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Foreword

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 Türkiye were reviewed by the Committee on 7 December 2022. The draft report was then revised in the light of the discussions and given final approval as the agreed report of the whole Committee in early February.

The report was thus prepared, reviewed and finalized before the tragic earthquake on 6 February 2023. We express our deep sorrow at the enormous loss of life and offer our condolences to all those affected by this tragedy.

The Secretariat's draft report was prepared for the Committee by Gabriel Machlica and Dennis Dlugosch, under the supervision of Isabelle Joumard. Statistical research assistance was provided by Eun Jung Kim and editorial assistance by Michelle Ortiz and Heloise Wickramanayake.

The previous Survey of Türkiye was issued in January 2021.

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

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BASIC STATISTICS OF TÜRKIYE, 2021[1]

(Numbers in parentheses refer to the OECD average)[2]

LAND, PEOPLE AND ELECTORAL CYCLE					
Population (million)	85.0		Population density per km²	110.5	(38.7)
Under 15 (%)	23.6	(17.6)	Life expectancy at birth (years, 2020)	77.9	(79.7)
Over 65 (%)	9.3	(17.7)	Men (2020)	75.0	(77.0)
International migrant stock (% of population, 2019)	7.0	(13.2)	Women (2020)	80.8	(82.5)
Latest 5-year average growth (%)	1.3	(0.5)	Latest general election	June-2018	
ECONOMY					
Gross domestic product (GDP)			Value added shares (%)		
In current prices (billion USD)	836.6		Agriculture, forestry and fishing	6.3	(2.6)
In current prices (billion TRY)	7 248.8		Industry including construction	34.7	(27.7)
Latest 5-year average real growth (%)	4.8	(1.6)	Services	59.0	(69.7)
Per capita (thousand USD PPP)	30.3	(50.7)			
GENERAL GOVERNMENT Per cent of GDP					
Expenditure	31.2	(46.3)	Gross financial debt[3]	43.6	(111.9)
Revenue	27.3	(38.7)	Net financial debt[3]	25.9	(70.4)
EXTERNAL ACCOUNTS					
Exchange rate (TRY per USD)	8.66		Main exports (% of total merchandise exports)		
PPP exchange rate (USA = 1)	2.81		Manufactured goods	28.5	
In per cent of GDP			Machinery and transport equipment	27.1	
Exports of goods and services	35.3	(29.8)	Miscellaneous manufactured articles	17.4	
Imports of goods and services	35.5	(29.9)	Main imports (% of total merchandise imports)		
Current account balance	-1.7	(0.2)	Machinery and transport equipment	26.4	
Net international investment position	-30.6		Manufactured goods	17.6	
			Chemicals and related products, n.e.s.	16.5	
LABOUR MARKET, SKILLS AND INNOVATION					
Employment rate (aged 15 and over, %)	45.2	(56.2)	Unemployment rate, Labour Force Survey (aged 15 and over, %)	12.0	(6.1)
Men	62.8	(64.1)	Youth (aged 15-24, %)	22.7	(12.8)
Women	28.0	(48.7)	Long-term unemployed (1 year and over, %)	3.7	(2.0)
Participation rate (aged 15 and over, %)	51.4	(60.3)	Tertiary educational attainment (aged 25-64, %)	24.5	(39.9)
Average hours worked per year	1,732	(1,727)	Gross domestic expenditure on R&D (% of GDP, 2020)	1.1	(3.0)
ENVIRONMENT					
Total primary energy supply per capita (toe)	1.9	(3.8)	CO^2 emissions from fuel combustion per capita (tonnes)	4.7	(7.9)
Renewables (%)	15.2	(11.6)	Water abstractions per capita (1 000 m³, 2018)	0.8	
Exposure to air pollution (more than 10 g/m³ of PM 2.5, % of population, 2019)	99.9	(61.7)	Municipal waste per capita (tonnes, 2019, OECD: 2020)	0.4	(0.5)
SOCIETY					
Income inequality (Gini coefficient, 2019, OECD: latest available)	0.415	(0.315)	Education outcomes (PISA score, 2018)		
Relative poverty rate (%, 2019, OECD: 2018)	15.0	(11.7)	Reading	466	(485)
Median disposable household income (thousand USD PPP, 2019, OECD: 2018)	10.8	(25.5)	Mathematics	454	(487)
Public and private spending (% of GDP)			Science	468	(487)
Health care (2020)	4.6	(9.7)	Share of women in parliament (%)	17.3	(32.4)
Pensions (2017)	7.4	(8.6)	Net official development assistance (% of GNI, 2017)	1.0	(0.4)
Education (% of GNI, 2020)	3.8	(4.4)			

1. The year is indicated in parenthesis if it deviates from the year in the main title of this table.
2. 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.
3. Gross financial debt refers to general government gross financial liabilities. Net financial debt is the total financial liabilities minus the total financial assets.
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.

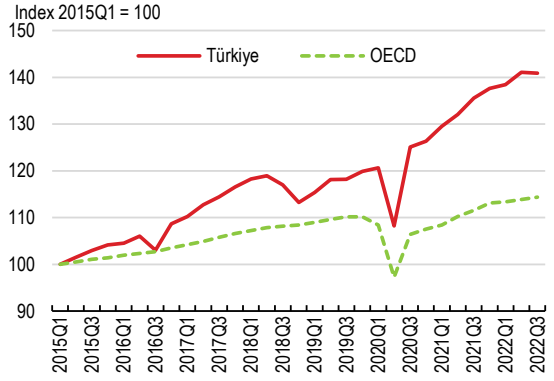
Executive summary

Growth has been strong, but vulnerabilities are rising

The economy has recovered fast from the COVID-19 pandemic. However, macroeconomic policies and high commodity prices have contributed to the surge in inflation, with growing external imbalances and implicit liabilities.

Real GDP rebounded by 11.4% in 2021 and was up 6.2% in the first three quarters of 2022. Private consumption and exports have been the main drivers of economic growth. Favourable labour market developments and credit conditions have supported private consumption. Many people have returned to the labour market, particularly youth and women, whose labour force participation now exceeds pre-pandemic levels. Turkish exporters have been able to exploit opportunities from disruptions of the Asian supply chains, relying mostly on large spare capacities. Gross investment has been subdued, however.

Figure 1. Türkiye has experienced a strong economic recovery



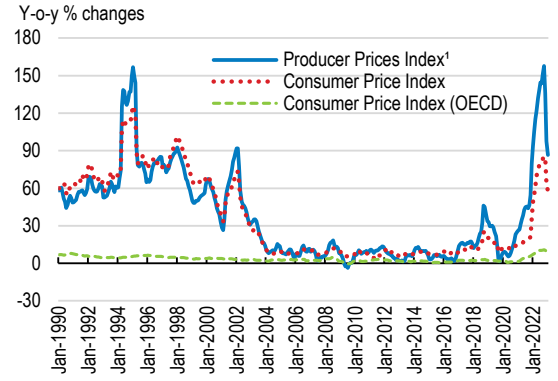
Source: OECD Economic Outlook: Statistics and Projections (database).

StatLink https://stat.link/8bpvm6

Inflation has risen to a 20-year high, exacerbated by global supply constraints and buoyant domestic and external demand. In 2022, consumer price inflation stood at 72.3% (Figure 2) and producer price inflation exceeded 128%. The sharp rise in energy prices – Türkiye is a net importer -- and other commodity prices triggered by the pandemic and subsequently Russia's war against Ukraine contributed significantly to overall inflation. Lira depreciation has added pressures on import prices.

The central bank has cut its base rate by 10 percentage points since September 2021. It has also relied on a new approach to monetary policy, with special arrangements and differentiated macro-prudential rules, to direct loans to productive and exporting sectors. As a result, credit conditions have tightened for some sectors.

Figure 2. Inflation has soared



1. Producer price index refers to domestic industrial activities.
Source: OECD (2022), OECD Monthly Economic Indicators (database); and Turkstat.

StatLink https://stat.link/47ek21

Looking ahead, growth is projected to slow to around 3% per annum (Table 1). Weak external demand and persistent geopolitical uncertainties will weigh on investment and export growth. Consumer price inflation is projected to decline somewhat due to base effects but to exceed 40% over the projection period, reflecting gradual pass-through of recent lira depreciation, producer price inflation and wage increases. High inflation will dent household purchasing power and private consumption will slow.

Table 1. Growth is declining

	2022	2023	2024
Gross domestic product	5.3	3.0	3.4
Private consumption	15.2	4.1	3.4
Gross fixed capital formation	2.8	2.8	3.8
Exports	12.2	4.4	4.2
Imports	4.2	4.8	3.6
Unemployment rate	10.7	10.3	10.0
Consumer price index	72.3	44.6	42.1
Current account (% of GDP)	-5.6	-3.8	-2.5

Source: OECD Economic Outlook 112 database.

Risks are unusually high and tilted to the downside. The current account deficit is expected to be around 5½ per cent of GDP in 2022 and its

funding has shifted from relatively stable sources to more volatile ones. Further pressures on the Lira could turn the exchange rate protection on deposits into an additional liability for public finances, with adverse effects on inflation and confidence.

To bring inflation back to target, the central bank should raise its policy rate. Increasing confidence in the independence of the central bank is vital. Changes to the central bank's board have been frequent. Inflation expectations have remained well above target, and the lira has lost more than half of its value vis-à-vis the dollar since the start of 2021.

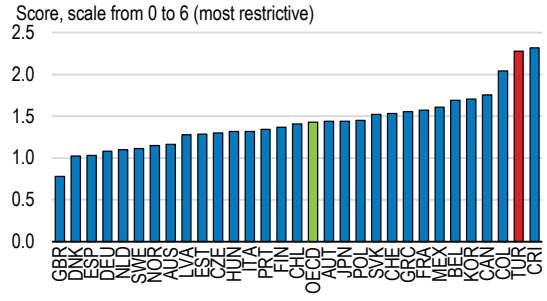
Türkiye should systematically cover risk scenarios and implicit liabilities in its annual Fiscal Policy Reports. Prudent fiscal policy has been a crucial policy anchor over the past two decades in Türkiye and public debt is relatively low as a share of GDP. However, contingent liabilities are expanding, including from public-private partnerships (PPPs), raising Türkiye's vulnerability to shocks. The burden on the budget may increase significantly, since such PPP projects have guarantees for foreign-currency-denominated payments. The new guaranteed lira saving deposit scheme also generate contingent liabilities. Spending efficiency should improve and the revenue base should be broadened. Türkiye has one of the lowest tax-to-GDP ratios in the OECD.

The government should continue to address the adverse distributional impacts of higher energy prices while preserving fiscal sustainability. The government is supporting lower-income households suffering from rising living costs. This support is warranted but should be temporary and targeted to the most vulnerable to keep fiscal costs manageable. It should also be designed in a way that avoids distorting price signals. The authorities should assess the pros and cons of existing price subsidies and gradually replace them by better-targeted social transfers to vulnerable households.

Making the business climate more friendly to investment

Inward FDI and equity investment have slowed in recent years and are low in international comparison. At the same time, the contribution of total factor productivity to GDP growth has decreased over the past decade reflecting barriers to effective resource allocation. Going forward, faster income convergence will require addressing underlying structural weaknesses associated with competition and regulations. This would improve the business climate and enable resources to flow to the most promising activities and firms.

Figure 3. Product market regulations are stringent



Source: OECD Product Market Regulation database 2018.

StatLink https://stat.link/bnp0f3

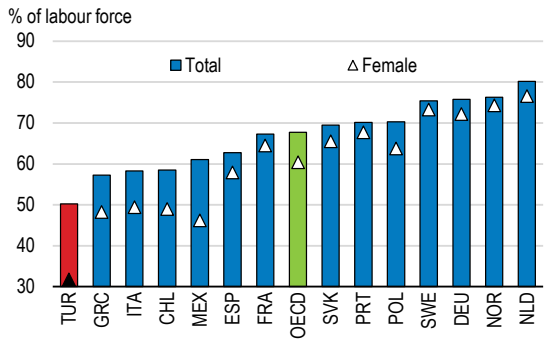
There is a need to promote more open competition in product markets. Strict regulations shield incumbents from competition and limit the entry of new firms. Particularly, complex and burdensome administrative procedures to obtain permits, licences or concessions, hamper the creation of formal businesses. Türkiye should consider creating a one-stop shop issuing all licenses and authorisations. There is also room to ease barriers to international trade and investment, particularly restrictions on foreign ownership, which are stricter than in other countries.

Labour market regulations hamper the creation of more and higher quality jobs. Despite progress over the past decade, a considerable share of the workforce, in particular women and youth, still do not actively participate in labour markets. Even though informality has decreased significantly over the past decade, it remains high, particularly among youth, refugees and women. Rigid labour regulations and an expensive severance pay system provide protection to those with a formal job against the fallout of an economic crisis. However, they impede formal job creation for those currently without one. High labour tax wedges and high minimum wages relative to median wages discourage formal job creation.

Minimum wages are set at the national level while ample disparities in living standards across regions prevail. Better protecting people, by giving the unemployment insurance system a larger role and by improving the scope and quality of active labour market policies, is a prerequisite for introducing much needed labour market flexibility.

Figure 4. The employment rate is low

15-64 year-olds, 2021



Source: OECD (2022), OECD Labour Force Statistics (database).

StatLink https://stat.link/06fzdr

Promoting skills and innovation to unleash technological progress

Innovation performance lags behind other OECD countries and there are indications that technological upgrades to production have slowed over the last decade. This is linked to poor educational outcomes and important skills mismatches. Moreover, spending on research and development (R&D) remains low in international comparison, despite an almost doubling over the past decade.

Despite considerable improvements in tertiary and secondary enrolment, around 40% of youth do not complete upper secondary education. Learning outcomes for 15 year-olds are below the OECD average. Moreover, important skill mismatches have emerged, with the number of unfilled vacancies increasing despite high unemployment. While skill shortages are most prevalent for medium-level skills, blue-collar work suffers from a poor reputation. The recent initiative to provide a free-to-use website that allows to compare the labour market prospects of higher education programmes may help reduce skills mismatches.

Increasing the provision and broadening the access to quality early childhood education would help improve educational outcomes. It would also pave the way for women to participate more actively in the labour force. Currently, the labour force participation rate of women is very low and women take up most of childcare and other housework.

Support for innovation needs strengthening. R&D support programmes should be redesigned if they prove to be inefficient and additional support be provided where needed. In particular, schemes that promote collaborative research projects between universities and companies should be reinforced.

Promoting the green energy transition

Greenhouse gas emissions per capita are low in international comparison but have grown fast in recent years. Coal accounts for around one third of Türkiye's total greenhouse gas emissions.

Türkiye has promoted renewable energy, with capacity doubling over the past decade. Government policies have been supportive, including via preferential feed-in tariffs, procurement auctions for renewable energy, support to investment and subsidies for rooftop solar installations. Still, much of the potential remains unexploited. The first nuclear power plant is under construction and is expected to meet around 10% of total electricity needs.

Coal combustion accounts for almost a third of electricity generation. Gradually phasing out coal-fired power is essential to achieve the government's net zero target. Still generous support to the domestic coal sector should gradually be reduced.

Carbon emissions are priced below the levels seen in most other OECD countries. Türkiye does not have an explicit carbon pricing system and effective carbon prices consist mostly of fuel excise taxes. A large share of greenhouse gas emissions from energy use in the electricity and industry sectors is not taxed.

