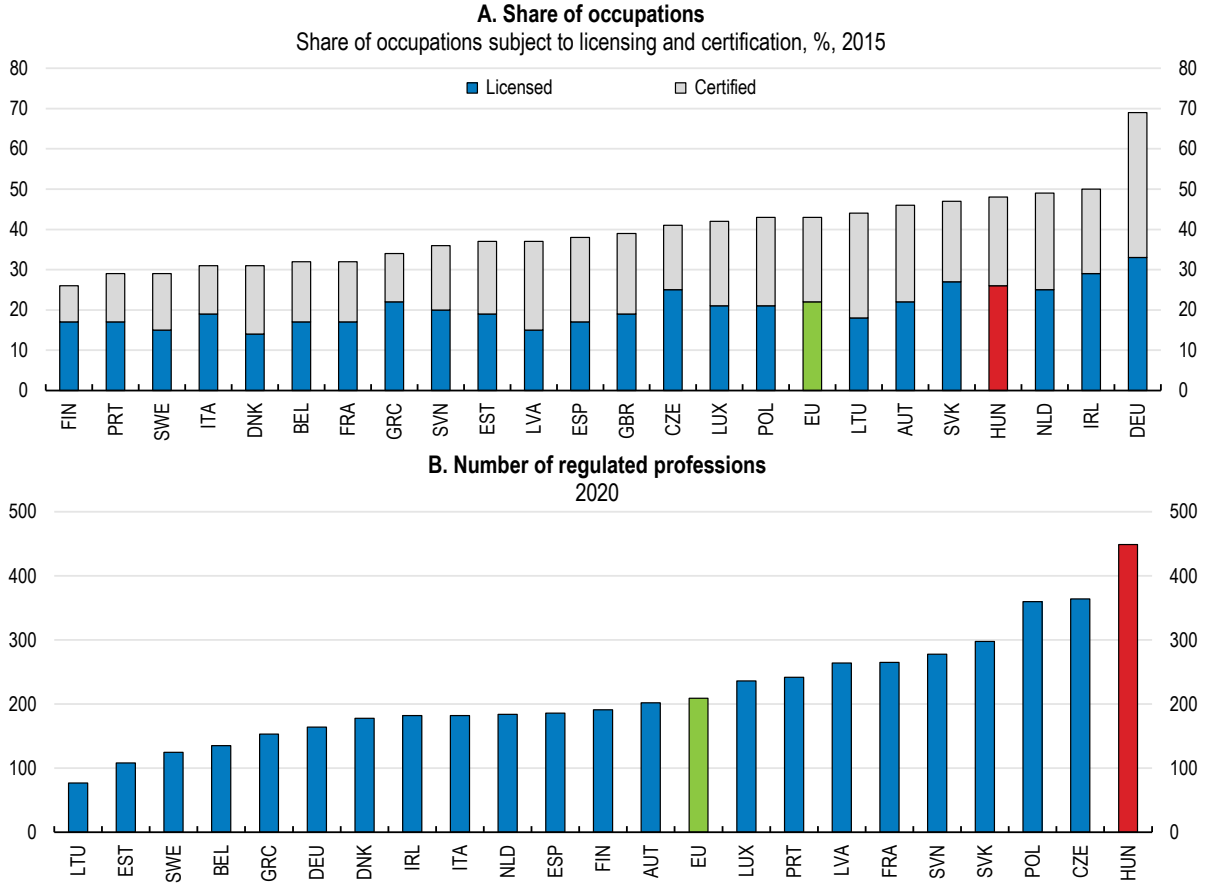
An abundance of licensing and certification requirements has led to the one of the highest number of regulated professions in the European Union, hampering occupational mobility and boosting wages for workers in these professions (Figure 1.33) (European Commission, 2020[69]) (Koumenta and Pagliero, 2018[70]). Since 2015, the government has reduced occupational entry regulation for selected sectors, mainly in craft and technical professions. Reducing licensing and certification requirements in other sectors, and particularly those heavily affected by the pandemics (tourism and entertainment) would bolster new entry and support employment transitions. A more efficient allocation of labour from low to high productivity firms would bolster overall productivity growth (Bambalaite, Nicoletti and von Rueden, 2020[71]).

Figure 1.33. Occupational entry barriers remain high



Note: In Panel A, workers in licensed occupations declared that without having a professional certification, licence, or taking an entry exam, it would be illegal to practice their occupations. Workers in certified occupations proclaimed that they have a license, certificate, or that they passed an exam to practice their occupation. However, it would not be illegal to practice their occupations without it.
Source: Koumenta and Pagliero, 2017 and Koumenta and Pagliero, 2016, based on the EU Survey of Occupational Regulation; and Bambalaite, I., G. Nicoletti and C. von Rueden (2020), "Occupational entry regulations and their effects on productivity in services: Firm-level evidence", OECD Economics Department Working Papers, No. 1605; and European Commission (2020), Regulated Professions database (2020), European Commission, Brussels, https://ec.europa.eu/growth/tools-databases/regprof/ (accessed 26 November 2020).
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Table 1.12. The past recommendations on the business environment

Recommendations in previous survey	Action taken
Establish a regulatory impact assessment (RIA) commission.	No action taken
Remove sector exemptions to apply the modern competition policy framework as widely as possible.	No action taken
Complement EU's structural funds by focusing Hungarian financed public infrastructure investments on bolstering agglomeration effect.	No action taken
Secure non-discriminatory third party access in all network sectors to bolster entry incentives.	No action taken
Introduce market-based energy pricing and open segments to competition.	No action taken
Facilitate new entry in the retail sector.	No action taken
Stimulate investment in telecommunication.	Authorities conducted spectrum awards and bidding for frequency bands in 2020 and early 2021. A fourth operator was excluded from the auction for failing to meet eligibility criteria.

Corruption and lack of public integrity hamper business dynamism

The formal anti-corruption and public integrity system has been improved with the implementation of the 2015-2018 National Anti-Corruption Programme, emphasising the integrity of the state administration and strengthening law-enforcement agencies (EC, 2020[72]). The system contains comprehensive definitions of corruption, criminalities and different forms of bribery, in accordance with the international bribery recommendation of the OECD Working Group on Bribery (OECD, 2020[73]). These developments are welcome as even perceived corruption reduces economic efficiency, leads to waste of public resources, widens economic and social inequalities, and inhibits trust in institutions (OECD, 2017[74]).

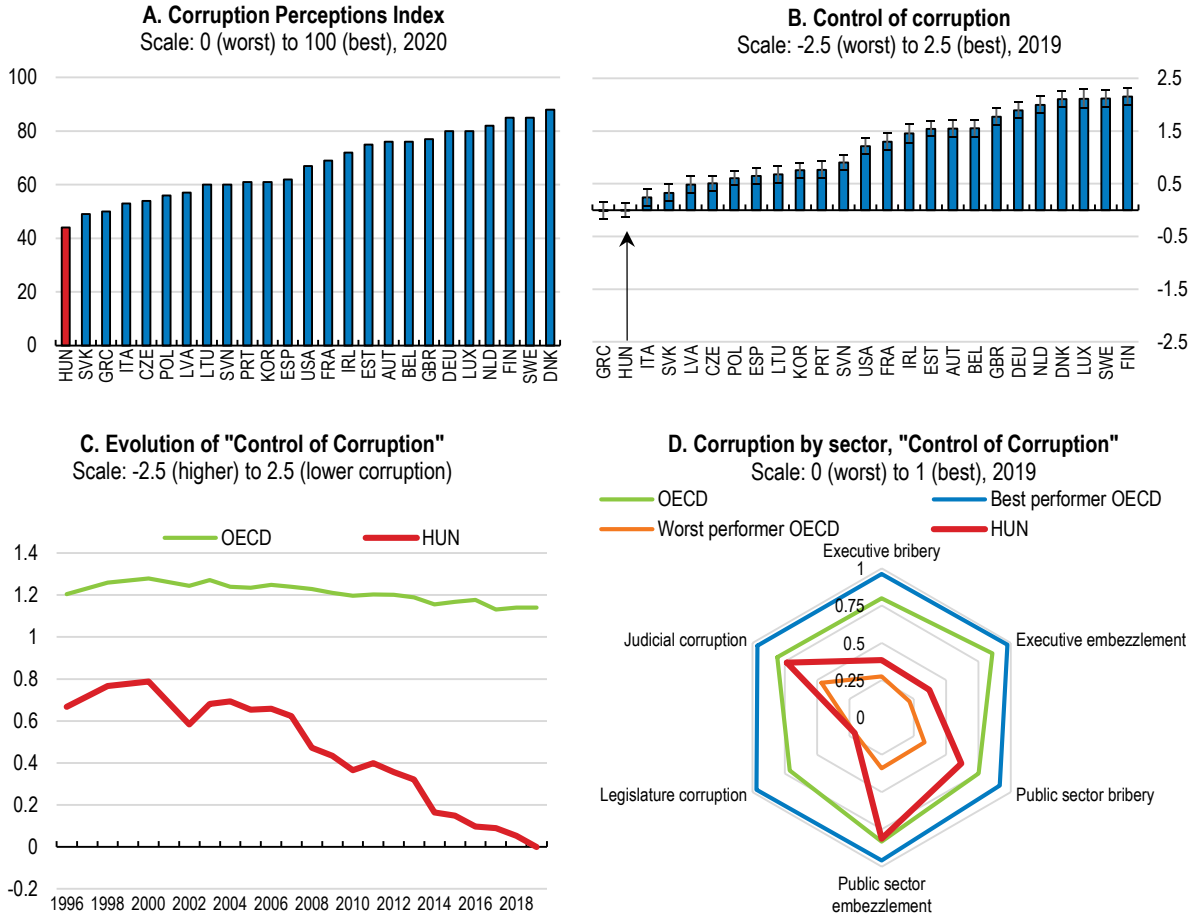
The government's National Anti-Corruption Strategy for 2020-2022 is continuing the anti-corruption and public integrity efforts. The strategy aims at further reinforcing corruption prevention and addressing integrity risk areas where corruption is still perceived as a concern, such as conflict of interest, lobbying, interconnections between business and politics, the justice system, and independent control mechanisms (EC, 2020[72]) (GRECO, 2020[75]). For example, the Ministry of Interior will, in cooperation with the University of Public Service, identify the positions and jobs in the public administration that are most exposed to corruption and integrity risks (Hungarian Government, 2020[47]). These efforts go in the right direction of addressing the findings of the Hungarian State Audit Office (ASZ) that government, including local administrative bodies, and the higher education sector have higher risks of corruption than other public institutions (ASZ, 2020[76]).

Despite the strengthening of the formal anti-corruption and public integrity framework, international indicators show that corruption is still perceived to be higher than in any other OECD countries (Figure 1.34). Since MONEYVAL's assessment in 2016, anti-money laundering measures have been taken to meet international standards. Nonetheless, the OECD indicators of the effectiveness of the anti-money laundering system continue to show some weaknesses, particularly in terms of coordination among involved institutions (Figure 1.35). In addition, the EU in the beginning of 2020 raised concerns regarding an extensive use of rule-by-decree and the declaration of an unlimited state-of-emergency, although the COVID-19 crisis has been managed in line with the Constitution (ensuring that the Constitutional Court provides independent and constitutional review of legal provisions). The EU Council recommends emergency measures to be proportionate, limited in time, and not hamper the normal business activities and the stability of the regulatory environment, which should be ensured through effective and independent oversight of the emergency measures (EU Council, 2020[77]) (Transparency International, 2021[78]). In November 2020, a state of emergency was declared for the second time. The accompanying legal acts contain strict deadlines for extending the temporary scope of the emergency measures.

The independence and accountability of the judiciary system are vital to a strong anti-corruption and public integrity system, as well as a crucial determinant of economic performance as a well-functioning judicial system helps to attract investments, reduce transaction costs, and deter businesses from opportunistic behaviour (OECD, 2013[79]) (European Commission, 2020[80]). The European Commission has recognised positive developments regarding the quality and efficiency of the Hungarian justice system, notably a high level of overall digitalisation and an adequate length of proceedings (EC, 2020[72]).In addition, court proceedings are estimated to be more than 20% faster than the European median and with lower costs as attorney fees being a third of the OECD average (OECD, 2013[81]) (CEPEJ-STAT, 2021[82]). (OECD, 2020[83]). Moreover, a Treaty on European Union procedure's concerns regarding possible power imbalances between the National Judicial Council and the Parliament-elected President of the National Office for Judiciary was dealt with, among others, by increasing checks-and-balances on the appointment of independent judges. Nonetheless, not all the concerns of the Council of Europe have been addressed (GRECO, 2020[75]) (Venice Commission, 2019[84]). Also, the judges' remuneration was significantly increased, although concerns have been raised whether a new performance-related bonus system may weaken judges' independence (Council

of Europe, 2018[85]) (EC, 2020[72]). However, there has not been any prosecution of corruption cases involving high-level officials or their immediate circle, despite the Prosecutor General's Office finding that most corruption related cases involve public officials (EU Council, 2019[86]) (EC, 2020[87]).

Figure 1.34. Corruption is perceived as high compared with other OECD countries



Note: Panel A indicates that perception of corruption is low when the index is close to 100, whereas it is high when the index is close to zero. Panel B shows the point estimate and the margin of error. Both Panel B and Panel C refer to the indicator capturing perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests. Panel D shows sector-based subcomponents of the "Control of Corruption" indicator by the Varieties of Democracy Project.

Source: Panel A: Transparency International; Panels B & C: World Bank, Worldwide Governance Indicators; Panel D: Varieties of Democracy Institute; University of Gothenburg; and University of Notre Dame.

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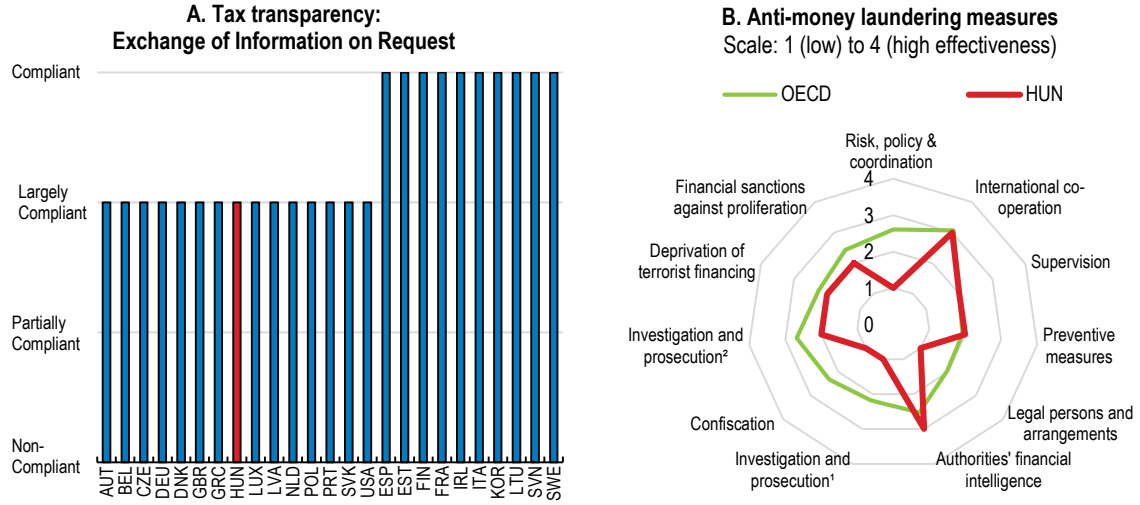
Figure 1.35. Anti-money laundering measures should be enhanced



Note: Panel A summarises the overall assessment on the exchange of information in practice from peer reviews by the Global Forum on Transparency and Exchange of Information for Tax Purposes. Peer reviews assess member jurisdictions' ability to ensure the transparency of their legal entities and arrangements and to co-operate with other tax administrations in accordance with the internationally agreed standard. The figure shows first round results; a second round is ongoing. Panel B shows ratings from the FATF peer reviews of each member to assess levels of implementation of the FATF Recommendations. The ratings reflect the extent to which a country's measures are effective against 11 immediate outcomes. "Investigation and prosecution¹" refers to money laundering. "Investigation and prosecution²" refers to terrorist financing.

Source: OECD Secretariat's own calculation based on the materials from the Global Forum on Transparency and Exchange of Information for Tax Purposes; and OECD, Financial Action Task Force (FATF).

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In general, deficient independent control mechanisms and interconnections between politics and business can be conducive to corruption. In this respect, the European Commission finds that the regulation of lobbying is incomplete, including those regarding 'revolving doors' (referring to the movement of high-level employees from public- to private-sector jobs and vice versa) (EC, 2020[72]). In general, the lack of transparency risks damaging public trust in institutions, although transparency in the public procurement system has improved. For example, the value of procurement advertised increased between 2015 and 2017. In 2019, transparency in the identification of bidding companies was not ensured in all procurement procedures (European Commission, 2021[88]). Since then, e-procurement has become mandatory and all procurement information has been made searchable, enhancing transparency.

At the same time, competition in public procurement tenders (with a broad range of firms winning tenders and limited recourse to non-competitive tenders) should be ensured, for domestically-funded as well as EU-funded procurement. (Chapter 2). On the other hand, competition for EU-funded public tenders increased. This follows a series of investigations into tendering irregularities by the European Commission's Anti-Fraud Office (OLAF). EU-funded public tenders are subject to strict mandatory ex ante and ex post control mechanisms operated by the managing authority and/or the Department for Public Procurement Control (DPPC) of the Prime Minister's Office, which has the potential to prevent irregularities (Nyikos, 2018[89]). Nonetheless, OLAF's financial recovery recommendations are higher than elsewhere, and 10 times higher than the EU average (EC, 2020[90]). As part of Hungary's Recovery and Resilience Facility plan, a comprehensive reform package is planned to address this issue, including further developing the electronic public procurement system and strengthening contracting authorities and tenderers (PALYAZAT, 2021[91]).

Hungary recently amended its constitution by introducing a new notion of public funds and rules on public trust funds (Hungarian Government, 2020[92]). Some NGOs' interpretations of these amendments have been critical and have argued that the new rules may ease the transformation of public funds into private assets (Hungarian Helsinki Committee, 2020[93]) (Transparency International, 2021[78]). As a growing share of public assets have been transferred to an increasing number of public trust funds that are subject to specific financial scrutiny, it is important that transparency over public funds and full application of public procurement procedures are ensured in accordance with current legislation and good public management practices (Hungarian Government, 2020[94]) (Hungarian Government, 2021[95]). Overall, as much as possible, all public procurement should be subject to competitive tendering to secure transparent procedures and improve cost efficiency. This principle in addition to full financial scrutiny should apply to all public institutions, including public trust funds, to strengthen trust in public institutions, raise transparency and enhance competition (Chapter 2).

The establishment of an independent anti-corruption agency or a strong coordination committee would strengthen the effectiveness and integrity of the institutional anti-corruption and integrity system (as recommended in previous *Surveys*) and promote interventions in areas with high risks of corruption. This would bolster coordination among the bodies responsible for corruption prevention, investigation and prosecution, namely the National Protective Service, the Central Chief Prosecution Office and the State Audit Office (EC, 2020[72]). Such a measure should be complemented with assigning clear responsibilities to actors in the integrity system to ensure co-operation, avoid overlaps and prevent fragmentation in corruption prevention, as recommended by the OECD Council on Public Integrity (OECD, 2020[96]) (Table 1.13). Although Hungary has already adopted part of the recommendations of the Council of Europe's Group of States against Corruption (GRECO), further action is needed to strengthen public integrity in areas such as conflict of interests, lobbying, rules of conduct and parliamentarians' asset declarations, and to ensure the independence and transparency of the judicial system (GRECO, 2020[75]).

Table 1.13. The past recommendations on public procurement and corruption

Recommendations in previous survey	Action taken
Strengthen public procurement through a more effective e-procurement system.	The functionalities of the central electronic procurement improved: new modules and connection to other registers were added.
Establish a dedicated anti-corruption agency.	No action taken

An inclusive and mobile labour market is key for sustained growth

Looking forward, the largest challenge for labour market policies is to support reallocation of labour resources. The projected strong recovery will boost labour demand. At the same time, the withdrawal of support to businesses will lead to the closure of non-viable firms and job losses. Moreover, population ageing will lead to a smaller and older labour force. Consequently, future growth will rely more on improving labour allocation and higher productivity growth and less on mobilising under-utilised labour resources.

Improving geographical labour mobility

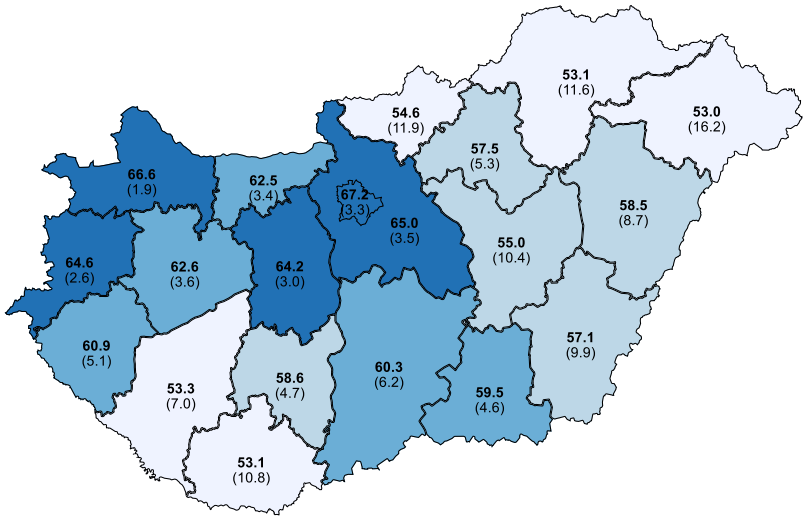
On some metrics, geographical mobility is relatively high (OECD, 2021[97]). Other metrics point to lower mobility, such as the fact that the number of households moving within a two-year period is less than a third of that in the Nordic countries (OECD, 2019[12]). At the overall level, geographical labour mobility is insufficient to prevent persistent pockets of high unemployment in poor regions. Better geographical mobility include incentives to seek jobs within the vicinity of the unemployed, typically through commuting, or outside, typically through moving residence. Both instances include job-to-job mobility that foster productivity and income growth – a particular concern as tenures are relatively high in Hungary (OECD, 2019[12]).

The persistent pockets of high unemployment also reflect that unemployed workers can re-apply for unemployment benefits after enrolment in the Public Works Schemes (Figure 1.36). The Schemes provide public employment to long-term unemployed, but they seldom give access to the primary labour market, reflecting that they do not encourage job search in more employment-rich regions and have a low training content (Chapter 2). A more effective solution would be to phase out the Public Works Schemes and rebalance active labour market policy spending towards job assistance and placement (OECD, 2018[98]; Card, Kluve and Weber, 2017[99]). Such a measure may entail increasing funding for public employment services to enhance their effectiveness for job placements and training capacity, as discussed in the last *Survey* (OECD, 2019[23]). Furthermore, the fast growth in minimum wages has left the ratio of the minimum wage to the median wage higher than in many other OECD countries. The ratio has decreased in recent years, but it is higher in poorer areas with lower average wages. This reduces incentives for workers in poorer areas to find jobs in more prosperous parts within or in other regions, i.e. the difference is too small to offset commuting and moving costs, and the creation of jobs for low-skilled workers (Figure 1.37) (Hungarian Central Statistical Office, 2021[100]). In absolute terms, the minimum wage is among the lowest in Europe and continued improvements of minimum wages is important for raising incomes of low-skilled workers. The government is supporting job opportunities for low-skilled workers through various wage subsidies. Looking forward, wage agreements could supplement such efforts by ensuring that minimum wage growth does not outpace median wage growth to encourage mobility of and expand job opportunities for low-skilled workers (Chapter 2).

The short duration of unemployment benefits also discourages geographical mobility as jobseekers have insufficient time to search for employment that matches their skills (Hungarian National Employment Service, 2021[26]). Extending the duration of unemployment benefits would provide adequate income support during employment transitions (Table 1.14) (Chapter 2). Leaving the relatively low replacement rate at 43% for singles and 54% for couples with children should preserve search incentives.