Main findings and key recommendations

MAIN FINDINGS	KEY RECOMMENDATIONS
Implementing a rules-based macroeconomic policy framework	
As in other countries, supply-side constraints and energy prices have put pressures on prices. Lira depreciation and low interest rates have further contributed to high consumer price inflation. In 2022, the CPI stood at 72.3% and inflation expectations far exceed the 5% policy target. Frequent changes in the central bank's board members have undermined domestic and international confidence in the independence of the central bank.	Tighten monetary policy, including by increasing the main policy rate. Strengthen confidence in the independence of the Central Bank, including by reducing the turnover of the Bank's board members.
Although public debt is internationally low, it was on an upward trajectory. Fiscal pressures may intensify in the future. Inflation has a particularly negative effect on low-income groups as food and energy tend to account for a larger share of their budget.	Where needed, provide targeted and temporary fiscal support to vulnerable groups. Bring the primary fiscal balance back to a 1% surplus. Adopt a medium-term fiscal strategy to prepare for long-run fiscal challenges.
Rising contingent liabilities are making the economy more vulnerable to economic shocks. Foreign currency-denominated payment guarantees for public private partnerships (PPPs) and foreign exchange-protected deposits are exposing public finances to exchange rate risks. These deposits (amounting to about 10% of GDP) can have a large fiscal cost. As of November 2022, these costs stood at 0.6% of annual GDP.	Further strengthen the framework for supervising and monitoring PPPs by introducing generic PPP legislation. Gradually phased out foreign exchange-protected deposits. Publish annual Fiscal Policy Reports, with short and longer-term projections and risk scenarios for liabilities, including contingent ones.
Making the regulatory framework more effective and predictable	
Product market regulations are stringent. The licensing and permits system is the most restrictive in the OECD as are entry barriers and administrative burdens on start-ups.	Create a one-stop shop issuing all licenses and authorisations. Apply the "silence-is-consent" principle to reduce the administrative burden related to obtain permits and licences.
The perception of corruption is high and has deteriorated in recent years. Türkiye has not yet a dedicated whistle-blower protection law or anti-corruption body.	Adopt an anti-corruption strategy underpinned by credible action plans. Establish a permanent and independent anti-corruption body.
Boosting labour market prospects of women	
Formal employment rates of the youth and women lag behind. Labour force participation of women is the lowest across the OECD.	Continue to bring more women into formal employment, including by reallocating funds devoted to wage subsidies to well-designed hiring subsidies targeted at the most vulnerable groups.
Public spending on primary education is below OECD average while the population is relatively young and educational outcomes lag behind. High private spending on primary education exacerbates inequalities of opportunities.	Increase and broaden the provision of quality early childhood and primary education.
Creating more and better jobs	
Rigid employment rules, including for fixed-term and temporary work agency contracts, are contributing to the widespread use of informal and semi-formal work practices.	Make permanent work more flexible and increase the scope for fixed-term and temporary work contracts, while ensuring social protection of workers and access to reemployment services.
The severance pay system makes formal job creation very costly and, since it is bound to the current employer, hampers the reallocation of labour to more promising activities and businesses. Unemployment insurance fails to provide sufficient social protection to all workers.	Shift social protection from the severance pay system to a broader-based unemployment insurance. Introduce portable severance accounts.
A high minimum wage, relative to median wages, reduces the prospects for low-income workers to obtain formal employment, particularly for women and young workers.	Ensure that statutory minimum wages are affordable for firms, for example by setting a minimum wage floor at the national level and promoting collective bargaining at the enterprise level.
Promoting the building up of human capital and innovation	
There are significant shortages regarding middle-level skills. Middle-level jobs suffer from low reputation. The government has recently introduced innovative tools to assess educational institutions' outcomes and disclose results to the public to steer choice.	Enhance up-to-date information on labour market outcomes for graduates from vocational education tracks, for example by extending the Career Counselling System.
Making growth more sustainable and greener	
Coal accounts for about one third of total greenhouse gas emissions in Türkiye. Greenhouse gas emissions per capita are low in international comparison but have grown fast in recent years. The implicit carbon price is lower than in other OECD countries and a large share of carbon emissions are not taxed, in particular in the electricity sector.	Make emission pricing more consistent across sectors, including by gradually scrapping various subsidies to coal and raising the carbon price. Replace coal subsidies for poorer households by means-tested income support programmes without linking aid to fossil fuel consumption.

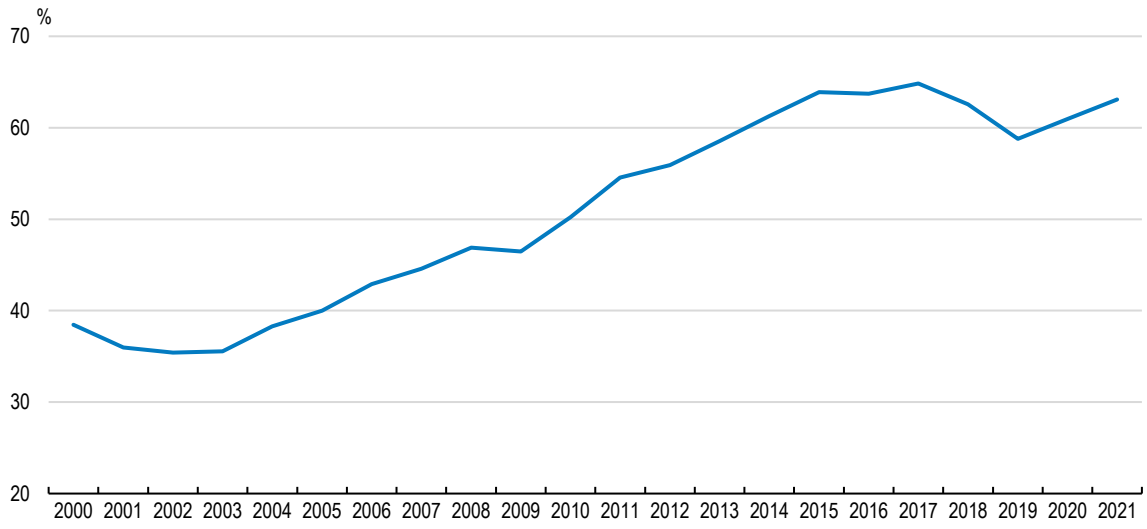
1 Key policy insights

Making the economy more resilient will require ambitious reforms

Türkiye has been one of the fastest growing economies in the OECD over the past two decades. GDP per capita rose at an average annual rate of 6% between 2000 and 2021, the poverty rate was cut in half and the share of people participating in the labour market increased by 10 percentage points. Income per capita has converged relatively quickly towards the level in advanced economies, although progress has stalled in recent years (Figure 1.1).

Figure 1.1. Income convergence has been fast, but has stalled in recent years

Convergence in GDP per capita to OECD level



Note: Data on GDP per capita is expressed in USD (current prices and PPPs).
Source: OECD (2022), OECD Productivity database.

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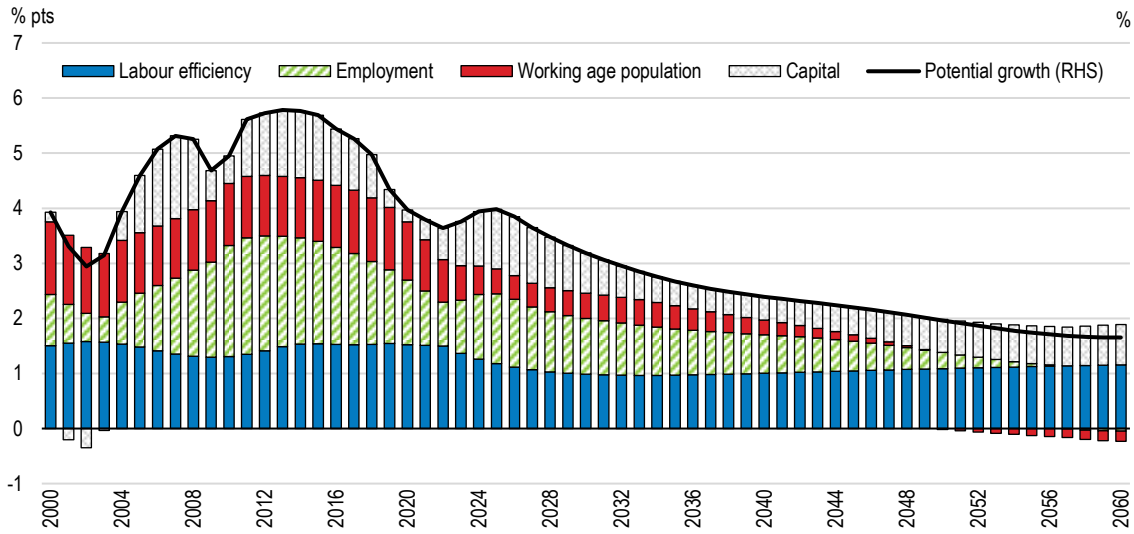
The driving force behind economic convergence has been the highly dynamic private sector, which has seized new opportunities in international markets. Labour reallocation towards the services sector has been a key feature. At the same time, the manufacturing sector has become better integrated into global value chains. Türkiye's exports now account for more than 1% of the world demand for goods and services.

Türkiye's economy also benefits from a young and dynamic population. While the median age in the average OECD country is 40, Türkiye boasts one of the youngest populations, with a median age of 33. Two thirds of the Turkish population is of working age (15-64) and less than a tenth is above 65. Yet, this

"demographic dividend" will gradually decline, slowing future potential growth (Figure 1.2). This underlines the need to better leverage existing human resources, in particular youth and women, whose labour participation is low (Chapter 2).

Figure 1.2. The demographic dividend is declining, weighing on potential growth

Contributions to potential output growth per capita



Source: OECD Economic Outlook: Statistics and Projections (database), for further information see Annex in Y. Guillemette D. (2021)[149].

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Economic vulnerabilities have intensified in recent years and the risk of macroeconomic instability has increased. In 2022, average annual consumer price inflation reached 72.3% for the first time since 1998, while the lira has lost more than half of its value relative to the US dollar since the beginning of 2021. Inward foreign direct investment flows have stagnated and, as a share of GDP, are the lowest among OECD countries. The current account deficit has widened and is expected to reach 5½ per cent of GDP in 2022. In July 2022, foreign exchange reserves fell to one of the lowest levels in the past decade but they subsequently recovered somewhat. Public sector contingent liabilities have increased, including from the savings guarantee scheme for those converting their foreign currency deposits into lira deposits.

These vulnerabilities are making the economy less resilient to shocks. The country experienced four recessions during the past 25 years and the volatility in economic growth, measured by the standard deviation of annual GDP growth, was four times higher than on average in the OECD. High economic volatility increases uncertainty, deters investment, and can drag down trend growth (Bloom et al., 2012[1]; Ramey and Ramey, 1995[2]) thus putting Türkiye's efforts to reach high-income status at risk.

To make the economy more resilient, it will be essential to equip young people with the skills to adapt to changing labour market needs. Learning outcomes of Turkish students are low by international standards and adults tend to lack adequate problem solving and information processing skills. Many young people, especially women, are neither employed nor in education or training.

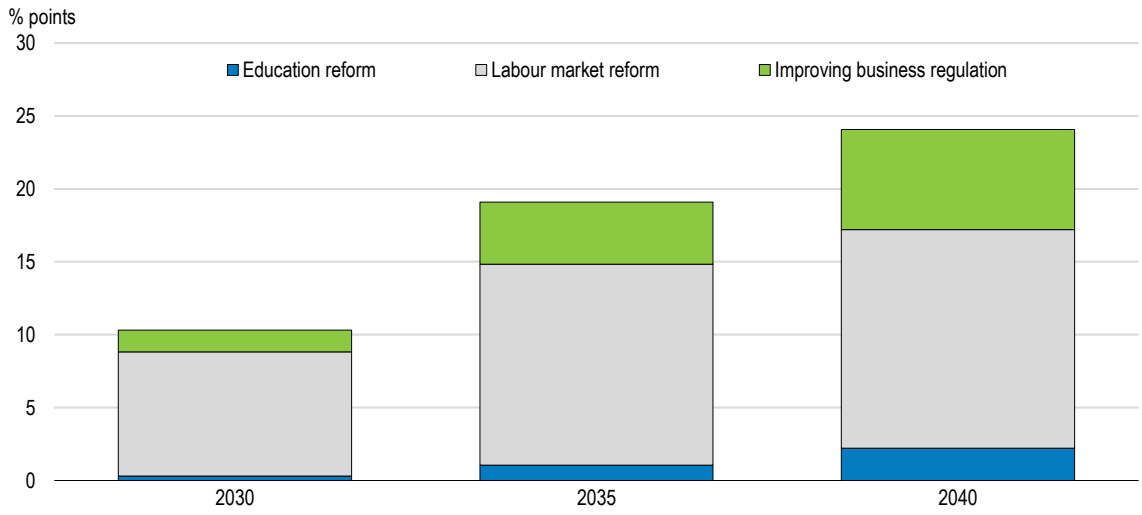
Economic resilience could be strengthened by making the regulatory framework more predictable and flexible. Strict product and labour market regulations contribute to a dual economy with a large informal and semi-formal sector coexisting with large companies, mostly conglomerates. Strict regulations limit the

entry of new firms, shielding incumbents from internal and external competition. Ensuring a rules-based, level-playing field for firms requires enforcing rules without exemptions.

Reforms in these areas have significant potential to address Türkiye's vulnerabilities, reduce economic volatility and improve living standards. Simulations based on the OECD long-term growth model (Guillemette and Turner, 2018[3]) suggest that an ambitious reform package that would strengthen Türkiye's regulatory framework and improve educational outcomes could boost GDP per capita by more than 10% by 2030 (Figure 1.3). This reform package would help Türkiye's economy resume its convergence process towards other OECD countries.

Figure 1.3. Structural reforms can help increase standards of living and make growth sustainable

Cumulative difference from baseline GDP per capita (no policy change) scenario, by policy area



1) Education reform: improving the PISA score to the OECD average 2) Labour market reforms: reducing the gap vis-à-vis the OECD in labour market participation by half 3) Improving business regulations: improvement of PMR indicator to the OECD average.
Source: OECD simulations based on OECD Economics Department Long-term Model.

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

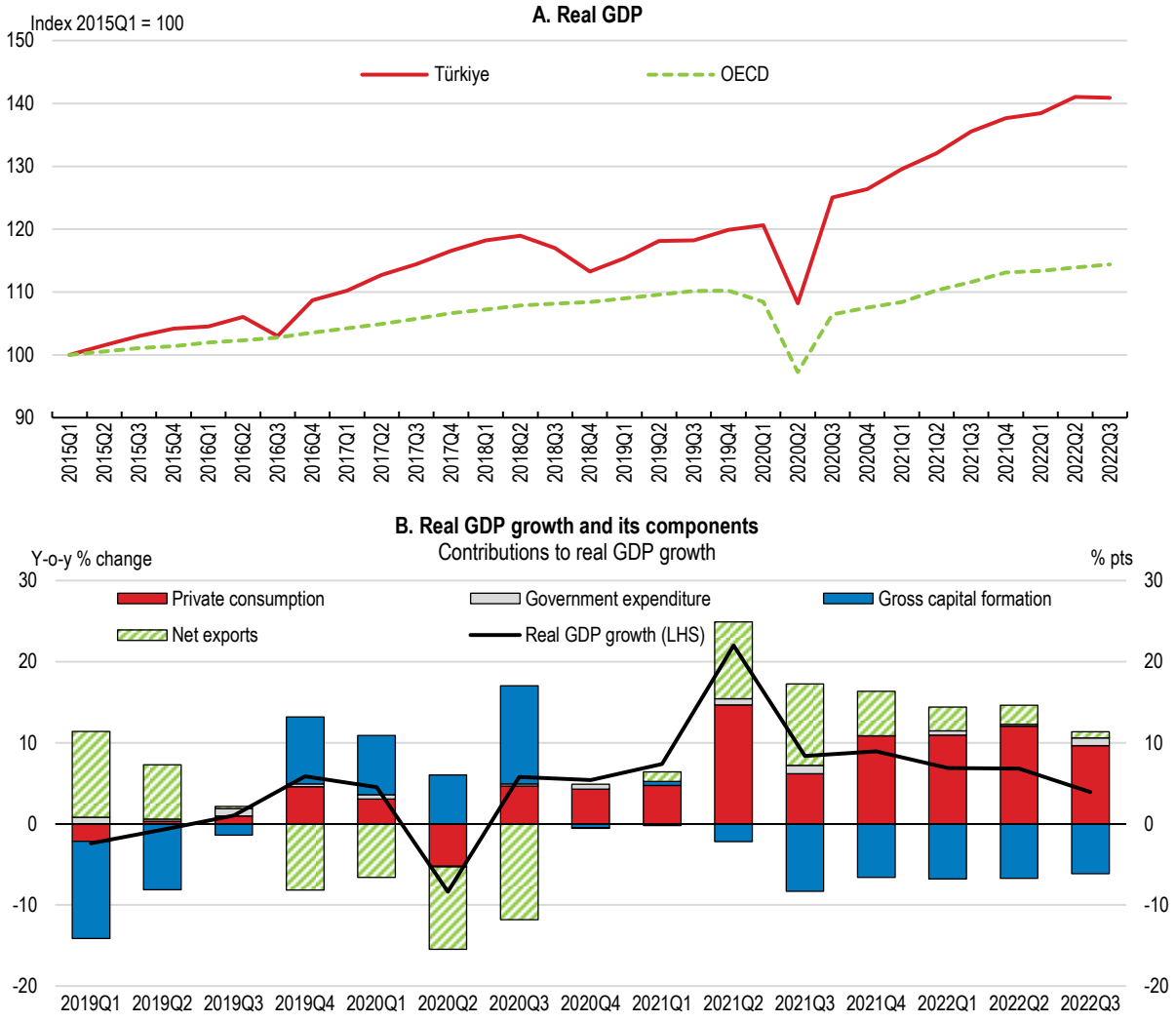
1. Anchoring inflation expectations is key to promote investment and growth. To this end, domestic and international confidence in the independence of the central bank needs to improve, including by reducing the turnover of the Bank's board. Monetary policy should be tightened. Policy rate increases should be timed carefully and accompanied by clear communication about future moves. The primary fiscal balance surplus should be restored and a medium-term strategy is called for to prepare for long-run fiscal challenges.
2. Strengthening the country's resilience to shocks and structural change will require a conducive business climate and improved rule of law that enable resources to flow to the most promising activities and firms. Increasing labour force participation and employment of women should be a priority. Equipping the population with the right skills is also important (see Chapter 2).
3. The economy will also need to become more resilient to climate change and energy shocks, through adaptation policies, a greening of the energy mix and improvements in energy efficiency.

The recovery from the pandemic was robust, but risks have intensified

The economy is set to slow

Türkiye is one of the world's very few countries that avoided an annual economic contraction in 2020 in the face of the COVID-19 pandemic (Box 1.1). Strong base effects after the slowdown in 2019, coupled with buoyant consumer spending and unusually robust exports, helped the country to mark one of the fastest recoveries among OECD countries (Figure 1.4, Panel A). The economy expanded by 11.4% in 2021, the fastest growth in the past five decades, and by 6.2% in the first three quarters of 2022 (year-on-year).