Figure 1.36. Regional differences in employment and unemployment are large

Employment rate as % of working age population and unemployment rate (in brackets) as % of labour force, population aged 15-74, 2020



Note: Average monthly number of participants in the Public Work Schemes are included in the unemployment rate.
Source: Hungarian Central Statistical Office; and OECD calculations.

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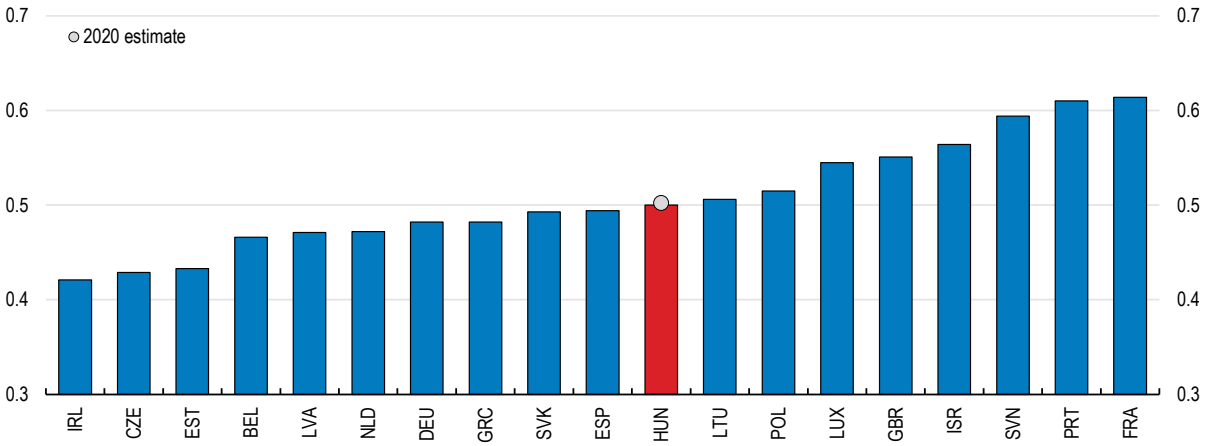
Table 1.14. The past recommendations on labour market policies

Recommendations in previous survey	Action taken
Continue to reduce public work schemes and to enhance training of participants and other job seekers.	The number of participants in the Public Work Schemes decreased until March 2020, but increased somewhat later.
Extend duration of unemployment benefits and provide geographical mobility support and activation measures.	In 2021, the rules on mobility and housing allowance were simplified and the level of support was connected to the minimum wage.
Create a tool set to promote lifelong learning.	No action taken
Enhance the geographical reach of public work schemes.	Since 2019, Public Work Schemes are available only in municipalities under certain income threshold, although this still include more than 90% of all municipalities.

Tax policy in recent years has been focussed on reducing employers' social security contributions and corporate tax rates. Nonetheless, unemployed and low-skilled workers still face high tax wedges, reducing incentives to enter employment and seek income gains, as described above. In addition, high average tax rates for high earners may deter investment in skills. A more growth friendly tax system would lower labour tax wedges, which would raise labour market participation and reduce inequalities, and increase the reliance indirect taxes and taxes on immobile property. Complexity has also increased with negative effects for transparency and work incentives, as tax relief is being provided to special groups, including personal income tax exemption for people younger than 25, various reductions of VAT rates, and targeted measures to encourage homeownership, particularly for families with children. Indeed, the general thrust of tax reform should be on broadening tax bases and reducing rates (OECD, 2019[55]).

Figure 1.37. The minimum wage is relatively high

Minimum relative to median wage of full-time workers, ratio, 2019



Source: OECD Labour Earnings database; OECD calculation based on Hungarian Central Statistical Office database.

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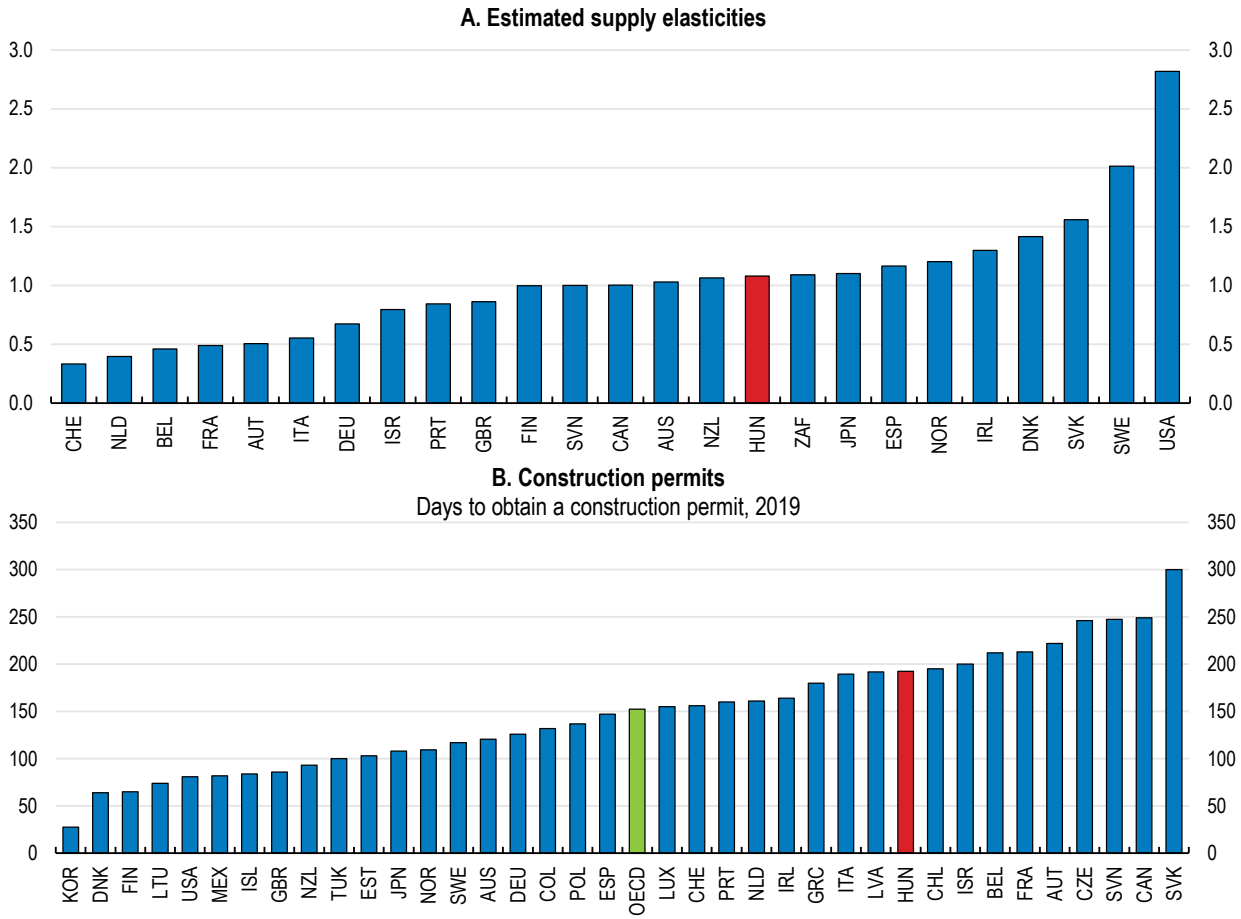
Geographical mobility is also restricted by a combination of large regional house price differences and a very small rental markets, limiting the options for unemployed people and low-income earners from poorer regions to move to prosperous regions (MNB, 2019[101]). The small rental market reflects the lack of clear and well-balanced rules for the notice period and maintenance responsibilities, creating legal uncertainty for tenants and landlords as well as discouraging long-term rental contracts (MNB, 2019[102]). In addition, lengthy court procedures for dispute resolution further increase the costs of longer-term contracts. A more effective dispute resolution, better possibilities for terminating long-term contracts as well as clear rules for tenants' and landlords' obligations would reduce uncertainty and make long-term renting more attractive (Chapter 2).

The dominant owner-occupied housing segment is supported by generous mortgage subsidies and an advantageous tax treatment. The withdrawal of mortgage subsidies, such as zero interest rate loans, combined with taxing owner-occupied housing in line with other saving vehicles would help limit price increases in the housing market and improve geographical mobility (Chapter 2). Moreover, housing supply is only slowly adjusting to high house prices (Figure 1.38, Panel A). This reflects the prevalence of many regulated professions in construction, barriers to foreign entry, and lengthy processes for obtaining construction permits (OECD, 2019[23]) (Figure 1.38, Panel B). The Ministry of Finance is reviewing these issues within various EU programmes with the aim of reducing such regulatory burdens (KPMG&VVA, 2020[103]). A more flexible housing supply could be encouraged by reducing regulatory burden and number of regulated professions in the construction sector.

Figure 1.38. Housing supply adjusts relatively slowly



Note: Panel A shows estimates of the long-run supply elasticity from 1980Q1 to 2017Q4.
Source: Cavalleri, M., B. Cournède and E. Özsöğüt (2019), "How responsive are housing markets in the OECD? National level estimates", OECD Economics Department Working Papers, No. 1589, OECD Publishing, Paris, https://doi.org/10.1787/4777e29a-en; and World Bank 2020 Doing Business.

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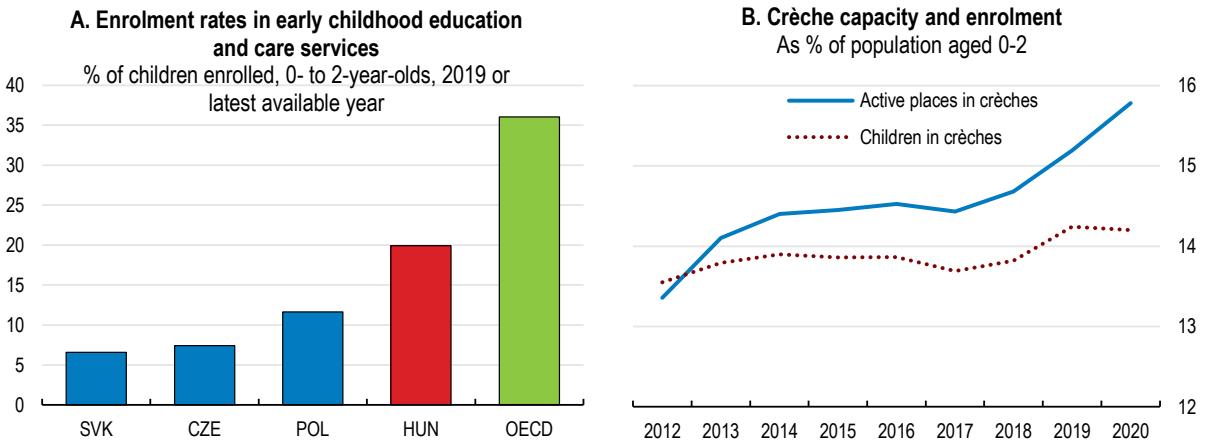
Strengthening female labour force participation

Female labour market participation is generally high but low for mothers with young children. This problem could be further aggravated by the increase in women's care obligations during the crisis (see above). More generally, their low employment rates reflect a combination of a long maternity leave of up to three years and few available nursery places. The latter can lead to young mothers taking the full maternity leave period (Gábos and Makay, 2020[104]). Compared with the OECD average, the total

supply of nursery places and enrolment are low (Figure 1.39). Since 2019, nursery capacity has been expanded by 21 thousand additional places and the government plans to extend capacities further. To improve the labour market participation of mothers, the expansion of nursery place should continue, as recommended in last *Survey* (OECD, 2019[23]). This should include incentives for private provision of nursery places, including small-scale provision in private homes. Subsequently, a further reduction in the length of the effective parental leave is key to enhance incentives for mothers to participate in the labour market. Other areas also needs to be addressed, notably the lack of alignment between nurseries' opening hours and parents' working hours.

Figure 1.39. Nursery enrolment remains low



Source: OECD Education at a Glance database; and Hungarian Central Statistical Office.

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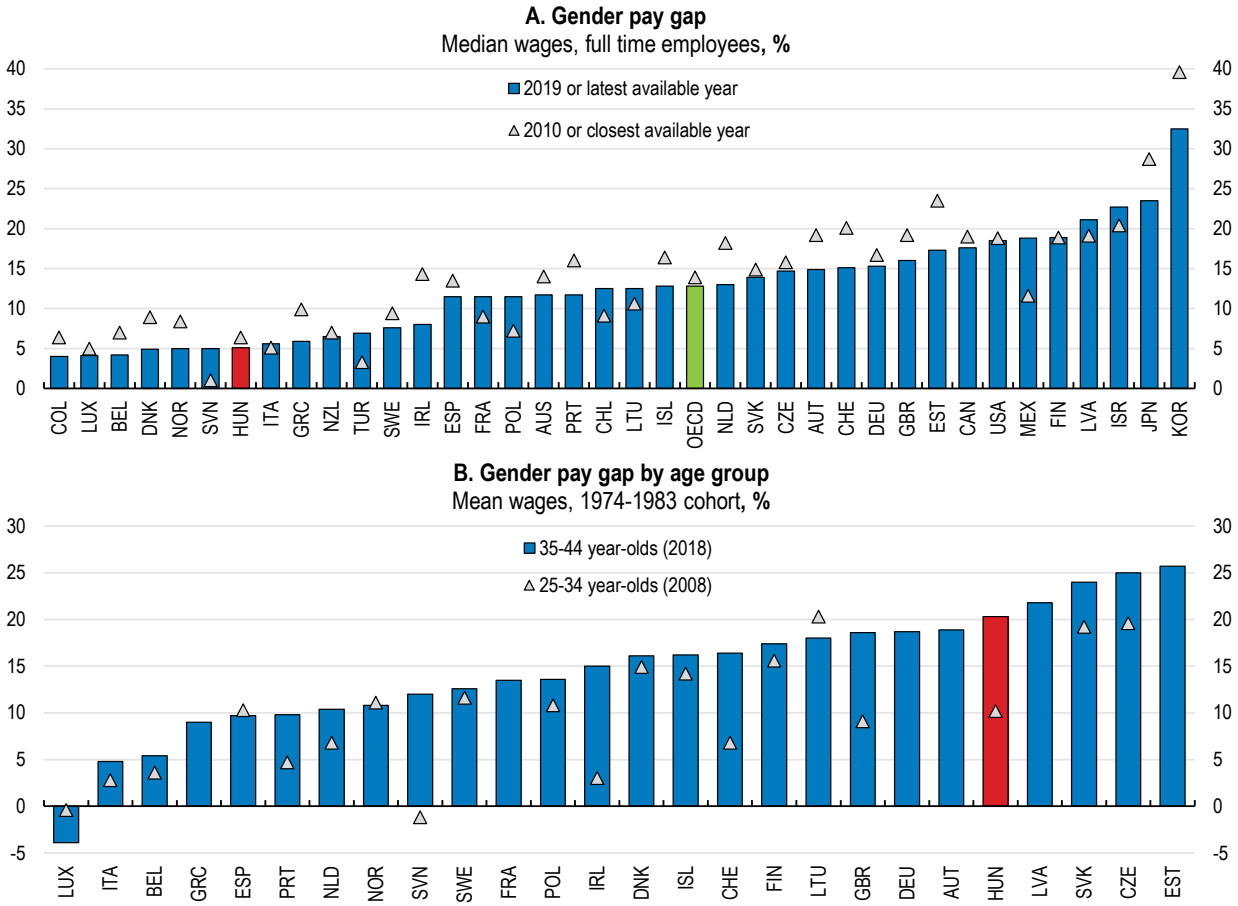
The long maternity leave period affects women's career progress. The overall gender pay gap is low in international comparison, but widens among women in their thirties and forties, and especially for female managers who have a pay gap of 34% with their male colleagues (Szabó, 2017[105]) (Figure 1.40). To raise employment among young mothers, the government mandates firms to allow mothers to return to work on a part-time basis. However, such an obligation discourages employers from hiring young women, especially SMEs, forcing women into lower-income career paths and temporary employment (European Commission, 2018[106]; Takács and Vincze, 2019[107]). A better approach would be to encourage more flexible working arrangements, such as increased use of flexible working hours and teleworking, to improve the work-life balance of mothers. Flexible working hours and telework have been shown increase paid working hours of mothers (Chung and van der Horst, 2017[108]). In the Netherlands, for instance, all employees are entitled to ask their employer for flexible working hours, while employers are obliged to honour such a request unless there is a significant reason for not doing so.

Mothers' work-life balance is also impeded by the much longer hours they spend on household and family care activities compared with men (Figure 1.41). Planned Labour Code amendments to accommodate teleworking may facilitate the combination of long hours of non-paid activity with labour market activities. During the pandemic, a tax-free lump sum compensation equivalent to 10% of the minimum wage compensates employees for their telework-related expenses. Nonetheless, teleworking remains relatively uncommon, even during the crisis, reflecting low adaption of digitalisation and a general lack of digital preparedness among employers and employees (OECD, 2021[109]) (Chapter 2). This suggests that the impact of tax support measures will remain limited in the foreseeable future. The government should also focus on changing ingrained social and cultural issues that hamper female labour market participation.

Figure 1.40. The gender pay gap is high for women in their 30s and 40s



Note: In Panel A, the gender pay gap is the difference between median wages of men and women relative to the median wages of men. In Panel B, the gender pay gap is defined as the difference between average gross hourly earnings of men and women paid employees relative to the average gross hourly earnings of men paid employees. Data refer to NACE Rev. 2 activities B to S, except O (i.e. Public administration and defence; compulsory social security).
In both Panels, data refer to full-time employees with usual weekly working hours equal to or greater than 30 hours per week.
Source: OECD Gender wage gap database; and Eurostat Gender pay gap database.

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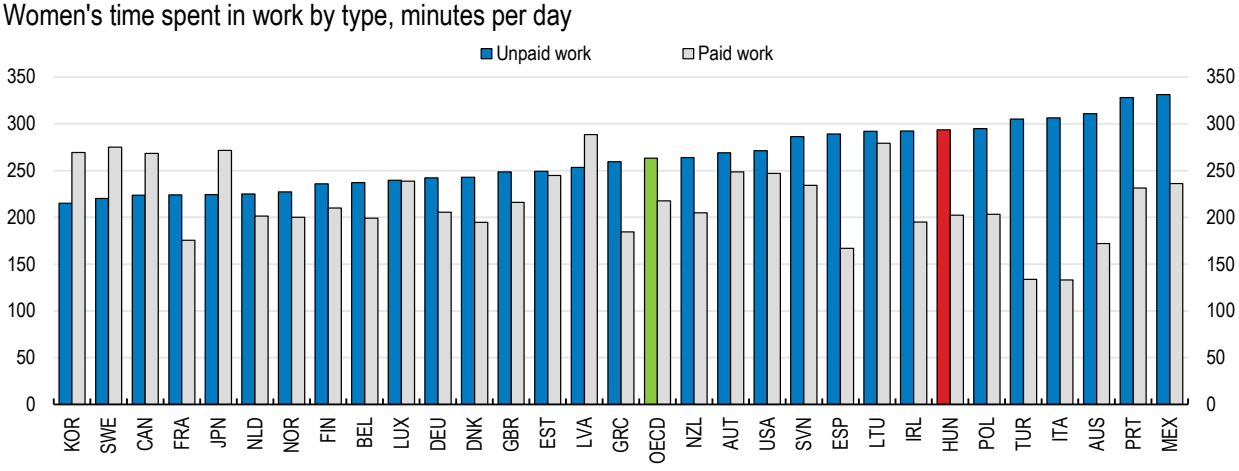
Figure 1.41. Women's work-life balance hampers their career prospects



Source: OECD Gender database.

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To raise the low fertility rate, the government provides families with generous home-ownership support, amounting to 0.5% of GDP according to the 2021 Budget Act. Credit-worthy married couples benefit from interest-free mortgage loans that can be turned into a grant if a child is born, and they are exempted from VAT and the asset acquisition tax when purchasing a home (MNB, 2020[110]). However, the effectiveness of these measures has been limited, even though the fertility rate has increased from 1.4 in 2015 to 1.5 in 2020. A concern is that home ownership measures cater mostly to medium and high-income families. These are typically faced with other barriers for having children, notably a lack of nursery places and inflexible working arrangements (see above). Government policies that favour owner-occupied housing also come at the expense of a small rental market, reducing housing options for low-income households wishing to move to regions with stronger labour markets (MNB, 2019[111]). Thus, family support measures that subsidise home-ownership should be withdrawn. Instead, the labour market prospects for families with children should be improved by strengthening incentives for mothers to re-enter the labour market, particularly with respect to improving work-life balance (Table 1.15).

Table 1.15. The past recommendations on family policies and female career prospects

Recommendations in previous survey	Action taken
Abolish the Women 40 scheme.	No action taken
Continue to expand the supply of crèches.	Government plans to increase private and state owned nursery places to 70 000 by 2022 and increase wages of staff.
Enhance incentives for mothers to participate in the labour market.	In 2020, the age limit of the child to which the possibility of part-time employment is linked has increased. An ESF co-financed programme provides wage subsidies to women with small children to promote their employment, entrepreneurship, mobility and labour participation. In 2019, child care subsidies for enrolment in private nurseries when public places are unavailable were introduced. An ESF co-financed programme provides labour market training to low-skilled women with small children.

MAIN FINDINGS	RECOMMENDATIONS (key recommendations in bold)
Macroeconomic and financial policies to support the recovery	
Inflation is above the inflation target of 3% and moved outside the central bank's upper tolerance band of +/- 1% in spring 2021.	**Continue to increase policy interest rates if inflation expectations become unanchored**. **Gradually exit from unconventional monetary policy measures.**
Fiscal policy is supportive.	**Continue to provide targeted fiscal support as needed, while preparing for fiscal consolidation once the recovery has become self-sustained.** **Adopt a medium-term strategy to reduce debt and prepare for long-run fiscal challenges of ageing.**
Population ageing is accelerating, boosting ageing related spending pressures.	**Complete the ongoing increase of the statutory retirement age to 65 by 2022. Thereafter link it to gains in life expectancy.**
The number of non-performing loans is likely to increase.	Stand ready to increase the capital charge on non-performing loans. Continue to develop the secondary market for impaired assets.
Healthcare capacities are constrained.	Enhance autonomy of hospitals to adjust supply of health services.
Structural reforms for stronger, inclusive and more sustainable growth	
High labour taxes deter labour market participation and investment in skills. The effective VAT rate is lower than the standard VAT rate.	**Make the tax system more growth-friendly by further reducing the reliance on labour taxation and continuing increasing the reliance on consumption taxes and raising immobile property taxes, while addressing adverse distributional impacts.** **Simplify the VAT system by moving towards a broader-based and lower standard VAT rate.**
Employment among young mothers is low.	**Expand the availability of affordable, high-quality childcare. Reduce the effective length of parental leave and continue to facilitate more flexible working arrangements.**
The tax system imposes heterogeneous abatement costs across sectors and activities.	**Gradually unify carbon taxes and set non-carbon environmental taxes and fees according to the polluter pays principle.**
Low regulated prices (often below cost) of energy, water, wastewater and waste collection services do not incentivise investments.	**Ensure cost recovery in regulated energy and introduce targeted affordability measures to help low-income households.** **Increase waste collection fees and water and wastewater service tariffs to help finance needed investments.**
The car fleet is old and polluting.	Link vehicle taxes to environmental performance.
Favourable tax treatment encourages private car use for commuting.	Tax the private use of company cars in line with wage.
Emissions from road transport are increasing.	Introduce distance-based road pricing and congestion charges.
Strengthen business dynamism	
The number of regulated professions remains high.	Liberalise entry conditions in services sectors by reducing certification and licensing requirements.
The anti-corruption framework needs further strengthening to be more effective.	**Establish an independent anti-corruption authority or a strong coordination committee**. Strengthen public integrity in conflict of interest, lobbying, rules of conduct, parliamentarians' asset declarations, and independence and transparency of the judicial system.