Figure 1.4. Türkiye has experienced a strong economic recovery



Source: OECD Economic Outlook: Statistics and Projections (database).

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Private consumption has been the main driver of economic growth (Figure 1.4, Panel B). Real household consumption grew by an astonishing 15.3% in 2021, the highest growth in Türkiye's history. Pent-up

demand during lockdowns supported household consumption in the recovery phase. The rise in inflation also led some households to frontload their purchases, in particular of durable and semi-durable goods. At the same time, measures to facilitate access to credit adopted during the pandemic coupled with low interest rates have contributed to high demand for loans.

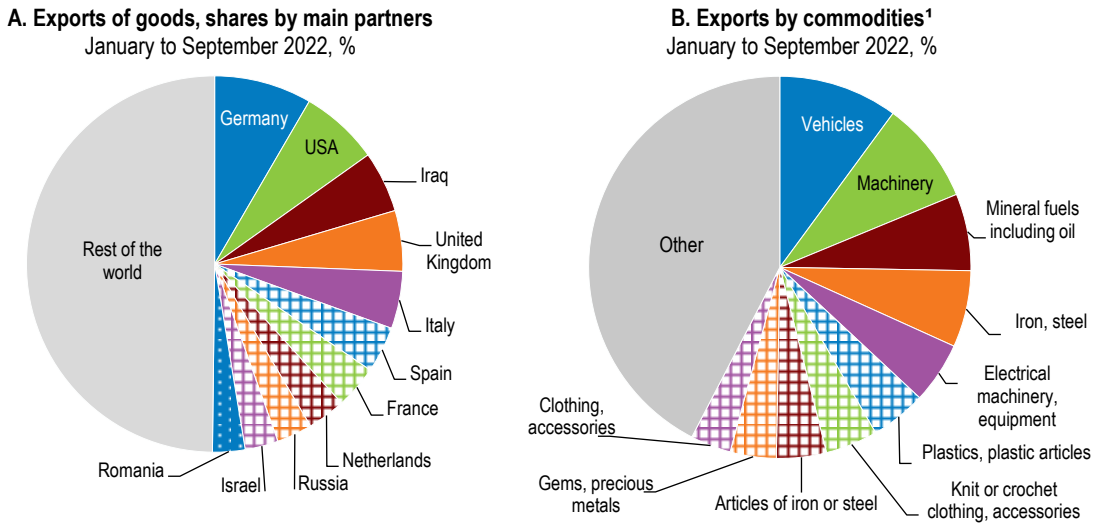
Consumer spending has also been supported by labour market developments, with employment and participation rates rapidly recovering to pre-pandemic levels. Türkiye's employment gains following the pandemic have been the strongest in the OECD area. The services sector, which was hit hard during the pandemic, was responsible for more than half the employment gains during the recovery. Many people have returned to the labour market, particularly young people and women, whose labour force participation now exceeds pre-pandemic levels. Large employment gains have been coupled with significant wage increases. The minimum wage has been raised four times since 2021, by 20% in January 2021, 50% in January 2022, 30% in July 2022 and a further 55% in January 2023 – around 65% of workers in formal employment earn wages in the vicinity of the official minimum wage. Despite labour market recovery, the unemployment rate and labour force participation remain well below the OECD average and informal employment remains widespread (see Chapter 2).

The contribution of gross investment to GDP growth has been negative since 2021, mainly due to the depletion of inventories (Figure 1.4, Panel B). Although manufacturing investment increased somewhat, investment in construction has deteriorated, and foreign direct investment has been weak due to elevated uncertainty.

Exports have been a key driver of growth. In 2021, exports of goods and services increased by nearly 25% in real terms owing to the depreciation of the lira along with supply chain disruptions in other countries. Turkish exporters have been able to exploit opportunities from the Asian supply chain disruptions, benefitting from the country's shorter distance to Europe. Empirical evidence suggests that a 10 percentage point decrease in shipping reliability globally boosts Türkiye's exports by approximately 5% (World Bank, 2022a). Export growth has been broad-based across exported products.

Activating unused productive capacities has been instrumental to the export expansion. Existing product lines have driven most of the expansion, while the contribution of new markets or new product lines has been smaller (CBRT, 2022[4]). Exports of goods have increased mainly to EU countries and the United States, which are Türkiye's main trading partners (Figure 1.5). Türkiye has increased its market share in the European Union for textile and clothing, agricultural, plastic and wood products, which typically do not require additional large investments (World Bank, 2022[5]). In recent months, exports to Russia have also increased significantly, but their share remains low (around 3%).

Figure 1.5. Exports by trading partner and by commodity



1. Based on the two-digit Harmonized System.
Source: Turkstat, "Foreign Trade Statistics, September 2022".

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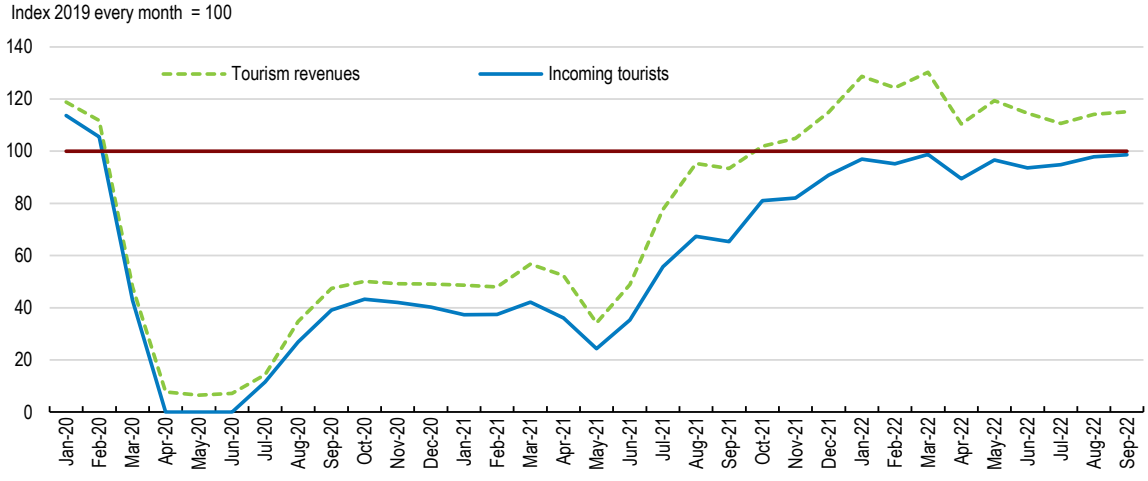
Exports of services, particularly tourism, have rebounded to their pre-pandemic levels. The tourism sector, brought to a standstill by globally-applied restrictions during the pandemic, has recovered in 2022 despite geopolitical tensions. Revenue, as well as the number of tourists, have returned to their pre-pandemic levels (Figure 1.6). The number of Russian tourists, which accounted for the largest group visiting Türkiye in previous years, has decreased by more than a third in the first nine months of 2022 compared to 2019. But this was compensated by the increasing number of tourists from European countries. Aided by the depreciation of the lira, Türkiye has become an even more attractive destination for European tourists (World Bank, 2022[5]).

Figure 1.6. The tourism sector has recovered



Note: Data from January 2020 are based on the corresponding monthly data in 2019.
Source: Turkstat, "Tourism income, number of visitors and average expenditure per capita by months, 2012 - 2022".

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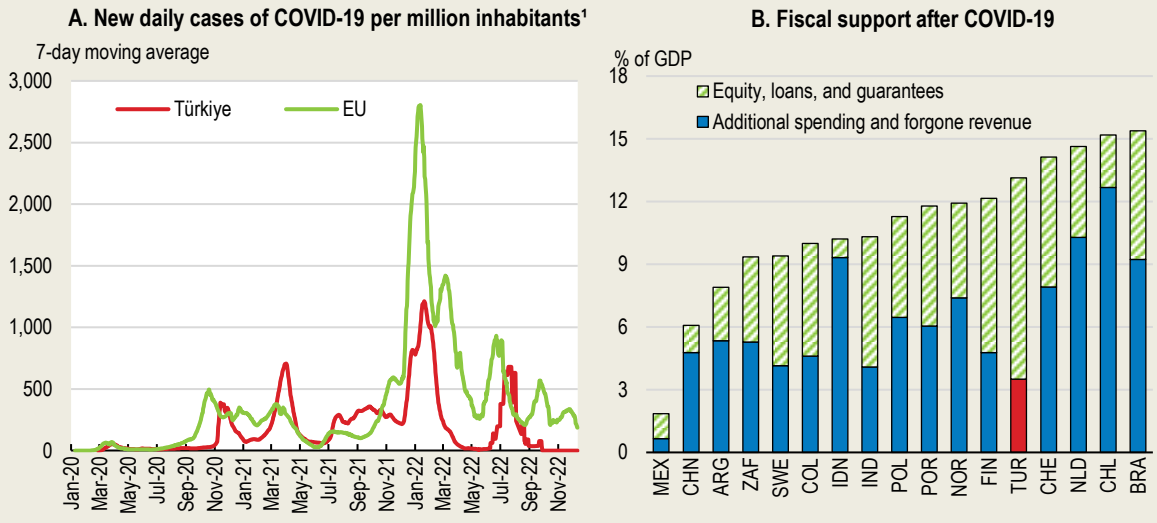
In contrast, imports of goods and services have been subdued, increasing by only 2.4% in real terms in 2021, partly due to the depreciation of the lira. Imports of capital goods have been weak reflecting limited investment activity and elevated uncertainty. Russia has remained the main trading partner in terms of imports, accounting for nearly 17% of all imports in the first 10 months of 2022 (up from 11% in 2021) -- Türkiye has not imposed sanctions on Russia after the start of Russia's war against Ukraine. Despite some progress in terms of energy security (see below), Türkiye remains heavily dependent on imports: 93% of oil consumption and 99% of gas consumption are imported.

Box 1.1. Türkiye's response to the Covid pandemic

The last infectious wave peaked during summer 2022 (Figure 1.7, Panel A), but there have been far fewer casualties than in previous waves, thanks to the wide vaccination rollout. As of October 2022, 63% of the population had been fully vaccinated. This represents about 86% of the population over 18 years. The vaccination rate among adults is slightly higher than the EU average (83.5%). In terms of health outcomes, Türkiye has been less affected by the pandemic than high-income countries (Wang, 2022[6]).

The pandemic caused a 10.3% fall in real GDP in the second quarter of 2020, but the economy recovered strongly in the third quarter. Informal workers and the tourism sector were hit particularly hard. To mitigate the social and economic impacts, Türkiye provided relatively generous fiscal support. The total fiscal package amounted to 13% of GDP (Figure 1.7), mostly consisting of concessional credits to households, businesses loans and guarantees schemes (OECD, 2021[7]).

Figure 1.7. The Covid-19 crisis in Türkiye



1. The last data point refer to 31 December 2022.
Source: Our World in Data, https://ourworldindata.org; and IMF (2021), Fiscal Monitor Database of Country Fiscal Measures in Response to the COVID-19 Pandemic, October.

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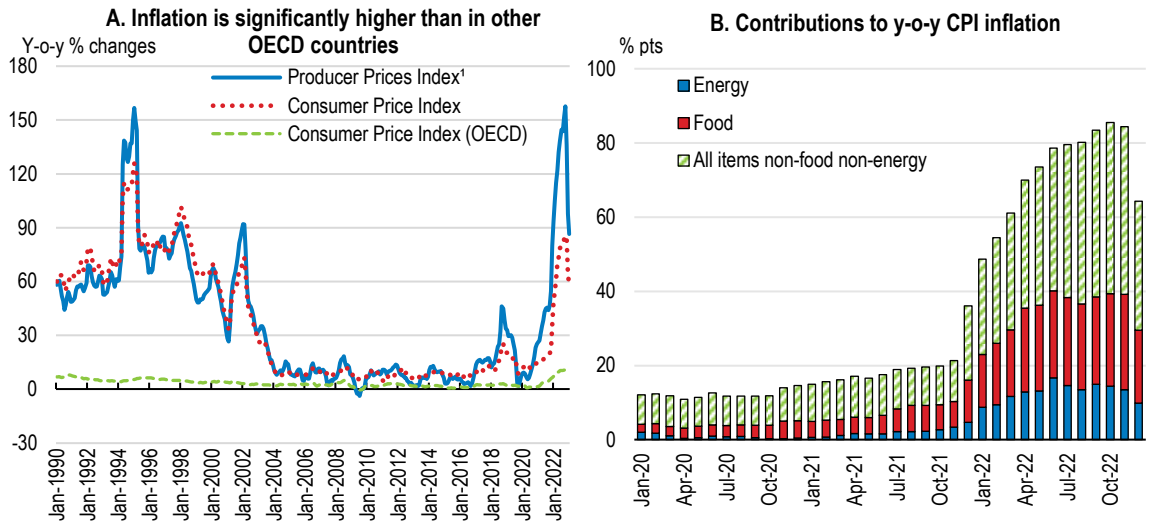
Strong domestic demand, supported by low interest rates, and the surge in global commodity prices have pushed inflation to the highest levels in the OECD area. Moreover, lira depreciation has put pressure on import prices. In 2022, consumer price inflation reached 72.3%. Producer prices were up by 128%, the

highest rate in almost 30 years (Figure 1.8, Panel A). The large difference is explained by high energy and import prices, which have more strongly affected producer prices. The sharp rise in energy and other commodity prices - triggered by the pandemic and subsequently the war in Ukraine – contributed significantly to overall CPI inflation (Figure 1.8 Panel B). Inflation pressures are however becoming broad-based, as revealed by the sharp increase in consumer prices for non-food and energy items (Figure 1.8, Panel B).

Inflation is having a particularly negative effect on vulnerable groups. Households in the first decile allocate nearly 70% of their budget to food and housing, twice as much as the corresponding share for a typical household in the upper decile (World Bank, 2021[8]). Recent hikes in minimum wages have brought real wage growth into positive territory, but only in the short term as strong monthly inflation growth will quickly deplete these real income gains.

Figure 1.8. Inflation has soared



1. Producer price index refers to domestic industrial activities.
Source: OECD (2022), OECD Monthly Economic Indicators (database); Turkstat; and OECD Consumer Prices (database).

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Economic growth is projected to slow over the next two years (Table 1.1). Monetary policy will remain supportive with the main policy rate being highly negative in real terms. However, weak external demand and persistent geopolitical uncertainties will weigh on investment and limit export growth. Indeed, leading indicators – such as electricity production – already signal a gradual moderation of economic momentum. Very high and persistent inflation will curtail household purchasing power while heightened uncertainty will weigh on investment. Inflation is projected to decline somewhat due to base effects but to remain above 40% over the projection period, reflecting a gradual pass-through of the recent lira depreciation, plus higher producer prices and wage increases, to consumer prices.

Table 1.1. Macroeconomic indicators and projections

Annual percentage change, volume (2009 prices)

	2018 Current prices (TRY billion)	2019	2020	2021	Projections 2022	2023	2024
Gross domestic product (GDP)[1]	**3,758.8**	**0.8**	**1.9**	**11.4**	5.3	3.0	3.4
Private consumption	2,111.9	1.6	3.0	15.7	15.2	4.1	3.4
Government consumption	552.0	4.0	2.2	2.7	0.2	3.0	2.3
Gross fixed capital formation	1,115.0	-12.4	7.3	7.4	2.8	2.8	3.8
Stockbuilding[2]	-10.7	0.1	4.5	-7.0	-6.4	-0.3	0.0
Total domestic demand	3,768.1	-2.1	8.7	4.1	2.2	3.1	3.3
Exports of goods and services	1,171.0	4.6	-14.6	24.9	12.2	4.4	4.2
Imports of goods and services	1,180.3	-5.4	7.1	2.4	4.2	4.8	3.6
Net exports[2]	-9.3	3.1	-6.9	6.4	2.8	-0.3	0.1
Other indicators (growth rates, unless specified)							
GDP deflator		13.8	14.9	29.0	91.7	51.1	46.1
Consumer price index		15.2	12.3	19.6	72.3	44.6	42.1
Core inflation index[3]		13.4	11.2	18.3	58.6	45.6	42.1
Unemployment rate (% of labour force)		13.7	13.1	12.0	10.7	10.3	10.0
Current account balance (% of GDP)		0.7	-5.0	-1.7	-5.6	-3.8	-2.5
General government fiscal balance (% of GDP)[4]		-4.8	-5.1	-3.9			
General government gross debt (% of GDP)[4]		32.6	39.7	41.8			

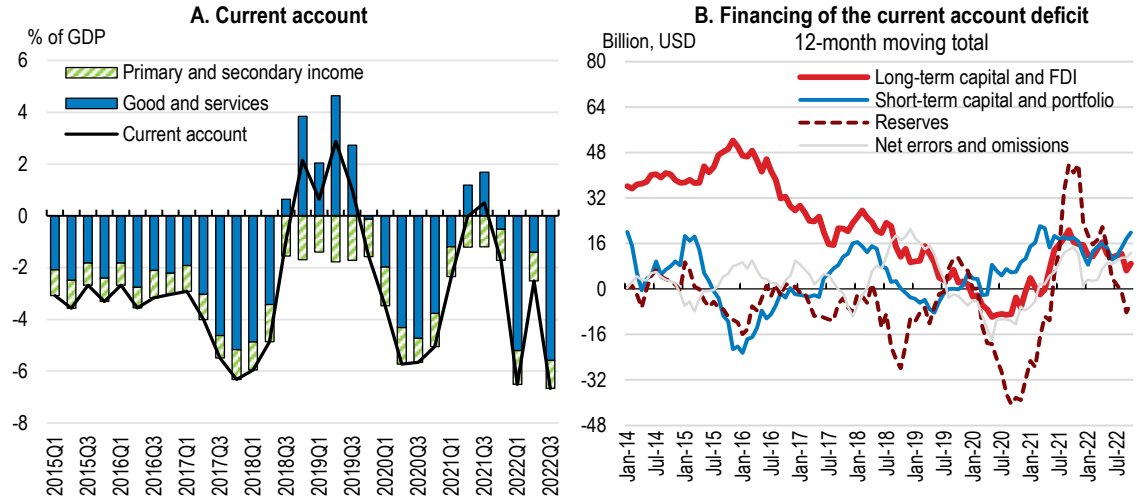
1. Based on working-day adjusted series.
2. Contribution to changes in GDP. Stock building includes statistical discrepancy.
3. Consumer price index excluding energy, food, non-alcoholic beverages, alcohol, tobacco and gold.
4. OECD projections do not cover the fiscal account due to the absence of a unified national general government accounting system. IMF Fiscal Monitoring Reports are used to evaluate Türkiye's fiscal position.
Source: OECD (2022), OECD Economic Outlook: Statistics and Projections (database); and forthcoming OECD Economic Outlook 112 database.