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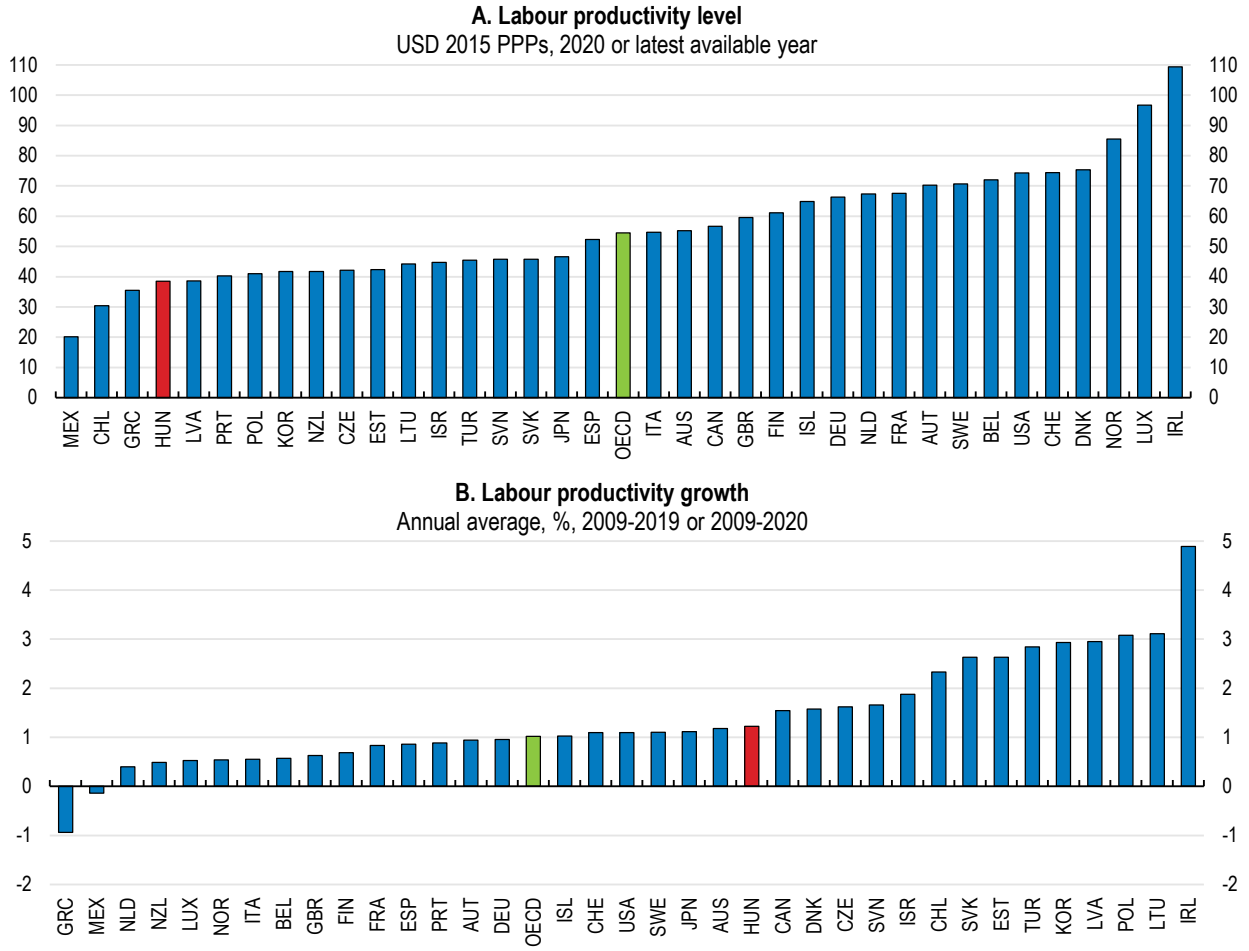
2 Fostering productivity for a stronger and sustained recovery

Weak productivity growth raises concerns for future living standards. Low productivity reflects educational outcomes that are poorly matched to the labour market, and insufficient geographical mobility of low-skilled workers that has created pockets of unemployment in poorer regions while prosperous regions continue facing labour shortages. Moreover, there is a large productivity gap between foreign-owned firms and less productive domestic-owned firms. To improve productivity and ensure a speedy post COVID-19 recovery, education and training policies need to ensure that all workers are equipped with the skills demanded in the labour market. Better functioning housing and transport infrastructures are key to promote labour mobility. Importantly, domestic firms must move up the value chain. To this end, better roads, digital infrastructure and digital adoption would help facilitate integration into regional and national value chains. A more pro-competitive business environment would allow more productive firms to grow and invest in new technologies. This entails a more efficient implementation of existing competition regulation, the withdrawal of distortive government support to less productive incumbents, and streamlining the insolvency regime to accelerate market exit. A stronger digital public administration could support this process.

Low productivity undermines income convergence and future living standards

Labour productivity levels remain among the lowest in the OECD, and productivity growth has been sluggish when compared to other emerging economies since the financial crisis (Figure 2.1). Part of the productivity underperformance reflects higher labour force participation of low-skilled workers. Also, skills shortages constrain firms' ability to increase productivity and move up the value chain. Skills shortages reflect weak vocational training outcomes and skills of graduates that are poorly matched to labour market needs. In addition, insufficient geographical mobility of low-skilled workers has led to pockets of unemployment in poorer regions, while prosperous regions face labour shortages as discussed in the last *Survey* (OECD, 2019[1]). Looking ahead, the working age population is set to decline and labour demand will continue to shift towards higher-skilled workers with the integration of manufacturing into global value chains. Productivity increases require making the most of the existing workforce by raising skills and mobility.

Figure 2.1. Labour productivity remains low



Note: Labour productivity is measured as real GDP per hour worked.
Source: OECD Productivity database; and OECD calculations.

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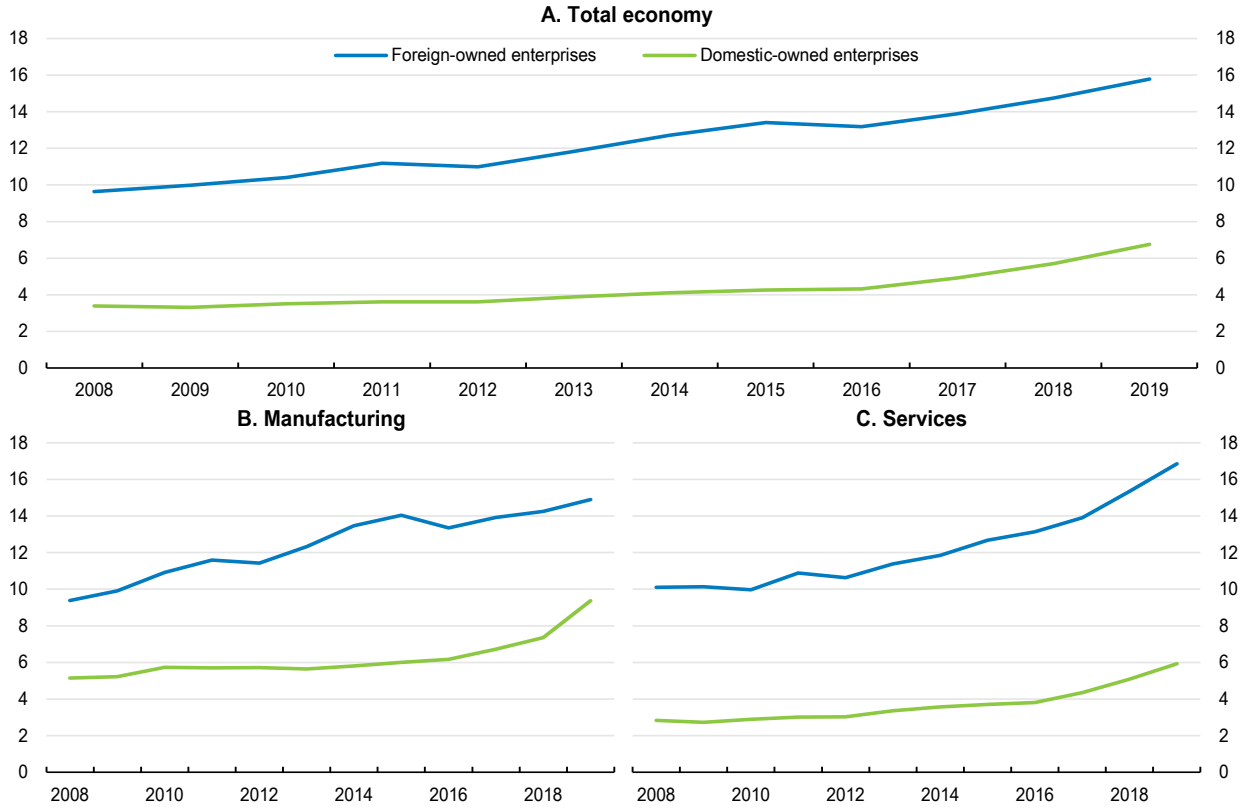
A major concern are the large differences in productivity performance across the economy with a persistent productivity gap between foreign-owned firms and less productive domestic-owned firms. Only between 2017 and 2019 did the gap somehow narrow on the back of stronger productivity growth of medium-sized domestic enterprises (Figure 2.2). Nonetheless, few domestic-owned firms are exporters and most are poorly integrated into national and regional supply chains. Frequent changes in regulation discourage entry

of productive enterprises, especially in service sectors. As a result, market entry in the important service sector has been declining in Hungary more than in most other EU countries over the last decade (Bauer et al., 2020[2]). More recently, entry fell sharply during the first phase of COVID-19 in spring 2020 and does not seem to have recovered much (OECD, 2021[3]). This is mirrored by disproportionally high market shares of low-productivity firms, which points to low competition (Muraközy, Bisztray and Reizer, 2019[4]). In fact, entry barriers in service and network sectors are higher than the OECD average (OECD, 2018[5]). Furthermore, the adoption of digital technologies has been concentrated among the largest firms with slow diffusion to the rest of the economy. Smaller firms lack the incentives and skills to seize the productive potential of digital transformation. A stronger pro-competitive regulatory framework is needed to support market entry and growth of more productive firms that can enter regional and national value chains.

Figure 2.2. The productivity gap between foreign and domestic enterprises is large

Labour productivity, million Hungarian Forint



Note: Labour productivity is measured as value added per employee.
Source: OECD calculations based on business balance sheet and business survey data from the Hungarian Central Statistical Office.
StatLink https://doi.org/10.1787/888934267464

Over the past half-decade, wage increases have outpaced labour productivity growth. This reflects very tight labour market conditions before the COVID-19 crisis. Labour costs that increase faster than productivity reduce profits and investment incentives (European Investment Bank, 2020[6]). In response, the government compensated employers by lowering their social security contribution rate from 27% to 15.5% between 2016 and 2020 to avoid excessive labour cost increases, and it announced a further cut to 15% in 2022 along with the elimination of the vocational training contribution of 1.5% of gross wages. Restoring investment incentives requires wage increases that are in line with productivity developments as fiscal concerns make it more difficult to implement further offsetting reductions in social security contributions in the future. Faster investment growth will also allow continued income convergence while preserving cost competitiveness.

More recently, the COVID-19 shock and resulting drops in foreign demand and supply-chain disruptions have hit the export-oriented economy hard (OECD, 2020[7]). Moreover, national containment measures have particularly affected some domestic sectors, such as hospitality. State-backed loan schemes have helped businesses to stay afloat during the crisis. However, such schemes risk keeping unviable firms alive, hindering business dynamics and effective reallocation of resources to the most productive firms. In addition, job losses in some sectors may become permanent due to changed consumer demand and accelerated digitalisation (e.g. e-commerce and food delivery). These developments may have a lasting impact on productivity. Looking ahead, policies will have to support efficient reallocation of capital and labour to allow sustained productivity growth.

This chapter presents policy recommendations to boost productivity and ensure a strong and sustained recovery in Hungary. These include: supporting skills and labour mobility to raise labour productivity and facilitate structural change (Section 2.1); promoting dynamic and competitive product markets to boost entry and growth of productive enterprises (Section 2.2); strengthening equity-based funding (Section 2.3); improving road infrastructure to ease firms' integration in national and international value chains (Section 2.4); and promoting digital adoption (Section 2.5). The main findings and recommendations are summarised in a table at the end of the chapter.

Support skills and mobility to raise labour productivity and facilitate structural change

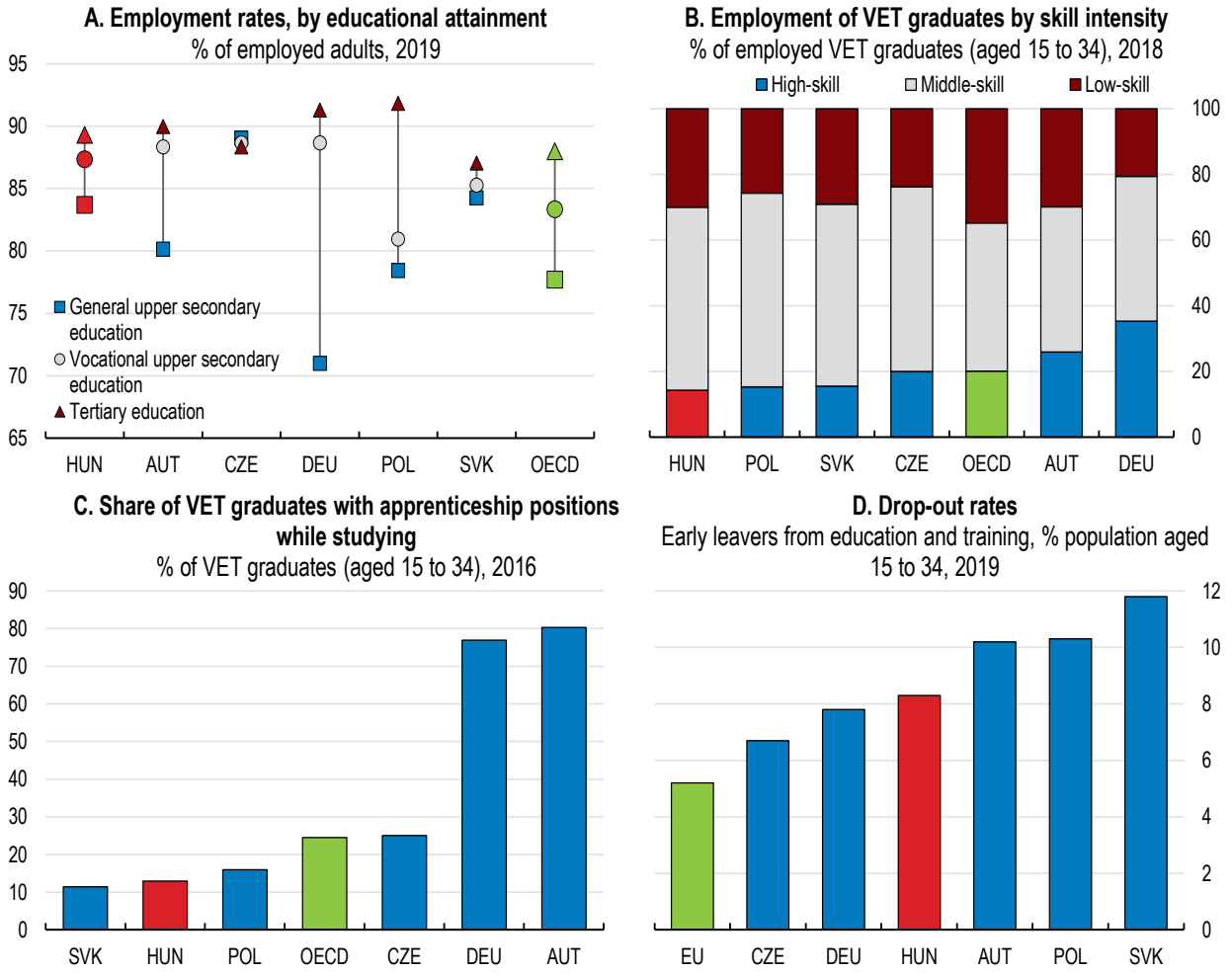
Among other determinants, productivity depends on workers having (i) advanced technical skills or specialised content knowledge, and (ii) complementary generic skills, such as problem-solving and teamwork skills (Grundke et al., 2018[8]; OECD, 2019[9]). In Hungary, university graduates have in general high technical skills and a significant wage premium. However, the education system pays less attention to complementary generic skills, which are increasingly in high demand (Hermann, Horn and Todai, 2018[10]). Higher education institutions (HEI) can cultivate problem-solving skills and teamwork skills and support lifelong learning of adults. Moreover, outcomes of vocational education and training (VET) are weak and poorly matched to labour market needs. Continued emphasis on basic and generic skills and work-based learning in vocational education will be crucial to secure students' capacity to adapt to changing skills needs and align educational outcomes with labour market needs.

Equip students with the skills demanded in the labour market

Strengthen skills and work experience in vocational education and training

Employment rates of VET graduates are high in international comparison (Figure 2.3, Panel A). However, only 47% of VET graduates work in the occupation targeted by their programme. Unsurprisingly, those working outside their field typically hold unskilled jobs (Hőrich, 2015[11]). Such a skill mismatch reflects that programmes delivered by vocational schools are heavily concentrated in low- to medium-skill crafts and trades, while labour demand is shifting towards high-skilled jobs. In fact, only 14% of VET graduates work in high-skill occupations, while this share is twice as high in countries with stronger VET traditions such as Germany and Switzerland (Figure 2.3, Panel B). A factor behind the skill mismatch may be students' choice of low- and medium-skill occupational tracks at the beginning of their VET education. In order to avoid too early tracking, reforms in 2020 saw the introduction of basic sectoral training during the first year of the secondary VET school (two years in the case of the upper secondary VET school), during which students receive training in basic and generic skills before they select a specific occupational track. To improve the responsiveness of the VET system to changing labour market needs, the government could forecast future skill needs. In Estonia, for example, the System of Labour Market Monitoring and Future Skills Forecasting provides quantitative skill forecasts based on yearly analysis of labour market and skill needs. Similarly, Canada set up the Future Skills initiative to collect information on emerging skill trends (OECD, 2019[12]).

Figure 2.3. Employment rates of VET graduates are high but few work in high-skill jobs



Source: OECD (2020), Education at a Glance 2020: OECD Indicators, OECD Publishing, Paris; OECD (2020), OECD Employment Outlook 2020: Worker Security and the COVID-19 Crisis, OECD Publishing, Paris; and Eurostat.

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The 2019 VET reform Strategy VET 4.0 simplified and updated qualifications, reducing the number of occupations from 760 to 175. Sectoral Skills Councils, introduced in 2018, advise on learning outcomes and content (Ministry of Innovation and Technology, 2019[13]). Moreover, the previous focus on crafts and trades has shifted towards higher-skill occupations, as 99 out of 175 occupations require a higher-level secondary education exit exam (Matura). To continue adjusting the number of students in specific programmes to labour market needs, mandatory work placements in companies can help, as done in several OECD countries (Box 2.1). For example, the number of work placements in school workshops should be reduced as work placements in companies are gradually expanded (see below). A softer form would be to use data on the expected availability of work placements to guide the choices of prospective students.

Box 2.1. The use of work placements to align VET programmes to labour market needs

Several OECD countries use mandatory work placements of VET students to adjust study programmes to labour market needs.

- In Sweden, for example, a mandatory 15-week work placement is required in all upper secondary programmes. While a relatively small part of the overall programme (about 15%), this measure helps adjust programme sizes in the light of the availability of work placements (Skolverket and ReferNet Sweden, 2019[11]).
- In Denmark students must secure an apprenticeship contract with an approved training company before starting the second half of the basic programme. Exceptionally, and within a pre-defined quota, students who are unable to find a placement may pursue practical training in school workshops. The quota ensures that the number of students is aligned with labour market needs (Andersen and Helms, 2019[14]).

Despite progress, few VET students have apprenticeship positions, and, despite growing dual training, access to high-quality work-based learning is a concern (Figure 2.3, Panel C). In 2018, 53% of vocational school (szakközépiskola) students had an apprenticeship contract, up from 40% in 2015. For vocational grammar schools (szakgimnázium) the same figure was 21% (up from 8%). Other students pursue practical training in school workshops, sometimes complemented by work placements over the summer holiday. Nonetheless, 13% of VET graduates report having had no work experience during their studies, despite this being in principle mandatory. The lack of work-based training reflects that the choice of a VET programme does not coincide with search for a work placement. Thus, student choice does not reflect the availability of work placements. One way of aligning student choices with labour market needs is to allow apprenticeships to start only once a placement with a company for the work-based part of the programme is secured, as done, for example, in Denmark, Germany and Switzerland. At the same time, efforts to encourage companies to provide apprenticeship contracts should be continued (see below).

VET schools receive funding based on the number of students, giving them few incentives to reduce programmes with poor labour market outcomes, especially if those are popular among applicants, and few possibilities for opening up new programmes in response to changing skills needs in the labour market (Ministry of Innovation and Technology, 2019[13]). Moreover, the funding system gives VET schools few incentives to bring students into work-based training (see above). To better match VET education and training to labour market needs, funding for vocational schools should be linked to the number of students in work placements. For instance, failing to find work placements for VET students should have negative financial implications for the school, which would avoid channelling students into programmes with few work-based learning opportunities.

VET graduates also need sound basic skills (such as in literacy and numeracy) and generic skills (such as in communication, ICT, and problem-solving) to secure their capacity to learn and adapt to changing skills needs and thus their long-term labour market success. However, employers surveys show dissatisfaction with the basic and generic skills of VET graduates (Gablini, 2018[15]). A 2013 reform of the VET system made parts of teaching hours dedicated to general education and theoretical vocational content optional, which effectively reduced these teaching hours and weakened the literacy and numeracy skills of students in vocational schools (Hermann, Horn and Todai, 2018[10]). As a result, for example, the VET system dedicates less attention to basic and general skills than the German system (Hajdu et al., 2015[16]). Moreover, the system has little capacity to help the considerable share of entrants into VET that have weak literacy and numeracy skills, increasing drop out risks (Belinszki et al., 2020[17]). To strengthen generic skills, VET curricula were changed in 2020, allocating more teaching hours to generic skill development. As part of the reforms, VET teachers receive Continuing Professional Development courses in order to develop their own training and teaching skills. In addition, programmes in vocational schools include since 2018 systematic screening for weaknesses at the point of entry and dedicate more time to literacy and

numeracy for weaker students. To bolster basic and generic skills of VET students, efforts to dedicate more time to ICT, literacy, numeracy and problem-solving in vocational schools should continue.

One of the challenges, as for other OECD countries, is to engage employers in the provision of work-based learning. Small- and medium-sized enterprises often reap few benefits by retaining apprentices upon completion, which discourages them to take on apprentices in the first place (Muehlemann and Wolter, 2019[18]). Furthermore, many smaller firms lack the capacity to deliver high-quality training and deal with administrative requirements. In response, the government has recently introduced Sectoral Training Centres (STCs) to help firms with providing practical training and dealing with administrative tasks (Box 2.2). Looking ahead, it is important that STCs complement, rather than replace, work-based learning in companies. To this end, the activities in STCs should focus on strengthening links between VET centres and companies. In particular, the government should ensure that STC activities focus on measures that facilitate training provision in companies, for example, by offering training programmes for in-company trainers, and providing companies with administrative support or matching prospective apprentices to companies.