Risks have intensified

Risks are unusually high and tilted to the downside. The adverse effects of the war on prices and economic activity could become much greater. Commodity prices could increase, adding pressures on inflation as Türkiye is heavily dependent on imported oil and gas. Moreover, higher costs arising from shortages of critical raw materials, or further disruptions to transportation and trade could have sizable negative effects on the economy. A complete cessation of energy exports from Russia to Europe could significantly affect Türkiye's main trading partners and thus weigh on exports (Table 1.2).

The current account deficit poses a risk (Box 1.2). It widened at the beginning of 2022, reflecting the surge in global energy and commodity prices and the depreciation of the lira (Figure 1.9, Panel A). It is projected to reach 5½ per cent of GDP in 2022, the highest deficit in almost a decade, despite strong tourism receipts over the summer. Moreover, its funding has shifted from relatively stable sources to more volatile ones since the mid-2010s (Figure 1.9, Panel B). Foreign direct investment inflows have remained well below their early 2010s level. Sales of foreign reserves financed a large part of the current account deficit up to the start of 2021. From 2021, foreign currency inflows of unknown origin, classified as "net errors and omissions" and which typically capture movements in Turkish savings from abroad, have played a growing role, covering approximately a third of Türkiye's current account deficit in the first half of 2022.

Figure 1.9. The external position has weakened



Note: In Panel B, short-term capital movements include short-term net loans of banking and real sector and bank deposits. Long-term capital movements consist of long-term net loans of banking and real sector and the bonds issued by banks and the Treasury to abroad. Positive reserves mean an increase in reserves. Positive net errors and omissions mean foreign exchange (FX) entrance.
Source: OECD calculations based on CBRT; and OECD (2022), Balance of Payments (database).

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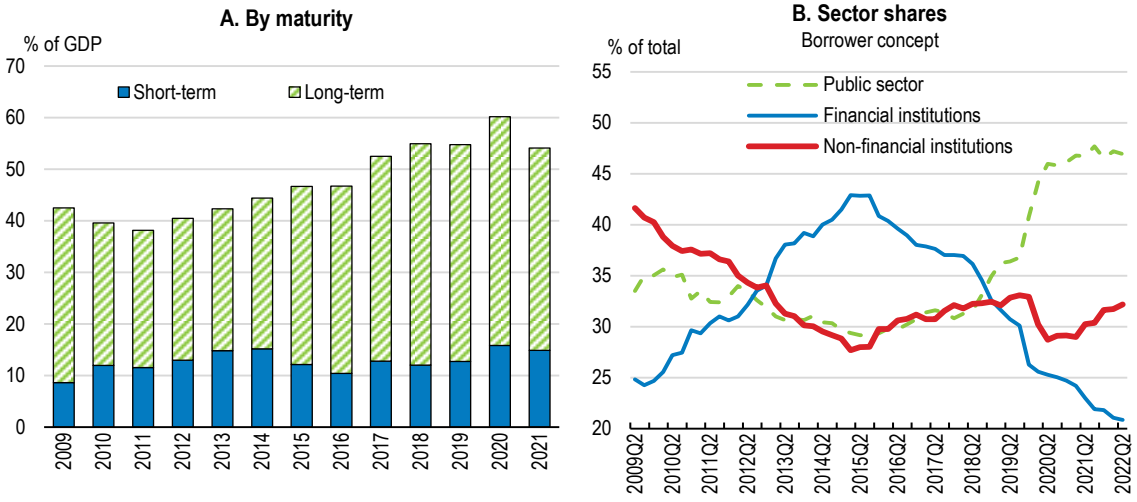
Türkiye has large external financing needs. As of October 2022, external debt maturing within a year stood at USD 186 billion, corresponding to approximately 20% of GDP. Short-term external debt has increased since 2009 (Figure 1.10). Debt refinancing measured by the external debt rollover ratio has remained high, suggesting that companies have retained access to external finance (World Bank, 2022[5]; CBRT, 2022[9]). Still, they could face a refinancing risk were market sentiment to deteriorate. Public sector external debt has also increased in recent years (Figure 1.10, Panel B). Gross reserves cover around 60% only of short-term external debt on a remaining maturity basis. Moreover, the bulk of the short-term debt stock is denominated in foreign currencies. Further swings in the lira exchange rate could affect both the private and public sectors, making debt service payments in lira terms costly and unpredictable.

Figure 1.10. External debt has increased over the past decade



Source: CBRT.

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Box 1.2. Türkiye's financial turmoil in 2018

In 2018, financial conditions in advanced countries had started to tighten after a prolonged period of extremely accommodative monetary policy with negative effects on capital flows to emerging markets. Moreover, risk perceptions towards these markets had further increased due to rising trade policy uncertainty and a slowdown in global trade. In the summer of 2018, portfolio investment to emerging markets slowed significantly and bond yields in these countries increased, reflecting higher risk premia.

Prior to the worsening of the global economic environment in 2018, Türkiye's external vulnerabilities were increasing. The current account was widening and reached around 6% of GDP at the beginning of 2018. Corporate debt had increased by 20 percentage points in the course of four years and in 2018 stood at 170% of GDP with around 65% of the debt denominated in foreign currency. External debt was steadily increasing since 2011 and reached 54% of GDP in 2018.

In the summer of 2018, the uncertain global economic environment combined with these vulnerabilities and international tensions led to a lira sell-off and capital outflows. In August 2018, the exchange rate depreciated by nearly 40% in two weeks; the risk premia and long-term interest rates rose strongly. The financial market volatility had significant real sector impacts. The depreciation of the lira increased debt service costs, which strained firms' liquidity and solvency. The number of bankruptcy protection filings soared. Inflation surged to close to 25% in September 2018 and business and household confidence fell. GDP contracted by 6.4% and 12.2% (annualised) in the third and fourth quarter of 2018 respectively.

Foreign exchange liquidity was released as a response to financial market pressures by cutting banks' reserve requirements and limiting their engagement in cross-currency swaps. The central bank raised its benchmark policy rate in September by 625 basis points to 24%, which supported the exchange rate and the required economic adjustment. A "Comprehensive Plan Against Inflation" was announced in October 2018, based on administrative price freezes and voluntary private sector price cuts for targeted items of the consumer basket over two months, subsequently accompanied by temporary VAT cuts (OECD, 2018).

Table 1.2. Tail risks that could lead to major changes in the outlook

Vulnerability	Possible outcomes
Dramatic escalations of the Russian war in Ukraine — expanding to other countries.	Dramatic decline in demand from the main trading partners would reduce exports, with negative impacts on employment. Uncertainty would curb consumption and business investment. Energy prices could increase further with adverse effects on vulnerable groups.
The emergence of new virus variants could limit the efficacy of vaccines and lockdowns could be introduced again.	Output, investment and trade growth would be affected.
Inflation could spiral out of control and become entrenched.	High inflation would further erode household incomes and spending, hitting vulnerable households particularly hard.

The monetary and financial policy framework needs to be strengthened

Monetary policy needs to be tightened

Monetary policy has been accommodative, with credit conditions more favourable to export and industry sectors in line with the new policy frameworks (Box 1.3) and Box 1.4). The Central Bank of the Republic of Türkiye (CBRT) has reduced its base rate by 10 percentage points since September 2021 while

economic activity was strong, inflation accelerated, and the current account deficit widened. Türkiye is the only OECD country that has cut its policy interest rates since early 2021 (Figure 1.11, Panel A), placing additional pressures on the lira.

Box 1.3. New policy frameworks have been introduced

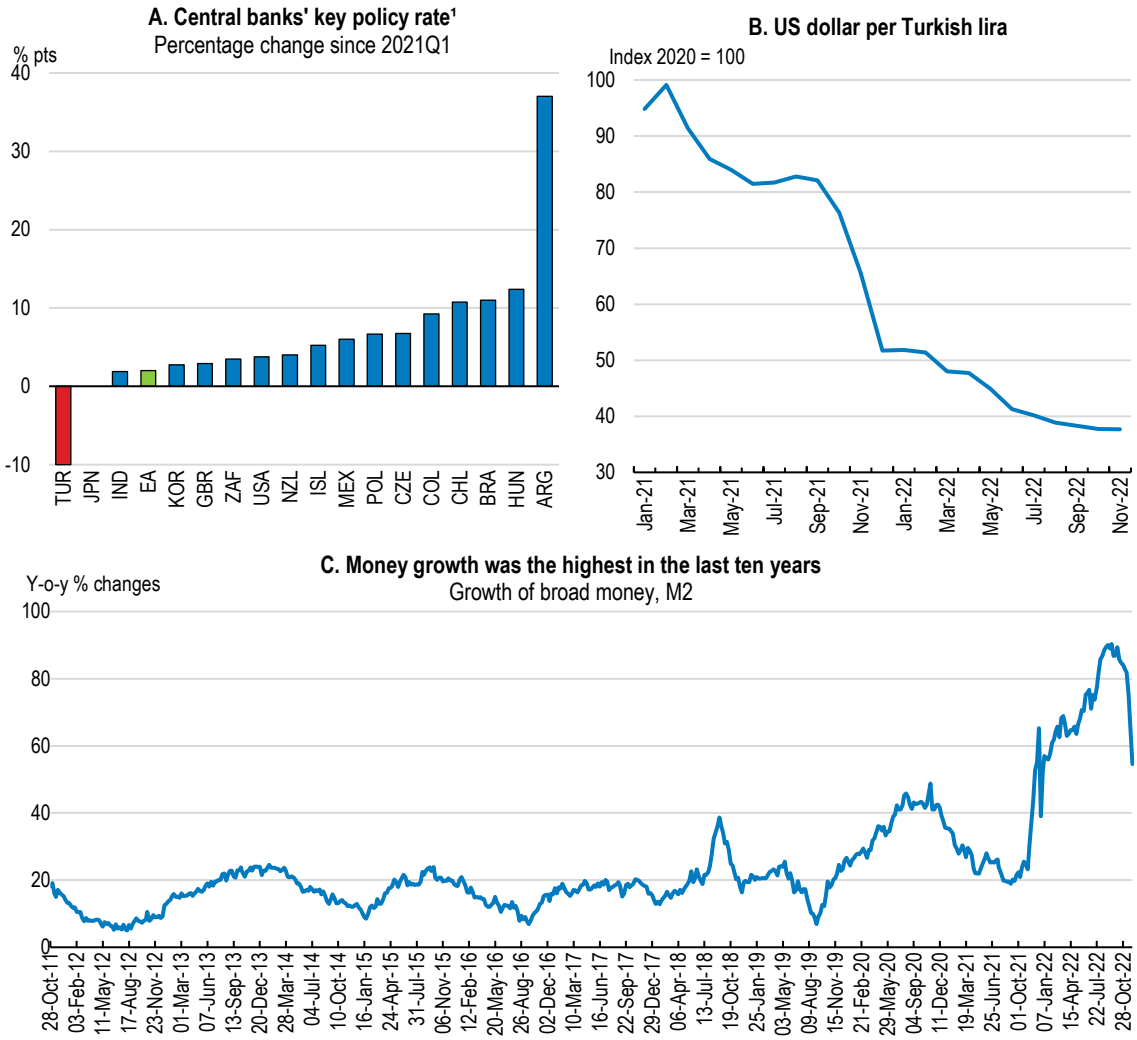
The *Türkiye Economic Model* was introduced in December 2021. It aims at increasing export competitiveness and private investment, while reducing the current account deficit permanently This Model prioritizes investment, employment, production and exports, aiming a healthy current account balance by providing low-cost accessible loans to productive and export sectors and controlling inflationary demand pressures through macroprudential measures. The primary objective of the Central Bank of the Republic of Türkiye (CBRT) is to achieve and maintain price stability. The "*liraisation strategy*" is a key and new element to reduce external pressures on prices and strengthen the effectiveness of monetary policy. Announced in December 2021 by the Monetary Policy Committee, it places the Turkish lira at the core of monetary and financial policies. According to the CBRT, this approach is tailored to meet the specific needs of the Turkish economy and address its vulnerabilities, in particular the high level of dollarisation and the persistent current account deficit which reduce monetary policy effectiveness.

With the liraisation strategy, the CBRT is relying on a lira deposit saving scheme with an exchange rate guarantee, collateral diversification, and liquidity management regulations (see below) to strengthen the demand for liras and direct loans to productive and exporting sectors, by foregoing reserve requirements for exporters, investors and SMEs. According to the CBRT, low interest rates targeted to productive sectors mitigate cost pressures, and thus inflation, and increase the economy's growth potential. This, combined by tighter financial conditions for consumer loans, is expected to reduce the current account deficit.

Various policy measures and tools are used to support the liraisation strategy and increase international reserves:

- A foreign exchange-protected deposits and participation accounts scheme (KKM). This scheme compensates savers for potential exchange rate losses (Box 1.6).
- A new differentiated reserve-requirement scheme. The CBRT imposes security based reserve requirements on TL denominated commercial loans , except for those financing SMEs, exports, investments and agricultural loans. It also applies a higher reserve requirement ratio for banks with excessive credit growth.
- The facility of advance loans against investment commitment was announced and has been financed by the CBRT resources. The facility aims to increase exports and investments in the production of import-substitution goods by offering low-interest and long-term (10 year) Turkish lira loans with no principal repayment for two years.
- Exporters are required to exchange 40% of their foreign currency revenues into liras.

Figure 1.11. The policy interest rate has been cut and the lira has depreciated



1. The latest data refer to the policy rate on 2 December 2022.
Source: OECD Monthly Monetary and Financial Statistics (MEI); BIS; and CBRT.

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Domestic and international confidence in the independence of the CBRT needs to be strengthened. The financing of government debt by the central bank has been marginal and based on the regulatory environment, the degree of independence of the CBRT has been similar to that of many other central banks of OECD countries (Romeli, 2022[10]). However, legislative changes since 2018 have weakened this position (ECB, 2020[11]). Since 2018, the tenure of the central bank's top management has been shortened, conditions for the removal of the governor eased and the 10 years relevant experience qualification and terms of office of deputy governors were removed. *De facto*, changes in the central bank's board members have been frequent, with four changes in governor within a four-year period. Interest policy cuts in the context of persistently high inflation have been interpreted by markets as the result of political interference reducing the independence of the central bank.

The lira has lost more than half of its value vis-à-vis the US dollar since the beginning of 2021 (Figure 1.11, Panel B). Türkiye's credit rating was downgraded by all three major agencies in 2022. Inflation expectations suggest that market participants have lost trust that inflation will converge to the 5% central

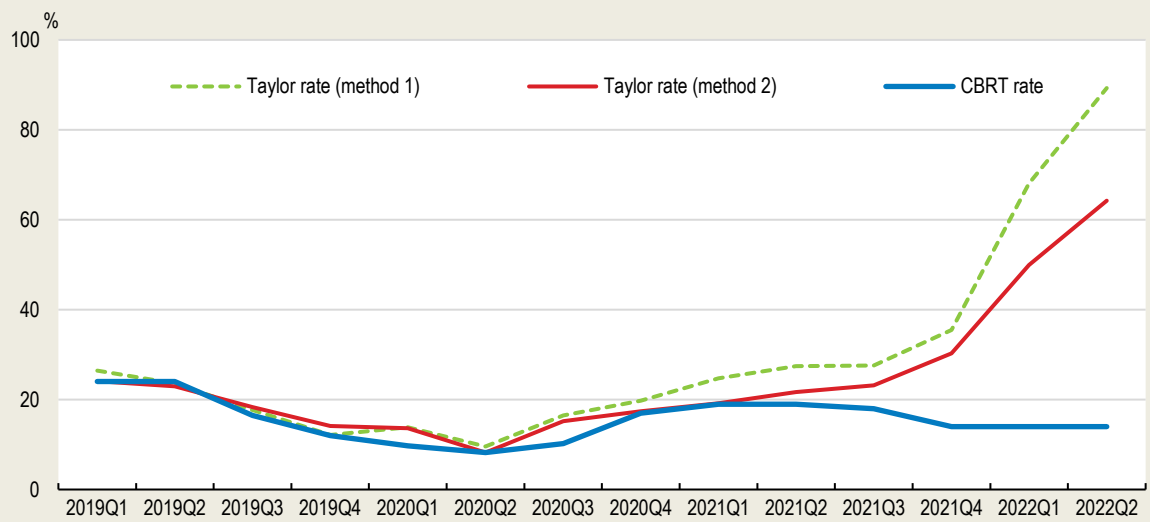
bank's target. In December 2022, inflation expectations for 12 months ahead stood at 35%. The depreciation of the lira has prompted the population to protect its savings by converting lira deposits into dollars, euros and other hard currencies. By the end of 2021, the share of deposits held in foreign currencies had increased to 68% (Figure 1.13). This put further pressure on the lira and boosted inflation. The difference between the policy interest rate and inflation has risen sharply.

Box 1.4. The Taylor rule benchmark

The Taylor rule provides a simple benchmark to assess the conduct of monetary policy based on a relationship between a central bank's policy rate, inflation and economic growth (Orphanides, 2007[12]). While the Taylor rule can help policymakers communicate, there are alternative rules to guide monetary policy. Considerations used in the Taylor rule may not be the only relevant ones when taking monetary policy decisions. In particular, it does not account for the sources of inflation.

In Türkiye, the optimal interest rate as suggested by the Taylor rule and the central bank's main policy rate were very close up to the first quarter of 2021 but have diverged since then (Figure 1.12). In the summer of 2021, when the monetary easing cycle started, inflation was 15 percentage points above the central bank's target and most output gap estimates suggest that the economy was overheating (CBRT, 2022[4]). Most OECD economies, including the euro area and the United States (EC, 2022[13]), (FED, 2022[14])saw a growing divergence between their inflation target and actual inflation in 2022. This can lead to deviations between Taylor rule estimates and the policy stance. The gap for Türkiye has been larger however.

Figure 1.12. Taylor rule estimated interest rates



Note: The Taylor rule interest rate is calculated as: i = average potential growth + inflation + 0.5 * output gap + 0.5*(inflation – inflation target). Method 1 uses actual inflation while method 2 uses inflation expectations.
Source: OECD calculations based on OECD Economic Outlook: Statistics and Projections (database); and CBRT.

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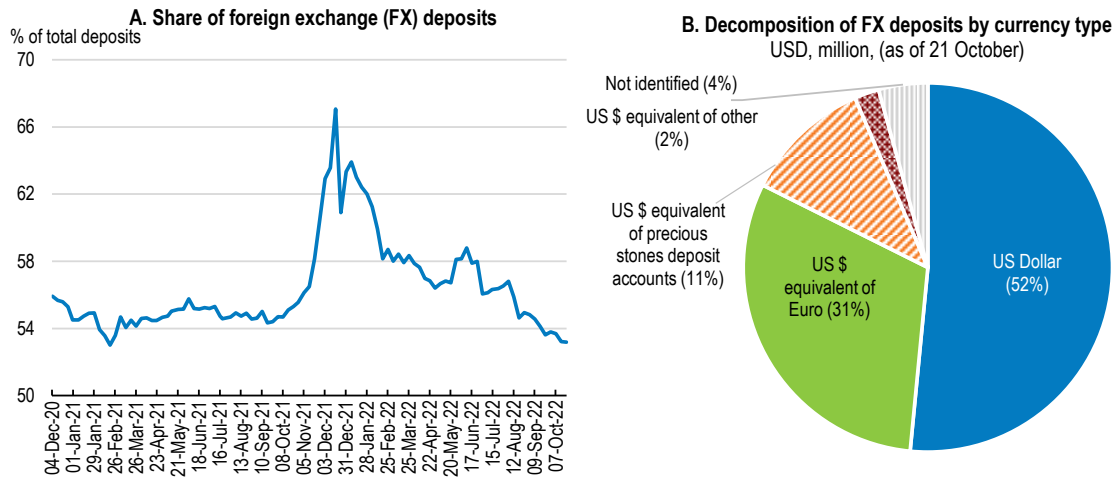
To reduce the dollarisation of the economy, the authorities have introduced a foreign exchange-protected deposits and participation accounts scheme (KKM), encouraging holders of foreign currencies to convert their funds into liras. The government has committed to compensate savers for any losses if the decline in

the exchange rate exceeds the interest rate offered by banks on KKM deposits. For example, if the lira depreciates by 50%, holders of KKM lira deposits would receive the equivalent of a 50% interest payment (banks would pay around 14% plus a compensation by the government of 36%). The authorities have further increased incentives for companies and households to participate in the KKM saving scheme. First, Parliament approved a corporate income tax exemption on companies' gains resulting from the conversion of foreign currency holdings into liras. Second, banks whose lira deposits make up less than 50% and between 50% and 60% of all deposits will be charged 8% and 3% commission respectively, on foreign exchange required reserves. The KKM scheme was originally set up for one year and was extended to the end of 2023.

Figure 1.13. After a sharp increase, the share of foreign currency deposits has declined



Note: In Panel A, the latest data point refers to 21 October 2022. In Panel B, the category "Not identified" include foreign exchange deposits of resident and non-resident banks.
Source: CBRT.

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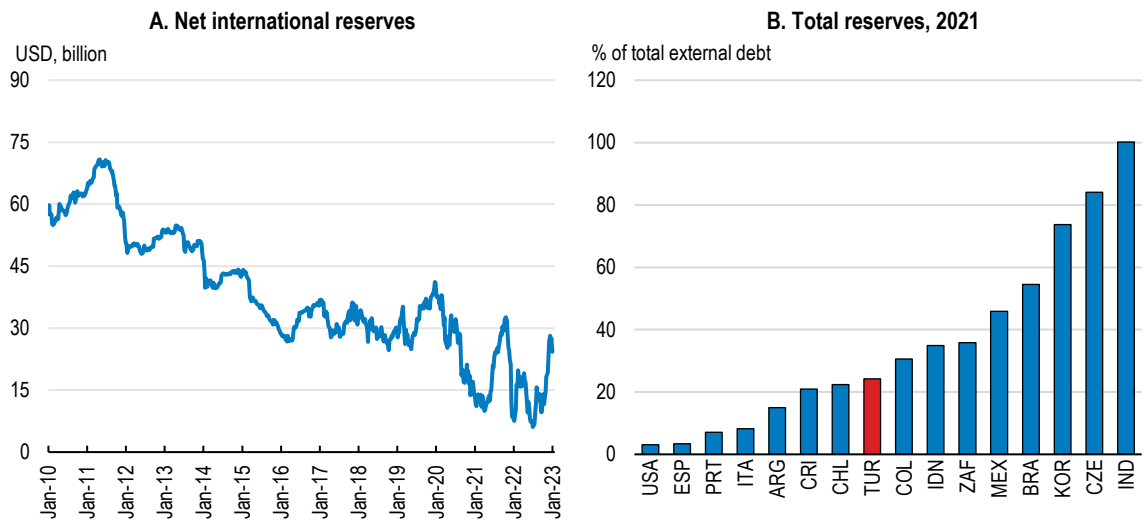
The introduction of the KKM in December 2021 has helped increase the share of lira deposits and slow the depreciation of the lira, but the budgetary cost may be high. By the end of December 2022, the KKM saving scheme had attracted TRY 1.4 trillion deposits, i.e. around 10.3% of GDP and more than 15% of all banking deposits. The KKM scheme has thus helped reverse dollarisation as the share of deposits held in foreign currency has decreased significantly, returning to the level seen before monetary easing (Figure 1.13). The KKM saving scheme presents some risks, however. Although the lira was relatively stable at the beginning of 2022, it had lost almost one third of its value compared to dollar between January 2022 and October 2022. As a result, the Treasury had paid almost TRY 91.6 billion (0.6% of GDP) to KKM deposit holders as of November 2022. The scheme's ultimate costs to the Treasury will depend on exchange rate developments and the duration of the scheme. If the lira depreciates further, the scheme's guarantee could have larger fiscal costs - with further adverse effects on confidence.

The authorities have introduced other measures to strengthen the lira and prop up foreign reserves. Since April 2022, exporters have been required to exchange 40% of their foreign currency revenues into liras. The new housing package introduced in May 2022 offers a cheap mortgage interest rate (0.89% per month) to people willing to convert their foreign currency holdings into liras or transfer their gold to central bank.

Despite these measures, foreign exchange reserves have shrunk, against the backdrop of market interventions to support the currency. The central bank directly intervened late in 2021 for the first time since 2014. Gross foreign currency reserves – the measure used by the central bank to communicate – recovered somewhat and reached USD 128.8 billion in December 2022, equivalent to around four months of imports. Net reserves - foreign exchange assets minus liabilities - fell in July 2022 to their lowest level in 20 years but recovered somewhat in January to USD 24.3 billion (Figure 1.14, Panel A). Reserves are also low by international standards (Figure 1.14, Panel B) and net reserves excluding short-term swaps (including domestic commercial banks and foreign central banks) are negative. Active communication by the central bank regarding various aspects of its reserve position, including net reserves and swaps, would improve transparency and bolster confidence as recognised in the previous *OECD Economic Survey* (OECD, 2021[7]).

Figure 1.14. Foreign reserves have decreased



Note: In Panel A, the latest data point refers to 6 January 2023.
Source: CBRT; and IMF, International Financial Statistics.

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Domestic and international confidence in the independence of the central bank should be strengthened by extending the tenure and reducing the turnover of the Bank's board members. The policy rate should be raised to counter inflation and signal the central bank's firm intention to bring inflation back to target. Credible forward guidance, with clear communication and carefully calibrated tightening, would help re-anchor inflation expectations. Foreign exchange-protected deposits should be gradually phased out.

Table 1.3. Past recommendations and actions taken in monetary policy

Recommendations	Actions taken
Restore the independence of the Central Bank of the Republic of Türkiye, including with legislative measures. Maintain the real policy interest rate in positive territory as long as inflation and inflation expectations diverge from official projections and targets.	The Central Bank of the Republic of Türkiye has reduced its base rate by 10 percentage points since September 2021
Replenish foreign reserves as conditions allow. Communicate actively on the foreign reserve position according to the information needs of financial markets.	Foreign reserves have declined, but recovered somewhat in the second half of 2022.
Outline and communicate a coherent macroeconomic policy framework encompassing fiscal, quasi-fiscal, monetary and financial policies.	The authorities have adopted new policy frameworks, with a different approach to monetary policy (Box 1.3).

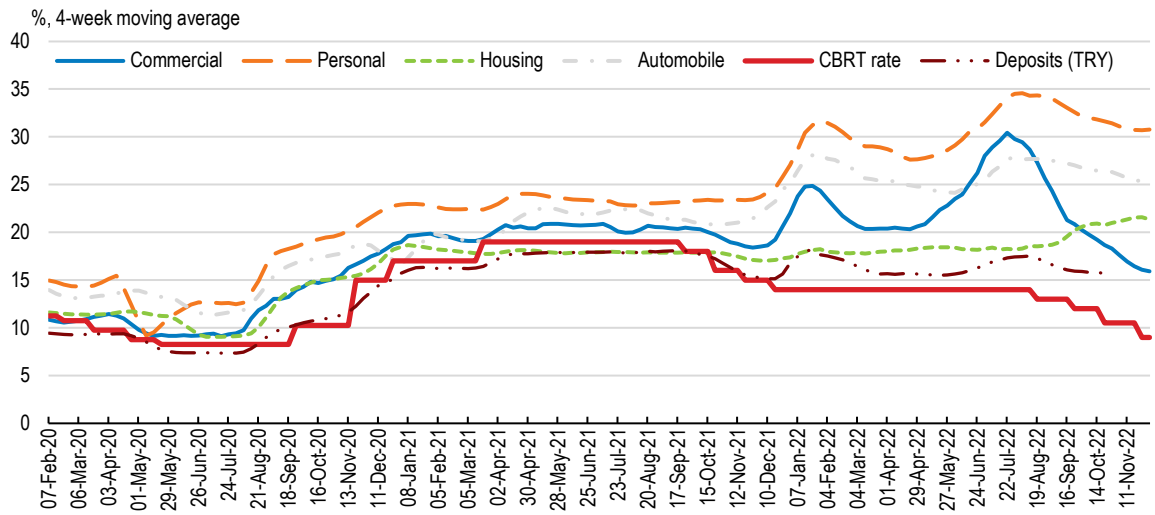
Financial stability risks should be monitored closely

While the authorities have cut the main policy rate, financial conditions for some types of loans have tightened. Since April 2022, macro-prudential policies and collateral measures have been implemented in response to growing macroeconomic imbalances. The 20% reserve requirement for certain lira-denominated commercial loans has been replaced by a 30% securities holding requirement. There are large variations in lending rates across uses (Figure 1.15), in line with the new monetary framework aimed at supporting productive sectors and reducing the current account deficit (Box 1.3). At the same time, some loans are excluded from the reserve requirements such as investment loans, loans to export companies and loans to SMEs.

To strengthen monetary policy transmission and reduce the gap between the central bank's benchmark rate and the average rate on commercial loans, the central bank introduced measures in August 2022. Banks with interest rates on new loans exceeding the central bank's benchmark by 1.4 times (or by 1.8 times) now face additional collateral requirements amounting to 20% (or 90%, respectively) of the value of new credits. These measures have helped reduce commercial rates in August 2022 (Figure 1.15).

Figure 1.15. Lending rates have risen despite cuts in the policy rate

Interest rates by types of loans



Note: Commercial loans excludes overdraft accounts and credit cards. The latest data points refer to 2 December 2022.
Source: CBRT.

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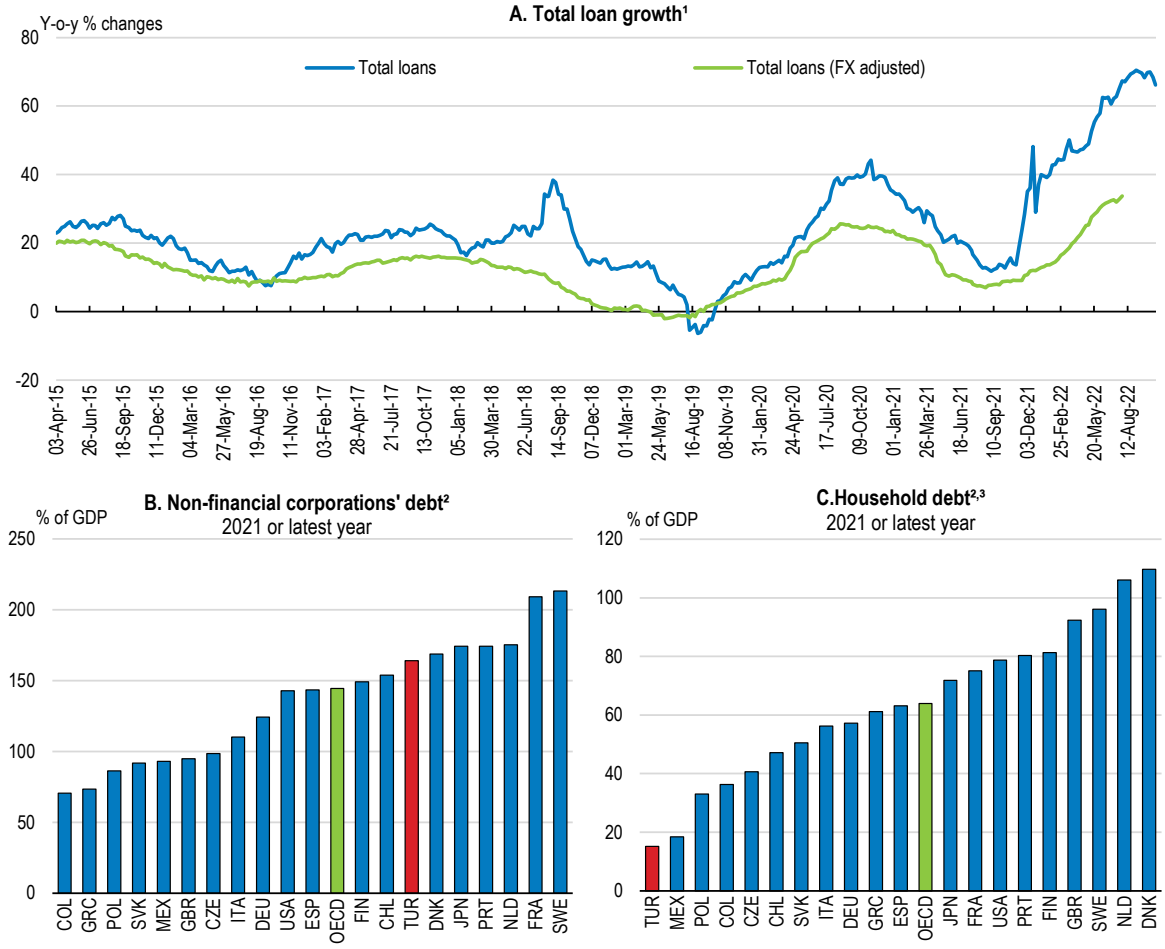
Corporate debt could become a source of fragility as the economy slows. Corporate sector profitability increased significantly in 2021 and in the first half of 2022 due to strong economic activity and demand. However, corporate loans have risen fast and corporate debt stood at 150% of GDP in 2021. The share of corporate debt denominated in foreign currency has declined since 2018 (CBRT, 2022[9]), but still stood at around 60% in the second quarter of 2022, with foreign currency debt largely concentrated among exporters. Overall, the corporate sector's net position in foreign currency is negative, implying that it is exposed to the risk of a lira depreciation. Between 2017 and 2020, the share of foreign exchange losses in total corporate costs increased due to depreciation (World Bank, 2022[5]). Still, foreign-currency debt of the corporate sector is concentrated among companies that may be in a better position to manage their exposure, most of which are large and natural hedgers.