Box 2.2. Initiatives to develop apprenticeship capacity at smaller companies across the OECD

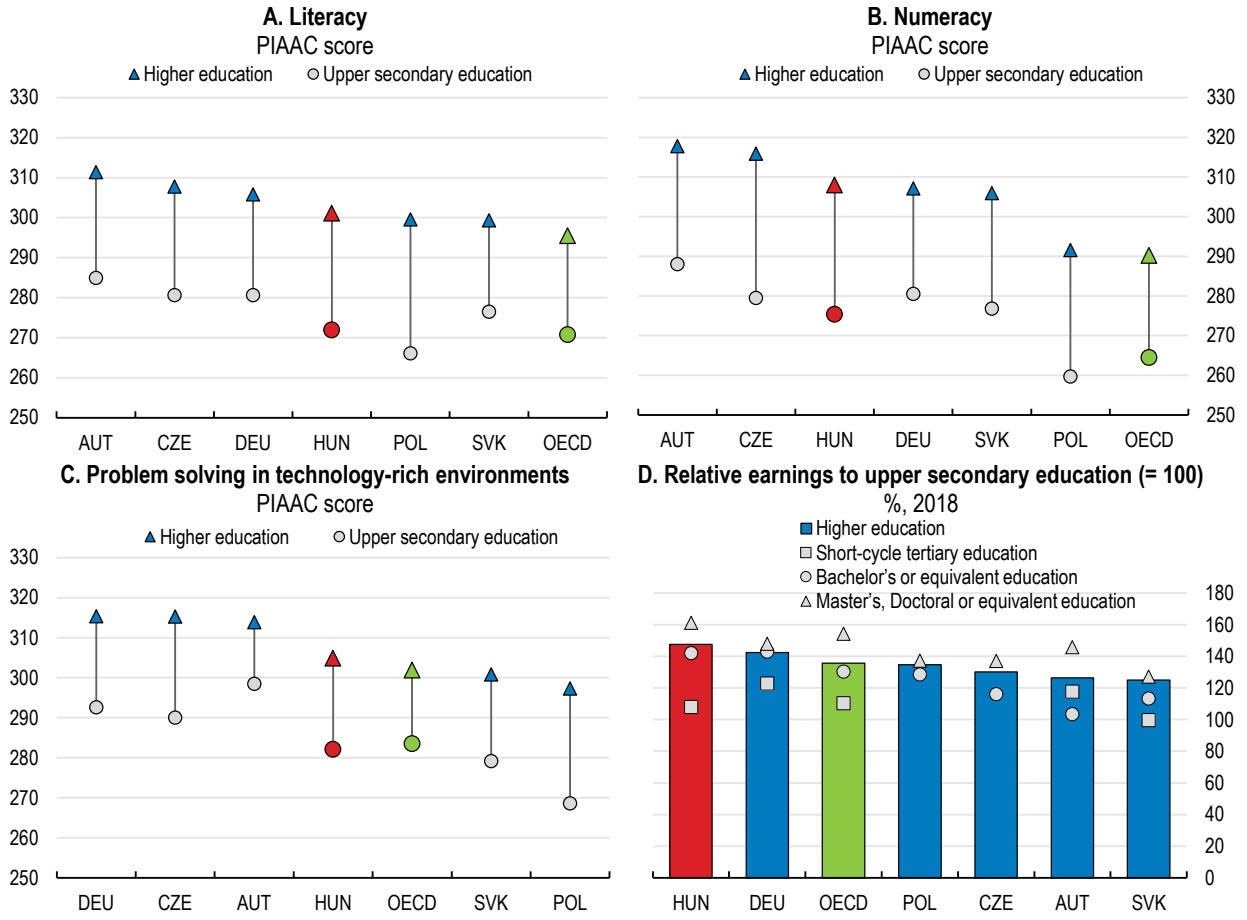
To help companies, and in particular SMEs, provide training, several OECD countries have established external bodies that take over some of the tasks generated by apprenticeships. This may include facilitating the matching process, and helping companies deal with the administrative burden and deliver high-quality training:

- In Germany, training centres are governed by Chambers of Commerce and offer training that complements learning in schools and within individual companies. One of their key roles is to enable SMEs to remain key providers of apprenticeships. Being increasingly specialised, SMEs often cannot cover the entire VET curriculum on their own. The centres have contributed to maintain a high training capacity of SMEs: 26% of firms with 5-9 employees provided apprenticeships in 2018, 38% of firms with 10-19 employees and 49% of firms with 20-49 employees (BIBB, 2020[19]).
- In Norway training offices are collectively owned by companies and facilitate the delivery of apprenticeships by connecting companies with prospective apprentices, training apprentice supervisors and organising theoretical training for apprentices (Høst, 2015[20]).
- Under a different model, Group Training Organisations in Australia hire apprentices and place them with host employers. They also deal with administrative tasks and rotate apprentices between employers (Australian Apprenticeships, 2021[21]).

Improve generic skills in higher education

Higher education graduates perform above the OECD average in assessments of literacy, numeracy and problem-solving skills, and have higher employment rates than graduates of upper secondary education (see above) (Figure 2.4, Panel A to C). In addition, relative large wage premia give students strong incentives to invest in their skills (Figure 2.4, Panel D). A problem, though, is that higher education programmes focus principally on the development of specialised content knowledge, achieved through extensive instructional contact hours and teacher-led pedagogical methods. This comes at the cost of complementary cognitive and socio-emotional skills, including teamwork and communication skills, which are important for success in labour markets (Deming, 2017[22]). Work-based and problem-based learning are still not commonplace in higher education (OECD/European Union, 2017[23]). A stronger use of modern teaching methods can improve generic skills among higher education graduates.

Figure 2.4. Higher education graduates have relatively high skills and wages



Source: OECD Survey of Adult Skills (PIAAC) database (2012, 2015, 2018); OECD Education and Earnings database.

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Incentives and support for teachers to update their pedagogical knowledge and teaching skills are less extensive than in other OECD countries. The academic career advancement system incentivises teaching staff to obtain a doctoral degree and produce quality scientific work, but it does not recognise their efforts to improve their teaching knowledge and skills (Eurydice, 2020[24]). Nor does Hungary possess a system of widely disseminated teaching and learning quality measures found in some higher education systems, such as Australia. Similarly, pedagogical support is more limited than that found in other higher education systems. The Educational Authority organises training sessions on the implementation of outcome-based education (Educational Authority, 2021[25]). However, there is no national quality assurance body that provides pedagogical support, as in the United Kingdom, or an independent national body that focuses on supporting the enhancement of teaching and learning, such as that found in Ireland. Moreover, only few Hungarian HEI have dedicated centres on teaching (e.g. Teacher Training and Digital Learning Centre at Corvinus University).

To enhance the quality of teaching at higher education institutions, the Ministry of Innovation and Technology, jointly with the Tempus Public Foundation and the non-profit organisation Digital Success Ltd., are currently developing a set of criteria and an assessment tool for teachers' performance within an EU programme (Tempus Public Foundation, 2020[26]). The programme also aims to provide recommendations on an incentive system to encourage the development of teaching skills. Further support and incentives should be provided to teaching staff to update their teaching knowledge and skills, as done in other OECD countries (Box 2.3).

Box 2.3. International practice to improve pedagogical knowledge and teaching skills of teachers

- Some countries have a national body responsible for the support of teaching and learning in HEI. In Ireland, for example, the National Forum for the Enhancement of Teaching and Learning in Higher Education offers professional development opportunities to teachers. It also encourages teachers and HEI to exchange information on teaching; and during the pandemic, online teaching resources have been shared through its network (National Forum for the Enhancement of Teaching and Learning in Higher Education, 2021[27]).
- Other national initiatives focus on acknowledging the efforts of exemplary teachers. With the aim of incentivising teachers to focus on the quality of teaching, the Netherlands started the Comenius Fellowship scheme in 2017, which awards competitive grants for teachers and HEI stimulating innovation in teaching (Dutch Ministry of Education Culture and Science, 2015[28]).
- Alternatively, heightened attention to teaching and learning outcomes could be encouraged through a system of quality indicators, such as the Australian Quality Indicators for Learning and Teaching (Australian Department of Education, Skills and Employment, 2021[29]).

A better alignment of programme offerings with labour market demands would improve labour market outcomes of higher education. There is important variation in employment rates of higher education graduates among fields of study, ranging from 78% for social sciences to 95% for information and communications technology (ICT) (OECD, 2021[30]). Also, only around half of arts and humanities graduates have found employment in jobs requiring a degree in the first three years after graduation, although this share rises to 76% after 5 years (Educational Authority, 2021[31]).

In 2021, the accreditation of new study programmes was streamlined, so that new study programme authorisation is governed by a ministerial decree rather than previous lengthy authorisation procedures. In addition, a newly developed graduate tracking system allows students to access information on labour market outcomes of different study programmes. The system integrates different administrative databases containing information on enrolment, employment rates, earnings, and occupations. Moreover, graduate survey data complement the administrative data with more qualitative information, including graduate self-reports of skills use at work and job satisfaction (Educational Authority, 2021[31]). The graduate tracking system should be complemented by a system that systematically collects feedback from employers, as done in Australia and the United Kingdom. Employer surveys at a national level can inform the design of study programmes about labour market needs, thereby improving their labour market relevance. For example, in the United Kingdom, stakeholders reported that the Employer Skills survey was particularly helpful to obtain evidence on skills shortages, gaps and mismatches at national, regional and local levels (London Economics, 2017[32]) (OECD, 2016[33]) (Box 2.4).

Box 2.4. International experience with Employer Skill surveys

Employer surveys can provide important insights into the planning of education and skills policies and programmes.

- The United Kingdom, for example, has conducted the nation-wide Employer Skills Survey every two years since 2011. The survey includes questions related to skills mismatches and hard-to-fill vacancies (UK Department for Education, 2020[34]).
- Australia, on the other hand, uses a combined approach to collect feedback from graduates and employers. The annual Graduate Outcomes Survey includes a question on skills utilisation at work, and is linked to an Employer Satisfaction Survey, which is sent to the employers of the graduate respondents to ask their satisfaction with graduate skills (Australian Department of Education, Skills and Employment, 2020[35]).
- At the European level, several surveys collect information on skill gaps as perceived by employers, including Eurostat's forthcoming 2020 Continuing Vocational Training Survey (Eurostat, 2020[36]), which includes an employer survey on skill gaps developed by the OECD and in which Hungary participates, and the 4th wave of the EU Company Survey (Eurofund, 2020[37]).

Most students gain work experience through internships as many study programmes require them, while dual education programmes are less common. In 2015, work-based learning was strengthened with the introduction of dual education bachelor's programmes, which combine academic components offered by HEI and practical components provided by firms. The dual tertiary education programmes, first introduced at the master degree level in 2017, were extended to the doctoral level in 2020 (Cooperative Doctoral Programme for Doctoral Scholarships). However, participation is low, with only around 2 000 students in the academic year 2019/20. This reflects that students have been overloaded with a combination of extensive classroom studies and additional work-based learning responsibilities. In addition, HEI sometimes have trouble finding business partners after accepting students, ending up unable to offer the dual form of education (Dual Training Council, 2019[38]). In response to the COVID-19 pandemic, students have been granted more flexibility to decide when to commence the practical component. To strengthen dual education, programmes should preserve this flexibility as to when a student can start the practical component in order to ease workload pressures.

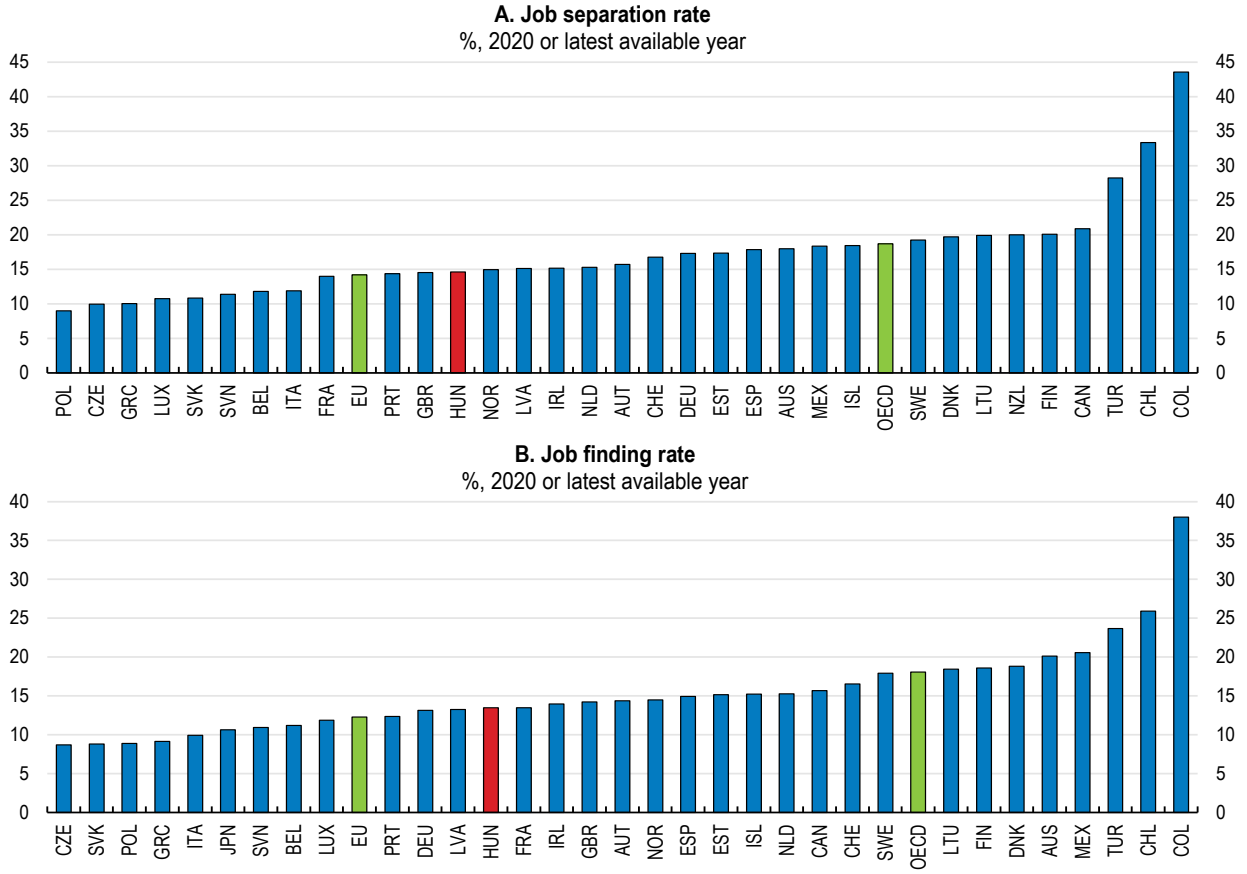
Staff mobility between academia and industries is often limited to the involvement of external speakers in teaching activities, reducing the opportunities for knowledge exchange. Over half of HEI do not recognise experience in the business sector in the recruitment of their academic staff. In addition, it is uncommon for instructional staff to obtain institutional support, such as sabbatical leave for professional practice, to augment or renew their knowledge in a professional setting outside of higher education (OECD/European Union, 2017[23]). In Finland, some HEI hire "professors of practice" who have experiences in industries and are responsible for bringing practical expertise to the higher education sector (Frølich et al., 2018[39]). Similarly, in Austria, teachers at Universities of Applied Sciences are often recruited from industries and remain employed by their employers on a part-time basis, in order to keep their practical knowledge up to date (Eurydice, 2020[40]). In addition, several Dutch HEI loan their staff temporarily to firms to promote knowledge exchange (OECD/European Union, 2018[41]). The government should encourage HEI to employ individuals with professional experience as teachers, and increase opportunities for teaching staff to deepen or refresh their knowledge of the professional practice. In addition, current collaboration efforts, such as the Széchenyi István University and Audi collaboration that involves staff mobility, could be boosted.

HEI are not widely involved in adult learning. For example, there was no HEI involvement in a 2020 initiative to address the shortage of IT professionals by providing rapid training that led to industry-recognised certifications for approximately 37 000 people (Hungarian Ministry for Innovation and Technology, 2020[42]). The few HEI initiatives include the development by 22 HEI of Massive Open Online Courses (MOOCs) (Óbuda University, 2021[43]). In contrast, HEI in other OECD countries are often a source of innovation in targeted "alternative credentials" (Kato, Galán-Muros and Weko, 2020[44]). To stimulate such a development, funding and deregulation measures should support such initiatives across the entire higher education system, including incorporating shorter learning programmes into the existing higher education framework.

Improve labour mobility

Labour mobility is insufficient to prevent high unemployment in poorer regions (Figure 2.5) (Chapter 1). A particular concern is the low geographical mobility of low-skilled people, which feeds into persistent pockets of underemployed workers in poorer parts of the country (Figure 2.6, Panel A). Mobility is concentrated among better-educated workers with strong incentives to move to prosperous regions with higher wages, as discussed in the previous *Survey* (OECD, 2019[1]). Despite strong movements of higher-skilled workers to more prosperous regions in recent years, firms in these regions cannot easily fill vacant positions with workers from poorer regions (Panel B). The resulting labour shortages hinder the expansion of the most productive enterprises. As the working age population is set to decline, productivity increases require raising labour mobility.

Figure 2.5. Labour turnover is low



Note: In Panel A, data shown refer to the difference between the hiring rate and the net employment change. In Panel B, data refer to the share of employed in the latest 12 months in total employment.
Source: OECD Labour Force Statistics database; and OECD calculations.

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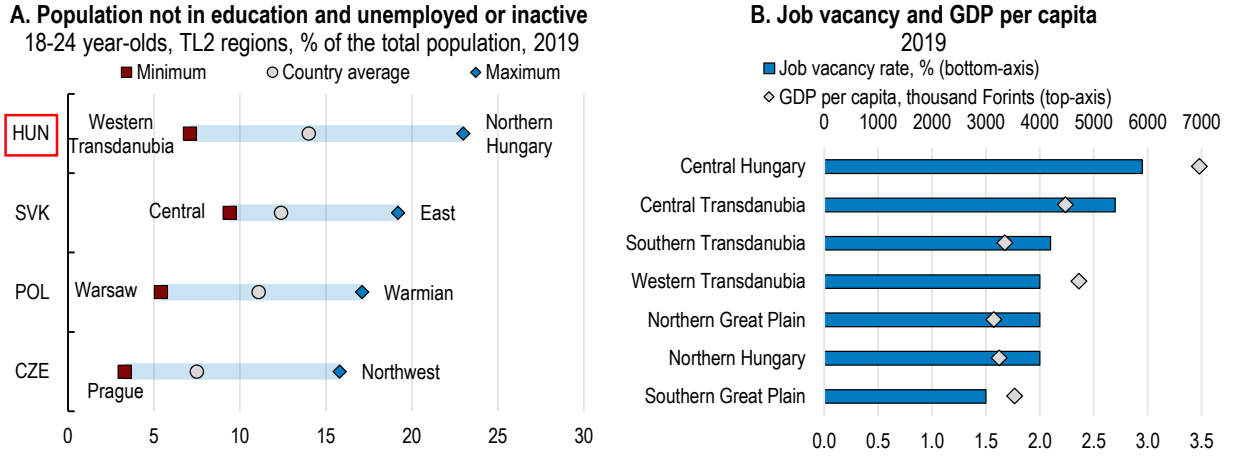
Figure 2.6. High unemployment in poorer regions contrasts with labour shortages in richer regions



Note: Panel A shows population not in employment, education or training (NEET).
Source: OECD Regional Statistics database; Hungarian Central Statistical Office; and OECD calculations.

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Government incentives have not significantly increased geographic mobility. The government provides grants to municipalities and companies for the construction and renovation of workers' hostels (Foster, Masso and Osila, 2020[45]). In addition, geographical mobility of workers is encouraged with a commuting allowance for employees. However, only about 0.1% of employees received the commuting allowance in 2019, and another 0.1% of workers benefited from affordable housing under the workers' accommodation scheme. Workers' accommodations cater mostly to single men rather than families. Moreover, the commuting allowance is at the discretion of employers, who often refrain from applying for such support due to administrative costs.

To support mobility, the government provides a transportation subsidy for jobseekers. Jobseekers receive a subsidy of up to 30% of the minimum wage for a period of up to a year. However, the subsidy is distance-based and covers only transportation of up to 60 km between the place of residence and the place of work. Extending transportation subsidies independently of the travel distance, for instance for the commute to job interviews, could boost mobility. A distance-independent, time-limited transportation allowance for all jobseekers can facilitate the reallocation of labour from regions with high unemployment to more prosperous regions with labour shortages.

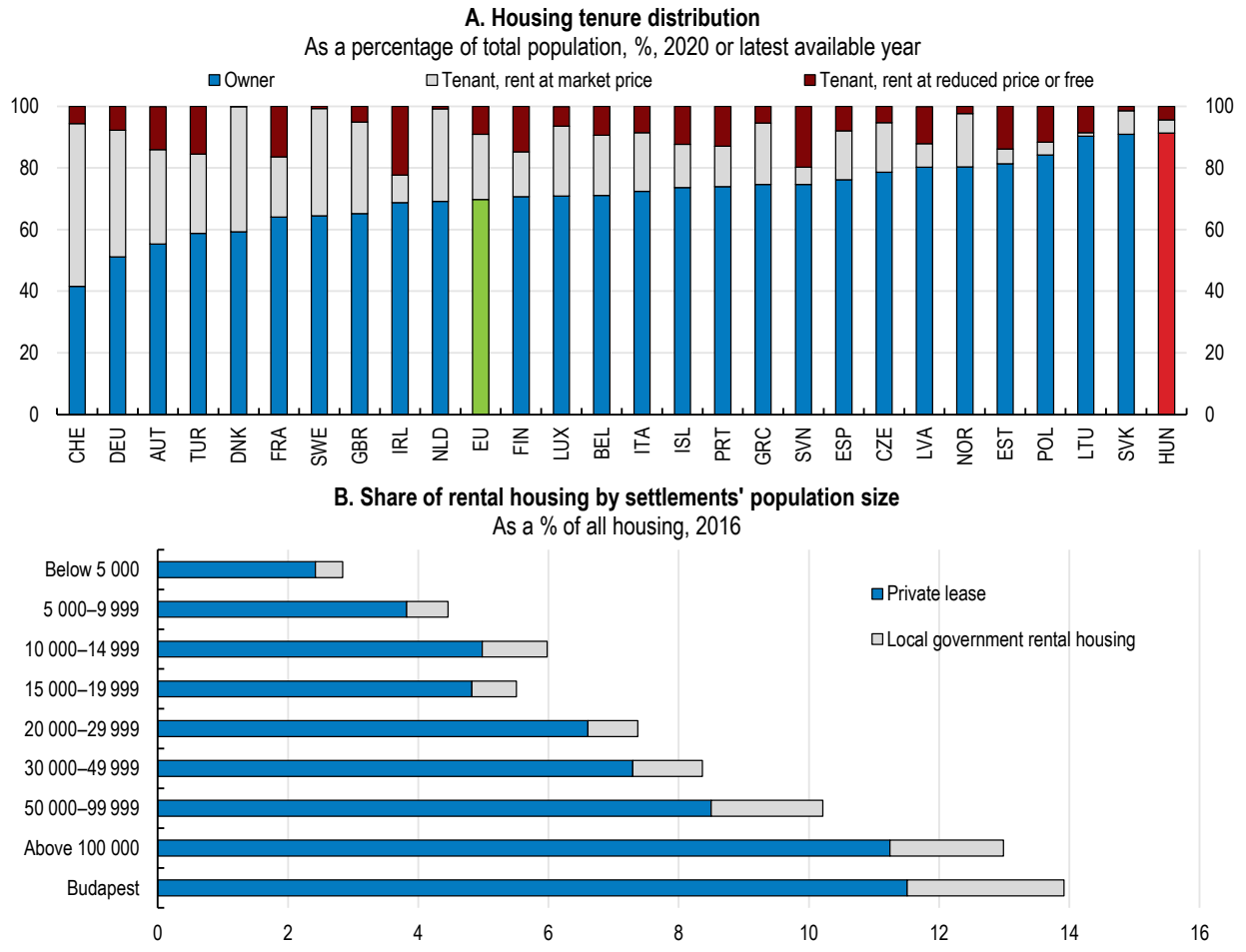
Geographical mobility is restricted by a rigid housing market. Generous mortgage subsidies support a high degree of home ownership. The Home Purchase Subsidy Scheme for Families and single parents has provided mortgage subsidies since 2015. In 2019, the government introduced another mortgage subsidy scheme for credit-worthy married couples (so-called prenatal baby support loans) that can be turned into a grant if a child is born. Subsidies mortgages account for about one third of new bank lending since mid-2019, contributing to strong housing demand and fuelling rapid increases in housing prices (MNB, 2019[46]). However, these schemes cater mostly high-income families that can afford a house, as they are better placed to access the mortgage market, while they do not provide short-term mobility incentives for low-income households with highest mobility needs (MNB, 2020[47]) (Plouin et al., 2020[48]). The withdrawal of mortgage subsidies, such as zero interest loans, would help limit price increases in the housing market and improve labour mobility (Cournède, Ziemann and De Pace, 2020[49]).

A small formal rental market limits residential mobility to cities with better employment prospect (Figure 2.7). The tax regime discourages investment in the rental market, as owner-occupied housing enjoys a significant tax subsidy compared to alternative investments and rental housing as discussed in the previous *Survey* (OECD, 2019[1]). Individuals who live in their own house do not pay property tax, while

rental income of people renting out their apartment is taxed considerably higher with a personal income tax of 15%. It is at the discretion of municipalities to levy a land or building tax, although only about a quarter of municipalities levy such a tax. In addition, homeowners are exempted from a tax on imputed rents and from the capital gains tax of 15%, while home buyers benefit from a reduced VAT of 5% since 2021. The associated underinvestment in the rental housing market has led to rental housing shortages and high rental prices. In Budapest, for instance, rental housing shortages have led to a rapid increase in rental prices since 2016, leading to one of the highest rent-to-income ratios among European capitals (MNB, 2020[50]). The relatively high renting costs discourage mobility of low-income workers.

To support residential mobility, jobseekers that move more than 60 km away to find new employment are eligible for a housing allowance of up to 70% of the minimum wage starting in 2021, replacing the previous tax-exempt lump-sum rental subsidy of 60% of the minimum wage. The housing allowance may help raise geographical mobility, especially to cities with higher rental prices. However, the scheme does not tackle the underlying issue of low rental housing supply. A neutral taxation of investments in private rental housing and owner-occupied housing would help develop a bigger rental market. Taxing owner-occupied housing in line with other saving vehicles, such as equity, can also help creating a neutral tax framework for investments.

Figure 2.7. The rental market is small



Note: In Panel A, EU aggregate does not include the United Kingdom.
Source: Eurostat Housing Statistics database; and Hungarian Central Statistical Office (Microcensus 2016).

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The small private rental market is largely unregulated and based on short-term contracts, which renders it unattractive as a longer-term solution, although the actual size of the rental market is probably much bigger than what official tenure statistics suggest (MNB, 2019[51]). A lack of clear rules for the renewal of fixed-term contracts creates uncertainty for tenants regarding the renewal of their contract. To terminate a lease agreement, a short 1-month notice period is required, which makes rental housing an unpredictable option for many people. The absence of clear rules on maintenance responsibilities and deposits to cover potential claims after contract termination creates legal uncertainty for landlords, discouraging renting. Lengthy court proceedings for dispute resolution between landlords and tenants raise costs. In addition, a large share of the private rental market in Budapest is used for short-term tourist accommodation, which is more attractive in terms of rental income (MNB, 2019[51]). As a result, 13% of all rental contracts are informal (so-called "*black leases*") and the majority of leases are short one-year contracts, while incentives to rent out apartments longer-term are limited (Hungarian Central Statistical Office, 2019[52]).

There is a need to modernise the outdated rental regulations stemming from 1993, adapting them to the needs of the modern housing market. Regulation of tenancy that better balances the interest of tenants and landlords could strengthen incentives for long-term rentals as an alternative to home-ownership. This could entail effective dispute resolution, a longer notice period for terminating long-term contracts as well as clear rules for deposits and maintenance obligations (Habitat, 2000[53]). Ireland, for instance, has set up the independent Residential Tenancy Board to promote out-of-court dispute resolution between tenants and landlords, considerably reducing the costs of litigation (Habitat, 2017[54]). In order to mitigate the negative impacts of online accommodation platforms on long-term rental housing supply in Budapest, municipalities should consider adequate regulation of private lodgings such as licenses for short-term vacation rentals that exceed a certain time limit, as done, for example, in Amsterdam, Copenhagen and Paris. The supply of rental housing increased considerably after the introduction of a limit of 60 days for short-term rentals in Amsterdam in 2017, and a limit of 120 days in Paris in 2019 (Cournède, Ziemann and De Pace, 2020[49]).

The subsidised rental market is small and a considerable share of social housing apartments are in poor condition, which discourages low-income households to find appropriate social housing in more prosperous regions. Above all, it is a barrier for poor households accessing decent, affordable housing. The share of poor households living in deprived social housing is among the highest in the OECD (OECD, 2020[55]). For instance, 16% of poor households live in social housing that is overcrowded, has a leaking roof, lacks a bath/shower and/or has no indoor toilet. Furthermore, many municipalities have introduced strict minimum-income levels that exclude poorer tenants from social housing in order to increase the profitability of their social housing operations. Minimum-income levels should be phased out as they limit the options for low-income households wishing to relocate. In general, minimum income levels reduce access of low-income households to social housing. As recommended in the previous *Survey* (OECD, 2019[1]), the provision of social housing for those willing to relocate, irrespective of minimum-income levels, could increase labour mobility of workers.

In order to raise investment in the quality of social housing, the government should reallocate spending on mortgage subsidies to the subsidised rental market. For instance, the government could provide subsidised loans or tax credits to non- or limited-profit housing associations (Habitat, 2000[53]; Habitat, 2017[54]). In Austria, for instance, limited-profit housing associations are tax-exempted under the condition that they re-invest profits into social housing (OECD, 2020[56]). In addition, co-financing measures could incentivise counties with largest housing shortages to invest in housing projects.

Reforms to social benefits could also improve labour mobility. The short 3-month duration of unemployment benefits discourages geographical mobility. Jobseekers do not have sufficient time to search for new employment in other regions and employment that matches their skills. Although a short duration raises search incentives, the 3 months of unemployment benefit are shorter than the average time needed to find a job, creating income insecurity and poverty risks even for the short-time unemployed (Hungarian National Employment Service, 2021[57]). Furthermore, people losing their benefits tend to stay in their region and

enrol in the Public Work Scheme, where they can qualify for renewed benefits (see below). This further reduces geographical mobility as job search in other regions is discouraged. Extending the benefit duration to 6 months could improve labour mobility, especially from poor regions into growing labour markets, as recommended in the previous *Survey* (OECD, 2019[1]). With the COVID-19 crisis, longer support for jobseekers becomes even more pertinent as job separations have increased. This is consistent with maintaining job search incentives, as the current net replacement rate for average wage earners in unemployment, at 43% for single persons and 54% for couples with children, is below the OECD average.

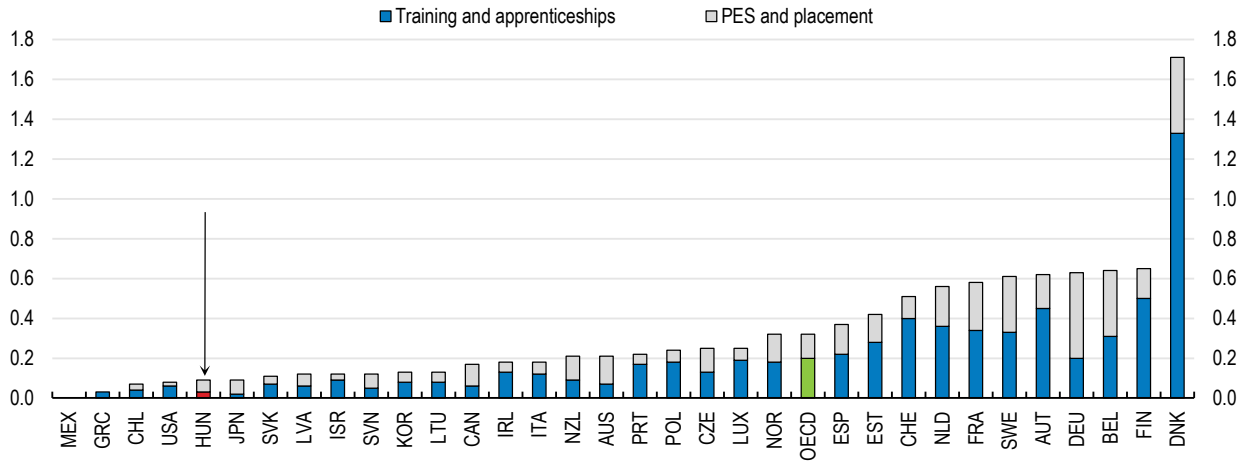
Active labour market policies provide insufficient support for mobility and upskilling. The Public Works Scheme has been reduced in scope but remains the main active labour market policy. As described in the previous *Survey*, the scheme has successfully reduced poverty in lagging regions (OECD, 2019[1]). However, its impact on the mobility and the employability of enrolees remains low. According to the latest available data (2019), only 17% of enrolees found employment in the primary labour market and only 7% took part in training. Also, the interplay of short duration of unemployment benefits and public works scheme has some negative impacts on employability as some people do not get out of unemployment and public work schemes. Hence, there should be a transition towards more effective active labour market policies, such as training and targeted job search assistance (OECD, 2018[58]; Card, Kluve and Weber, 2017[59]). In line with previous recommendations, the government has reduced the Public Works Scheme by introducing stricter eligibility criteria. Further reforms to the Public Works Scheme are necessary to facilitate transitions to the primary labour market. The government should continue downsizing the Public Works Scheme and enhance the training content of the scheme by incentivising collaboration with the private sector and non-government organisations (NGOs) to strengthen labour market experience. Widening access to Public Works schemes outside an enrolee's municipality would promote mobility. At the same time, the Public Works Scheme should continue to target the most disadvantaged groups in poorer regions, notably older long-term unemployed persons with low skills.

Compared with other countries, active labour market policies have little focus on training and job search assistance, leaving new jobseekers with insufficient support (Figure 2.8). As highlighted in the latest *Survey*, public employment services (PES) suffer from insufficient funding, a high caseload and limited outreach. In addition, job counselling is not tailored to the needs of most disadvantaged groups, including the Roma (OECD, 2019[1]). In response, the government launched a reform of PES in 2018 to improve the number of job placements of unemployed persons. NGOs cooperating with PES provide counselling and mentoring services for disadvantaged jobseekers. In addition, PES have created individual action plans for all registered jobseekers based on their risk categories. European funding will be used to hire additional staff for PES, co-financed by national funds. The government has also stepped up spending on training, including spending on online distance education, by 0.16% of GDP for the period 2020-2022.

However, more should be done to improve targeting as the additional resources do not reach the most disadvantaged groups with the highest training needs. With the COVID-19 crisis, stronger support for training and job search becomes even more important as job separations have increased, often affecting low-skilled workers in service sectors. To strengthen targeting of policies, staffing and efficiency of the PES should be scaled up following the recommendation from previous *Surveys* (OECD, 2016[60]; OECD, 2019[1]). The rebalancing of active labour market policy spending away from Public Works scheme towards training and job assistance at the PES should continue as it will improve the employability of long-term and low-skilled jobseekers.

Figure 2.8. Labour market policy spending on training and job placements is low

Labour market policy spending by policy type, % of GDP, 2018



Note: Spending on public employment services (PES) includes funding for authorities that connect jobseekers with employers through information, placement and active support services.
Source: OECD Labour Market Programmes database.

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Ensure a prudent minimum wage policy to support mobility

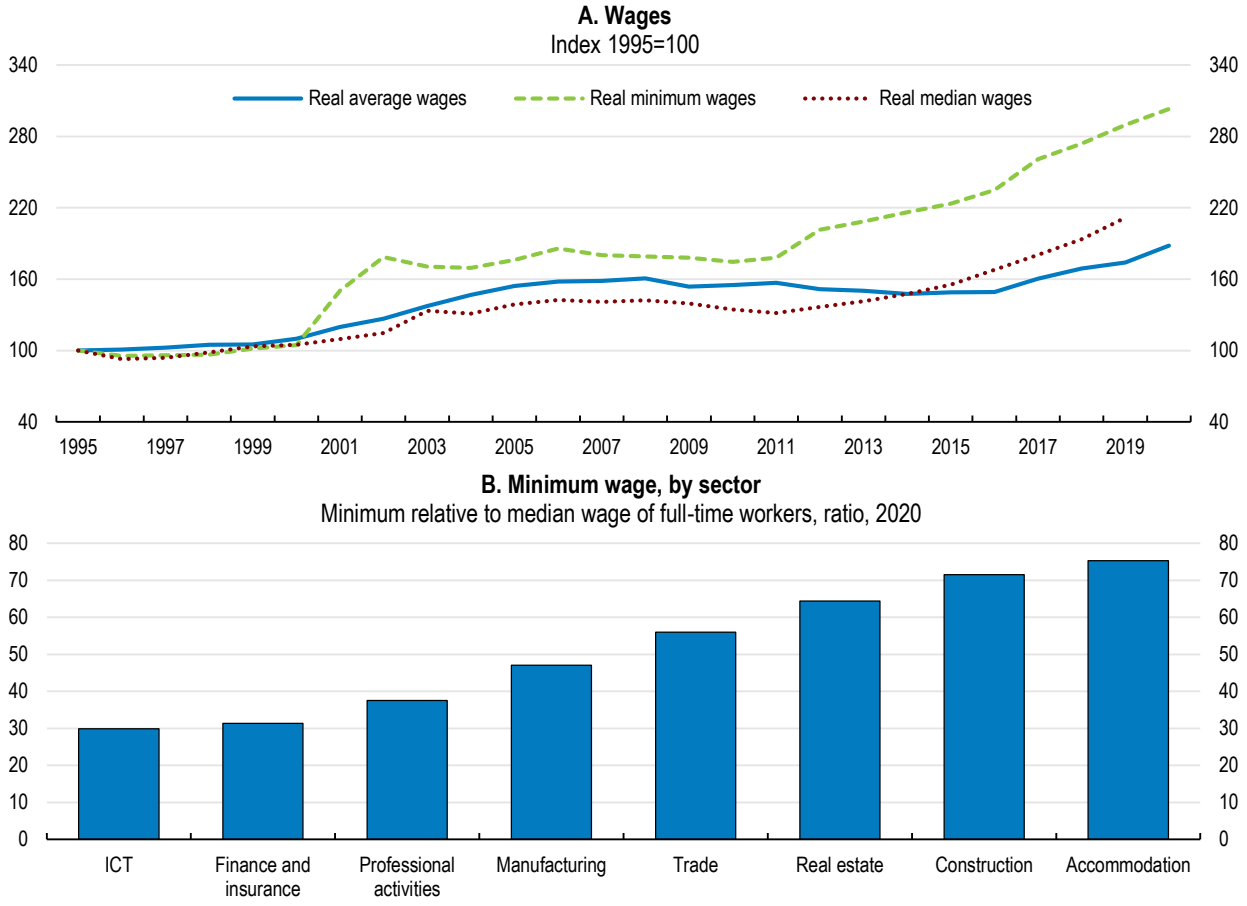
The main wage policy is the minimum wage, which is set by the government after consultations with the social partners. In absolute terms, the minimum wage is among the lowest in Europe, although it is comparable to those of neighbouring countries such as the Czech Republic and the Slovak Republic (OECD, 2021[61]). Increasing minimum wages are important to secure living standards for all. However, the pace of minimum wage growth should be smaller than the growth of other wages to enhance employment prospects of low-skilled and unemployed workers. The minimum wage has increased, in real terms, by about 30% since 2015, which is nearly double the growth rate of the average real wage of 17% (Figure 2.9, Panel A). This comes despite the fact that changes to the minimum wage are in principle subject to annual reviews by the tripartite body for social dialogue, which amongst other things assesses whether minimum wage increases will harm productivity and employment. The fast growth in the minimum wage has kept the ratio of the minimum wage to median wage ratio above those in most other European countries, although the ratio has fallen recently due to strong median wage growth (OECD, 2021[62]). Evidence from the early 2000s shows that strong minimum wage increases reduced job prospects of low-skilled and long-term unemployed persons (Kertesi and Kollo, 2003[63]; Manning, 2021[64]).

Moreover, the minimum wage is relatively high compared to the median wage in poorer regions. About 5% of employees receive the minimum wage nationwide, but this share is about 40% higher in the least developed regions, where the average income is hardly above the minimum wage (Hungarian Central Statistical Office, 2019[65]). Furthermore, the share of wages affected by the minimum wage is considerably higher since the minimum wage has a signalling effect on most private sector wages in wage negotiations. For instance, the minimum wage is high compared to the median wage in labour-intensive sectors such as hospitality and construction (Panel B). Compressed wages discourage low-skilled workers in poorer regions, and especially in labour-intensive sectors, to search for better-paid jobs elsewhere as slightly higher wages would not offset moving costs.

In order to mitigate the effects of a high minimum wage on labour market entry, the government is supporting job opportunities for young adults and low-skilled workers through wage subsidies. In 2020, it introduced a wage subsidy for under 25-year old people and low-skilled jobseekers that covers up to 50% of their wage costs, capped at 60% of the minimum wage. In 2021, the wage subsidy was made available

for all jobseekers registered for at least one month at the PES. The government further announced a capping of the income tax for under 25-year olds at the level of the gross average wage starting in 2022. The government should ensure that the minimum wage grows at a slower pace than the median wage to support mobility incentives of low-skilled workers from poorer regions into more prosperous labour markets.

Figure 2.9. The minimum wage has grown more strongly than the average wage



Note: In Panel A, real average wages refers to the national-accounts-based total wage bill divided by the number of hours worked in the total economy, deflated by a price deflator for private final consumption expenditures in 2019 prices. Real minimum wages refers to the hourly minimum wage deflated by the consumer price index taking 2019 as the base year. Real median wages are calculated by dividing the real minimum wages by the minimum-to-median-wage-ratio.
Source: OECD National Accounts database; OECD Labour database; Hungarian Central Statistical Office; and OECD calculations.

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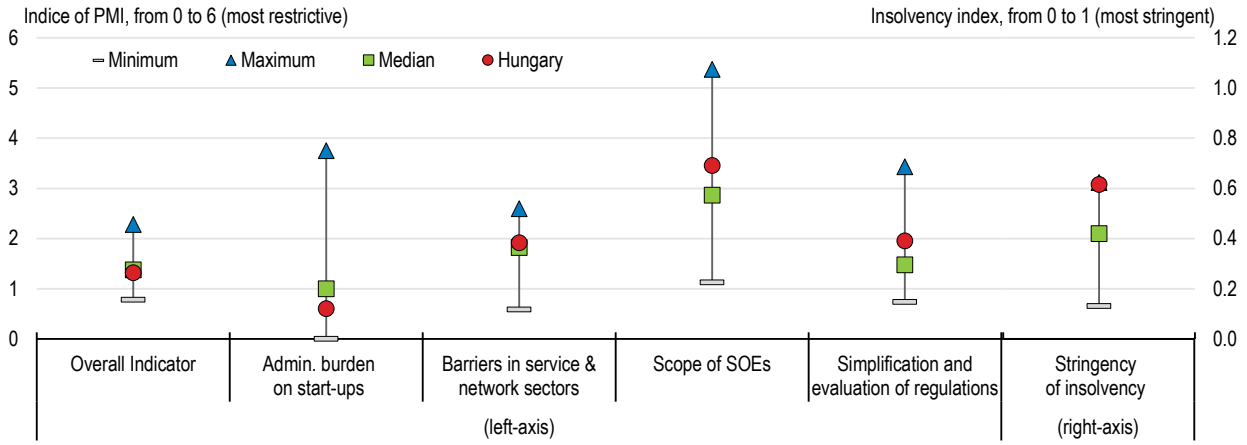
Promote dynamic and competitive product markets

Bolstering productivity growth requires competitive product markets that support the introduction of new technologies and efficient allocation of capital and labour to the most productive firms. Hungary has in general a favourable business environment with lean regulations and low barriers to trade and investment, according to the OECD's PMR indicators. Despite the overall favourable product market regulations, there is room for improvement. A concern is state intervention and regulatory barriers that hamper market entry and efficient reallocation of resources in service and network sectors. Moreover, streamlined insolvency procedures could ease market exit of unproductive firms, while a more predictable regulatory framework could stimulate investment and thereby boost productivity (Figure 2.10).

Figure 2.10. There is scope to ease market entry and exit

Product market regulation indices (PMR) and insolvency index, 2018



Note: Administrative burden on start-ups includes licenses and permits. Barriers in service and network sectors capture entry barriers and conduct regulations. Simplification and evaluation of regulations covers impact assessment of competition regulations, stakeholder involvement in the formulation of regulations, and the complexity of regulatory procedures. Stringency of insolvency includes time to discharge, pre-insolvency regimes and the possibility of new financing and cram-down on dissenting creditors (data refer to 2016).

Source: OECD Product Market Regulation database; and Adalet-McGowan et al. (2017), "Insolvency regimes, zombie firms and capital reallocation", OECD Economics Department Working Papers, No. 1399.

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Ease market entry and exit in service and network industries

Low productivity firms have disproportionally large market shares in network industries, which could be a sign of weak competition (Muraközy, Bisztray and Reizer, 2019[4]). In the telecommunications sector, high market concentration and low competition pressures dampen investment, including in newest 5G networks (see below). In the energy sector, the government has entrusted the provision of public services to state-owned quasi monopolies. Furthermore, government regulated prices of electricity, gas and heating for households are lower than market prices that apply for industrial customers, further reducing profitability and discouraging entry in the sector (OECD, 2020[66]). The government should ensure that state-owned enterprises do not benefit from undue competitive advantages. As recommended in the previous *Survey* (OECD, 2016[60]), the government could open, at least, parts of the energy sector to competition. Stronger competition in the energy sector could help raise market entry and improve resource allocation to most productive firms. To raise profitability and ensure cost recovery in the regulated energy sector, the sectoral regulator should receive powers to set market-based prices. At the same time, the government could explicitly compensate providers for the costs associated with public service obligations.

Business dynamism in the service sector has decreased considerably since the financial crisis, which may be related to exemptions from competition policy in the service sector (Bauer et al., 2020[2]; Calvino, Criscuolo and Verlhac, 2020[67]). Since 2015, about two dozen government decrees have exempted mergers from competition scrutiny in sectors such as finance and media on the grounds of national strategic interest (European Commission, 2020[68]). In 2020, for instance, the government exempted the merger of the state-owned Budapest Bank, the previously state-owned MKB Bank and the Takarékbank from competition oversight based on national strategic grounds. In the European Union, competition authorities usually grant merger exemptions only after a full merger review. These reviews are based on clear and explicit rules laying out public interest grounds. As recommended in the previous *Survey* (OECD, 2016[60]), Hungary should increase antitrust scrutiny by subjecting all mergers that fulfil the merger threshold to full merger reviews. The authorities should also establish limited and explicit public interest grounds for interfering in markets, so as to reduce concentration in the service sector and elsewhere.

Sectoral taxes based on turnover in energy, finance and retail reduce the profitability of enterprises and discourage their expansion. In the energy sector, a utility tax is in place and energy suppliers are subject to a higher corporate income tax rate of 31%, against a standard corporate tax rate of 9%. During the COVID-19 crisis, the government re-introduced a bank levy and a sectoral tax on retailers as a revenue-raising measure to finance government spending for households and businesses during the COVID-19 crisis. In addition to the corporate tax, banks were subject to a levy of 0.19% of their tax base that exceeds HUF 50 billion in 2020, although they can deduct the amount of the levy from their tax liabilities over the next five years. Retailers have to pay 0.1% of their annual revenues that exceed HUF 500 million, 0.4% of annual revenues if they exceed HUF 30 billion, and 2.5% in case of annual revenues above HUF 100 billion. Apart from hurting all retailers, the tax on retailers may also prevent the expansion of online retailers, which have grown in importance during the COVID-19 crisis. Sector taxes distort activity as they discourage efficiency gains by limiting investment incentives for expansion and new entry, particularly as they increase with the tax base. As recommended in the previous *Survey* (OECD, 2016[60]), a more growth-conducive tax system requires phasing out distortionary sector taxes. A broader and less distortionary VAT system could compensate for revenue shortfalls.

Moreover, relatively high entry barriers in professional services hamper occupational mobility. Hungary has the highest number of regulated professions in the European Union (European Commission, 2020[69]). About a third of regulated professions are in business services, tourism and entertainment sectors. The high number of regulated professions is not justified by the vocational education and training, which is less developed than in other countries with a high number of regulated professions such as Germany. The government has reduced some requirements for professional services since 2015, including in manufacturing, catering and trade. Nonetheless, scope remains to reduce further certification and licensing requirements in service sectors without compromising quality. This would help reduce entry barriers for entrepreneurs and support employment transitions for unemployed and jobseekers from other sectors, ensuring a more efficient allocation of labour from low to high productivity firms (Bambalaite, Nicoletti and von Rueden, 2020[70]) (see Chapter 1).