Financial risks from the household sector remain low as household debt stands at less than 20% of GDP, well below the OECD average (62% of GDP). Household financial assets increased significantly on the

back of a strong growth in deposits and the FX protected savings accounts (see above). Household loans denominated in foreign currency are marginal, as Turkish residents with no foreign currency income are generally prohibited from taking foreign currency loans.

Figure 1.16. Loans have grown fast in nominal terms



1. FX adjusted adjust the level of loans due to exchange rate movement. Total banking sector includes participation banks. Non-performing loans are excluded.
2. According to the system of national accounts (SNA), debt is obtained as the sum of the following liability categories: special drawing rights (AF12), currency and deposits (AF2), debt securities (AF3), loans (AF4), insurance, pension, and standardised guarantees (AF6), and other accounts payable (AF8).
3. The household sector includes non-profit institutions serving households (NPISH).
Source: OECD (2022), OECD Financial Dashboard, OECD National Accounts database, OECD Financial Accounts database; BRSA Weekly Bulletin and CBRT.

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The banking sector has performed well recently but the worsening economic outlook coupled with increasing macroeconomic vulnerabilities may create challenges. The banking sector has benefitted from the increase in net interest margins. Banks have adjusted up their lending rates to businesses and consumers, while deposit rates have remained low. Rising inflation has also raised their earnings from bonds linked to consumer prices, while strong credit growth has boosted fees. As of November 2022, the banking sector recorded a net profit of TRY 389 billion, a 417% increase compared to the previous year.

The banking sector's liquidity position is strong. Short and long-term liquidity indicators are above legal lower limits and historical averages (CBRT, 2022[9]). Banking sector capitalisation exceeds regulatory floors. The non-performing loans (NPLs) ratio decreased to 2.4% in August 2022, although this largely

reflects the strong growth in new lira loans (i.e. the denominator). The ratio of debt collections of non-performing loans to NPL additions remains strong (CBRT, 2022[9]).

Banks' asset quality could be affected by worsening economic conditions. Financial stability risks should continue to be monitored by the Financial Stability Committee. In this regard, publishing banking sector stress tests could help strengthen domestic and international confidence. Public banks hold approximately 40% of all deposits in Türkiye and have played a crucial role in efforts to uphold demand during the Covid pandemic using concessional credits to households and businesses. Therefore, their exposure to credit risk has increased. Early this year, the Sovereign Wealth Fund injected TRY 51.5 billion (USD 3.5 billion, 0.4% of GDP of additional capital into six public banks. As mentioned in the previous *OECD Economic Survey*, competition between public and private banks (including banks' financing) should be closely examined in light of international good practices (OECD, 2021[7]).

Table 1.4. Past recommendations and actions taken in financial policies

Recommendations	Actions taken
Re-evaluate and reduce the weight of government-owned financial institutions. Maintain a neutral framework for banks' credit allocation decisions.	The share of state-owned banks in total banks' assets declined from 47.5% to 46.3% and in total loans from 45.3% to 43.7%.
The authorities should communicate on how they evaluate and address the risks of deterioration in banks' asset quality. The results of the stress tests of individual banks and of the banking system as a whole should be disclosed to the public.	The Financial Sector Evaluation Programme (FSAP), including stress tests for banks, will be completed at the end of 2022.

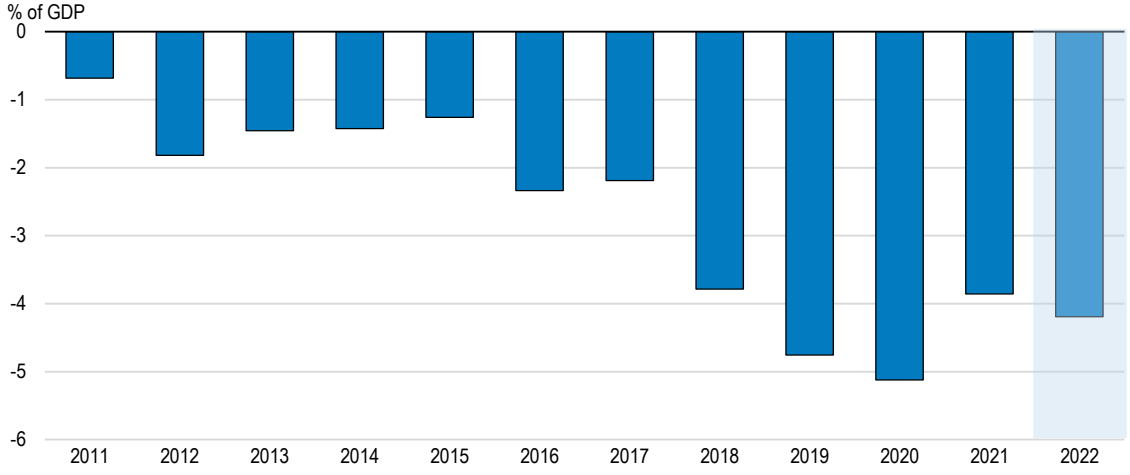
Fiscal policy should become more prudent

The headline deficit has declined but contingent liabilities are increasing

Prudent fiscal policy has been an important policy anchor over the past two decades in Türkiye. The fiscal deficit increased in 2020, partly due to the pandemic response (Figure 1.17). The fiscal stimulus package to mitigate the socio-economic impact of the pandemic, although smaller than in other OECD countries, amounted to nearly 4% of GDP (IMF, 2021[15]).

Figure 1.17. The fiscal position has weakened over the past decade

Headline fiscal deficit



Note: Projected data in 2022.
Source: IMF (2022), World Economic Outlook Database, October.

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Tax revenues have grown strongly in recent years, by nearly 40% in 2021 and by 108% in the first half of 2022. These outcomes have been driven by the strong economic rebound, but also by higher-than-expected inflation since taxes due are calculated based on nominal incomes. Revenues from a tax restructuring and improved tax collection have also played a role.

Despite strong tax revenues, the deficit is expected to worsen somewhat in 2022, to 4.2% of GDP (Figure 1.17). Evidence from other countries confirms that higher inflation leads initially to higher tax revenues, while spending pressures typically rise over time (IMF, 2021[16]). Indeed, in Türkiye current expenditures are increasing much faster than budgeted, particularly wages and transfers. Public wages have increased by an 30%, while family benefits and pensions (including the minimum pension) have all been adjusted to compensate for the surge in inflation. In 2022, the government also introduced several measures to shield citizens from high energy and food prices (Box 1.5).

The government should address the adverse distributional impacts of higher energy prices but avoid jeopardising fiscal sustainability. Energy users have few options for cutting demand dramatically in the very short run. Thus, energy price increases have significant adverse effects on households and businesses. Türkiye's support measures to households include non-targeted price support measures, such as tax cuts on energy (Box 1.5). Evidence from other countries shows that such measures do not allow demand to adjust to supply constraints, which could exacerbate commodity shortages and sustain future inflation (Vaitilingam, 2022[17]; OECD, 2022[18]; Neely, 2022[19]). Tax reductions also weaken price signals, and thus incentives to reduce consumption. Moreover, their budgetary cost can be high over time (OECD, 2022[18]). Instead, targeted income support measures should be used as they allow for a more sustainable policy response if high prices persist.

Box 1.5. Measures to shield households from high energy prices

In 2022, the authorities have implemented several measures to cushion households from the impact of energy price inflation, amounting to a total of 0.6% of GDP, including:

1. Two electricity fees have been abolished: (i) the TRT (state-run broadcaster) payment and (ii) the Energy Fund payment. The removal of these fixed electricity fees reduced the electricity bill for households by 2.7%, at an expected cost of around TRY 2.5 billion (0.02% of GDP).
2. For all households, the government pays 50% of the electricity bills and 75% of the natural gas bill. Vulnerable households receive additional transfers ranging from TRY 900 to 2 500 twice a year. For households including individuals suffering from chronic diseases or sustained by life support devices, a further 5 p.p. will be added to the subsidy. The expected cost will be approximately TRY 10 billion.
3. Türkiye has adjusted electricity tariffs for low-consumption households by increasing the monthly limit, from 150 kWh to 240kWh, below which electricity is cheaper. Below a monthly consumption of 240 kilowatt-hours, electricity is paid at TRY 1.21 per kilowatt-hour, and above at TRY 1.97 per kilowatt-hour.
4. The VAT rate on electricity used in residences and agricultural irrigation has been lowered from 18% to 8%, at an expected cost of around TRY 9 billion (0.06% of GDP).

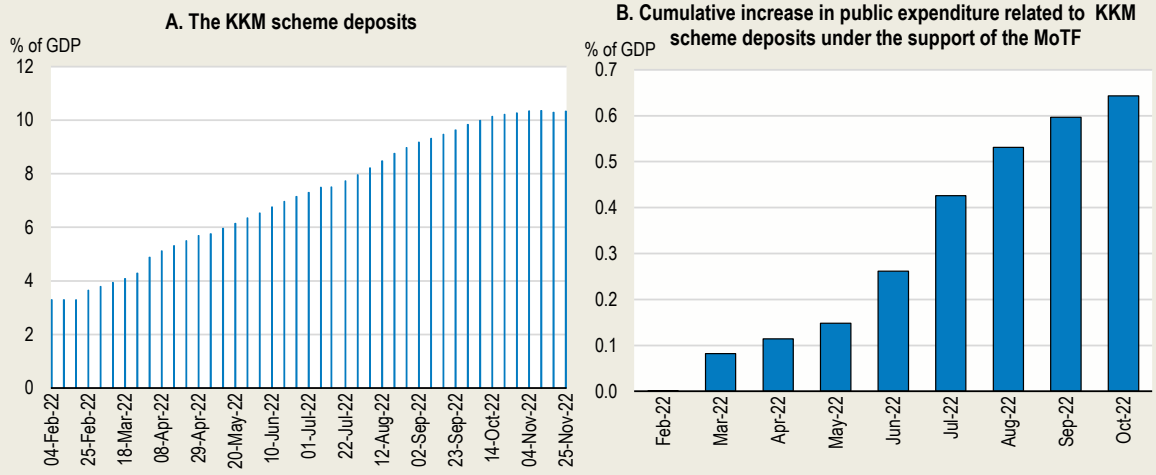
Contingent liabilities have inflated public spending and there are risks that costs increase further. Public-private partnerships (PPPs) are one of Türkiye's main contingent liabilities. Türkiye is the largest PPP market in Europe and is one of the leading countries relying on PPPs for the provision of infrastructure such as airports, energy plants, highways, hospitals and ports. The PPP burden on the budget could increase significantly since PPP projects have guarantees for foreign currency-denominated payments. Because of the sharp depreciation of the lira, these payment guarantees and usage fees have risen. The

central bank has warned of exposure to exchange rate risk due to PPP project financing from foreign markets in foreign currencies (CBRT, 2016[20]) Another contingent liability arises from the KKM lira saving deposit scheme (see above, Box 1.6). Additional contingent liabilities are associated with policy measures implemented during the pandemic. A large portion of this support was off-budget and amounted to almost 10% of GDP, including public bank loans, government loan guarantees, and equity injections for both financial and non-financial firms. A significant share of these loans and guarantees were granted to households, firms and self-employed under financial constraints, and can become non-performing if the economy weakens.

Box 1.6. Potential contingent liabilities from lira deposits that protect against lira depreciation

Since the end of 2021, the amount of lira deposits that protect against lira depreciation (KKM) has increased to reach 10.3% of GDP in December 2022, although it has been relatively stable in recent weeks (Figure 1.18, Panel A). Out of these deposits, those that have been converted from foreign currency (around 5% of GDP) are under the purview of the central bank and newly open KKM deposits (around 5% of GDP) are under that of the Ministry of Treasury and Finance (MoTF). The exchange rate guarantee can result in a high cost if the exchange rate depreciates. Data on the realised cost of the KKM schemes are available only for those supported by the MoTF. As of September 2022, these costs had reached 0.6% of GDP (Figure 1.18, Panel B).

Figure 1.18. The KKM scheme deposits are increasing public expenditures



Source: BRSA Weekly Bulletin, Central Government Budget Expenditures.

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Assessing the potential fiscal cost of the KKM scheme requires making assumptions on maturity, level of deposits and exchange rate developments. If the lira depreciate by 1 percentage point above the interest rate offered by commercial banks, then fiscal costs increase by 0.025% of GDP in 2023, assuming a three-months maturity and current level of deposits.

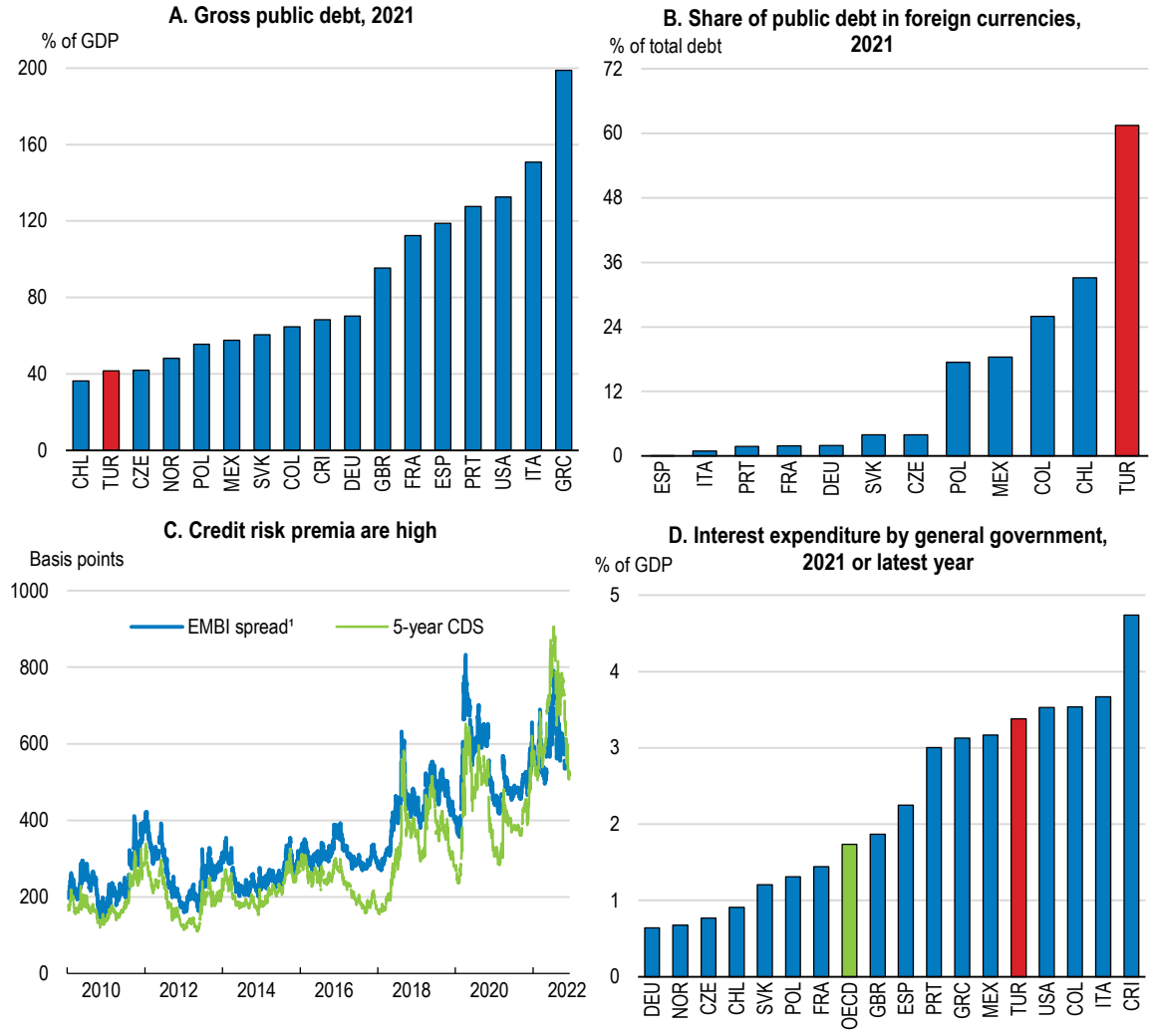
The expansion of contingent liabilities is increasing vulnerabilities to shocks. Closely monitoring contingent liabilities and improving fiscal transparency would help contain these vulnerabilities. As recommended in the previous OECD *Economic Survey*, Türkiye should publish a regular Fiscal Policy Report making risks related to public financial liabilities fully transparent (OECD, 2021[7]). There is also a need to further strengthen the framework for supervising and monitoring PPPs. Today, Türkiye's legal structure regarding PPPs is fragmented, with legislation varying across different sectors. Instead, generic PPP-enabling legislation that would comprehensively regulate PPPs is needed (Eroğlu, 2021[21]). There is also room to improve the transparency of PPPs. Although annual reports provide information about total contract values

along with yearly disbursements for realised liabilities and forecasts for three-year rolling liabilities, contract specifics such as government guarantees as well as analysis about contingent liabilities are missing.