Restrictions on large retail units have slowed overall productivity growth in the retail sector since 2010 (Muraközy, Bisztray and Reizer, 2019[4]). There is a surface threshold for large retail outlets in place, which effectively bans the construction of new shopping centres above 400 square metres (so-called “Plaza Ban”). In addition, large retail outfits require additional government approval for alteration works since 2018. Permission-granting powers lie within the Ministry for Innovation and Technology and it can grant derogations at its own discretion. Clarifying the rules for derogations in the retail sector could increase regulatory certainty. In addition, increasing the ceiling on the surface area of retail outlets could support further productivity gains in the retail sector.

Lengthy and slow insolvency procedures delay market exit, which is necessary for efficient allocation of resources to the most productive firms (OECD, 2019[71]). Barriers to exit, like barriers to entry, decrease the market disciplining mechanisms of the competitive process, which can lead to less efficient firms staying in the market. The insolvency regime is stringent compared to other countries, according to the OECD indicator on stringency of insolvency regimes (Adalet McGowan, Andrews and Millot, 2017[72]). Proceedings take longer and are more expensive than the OECD average. Furthermore, the long discharge period from pre-bankruptcy debts (up to seven years) increases the costs for a new start for failed entrepreneurs, which may deter entry dynamics.

The government is currently preparing changes to the bankruptcy law that would entail a three-year bankruptcy discharge period for failed entrepreneurs, in line with European regulations and, as recently introduced in Germany. Shortening insolvency proceedings is a priority to accelerate market exit. In addition, preventive restructuring mechanisms such as pre-insolvency and out of court proceedings could ease the restructuring of solvent businesses (Demmou et al., 2021[73]). To ease corporate debt-restructuring, the government reduced in 2020 the share of creditors needed for approval of a restructuring plan from a two-third majority to a simple majority, and introduced the possibility of participation in debt-

restructuring meetings via electronic means. Reforms in several OECD countries have introduced similar preventive restructuring procedures (Box 2.5). Ensuring that bankruptcies and restructuring are handled quickly and as efficient as possible can accelerate the recovery after COVID-19.

Box 2.5. Insolvency reforms to ease corporate restructuring

Several countries have introduced preventive restructuring regimes in order to ease corporate restructuring of solvent but financially distressed companies. Below are some selected examples of OECD countries.

- **Netherlands** – In 2020, the Dutch government passed a reform to the bankruptcy law that aims to ease corporate restructuring. The reform foresees a new court-ordered debt-restructuring plan. A court can impose such a plan on dissenting creditors. A majority of creditors (representing three quarter in debt value) would be required for approval.
- **United Kingdom** – Recent reforms under the Corporate Insolvency and Governance Act of 2020 introduced a court-supervised restructuring process. A novelty is that a debt-restructuring plan can be imposed by the court on dissenting creditors as long as the court deems that they would not be in a worse position than without debt restructuring. The approval of creditors representing 75% of the value of outstanding debt is required.
- **United States** – Under Chapter 11, the US bankruptcy code allows debtor companies to restructure their business debts and assets under court supervision while they remain operating. The business filing bankruptcy proposes a reorganisation plan to the court. Chapter 11 foresees the possibility of overruling dissenting creditor classes: a restructuring plan requires the approval of the majority of creditor classes that represent two thirds of the value of outstanding debt.

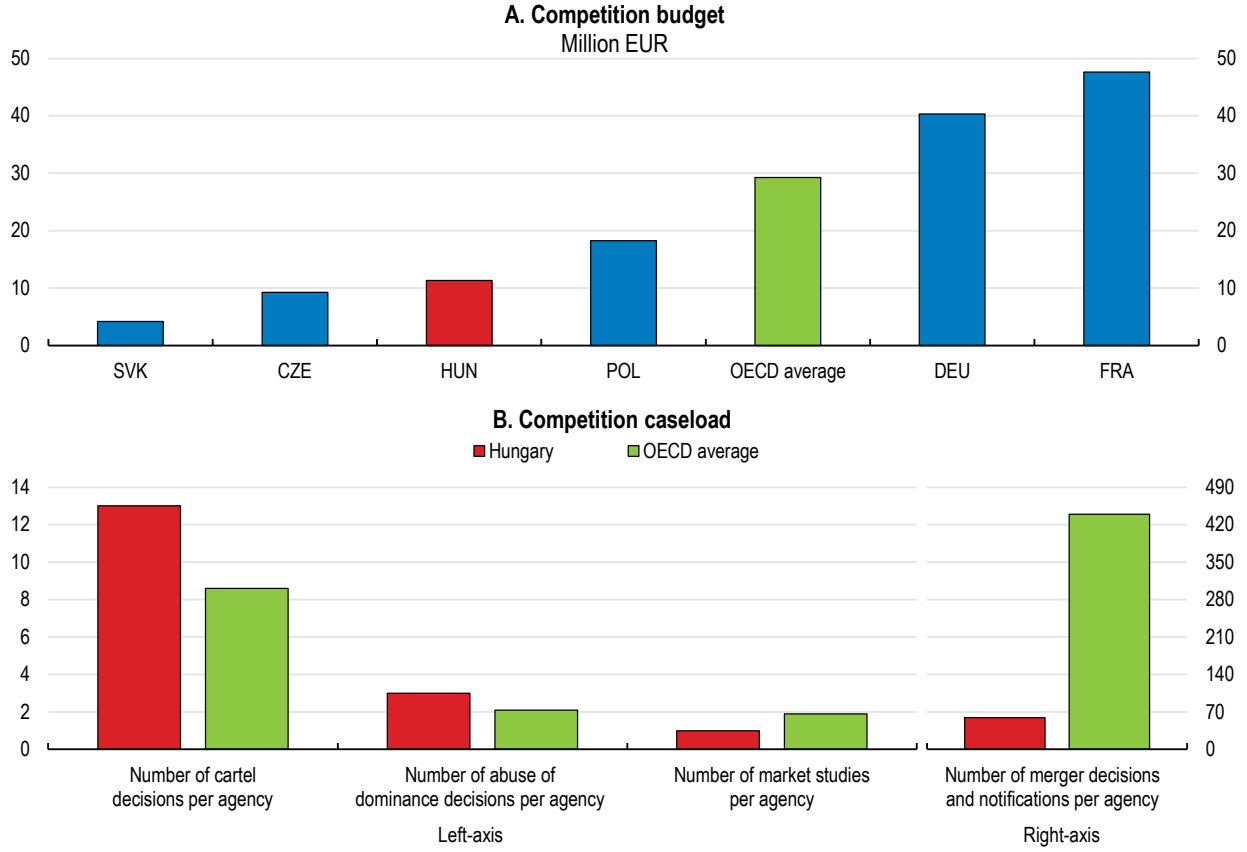
Source: Dutch Senate (2020[74]), UK Department for Business (2020[75]) and US Office of the Law Revision Council (2021[76]).

Strengthen the competition framework

The competition framework is based on EU norms. The competition authority has some of the right tools, including leniency and whistle-blower programmes, to tackle competition infringements such as cartels. However, compared to top ranked competition authorities in the OECD, the competition authority is relatively underfunded, particularly considering its dual function as competition and consumer protection authority (Global Competition Review, 2021[77]) (Figure 2.11, Panel A). Moreover, high staff turnover prevents the building up of expertise, especially at the middle management level where salaries in the private sector are more competitive (OECD, 2019[78]; OECD, 2020[79]). To address the salary gap with the private sector and stem the outflow of experts, salaries at the competition authority were raised by 34% in 2020, although the impact on staff turnover was limited. Competitive markets are essential for catch-up economies to promote efficiency and productivity gains to achieve income convergence. Thus, the competition authority should have its resources bolstered, including the ability to use competitive employment and remuneration schemes to retain key staff.

Figure 2.11. The competition authority's budget is low and its caseload is high

2019



Note: The OECD aggregate includes 36 OECD countries and the European Union. Data for CZE refer to 2018.
Source: OECD CompStat database; and calculations based on the OECD Annual Report on Competition Policy Developments of CZE, FRA, DEU, HUN, POL and SVK; and Hungarian Competition Authority (2021) Sectoral inquiries – market analyses database.

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The competition authority is very active, as reflected in a high caseload in international comparison (Figure 2.11, Panel B). However, only 3 out of 13 cartel decisions concerned public procurement procedures in 2019, although the share of public procurement contracts awarded to a single bidder remains high and the European Commission's Anti-Fraud Investigation Office continues to report irregularities around the use of EU funds (see below) (OECD, 2020[79]). In addition, infringement decisions in public procurement were not taken in sectors with a high risk of collusion in 2019, such as construction and telecommunication, although there are two ongoing cartel proceedings affecting the telecommunication sector (OECD, 2020[79]). Nevertheless, the competition authority's adoption of significant cartel decisions is welcome. To increase its effectiveness in detecting public procurement cartels, the competition authority concluded cooperation agreements with the Public Procurement Authority of Hungary and with the Prime Minister's Office.

Furthermore, there is scope to raise the number of market studies carried out by the competition authority (Hungarian Competition Authority, 2021[80]) (Figure 2.11, Panel B). Market studies are a tool used to assess how competition in a sector is functioning, detect the source of any competition problems, and identify potential solutions. The competition authority can in general instigate infringement procedures based on findings from market studies, but has done so rarely in the last decade. Hence, the authority should have its resources to carry out market studies in key sectors strengthened, and instigate infringement procedures based on such findings.

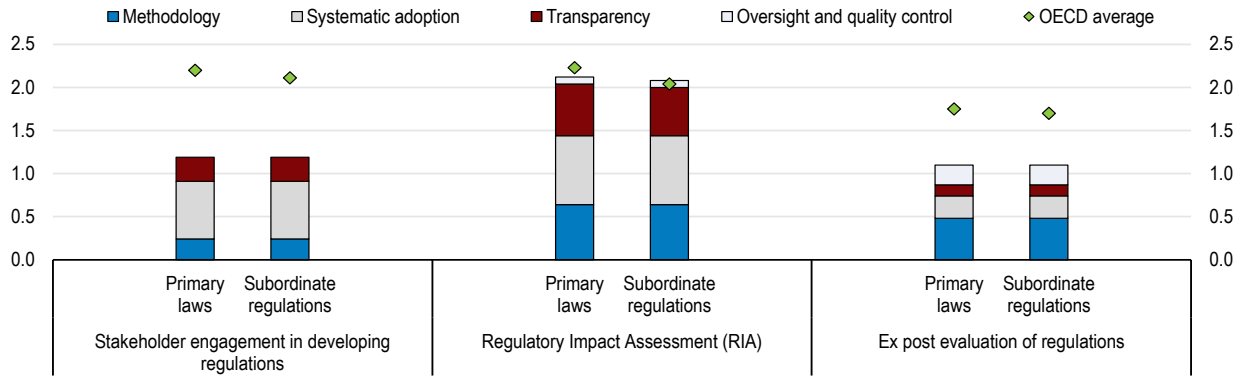
Another concern is that merger decisions are rare (Figure 2.11, Panel B). Since 2015, several government decrees have exempted major mergers from competition oversight based on national security grounds (see above). The resulting loss in oversight powers for the competition authority risks increasing market concentration at the cost of dynamic and competitive markets. To strengthen the oversight powers of the authority, the government should publish its reasoning with a mandatory opinion from the competition authority on how to minimise anti-competitive risks resulting from the merger (OECD, 2020[81]).

The authority pro-actively reviews the press and legislative proposals to monitor market developments and comments on draft laws as part of its competition advocacy activities. The competition authority also plays an important role in forming a pro-competition regulatory framework through its obligation to comment on competition aspects of new laws and regulations proposed by the government. However, the obligation to comment on new legislation refers only to new bills proposed by the government, and excludes legislation initiated by the parliament. A way forward would be for the competition authority to systematically review all new legislation and provide comments on competition aspects, as recommended in the previous *Survey* (OECD, 2016[60]). The OECD 2019 Recommendation on Competition Assessment calls for governments to identify existing or proposed public policies that unduly restrict competition and to revise them by adopting more pro-competitive alternatives (OECD, 2019[82]). The Recommendation calls for governments to establish institutional mechanisms for undertaking such reviews (OECD, 2021[83]).

Reforming regulatory oversight could improve the quality and stability of regulations (Figure 2.12). Contrary to most other OECD countries, there is no stakeholder consultation in the early phases of the design of general legislation. There is also ample room to strengthen oversight and quality of Regulatory Impact Assessments (RIAs). For example, the body responsible for regulatory oversight does not conduct quality checks on RIAs. Furthermore, RIAs that are presented to the government are not published, which reduces the transparency of the process. Publishing the annual RIA report would enhance the transparency of regulatory processes. New oversight mechanisms can ensure sufficient quality of RIAs, ex post evaluations and consultations. For instance, the establishment of a dedicated RIA agency responsible for quality and control of impact assessments could enhance RIA processes. Such an agency could be responsible for the evaluation of all draft bills and regulations, including those initiated by parliament. In the United States, for example, the regulatory review authority has an effective veto power over the regulatory process of public agencies (OECD, 2018[84]). In addition, mandatory consultations of experts and stakeholders in the early phases of developing draft legislation could enhance quality of regulations, as recommended in the previous *Survey* (OECD, 2016[60]).

Figure 2.12. Stakeholder consultation in formulating regulations could be improved

OECD Indicators of Regulatory Policy and Governance (iREG), score, 2018



Note: The more regulatory practices as advocated in the OECD Recommendation on Regulatory Policy and Governance a country has implemented, the higher its iREG score. The indicators on stakeholder engagement and RIA for primary laws only cover those initiated by the executive (76% of all primary laws in Hungary).
Source: Indicators of Regulatory Policy and Governance Surveys, http://oecd/ireg.

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Embrace e-government solutions for business and public procurement

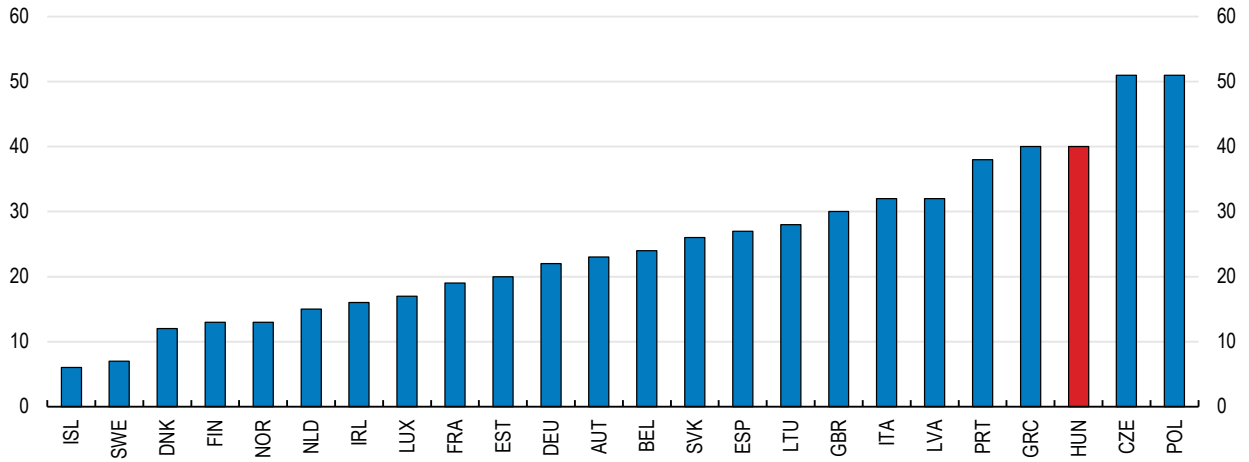
In addition to better competition policies, the government could bolster competition through indirect measures, such as embracing e-government solutions to ease market entry. Entrepreneurs currently need to contact six separate public bodies in order to register a new business, which is higher than the average in the region and higher than the 3 to 4 procedures needed in the best-performing Baltic countries (World Bank, 2020[85]). Contrary to peer countries, it is still necessary to hire a lawyer who represents the company to start a business. In order to ease administrative procedures, the government launched a new online service portal in 2020 for businesses that serves as a "one-stop shop" to access e-government services (https://magyarorszag.hu/szuf_home). Individuals can apply online to register a company at the Registration Court using their social security number. Despite these simplifications, some services have not been integrated in the online portal, such as registration at the Chamber of Commerce and Industry. Continued efforts to cut red tape and reduce administrative barriers to entry will help raise productivity, especially since new firms are a significant source of productivity growth (Muraközy, Bisztray and Reizer, 2019[86]). For instance, opening a business should be possible entirely online and without the need to hire a lawyer.

The public procurement system is in several aspects well positioned in international comparison: The value of national public procurement advertised to businesses is high, which reflects that the threshold for mandatory publication of public procurement procedures is lower than required by EU rules. The participation of small and medium-sized enterprises (SMEs) in public procurement is encouraged by a relatively high share of tenders that have been divided into lots, leading to a relatively high share of bids submitted by SMEs compared to the EU average (European Commission, 2020[87]). However, competition in public procurement remains weak as the share of contracts awarded to a single bidder remains high. In addition, the share of public procurement subject to competitive tendering could be further raised (European Commission, 2020[87]) (Figure 2.13). The fee to challenge the results of public procurement tenders amounts to 0.5% of the procurement value, which can be high in case of high value procurements and might discourage appeals of procurement decisions. Moreover, a number of irregularities around the use of EU funds have hampered the efficiency of public procurement according to the European Commission's Anti-Fraud Investigation Office (European Commission, 2019[88]). Cases investigated have, for example, included the fraudulent use of European funds for the deployment of broadband networks in rural regions in 2019. This may have contributed to the fact that more than half of businesses perceive corruption in public procurement to be very or fairly widespread (European Commission, 2019[89]). More recently, the government amended the constitution by introducing a new notion of public trust funds and rules on public trust funds that are subject to specific financial scrutiny (Hungarian Government, 2020[90]; Hungarian Government, 2021[91]).

To improve competition in public procurement, the government is currently planning reforms as part of its Recovery and Resilience Plan, including further developing the electronic public procurement system and supporting a stronger participation of SMEs in public procurement (Hungarian Government, 2021[92]). In 2021, it also set the objective of reducing the proportion of single bidder procurements to less than 15%. The government is currently discussing the specific date for the achievement of the objective with the European Commission. Furthermore, to strengthen the efficiency of public procurement, the government was among the first in Europe to introduce a central electronic public procurement system with simplified procedures (OECD, 2019[1]). Wider use of e-invoicing through the electronic public procurement system could increase the efficiency of public procurement by ensuring the timely and automatic processing of companies' e-invoices and payments. The reduction of the relatively high fee to challenge the result of procurement tenders could increase transparency. Overall, as much as possible, all public procurement, including those of public trust funds, should be subject to competitive tendering to secure transparency and improve cost efficiency.

Figure 2.13. Competition in public procurement is low

Share of procurements with only one bidder, %, 2019



Note: The Figure measures the proportion of contracts awarded where there was just a single bidder (excluding framework agreements, as they have different reporting patterns).
Source: European Commission Single Market Scoreboard.

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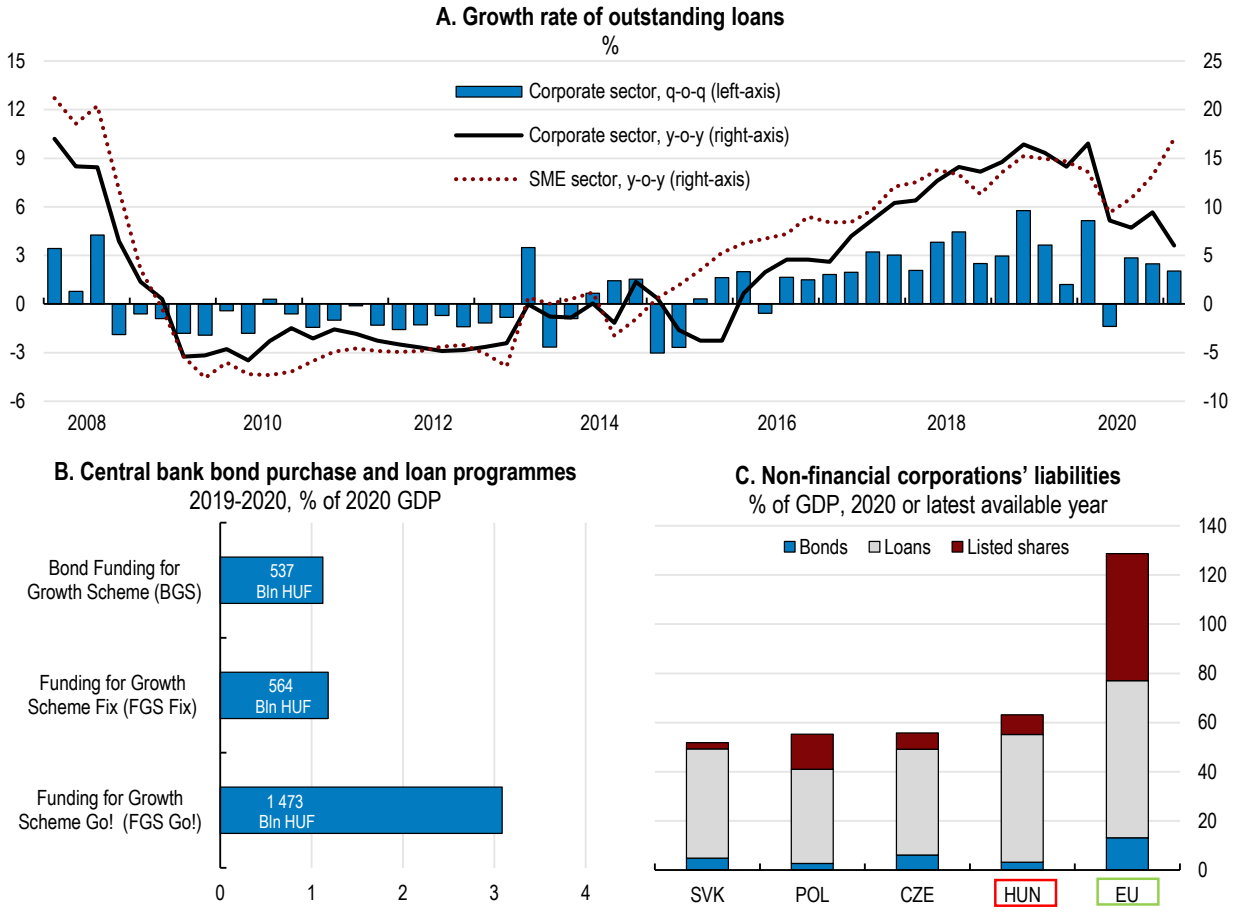
Strengthen equity-based funding

Businesses rely on bank credit as their main financing source. Bank loans have expanded strongly since 2015 driven by strong investment demand in the corporate sector and by government funding schemes (Figure 2.14, Panel A) (see Chapter 1). The COVID-19 outbreak briefly halted the strong credit dynamics in early 2020, but corporate credit picked up again in summer 2020. In addition to the abundance of bank credit, the central bank operates corporate bond purchase and loan programmes in the order of 8½ of GDP (Panel B). The central bank launched in 2019 the Funding for Growth Scheme Fix (FGS Fix) for small firms and the Bond Funding for Growth Scheme (BGS) for large corporations. Since spring 2020, the Funding for Growth scheme Go! (FGS Go!) provides liquidity at a subsidised interest rate to credit institutions on the condition that they lend to SMEs (OECD, 2020[93]). The funding schemes provide liquidity at low rates and at looser conditions than comparable bank loans. For instance, the Funding for Growth schemes do not require collateral or a predetermined loan purpose. The FGS Go! was successful in raising new investment by smaller firms in the half-decade after the financial crisis (Endresz, Harasztosi and Lieli, 2015[94]).

Looking forward, generous funding without strings attached may keep unproductive firms alive and hamper efficient reallocation of capital to most productive firms (Andrews and Petroulakis, 2017[95]). Once the recovery is firmly underway, the central bank should gradually withdraw subsidised loan programmes to help the banking sector to resume its traditional role as the main provider of credit for businesses based on individual risk assessments.

Figure 2.14. Government loan schemes remain abundant



Note: In Panel B, data refer to the Central bank (MNB) support in 2019 and 2020, more specifically: from April 2020 to 31 December 2020 for the FGS Go! programme; from the beginning of 2019 to 29 May 2020 for the FGS Fix programme; from 1 July 2019 to 31 December 2020 for the BGS programme (for bond purchases in both the primary and secondary market). In Panel C, data are consolidated.
Source: Magyar Nemzeti Bank (Hungarian Central Bank); Eurostat Financial Balance Sheets database; and OECD calculations.
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The profitability of the banking sector is low and operating costs are among the highest in the region (MNB, 2020[96]). Profitability may decline further as a result of the government's COVID-19 measures in 2020, including the loan repayment moratorium for all households and corporate loans and a new bank levy of 0.19% of banks' 2020 tax base. In addition, state-backed lending schemes may reduce competition in the banking sector, as banks have to offer conditions similar to those of the subsidised loans. In 2020, about one third of new bank lending and two thirds of bank lending to SME were financed under the FGS schemes (MNB, 2020[96]). The government could spur competition in the sector through the gradual withdrawal of subsidised loan programmes (see above). A more competitive banking sector is key to ensure profitability and efficient allocation of capital to foster productivity growth.

Other funding sources such as equity and bonds play a minor role (Figure 2.14, Panel C). The capital market is under-developed and the number of listed firms is relatively low. In addition, the central bank has majority ownership of the Budapest Stock Exchange, which it supervises, leading to a potential conflict of interest between its ownership and oversight functions. As recommended in the previous *Survey* (OECD, 2016[60]), the stock exchange should return to private ownership over the medium-term to strengthen investors' confidence. At the same time, the integration of Hungarian stock markets into regional stock markets could help attract international equity investment. A closer alignment of capital market regulations with Central European countries could foster capital market integration in the region. An example of

successful harmonisation of capital market regulations is the Baltic area, which saw the creation of a legal framework for a pan-Baltic capital market for covered bonds and commercial papers (EBRD, 2020[97]) (Box 2.6).

Box 2.6. The Pan-Baltic capital market

In 2017, the three Baltic OECD member states Estonia, Lithuania and Latvia signed a Memorandum of Understanding, in which they commit to harmonise capital market regulations in order to support the development of a common capital market. The initiative is articulated as part of a wider EU plan to create a Capital Markets Union. The three states agreed to co-operate on the following:

- Alignment of existing regulations and establishment of new joint regulations for covered bonds, commercial papers and securitisation. In 2020, the largest Estonian banking group issued the first pan-Baltic covered bonds.
- The development of new capital market instruments such as equity, derivatives and other listed vehicles as an alternative to the banking sector.
- Promoting access to equity finance for SMEs by providing listing support.
- Facilitating capital market investment by local pension funds by changing existing investment rules.
- Creation of a joint steering committee to oversee progress in the implementation of the measures.
- The three countries further agreed to harmonise their regulations regarding FinTech products and technologies to facilitate market entry of new financial players and to develop alternative financial instruments.

Cross-border flows of equity investments increased markedly by 80% after the establishment of the Pan-Baltic capital market between 2017 and 2019 (OECD, 2020[98]). The combined pan-Baltic covered bond market for securitised mortgages is estimated at around EUR 18 billion, which makes it equal in size to that of Hungary (Scope Ratings, 2018[99]).

Source: (Ministry of Finance of the Republic of Estonia, Ministry of Finance of the Republic of Latvia and Ministry of Finance of the Republic of Lithuania, 2017[100])

The tax system favours debt finance over equity finance, as interest payments are deductible from the personal and corporate income tax base while there is no equivalent deduction for the return on equity. This discourages investment in equity. Given the currently low interest rates, the value of interest rate deductions is low, which somehow reduces the bias towards debt finance. However, the debt bias would rise with higher interest rates, potentially discouraging equity-financed investment and weakening the firm's financial structure. An over-reliance on debt could weaken businesses financial stability and create a drag on investment in particular during downturns or a severe crisis. In Hungary, businesses can deduct their investments from their pre-tax profits, which reduces the debt bias. In addition, the Small Business Tax (KIVA), which is calculated using profits on cash-flow basis, effectively provides a neutral taxation of debt and equity investment, but it is only available for smaller firms. Several OECD countries have recently introduced a corporate income tax allowance, a so-called Allowance for Corporate Equity with the aim to reduce the debt-bias by taxing the return on debt and equity more alike. This allowance is calculated by imputing a set return on the value of the business' corporate equity. This includes Belgium, Italy, Latvia and Portugal (OECD, 2019[101]). Reducing the debt-bias of the tax system could spur stronger equity financing.

The OECD recommends countries that contemplate introducing allowances for equity to consider potential challenges in terms of lost revenue, tax avoidance, and the interaction of personal and corporate taxation. To prevent tax avoidance, clear anti-abuse provisions should apply, as is already the case for interest

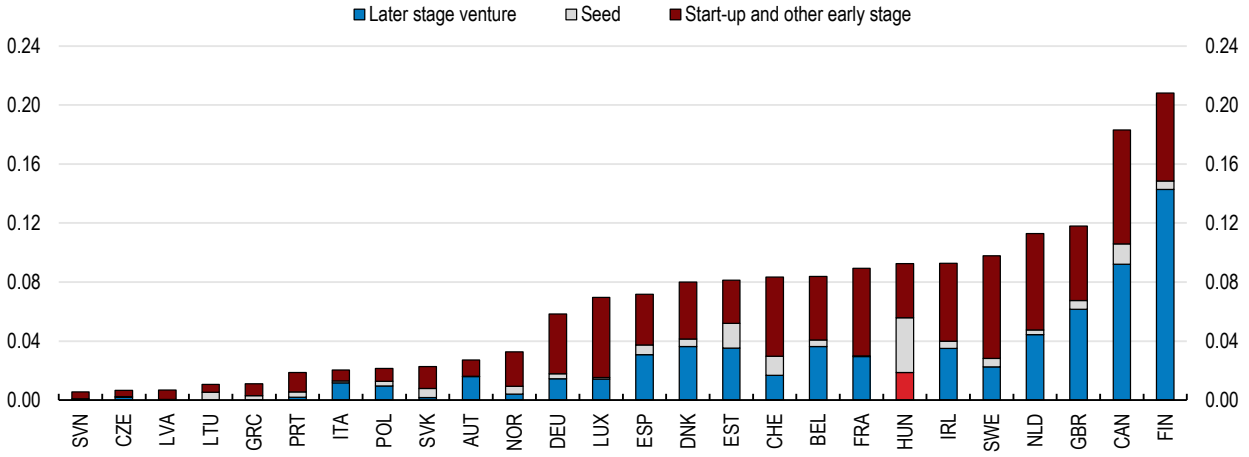
expenses. Ideally, the tax base should cover only new equity to avoid windfall profits from current investment (Reynolds and Neubig, 2016[102]). Moreover, the interaction between corporate and personal taxation should be considered when setting the tax rates on returns to equity (dividends and capital gains) to avoid an equity bias (Harding and Marten, 2018[103]).

Innovative start-ups have better access to venture capital than in many other countries, although venture capital funds for company expansion remain low (Figure 2.15). New FinTech solutions could help bridge the funding gap for innovative firms (UNSGSA FinTech Working Group and CCAF, 2019[104]). However, the FinTech sector is still in an early stage of development. Market entry is low, which may reflect the generally high regulatory burden in the financial sector. At the same time, financial innovation can pose new financial stability and regulatory challenges. The central bank has established an Innovation Hub (https://www.mnb.hu/en/innovation-hub/) and a regulatory sandbox (https://www.mnb.hu/en/innovation-hub/regulatory-sandbox) to help understand FinTech companies' specific needs and emerging risks for financial stability. It can provide temporary regulatory waivers for financial institutions to facilitate the introduction of new financial products on a case-by-case basis (MNB, 2018[105]). However, uptake has been limited. Young firms without licence for financial activities cannot apply because they fall outside the supervision of the central bank.

The central bank as the regulatory authority has no mandate to reduce unnecessary restrictions to competition, which dampens market entry. A mandate to promote competition in the financial sector, as is for example the case in the United Kingdom, could help spur market entry of new FinTech providers. This could be done by extending financial market regulations to FinTech companies. An impact assessment by the UK's Financial Conduct Authority (2019[106]) shows that the number of start-ups in the FinTech sector has increased. At the same time, a closer alignment of FinTech regulations with those in European countries could support the regional integration of FinTech markets (MNB, 2019[107]). Easier access to non-bank finance will be important to support the growth of young, productive companies.

Figure 2.15. Venture capital funds for company expansion remain low

Venture capital investments, % of GDP, 2020



Note: Venture capital (VC) is private equity capital provided to young enterprises not quoted on a stock market. VC stages are defined according to the OECD VC Harmonised Stages Definition and include support for pre-launch, launch and early stages under "Seed/start-up/early stage", which also includes support provided by angel investors, and support for expansion and growth stages under "Later stage".
Source: OECD Enterprise Statistics database.

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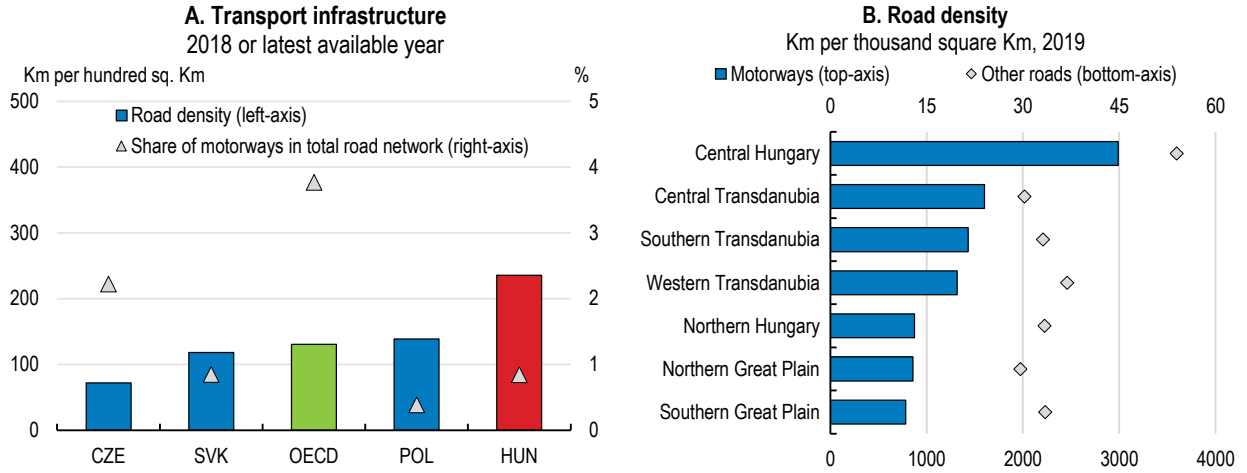
Stronger competition in the retail banking sector is often hindered by the low portability of banking data. To strengthen competition in the sector, the United Kingdom and Australia have recently introduced data sharing obligations on the larger retail banks to make the data of their customers available to their

competitors (upon request by the customer), including creditworthiness and financial needs (Open Banking Implementation Entity, 2021[108]; Australian Competition and Consumer Commission, 2021[109]). For example, the UK's Competition and Markets Authority mandates retail banks through its Open Bank Initiative to use open application programing interfaces in order to enable FinTech companies to access their customer information at their request. Once approved by the customer, FinTech companies can access the customer's information at different retail banks and build their services using this information. Another case is Korea, where the amended Credit Information Act from 2021 gives consumers the right to demand that their personal credit information is transferred to other financial providers upon request. To strengthen competition in the banking sector, data sharing obligations for retail banks should be considered.

Improve the quality of local infrastructure

In contrast to the modern motorway network, the secondary and tertiary road networks are poorly maintained, especially those run by municipalities (Figure 2.16). Weak local transportation links increase commuting costs and hamper job mobility of people from rural areas to nearby urban regional centres with better employment prospects. The government aims to address this challenge by investing annually 0.4% of GDP on road maintenance under its Road Rehabilitation Programme. In addition, the Village Programme has provided funding in the order of 0.2% of GDP for infrastructure upgrades since 2018 (Hungarian Public Road, 2020[110]). Although these programmes have started to reverse the decline in road quality, road development plans maintain their focus on national motorways and high-speed roads.

Figure 2.16. There are large regional disparities in road infrastructure



Note: In Panel A, unweighted average for the OECD aggregate, including available countries.
Source: International Transport Forum (ITF) database; Eurostat Regional transport statistics database; and OECD calculations.
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Funding remains inadequate. Given current spending levels, it would take another 10 years to renew 17 000 km of local roads in bad condition out of approximately 30 000 km of local roads. This is despite evidence that shows that investment in secondary and tertiary roads have led to a considerable reduction in transportation costs, with highest impacts in the most disadvantaged regions (Persyn, Díaz-Lanchas and Barbero, 2020[111]). Increasing funding for maintenance of secondary and tertiary roads would improve the quality of local roads. Co-financing by counties could incentivise the selection projects with highest returns (see below). At the same time, sound economic cost-benefit analyses can help determine investment priorities and prevent overspending, especially on motorways. Such cost-benefit analysis should also look at environmental impacts of infrastructure investments.

A more efficient and effective public transport system would also increase regional labour mobility. Despite ongoing investment in the railways, Hungary ranks among the lowest in the EU in terms of customer satisfaction (European Commission, 2018[112]). In the capital region, high inflows of young, skilled people have led to an uncoordinated suburban sprawl (OECD, 2020[113]; Angel et al., 2016[114]). This has not been met by sufficient investment in the suburban train network to better connect Budapest to new centres of agglomeration in Pest. In remote areas, better connections between villages and regional urban centres could lower commuting costs and improve access to urban labour markets.

Despite the need to upgrade local infrastructure, spending focuses on national and international railway lines. The government has committed to invest 1.4% of GDP per year into new national and international railways and in the modernisation of 1 000 km of existing rail tracks up to 2024, mostly funded by European funds to improve linkages with neighbouring countries (Portfolio, 2020[115]). In contrast, the government plans to allocate only 0.2% of GDP per year for the development of regional transport networks and the suburban rail network in Budapest, financed by the European Recovery and Resilience Facility. Instead, the government should re-allocate railroad investment towards suburban train networks and improved local bus connections to improve the efficiency of local public transport and reduce commuting time.

A highly centralised public governance system leaves little room for local investment considerations (OECD, 2019[1]). Investment in new roads and railroads is financed mainly by the central government and EU funds according to national or EU priorities. Similarly, road maintenance is centralised, including for secondary roads and tertiary roads. For instance, the government plans to spend about 0.6% of GDP in EU funds in urban infrastructure for the period 2021-2027, including roads and public transportation, while spending on Budapest will account for only a tenth of this budget in spite of strong population growth in the capital and its surroundings. Moreover, the central government will distribute 80% of the funds according to its own discretion, leaving little room for local considerations (Portfolio, 2020[116]). As a result, planning is not based on specific local conditions or improving regional connections.

To increase the role of local considerations in infrastructure investments, the central government could devolve responsibility for local roads and train connections to the county level. County-level planning could also prevent coordination failures among municipalities. Local strategic planning will also require better planning and cost-benefit capacity at the county level. Co-financing measures could incentivise counties to select projects with highest returns, as discussed in more detail in the last *Survey* (OECD, 2019[1]). In urban regions, a stronger consideration of local infrastructure needs could help promote agglomeration effects between cities and their surrounding area through better transport links. In rural areas, it could allow a better integration of roads into local and national networks (Ahrend et al., 2017[117]).

More spending responsibilities for local governments need to go hand-in-hand with more revenue raising responsibilities. However, local governments' role in implementing public investment is decreasing. In 2021, the government cut revenue sources for local governments by halving the local business tax for small and medium-sized enterprises (Portfolio, 2020[118]). In addition, 50% of the revenues from the municipal motor vehicle tax were channelled into the central budget (Portfolio, 2020[119]). Only municipalities with less than 25 thousand inhabitants were automatically compensated by grants from the central budget, while compensations for bigger municipalities depended on a case-by-case review. The revenue loss for bigger municipalities risks further downsizing public investment by local government, which has already been on a downward trajectory since 2007. Stronger investment in local amenities such as roads, suburban trains and housing requires adequate funding for local governments. Municipalities should receive more powers to raise local tax. This should be combined with block grants for poorer municipalities. Alternatively, grants from the central government should compensate municipalities for their revenue losses due to cuts to the local business tax.

Promote digital adoption

Digitalisation is key to support innovation. Hungary's innovation performance is modest, although it has been increasing recently according to the European Innovation Scoreboard (European Commission,

2021[120]). The improvement is partly due to the rise in research and development (R&D) spending, which increased by 0.5 percentage point to 1.5% of GDP between 2009 and 2019. Nonetheless, R&D spending as a share of GDP remains lower than the OECD average and below the country's own target of 1.8% for 2020 (OECD, 2020[121]). Despite generous subsidies and tax incentives for R&D, only few enterprises innovate or adapt digital technologies, which reflects that many small and medium-sized enterprises lack innovation capacity and are constrained by shortages of highly-skilled workers (Eurostat, 2021[122]). The government has several strategies that address these issues, including the Industry 4.0 Strategy for a digital industry, the Digital Education Strategy for stronger digital skills, and the National Research, Development and Innovation Strategy, which is the country's main innovation strategy. However, the government's innovation strategy follows a top-down approach, which is not effective in identifying local opportunities for innovation, as discussed below. A more effective innovation policy also needs to ensure pro-competitive regulations to allow innovative and digitally advanced companies to gain a market foothold and expand (see below).

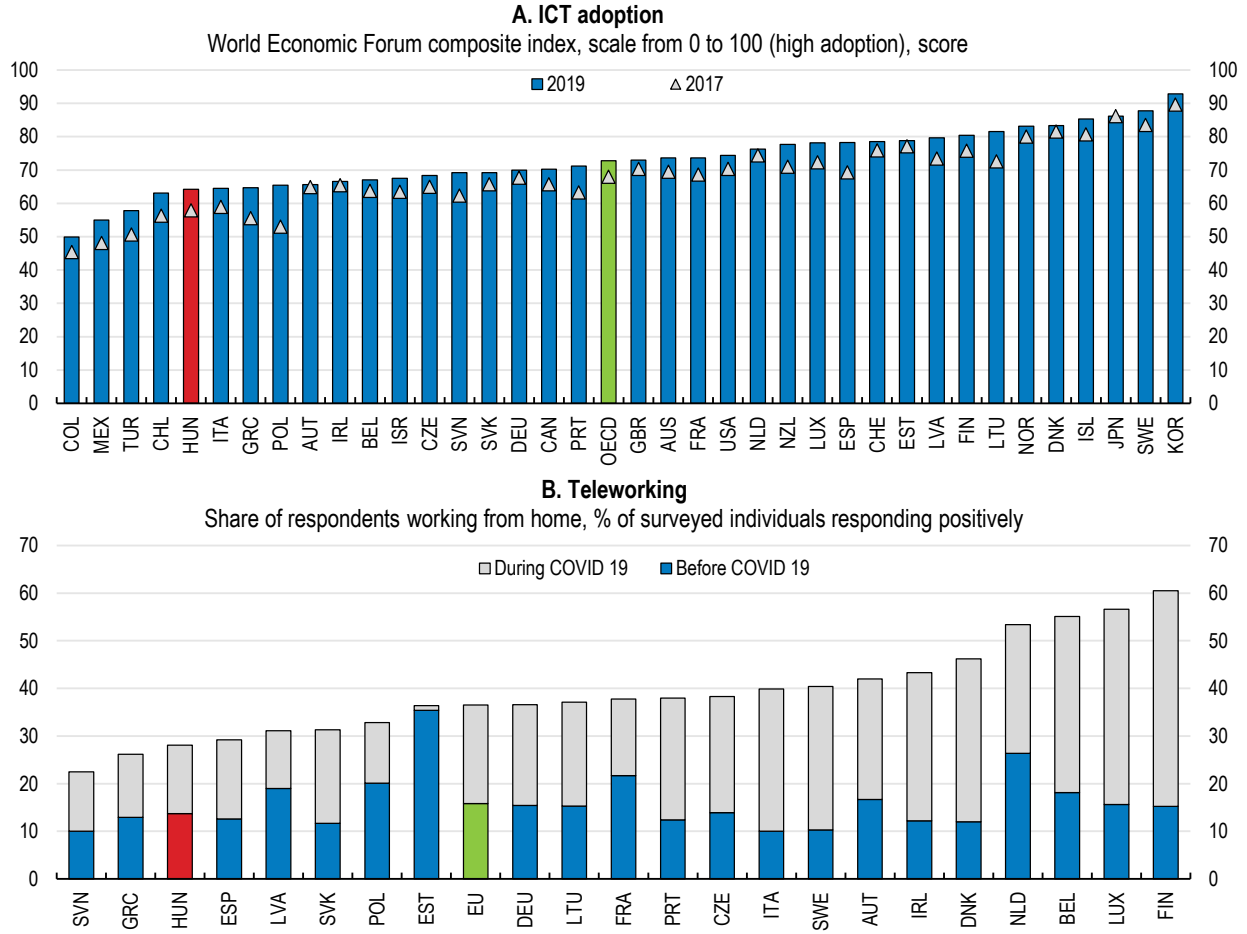
Hungary is among the least digitalised economies in the OECD (Figure 2.17, Panel A). Despite a sharp increase in the number of households with Internet access over the last decade, Hungarian households still have lower Internet usage than the OECD average. Similarly, fewer households use the Internet to visit or interact with public authorities' webpages than the OECD average, although this share has increased by 7 percentage points during the COVID-19 crisis in 2020 (OECD, 2021[123]). In order to strengthen the use of Internet in the economy, the government has increased efforts to digitalise public administration. Since 2018, there is an online tax register and businesses must file their tax declarations online. Online invoices have successfully increased tax revenues by 0.5% of GDP through lower tax avoidance (Ministry of Finance, 2019[124]). The government is currently setting up a similar online invoice system for VAT returns. To support these services, the government established an online service portal for businesses (see above). Citizens also have the option to file their personal tax declaration online using pre-filled online tax forms based on employers' monthly assessments, although online filing is not mandatory.

The government could stimulate digitalisation by increasing its use of the Internet further. For instance, mandatory online filing of personal income tax, as in Denmark and Portugal, could enhance the digital uptake among households. Making all government services available on mobile phones would help. An additional step would be to move all communication between citizens and public authorities online, as, for example, done in Denmark. To safeguard equal access to government services for everyone, including people without internet access, public authorities could provide free access to e-government services and user support at their local branches.

The COVID-19 crisis has accelerated the pace of digitalisation by speeding up remote work, albeit to a lesser extent than in most other OECD countries. Teleworking, which has the potential to raise productivity and worker well-being under the right conditions, was relatively uncommon among workers before and even during the COVID-19 crisis, which is likely to be related to the economy's reliance on manufacturing activities that are difficult to do remotely, but also due to the lack of digital preparedness among businesses and workers as discussed above (OECD, forthcoming[125]) (Figure 2.17, Panel B).

Looking ahead, teleworking is expected to remain above pre-crisis levels, with uncertain effects on productivity. Telework can raise productivity through cost savings on office spaces as well as more flexible working arrangements and thus higher worker satisfaction. Less commuting could also be beneficial to the environment. However, disadvantages could easily dominate, including inconvenient home office space, solitude as well as reduced innovation due to the lack of spontaneous, in person interactions (OECD, 2020[126]). Governments can address potential concerns for workers' productivity by implementing best practices for teleworking, for example regarding working hours and screen-free breaks, allowing some degree of voluntary telework so that employees can benefit from more flexible working arrangements, while at the same time enabling firms to coordinate the office schedules of their employees so that personal interactions can still occur (see Chapter 1).

Figure 2.17. Hungary is less digitalised than most other OECD countries



Note: In Panel A, the WEF composite index includes: number of mobile-cellular telephone subscriptions per 100 population; number of active mobile-broadband subscriptions per 100 population; number of fixed-broadband internet subscriptions per 100 population; fibre-to-the-home/building internet subscriptions per 100 population; percentage of individuals who used the internet from any location and for any purpose, irrespective of the device and network used, in the last three months. Unweighted average for the OECD aggregate. In Panel B, respondents were asked to answer a question: "Have you started to work from home as a result of the COVID-19 situation?".
Source: World Economic Forum (2019), Global Competitiveness Report Pillar 3 ICT Adoption; and Eurofound (2020), Living, working and COVID-19 dataset.