Government debt is set to increase further

Besides contingent liabilities, rising debt servicing costs are causing fiscal pressure. Türkiye's government debt-to-GDP ratio is relatively low. Yet, because of the high risk premia, the government's interest payments are high by international standards (Figure 1.19). Türkiye's risk premium in intraday trading has increased this year and even surpassed 800 basis points. Additional risks stem from the structure of the debt. The share of debt denominated in foreign currencies has increased from 39% in 2017 to over 60% by 2021. In addition, 22% of the domestic debt is linked to the CPI index, which considerably raises the burden on public finances in the context of soaring inflation. The government expects to face an extra TRY 900 billion (0.7% of GDP) in interest costs in 2022, compared to 2021 (CBRT, 2022[4])). The bulk of government debt (75%) is held by the banking sector. In recent months, the lira bond yields has been decreasing as banks have been buying lira bonds as requirements for collateral and bank reserves (see above).

Figure 1.19. Government debt is low, but its structure makes it prone to risks



1. Stripped spread in basis points of the JP Morgan Emerging Market Bond Index (EMBI). Global index for Türkiye. The last data point refers to 12 December 2022.
Source: Factset; Refinitiv; IMF (2022), World Economic Outlook, October; and BIS.

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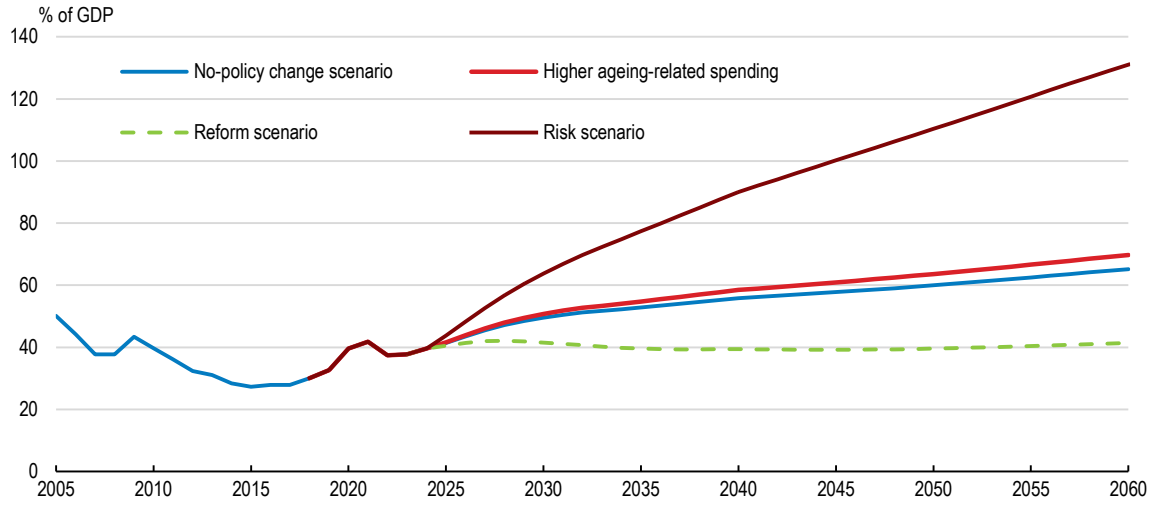
In the absence of reforms, government debt is expected to continue rising in coming years (Figure 1.20). If some risks associated with the current macroeconomic imbalances, high inflation, possible further lira depreciation and large contingent liabilities materialise, the fiscal deficit would widen and the interest rate on public debt would rise (Risk scenario). Reducing these risks and implementing labour and product market reforms will help put debt on a sustainable path and relieve fiscal pressure (Reform scenario). This would involve tightening monetary policy coupled with prudent fiscal policy. More specifically, the government should adhere to its plan to bring the primary balance back to a 1% surplus as envisaged in the economic reform programme (EC, 2021[22]).

Figure 1.20. More fiscal consolidation efforts are needed to reduce public debt

General government debt, Maastricht definition



Note: The no-policy change scenario assumes a continuation of the policy stance of 2021 with a deficit of 3.8% of GDP, with macroeconomic indicators based on the forthcoming OECD Economic Outlook 112 database and the OECD long term database. The higher ageing-related spending scenario assumes that health expenditures and pension transfers are higher by 0.2 percentage points of GDP than the no-policy change scenario. The risk scenario assumes that the deficit will increase by 2 percentage points and risk premia by 1 percentage point. The reform scenario assumes higher growth based on the OECD Economics Department Long-term Model (see Figure 1.3) and a fall in the interest rate on the debt by 1 percentage point.
Source: OECD Economic Outlook: Statistics and Projections (database), forthcoming; Guillemette, Y. and D. Turner (2018), "The Long View: Scenarios for the World Economy to 2060", OECD Economic Policy Paper No. 22.

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The tax base should be broadened

In addition to macroeconomic stabilisation, the authorities should address longstanding challenges, such as improving spending efficiency and broadening tax revenues. This can also help to finance various reforms (Box 1.7). Türkiye has one of the lowest tax-to-GDP ratios (24% of GDP) in the OECD, ranking 33rd out of 38 OECD countries in 2020 (OECD, 2021[7]). Statutory rates for the personal income tax, social contributions and VAT are broadly in line with OECD averages. However, the tax base is narrow and the number of taxpayers is low: less than 30% of the population actually pay the personal income tax compared to 60% in the OECD countries). In this regard, it is important that the authorities reform the labour market to promote formal job creation (Chapter 2).

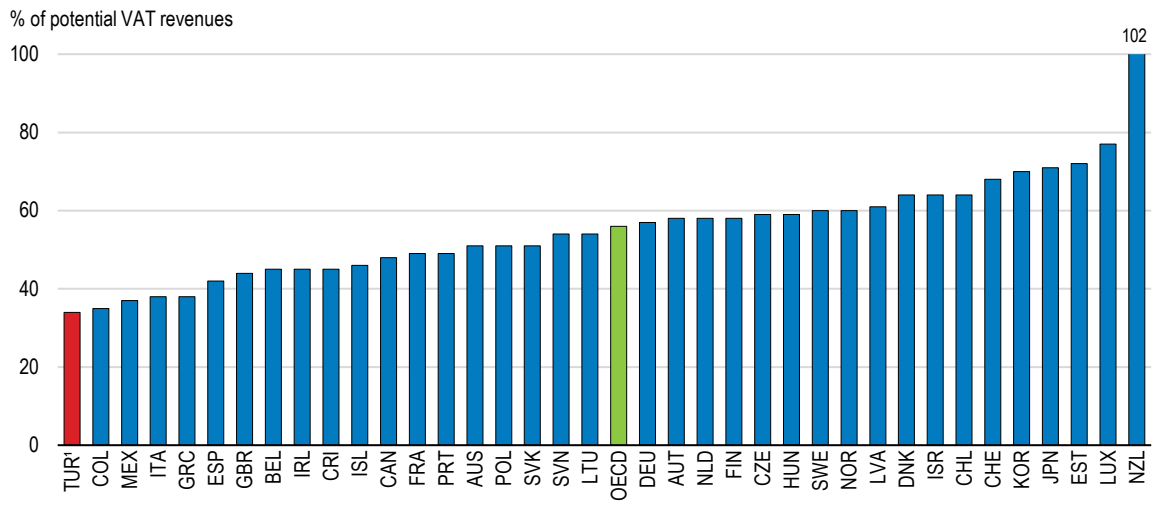
Reducing exemptions would help broaden the tax base, thereby increasing revenues. Due to exemptions and discounts, approximately 24% of total tax revenues are waived (Bakanlığı, Hazine ve Maliye, 2018[23]; Gercek, 2019[24]). VAT revenues are particularly low compared to their potential (Figure 1.21). Evidence

from other countries suggests that spending measures, such as transfers in cash or in kind, are considerably more efficient to achieve distributional objectives than reduced VAT rates (IMF, 2020[25]). For example, Türkiye applies lower VAT rates on theatre, cinema tickets or restaurants, which is particularly regressive as they benefit higher-income households disproportionately. Moreover, differential rates significantly complicate VAT administration and cause complexity in defining what goods precisely fall under the reduced rate.

The government should also make less frequent use of tax restructuring. In general, tax restructurings for unpaid tax liabilities are used to incentivise agents who have undeclared assets held offshore to regularise their tax position. There have been 13 tax restructurings since 2000 and in this context 37 tax laws have been enacted under different names. By resorting frequently to tax restructurings, the government has created disincentives for tax compliance. The large number of tax restructurings does undermine their effectiveness, as taxpayers may decide to postpone their tax compliance and just wait for the next tax restructuring. As underlined in the previous *OECD Economic Survey*, the recurrent use of tax restructurings should be discontinued (OECD, 2021[7]).

Figure 1.21. Exemptions and special rates erode VAT revenues

VAT revenue ratio, 2020



Note: The VAT revenue ratio is defined as the ratio between the actual value-added tax (VAT) revenue collected and the revenue that would theoretically be raised if VAT was applied at the standard rate to all final consumption (i.e. (Consumption - VAT revenue) x standard VAT rate). The OECD aggregate is the unweighted average of data shown. Data for Canada cover federal VAT only.
1. Data refer to 2019.
Source: OECD (2022), Consumption Tax Trends 2022: VAT/GST and Excise, Core Design Features and Trends.

StatLink https://stat.link/wnhmp8

Türkiye should carry out expenditure reviews to improve public spending effectiveness. Türkiye is one of the few OECD countries which does not conduct spending reviews (OECD, 2021[26]). In other countries, spending reviews supplement the conventional budgeting process characterised by incremental reallocations of spending. Although public expenditures are low in international comparison, there is room to improve efficiency (EC, 2021[22]). Expenditure reviews can identify large inefficiencies. For example, in the Slovak Republic, spending reviews completed in 2020 identified potential savings amounting to 1.2% of GDP in public employment and wages, defence and IT spending (OECD, 2022[27]). Italy's central government has conducted multiple spending reviews since the global financial crisis, adopting them as a regular procedure. These reviews have helped the government achieve its savings goals (OECD, 2021[28]).

Experience from other countries suggests that spending reviews should be integrated into the preparation of the government's budget and prepared early enough in the budget cycle to inform the budget. Spending reviews can be targeted to a specific area or general. Most OECD countries link the spending review process to the annual budget process or the medium-term expenditure framework. The Ministry of Finance should perform a fundamental coordination role, but line ministries should be involved in all stages of the spending process as they are responsible for implementing the decisions (Tryggvadottir, 2022[29]).

Box 1.7. Quantifying the impact of selected policy recommendations

Table 1.5 presents estimates of the fiscal impacts of the suggested reform package. The quantification is merely indicative and does not allow for behavioural responses.

In the short run, the government needs to reduce the structural budget deficit to stabilise the debt-to-GDP ratio. In the medium to long term, additional fiscal resources are needed to finance the recommended reform package. The reform package focuses on three main areas: (i) education (ii) labour policies and (iii) business regulations.

In addition, tax revenues would increase by 0.6% of GDP by 2030 due to dynamic effects of reforms on GDP growth (see simulation in Figure 1.3)

Table 1.5. Illustrative fiscal impact of recommended reforms

Fiscal savings (+) and costs (-), % current year GDP

	2030
Costs of reforms	-1.6
Strengthening education[1]	-1.6
Labour market reforms[2]	0
Improving business regulations[3]	0
Revenue measures	1.6
Reducing tax inefficiencies[4]	1.0
Environmental taxation[5]	0.6
Overall budget impact	0.0

Note: 1) Strengthening education: increasing spending in primary and secondary schools to the median of the OECD top 5 performers (1.6% of GDP)
2) Labour market reforms: (i) Make regulations governing permanent work contracts more flexible and increase the scope for fixed-term and temporary work agency contracts. (ii) Streamline subsidies for social security contributions and remove subsidies that provide similar incentives to lower social security contribution rates. (iii) Make statutory minimum wages more affordable for enterprises, for example by setting a minimum wage floor at the national level and promoting collective bargaining at the enterprise level. (iv) Shift social protection from the severance pay system to a broader-based unemployment insurance. Introduce portable severance accounts. (v) Reallocate funds devoted to wage subsidies to well-designed hiring subsidies targeted at most vulnerable groups. (vi) Increase the scope of job placement and counselling services by engaging private job placement and counselling providers through performance-based renumeration. (vii) Improve public job counselling services by leveraging digital tools to directly match vacancies to suitable candidates.
3) Improving business regulation: improvement of product market regulation to the level of the OECD.
4) Reducing tax inefficiencies: Reducing the VAT inefficiency gap to the OECD average.
5) Environmental taxation: potential revenues from carbon pricing instruments for Türkiye (Marten and Dender, 2019[30]).
Source: OECD calculations.

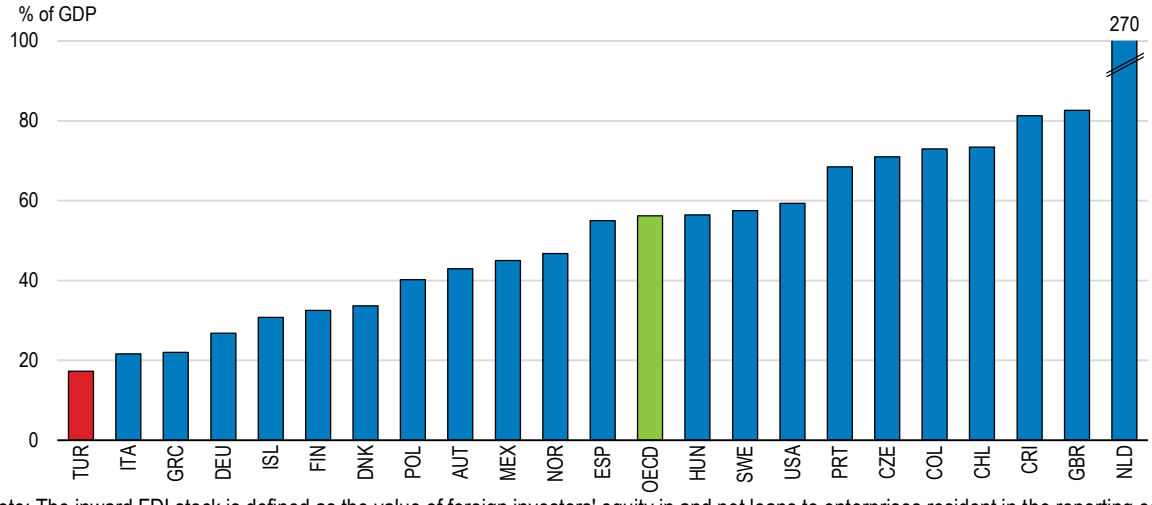
Addressing structural impediments to higher productivity growth

Addressing underlying structural issues will boost domestic and foreign investment and thus contribute to a more resilient economy. The contribution of total factor productivity to GDP growth has decreased during the past decade, reflecting impediments to an efficient allocation of resources (CBRT, 2021[31]; Akat and Gürsel, 2020[32]). Moreover, Türkiye is receiving less foreign direct investment (FDI) inflows than its peers (Figure 1.22).

Two main challenges stand out to raise investment and productivity. The first is to foster open competition by ensuring a rules-based level playing field. This will require removing internal and external barriers to competition to reduce business costs, widen the range of goods and services available for people and firms, and promote the allocation of resources to the most promising sectors and firms. At the same time, Türkiye should strengthen the rule of law to ensure that regulations and rules are properly enforced without exemptions. The second challenge is to promote innovation and technological progress by raising R&D support and digitalisation. Empirical evidence further suggests that greater competition and lower trade barriers increase innovation (Bloom, Reenen and Williams, 2019[33]).

Figure 1.22. Türkiye has received less FDI than other OECD countries

Inward FDI stock, 2021 or latest year



Note: The inward FDI stock is defined as the value of foreign investors' equity in and net loans to enterprises resident in the reporting economy.
Source: OECD (2022), OECD International Direct Investment Statistics, "Benchmark definition, 4th edition (BMD4): Foreign direct investment: positions, main aggregates".