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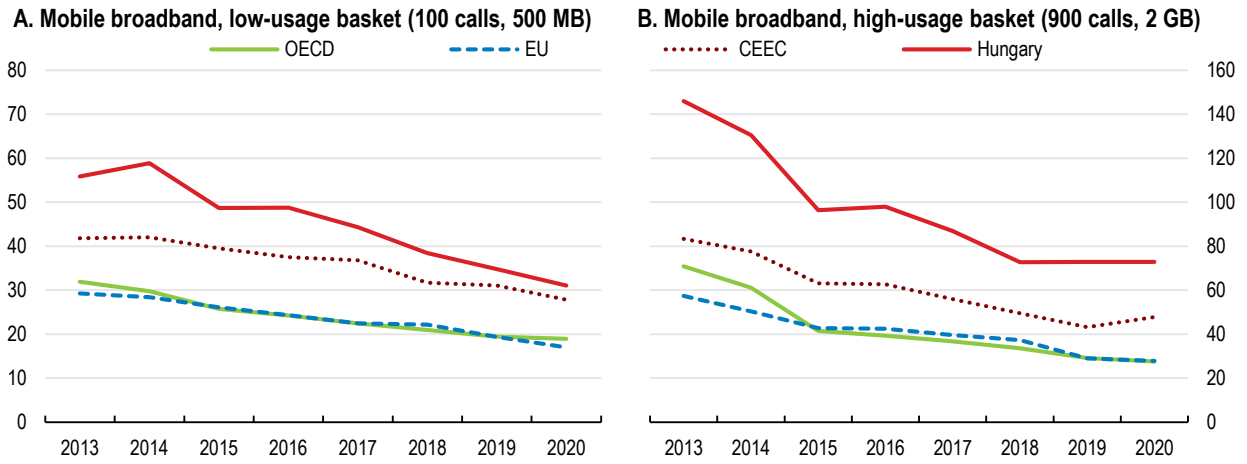
High prices may deter mobile broadband penetration. In fact, mobile broadband subscriptions per 100 inhabitants remain below the OECD average (OECD, 2021[127]). Indicative evidence suggests that prices for mobile internet are high in international comparison, although mobile broadband prices are not fully comparable across countries (Figure 2.18). For instance, a mobile broadband basket with unlimited calls and 4GB data volume offered by one operator costs currently HUF 3 390 (USD PPP 23) in Hungary (including group discount). Comparable user baskets from the same operator are between 8% and 40% less expensive in neighbouring countries, such as the Czech Republic and the Slovak Republic. In competitive markets such as the Netherlands, prices for comparable baskets are 6% lower. In addition, the government raises a levy of HUF 2 per minute on phone calls and per message, which does not apply directly to mobile broadband services, but nonetheless raises costs of using mobile phone services for consumers. In addition, lengthy procedures discourage non-discriminatory third-party access for Mobile Virtual Network Operator (MVNOs) to networks. Phasing out sector taxes could lower costs. Furthermore, reducing procedures for non-discriminatory access for MVNOs to networks of existing operators could further enhance competition.

Figure 2.18. Mobile broadband prices remain relatively high

USD PPP



Note: The CEEC (Central and Eastern Europe Countries) aggregate includes Czech Republic, Hungary, Poland, and Slovak Republic; EU only includes OECD EU countries. 2019 data for Hungary is only indicative: it is an average of 2018 and 2020 data and not fully comparable with the observations for other countries due to a different methodology to calculate mobile basket prices.
Source: OECD Broadband Statistics database; and OECD calculations.

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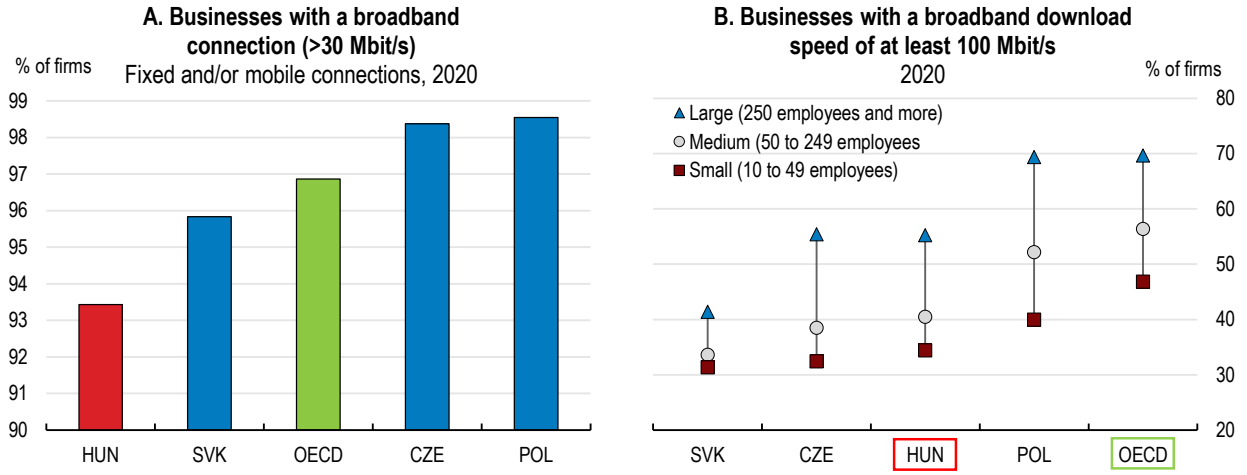
Widely accessible high-speed broadband is a precondition for firms to adapt new digital technologies and reach regional and national markets. Although the COVID-19 crisis has accelerated broadband uptake, relatively few businesses have access to high-speed broadband networks (Figure 2.19, Panel A), especially small- and medium-sized enterprises (Panel B). A concern is that low competition pressures in the 5G market may dampen investment in the deployment of the latest generation 5G networks. 5G is the fifth generation of wireless networks that can potentially boost the use and development of new applications and services at higher download- and upload speeds, including greater use of cloud solutions and Internet of Things applications (OECD, 2019[128]). The government auctioned in March 2020 new spectrum for the new 5G mobile networks to the three incumbent operators. A fourth new operator was excluded from the auction for failing to meet eligibility criteria, reducing bid competition in the auction. This has resulted in relatively low proceeds from the auction of 0.27% of GDP, while proceeds from the more competitive US auction were considerable higher with 0.39% of GDP (European 5G Observatory, 2021[129]). Stronger competition in the 5G market is needed for a faster deployment of the latest generation 5G networks, and would also help achieve the government's objective to provide 95% of all households with broadband connections of at least 1Gbit/s by 2030. Strengthening competition in the telecommunication sector requires awarding additional spectrum to a fourth mobile network operator.

Firms often lack the digital maturity to enter national and international value chains. This is reflected in low adoption rates of digital technologies in spite of strong direct government funding and tax support for business innovation and R&D (Figure 2.20) (OECD, 2021[130]). To some extent, the lower digital uptake among enterprises may reflect barriers to competition. More competitive product market regulations and a less stringent insolvency regime could help raise digital adoption and productivity growth (Sorbe et al., 2019[131]) (Figure 2.21). Pro-competitive regulations boosting business dynamics can allow digitally advanced companies to gain a market foothold and can allow the most productive companies to grow.

Figure 2.19. High-speed broadband uptake among businesses is relatively low



Note: In Panel A, data refers to firms with at least 10 employees.
Source: OECD ICT Access and Usage by Business database; and OECD Broadband Portal, Figure 1.10, http://www.oecd.org/sti/broadband/broadband-statistics/.

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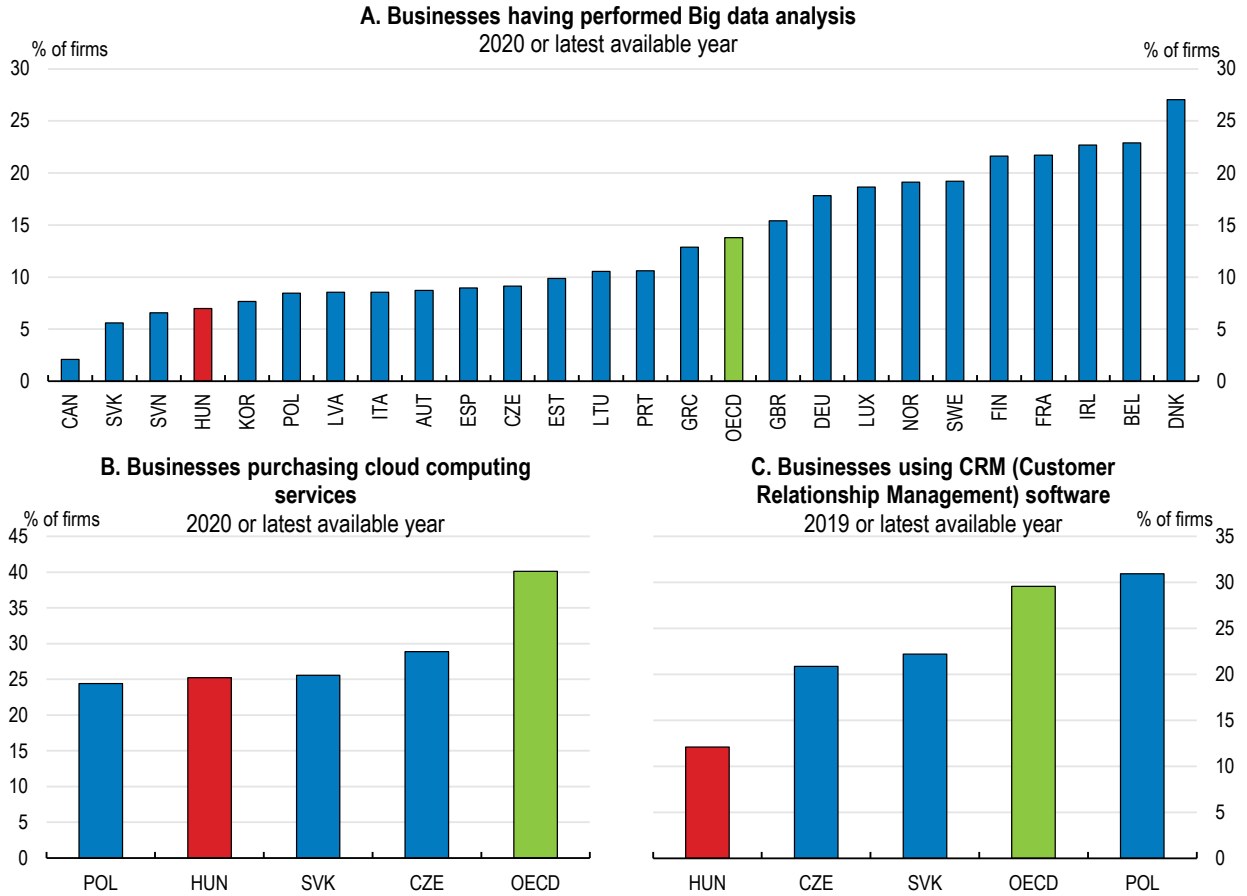
Figure 2.20. Adoption of digital technologies lags behind



Note: Data refers to firms with at least 10 employees. Unweighted average for the OECD aggregate.
Source: OECD ICT Use by Business database.

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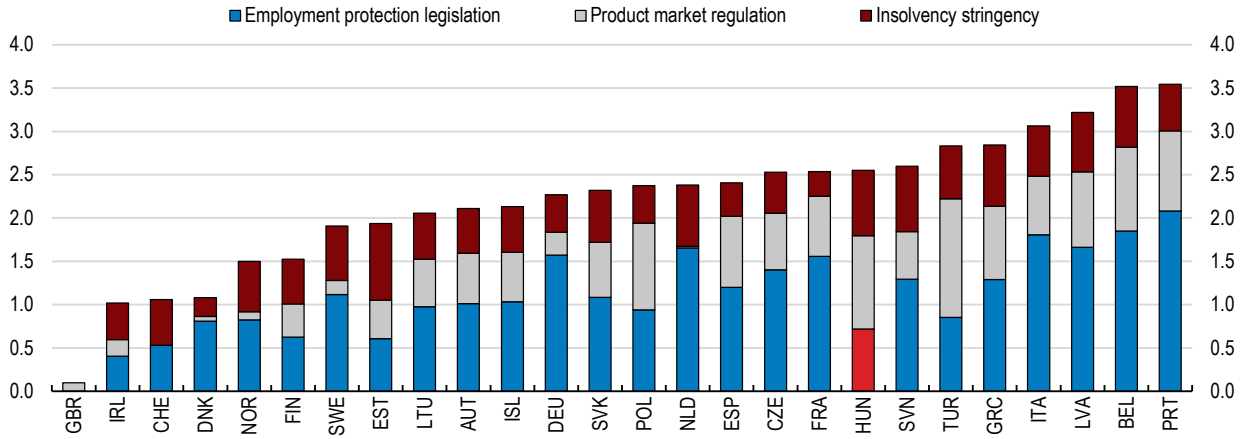
Figure 2.21. Streamlining regulations could boost digital technology adoption and productivity

Effect on productivity (MFP) after three years (through digital adoption) of reducing regulatory barriers to reallocation, %



Note: Estimated effect on multi-factor productivity (MFP) of the average firm from closing one-fourth of the gap to countries with least stringent labour protection on regular contracts, administrative barriers to start-ups and insolvency regimes.
Source: Sorbe et al. (2019), "Digital Dividend: Policies to harness the potential of digital technologies", OECD Economic Policy Papers, No. 26.
StatLink https://doi.org/10.1787/888934267825

A limited awareness and understanding of digital technologies is likely another major barrier to digital take-up among enterprises. This is illustrated by the low adoption rate of cloud computing, a technology that facilitates access to a range of computing services at low cost (Figure 2.20, Panel B). Similarly, a relatively large share of companies has no broadband connection (see above). The COVID-19 crisis has strengthened the uptake of cloud computing and broadband among enterprises by 7 percentage point. However, only few firms have a website or use social media in spite of the low adoption costs and the opportunities offered by these technologies to engage in e-commerce during the crisis (OECD, 2021[132]). Although the government's Modern Enterprises Programme supports the adoption of state-of-the-art digital technologies, the support is not well-targeted to local enterprises that often lag behind in basic technologies. In addition, the government's top-down approach is not effective in identifying local opportunities for digitally lagging sectors. For instance, social media and online platforms offer new possibilities enter global supply chains at low cost, especially for tourism and retail sectors.

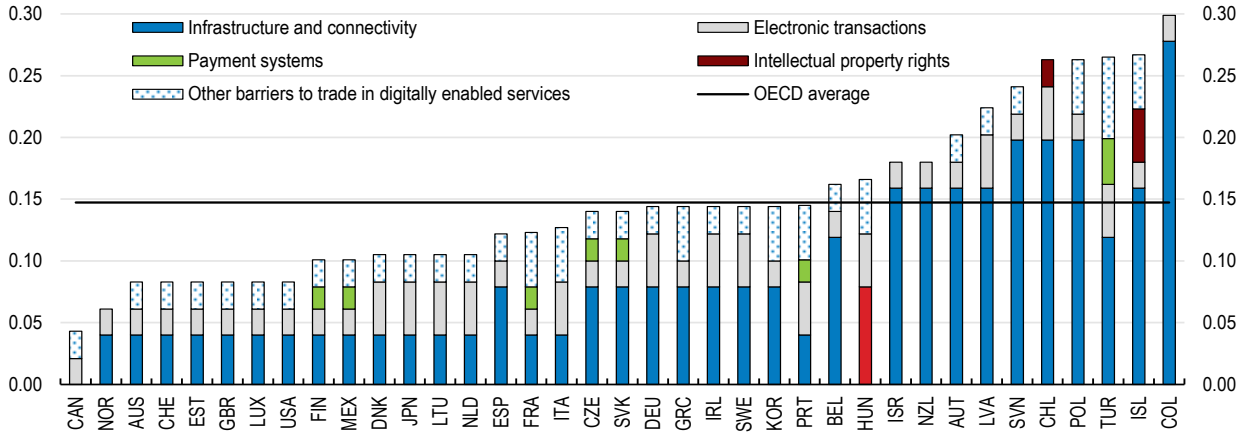
A more bottom-up approach that moves policy support to the lowest possible level would help identify local needs of enterprises. In the Netherlands, for instance, Smart Industry Field Labs are public-private associations consisting of enterprises, industry associations and research institutions that provide business advisory services and testing facilities to SMEs (Dutch Ministry of Economic Affairs and Climate Policy, 2019[133]). In order to integrate digitalisation better into local development, Field Labs provide research and advisory services related to sectors where their region has a comparative advantage. A better integration of the Modern Enterprises Programme into local development plans could help better target local needs of SMEs and support their digitalisation. At the same time, local development strategies will also require better planning capacity at the county level (see above).

Barriers to trade in digital services are higher than in most other OECD countries (Figure 2.22). Cumbersome practices around cross-border service provision deter foreign companies from market entry. For instance, a local presence is required in order to provide online cross-border services by a provider not domiciled in Hungary, such as online delivery, movie streaming, or financial services. The government has set up an online service portal for businesses to reduce administrative burdens (see above). However, online tax registration and declaration is not available for non-resident foreign companies in contrast to most other countries in the region (Ferencz, 2019[134]). These barriers discourage the development of a

digital service sector. For instance, a stronger presence of e-commerce and online platforms could help domestic firms to become exporters and to gain export market shares. The government has requested an EU funded project to identify other potential barriers to the digitalisation of professional services (European Commission, forthcoming[135]). Stronger competition may help domestic firms to internationalise by facilitating international sales, especially on the internet. Expanding e-government registration and tax services to non-resident foreign companies can boost market entry and competition in digital services.

Figure 2.22. Restrictions to trade in digital services are relatively high

Digital Services Trade Restrictiveness Index, scale from 0 to 1 (most restrictive), 2020



Note: The OECD Digital STRI captures cross-cutting impediments that affect all types of services traded digitally. As a stand-alone instrument, it complements the OECD Services Trade Restrictiveness Index (STRI).
Source: OECD Services Trade Restrictiveness Index Regulatory database.

StatLink https://doi.org/10.1787/888934267844

People's and firm's willingness to use online services depends on their trust in the security of digital infrastructure. Safer infrastructure requires better defences against security breaches. The accelerated use of the Internet and the reliance on digital technologies during the COVID-19 pandemics highlighted the importance of a secure digital infrastructure (OECD, 2020[136]). In early 2021, several government webpages including the website to register for a coronavirus vaccine faced a coordinated cyber-attack, leading to temporary outages (Bloomberg, 2021[137]). This has contributed to the fact that trust in digital security is low when dealing with the government (OECD, 2021[123]). At the same time, the share of businesses experiencing IT incidents is high and above the OECD average (OECD, 2021[132]). These concerns notwithstanding, only one in ten enterprises has an updated IT security policy in place, which is well below the EU average (Eurostat, 2021[138]).

In response, the government has stepped up its security efforts. Enterprises can report security breaches with the National Cyber Security Centre (NCSC), which has the mandate to provide assistance in case of cybersecurity incidents at private companies. As part of its Modern Enterprise Programme, the Ministry of Technology organises workshops to raise awareness about digital security among SMEs. Companies can also apply for financial support under the Modern Enterprise Programme to cover their digital security expenses. Nonetheless, further actions are required to raise digital security. For instance, the government can support digital security by facilitating platforms for IT security markets, as happened in Israel. The Israeli government launched a dedicated online platform for certified IT security providers and businesses affected by IT security breaches. In order to strengthen market entry in the sector, the Israeli National Cyber Directorate fast-tracked the licensing process of IT security providers (OECD, 2020[139]).

MAIN FINDINGS	RECOMMENDATIONS (Key recommendations are bolded)
Support skills and mobility	
Skills of vocational graduates do not meet labour market needs. Few vocational students have apprenticeships.	**Link funding for vocational schools to the number of students in work placements.** **Allow apprenticeships to start only once a placement with a company for the work-based part of the programme is secured.**
Vocational graduates have weak basic and generic skills such as in ICT, literacy, numeracy and problem-solving.	Dedicate more time to ICT, literacy, numeracy and problem-solving in vocational schools.
Labour mobility is low, especially in poorer regions.	Extend transportation allowances to all job seekers independently of the travel distance.
Rental housing is underdeveloped.	**Regulate tenancy to better balance the interest of tenants and landlords.** Consider increasing the reliance on immobile property taxes and gradually reduce mortgage subsidies, while addressing adverse distributional impacts.
The short (3 months) duration of unemployment benefits discourages geographical mobility.	**Consider increasing the duration of unemployment benefits.**
Active labour market policies provide insufficient support for mobility and upskilling.	Continue downsizing the Public Works Scheme and concentrate its use in high unemployment areas as a poverty reduction measure. Reallocate active labour market spending towards training and public employment services that improve the employability of jobseekers.
The high minimum wage relative to the median wage reduces employment opportunities for low-skilled people.	Ensure that minimum wage growth does not outpace median wage growth.
Ensure dynamic and competitive product markets	
The energy sector is dominated by state-owned enterprises.	Ensure cost recovery in regulated energy and open energy markets to competition. Compensate providers for the costs associated with public service obligations.
Sectoral taxes discourage expansions and new entry.	**Phase out distortionary sector taxes in energy, finance and retail sectors.**
Exemptions from competition policy reduce the effectiveness of the competition framework.	**Subject all mergers that fulfil the merger threshold to full reviews.** **Establish limited and explicit public interest grounds for exemptions.**
The pro-competition regulatory framework is underused.	Increase the resources of the competition authority.
Public procurement lacks competition.	**Increase the use of e-invoicing through the electronic procurement system.** **Further enhance transparency and continue to increase the share of public procurement subject to competitive tendering.**
Slow insolvency proceedings hold back business dynamics.	Shorten the discharge period for entrepreneurs and judicial proceedings.
Strengthen equity-based funding	
Generous subsidised loan programmes reduce efficient allocation of capital to most productive firms.	Gradually exit from the Going for Growth funding schemes once the recovery is firmly underway**.**
Capital markets remain underdeveloped.	Reduce the preferential treatment of debt finance vis-à-vis equity. Extend the central bank's powers to give waivers to non-licenced Fintech companies within the Regulatory Sandbox environment. Establish data sharing obligations on retail banks to make the data of their customers available to their competitors at the customers' request.
Improve local infrastructure	
Local train networks are underdeveloped and local roads are poorly maintained.	**Increase investment in local train networks.** **Increase funding for maintenance of secondary and tertiary roads.** **Introduce cost-benefit analysis and co-funding for infrastructure projects.**
Promote digital adoption	
Few households use the internet to interact with public authorities.	Continue to increase online availability of all government services.
Prices for mobile internet are high.	**Phase out levies on phone calls and messages.** **Strengthen network competition through auctioning of additional spectrum to expand the number of mobile network operators.** Facilitate non-discriminatory network access for Mobile Virtual Network Operators.
Practices around cross-border service provision deter foreign companies from market entry.	Extend e-government registration and tax services to non-resident foreign companies.

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OECD Economic Surveys

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The COVID-19 pandemic interrupted the strong economic growth performance in 2016-19, which entailed large increases in employment and real incomes, and the lowest unemployment rate in thirty years. The swift vaccination rollout allows a faster recovery from the pandemic from mid-2021 onwards. However, the strength of the recovery is uncertain, reflecting the potential scarring of the economy arising from the prolonged crisis. Looking further ahead, population ageing will lead to a smaller and older workforce, reinforcing the need for improving the productivity performance of the economy to restore the impressive employment and income gains achieved before the pandemic. In the near-term, underutilised labour resources, such as low-skilled workers, need to be mobilised through higher labour mobility and skills upgrading. Thereafter, maintaining productivity growth requires improved vocational and tertiary education, more competitive markets, and faster adoption of new technologies, particularly to accelerate the digital transformation of the economy. These policies should be implemented alongside measures to promote green growth and prepare public finances for the long-term fiscal challenges associated with population ageing.

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