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Removing barriers to competition

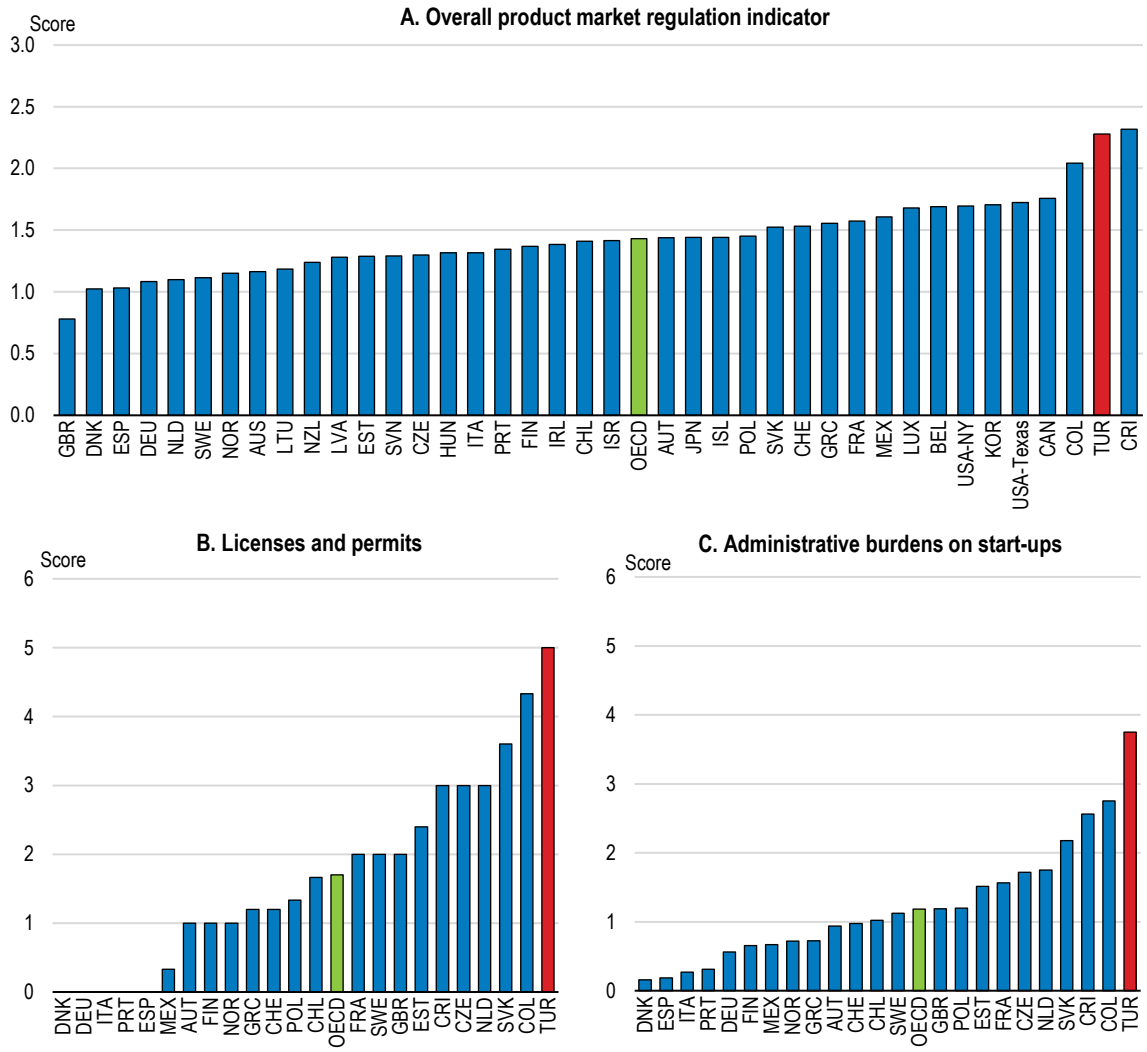
There is ample room to promote open competition in product markets in Türkiye (Figure 1.23, Panel A). Strict regulations shield incumbents from competition and limit the entry of new firms. Complex and burdensome administrative procedures required to obtain permits, licences, or concessions hold back the creation of formal firms. The licensing and permits system is the most restrictive in the OECD, as are entry barriers and administrative burdens on start-ups (Figure 1.23).

Türkiye should consider creating a one-stop shop, where all licenses and authorisations can be issued, and fully enforcing the “silence-is-consent” principle that is in place in many OECD countries. Although the Central Commercial Registration System allows for easy business registration, it lacks a centralised application process for the various licences and permits (OECD, 2019[34]). Portugal’s “Zero Licensing Initiative” has eliminated the need for several licenses from multiple interlocutors and replaced them with simple communication through the Entrepreneur’s Desk, working as a digital single point of contact (OECD,

2020[35]). A similar approach is used by the Slovak government, which has implemented the "Once is Enough" initiative, under which authorities are required to use available registers to access various certificates and licences so that businesses are requested to provide necessary documentation only once for all purposes (OECD, 2022[27]). The "silence-is-consent" principle should be fully enforced. This would reduce the administrative burden related to obtaining permits and licences (OECD, 2019[34]). For those licences and authorisations that Türkiye would keep, an assessment of whether specific licensing requirements create barriers to entry would be valuable and would contribute to improving competition in the country (OECD, 2019[36]).

Figure 1.23. Competition is hampered by domestic regulations

Product market regulation indicator, Scale from 0 to 6 (most restrictive)



Note: Information is based on laws and regulation in place on 1 January 2018 for all OECD countries except Estonia, Costa Rica and the United States (based on 1 January 2019).
Source: OECD (2022), OECD 2018 Product Market Regulation database, oecd.org/economy/reform/indicators-of-product-market-regulation.

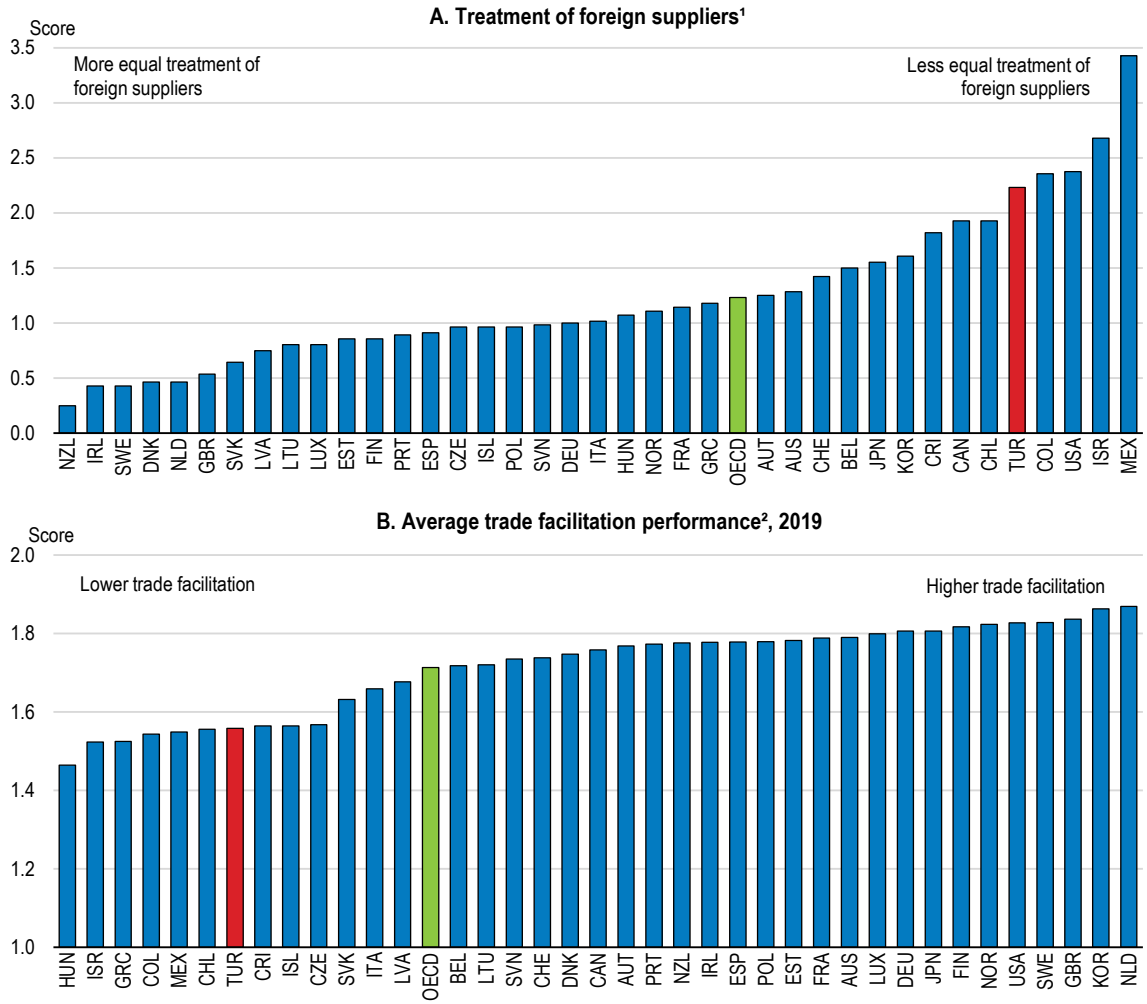
StatLink https://stat.link/30khsp

Price controls in retail trade are much more widespread in Türkiye than in other OECD countries (OECD, 2022[37]). The prices of more than a quarter of the consumption basket used to measure headline inflation are set by public authorities, for example via price caps (EC, 2021[22]). There is considerable evidence

across countries that price controls distort investment decisions and delay market entry (World Bank, 2020[38]). Countries' experience also shows that reforming price controls can help promote competition and lead to more inclusive growth (World Bank, 2020[38]). The authorities should assess the pros and cons of existing price controls and gradually replace the most distorting ones by better-targeted social transfers to vulnerable households.

There is also room to further ease barriers to FDI inflows, which are positively associated with higher productivity and higher value-added exports (Blomström and Kokko, 2008[39]; Görg and Greenaway, 2004[40]). The OECD FDI restrictiveness index is close to the OECD average. However, restrictions on foreign ownership are stricter than in other countries (OECD, 2022[41]). Also, the treatment of foreign suppliers is one of the strictest in the OECD area (Figure 1.24, Panel A). While foreign investors are subject to equal treatment, firms using domestic products receive preferential treatment in public procurement processes. Almost half of all international tenders in 2020 involved a domestic price advantage for domestic bidders (EC, 2021[22]).

Figure 1.24. There is room to ease regulations affecting international trade and investment



1. Information is based on laws and regulation in place on 1 January 2018 for all OECD countries except Estonia, Costa Rica and the United States (based on 1 January 2019).
2. The OECD trade facilitation performance indicators are composed of eleven variables measuring the actual extent to which countries have introduced and implemented trade facilitation measures in absolute terms, but also their performance relative to others. The variables in the TFI dataset are coded with 0, 1, or 2. Unweighted average for the OECD aggregate.
Source: OECD (2022), OECD 2018 Product Market Regulation database, oecd.org/economy/reform/indicators-of-product-market-regulation; and OECD Trade Facilitation Indicators, https://www.oecd.org/trade/topics/trade-facilitation.

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Tariff barriers to merchandise trade are relatively low, partly due to the EU Customs Union agreement but there is room to streamline technical and legal procedures for products entering or leaving the country (Figure 1.24, Panel B). Reforms with the greatest benefit are in the areas of information availability, advance rulings, fees and charges and external border agency cooperation. Under the aegis of the Trade Facilitation Coordination Committee, efforts to improve the above-mentioned technical and legal procedures continue. As mentioned in the previous *OECD Economic Survey*, broader coverage of the Customs Union (services) in collaboration with EU partners could foster competition and efficiency gains in the formal sector by spurring structural changes in agriculture, network services and public procurement (OECD, 2021[7]).

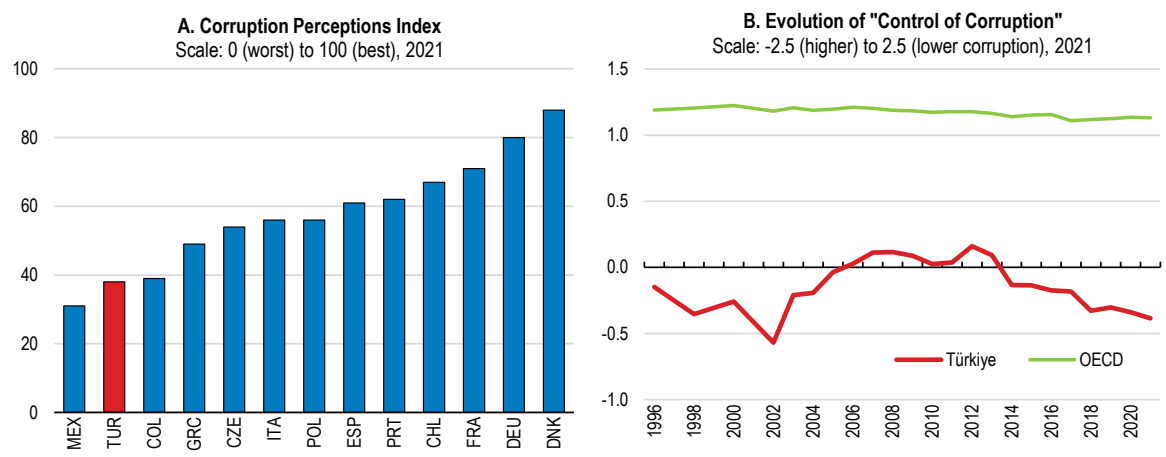
Table 1.6. Past recommendations and actions taken in business regulation

Recommendations	Actions taken
Encourage new equity injections and the re-capitalisation of non-financial firms to restore their investment capacity after the COVID-19 shock. Remove any remaining obstacles to their upscaling.	In November 2021, several procedural adjustments were implemented in order to facilitate IPOs, including cost reduction and reduction of procedural burdens.
Implement the recently introduced arbitration, mediation and framework agreement measures for financial restructurings. Be prepared to phase in additional measures to help courts to deal with insolvencies in case of need.	The measures to help borrowers in financial difficulty regain their ability to pay were extended but will be valid only until July 2023.

Strengthening the rule of law

In addition to easing regulations, Türkiye must ensure that regulations and rules are properly enforced without exemptions. Empirical evidence confirms that strong governance and institutions that secure a well-functioning legal system are essential for productivity and competition (Égert and Gal, 2018[42]; Hall and Jones, 1999[43]). The perception of corruption in Türkiye is high, and the situation has deteriorated in recent years (Figure 1.25). Moreover, the new OECD Public Integrity Indicators show that the quality of the anti-corruption framework is low compared to other OECD countries (Smidova, Cavaciuti and Johnsøn, 2022[44]).

Figure 1.25. Perceived corruption is worsening from an already high level



Source: Transparency International; World Bank, Worldwide Governance Indicators.

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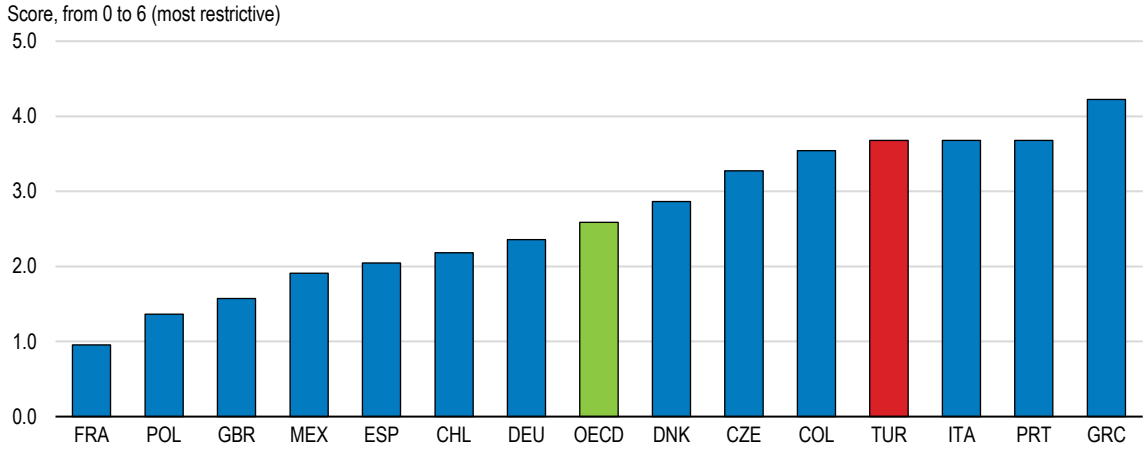
Türkiye should effectively implement its international obligations to fight corruption and adhere to the United Nations Convention against Corruption and the Council of Europe Conventions (EC, 2021[22]). It should adopt an anti-corruption strategy underpinned by a credible and realistic action plan and establish a permanent and independent anti-corruption body. Türkiye also lacks whistle-blower protection legislation covering public and private sectors. This contrasts with most OECD countries, which have dedicated whistle-blower protection laws (OECD, 2016[45]). Although in Türkiye separate obligations are imposed on the health and safety officers to report safety related misconduct, a legal framework for whistle-blower protection is needed and can be aligned with the relevant EU legislation (EC, 2022[46]).

Interactions between interest groups and policymakers should become more transparent (Figure 1.26). Türkiye has made progress in this area. The Public Procurement Authority provides relevant statistics on the procurement process. On top, Türkiye, has introduced a mechanism to identify and address corrupt and fraudulent practices. However, the coverage of public procurement rules is reduced by exemptions, including contracts under TRY 18.6 million (around EUR 1 million), which weighs on transparency (EC, 2021[22]). Finally, Türkiye could follow the example of other OECD countries which have introduced lobbying regulations obliging members with executive power to report contacts with people lobbying to adopt a particular law or regulation.

Figure 1.26. Transparency with respect to interactions with interest groups is low

Product market regulation index for interaction with interest groups



Note: Information is based on laws and regulation in place on 1 January 2018 for all OECD countries except Estonia, Costa Rica and the United States (based on 1 January 2019). It measures the existence of rules for engaging stakeholders in the design of new regulation to reduce unnecessary restrictions to competition and for ensuring transparency in lobbying activities.
Source: OECD (2022), OECD 2018 Product Market Regulation database, oecd.org/economy/reform/indicators-of-product-market-regulation.

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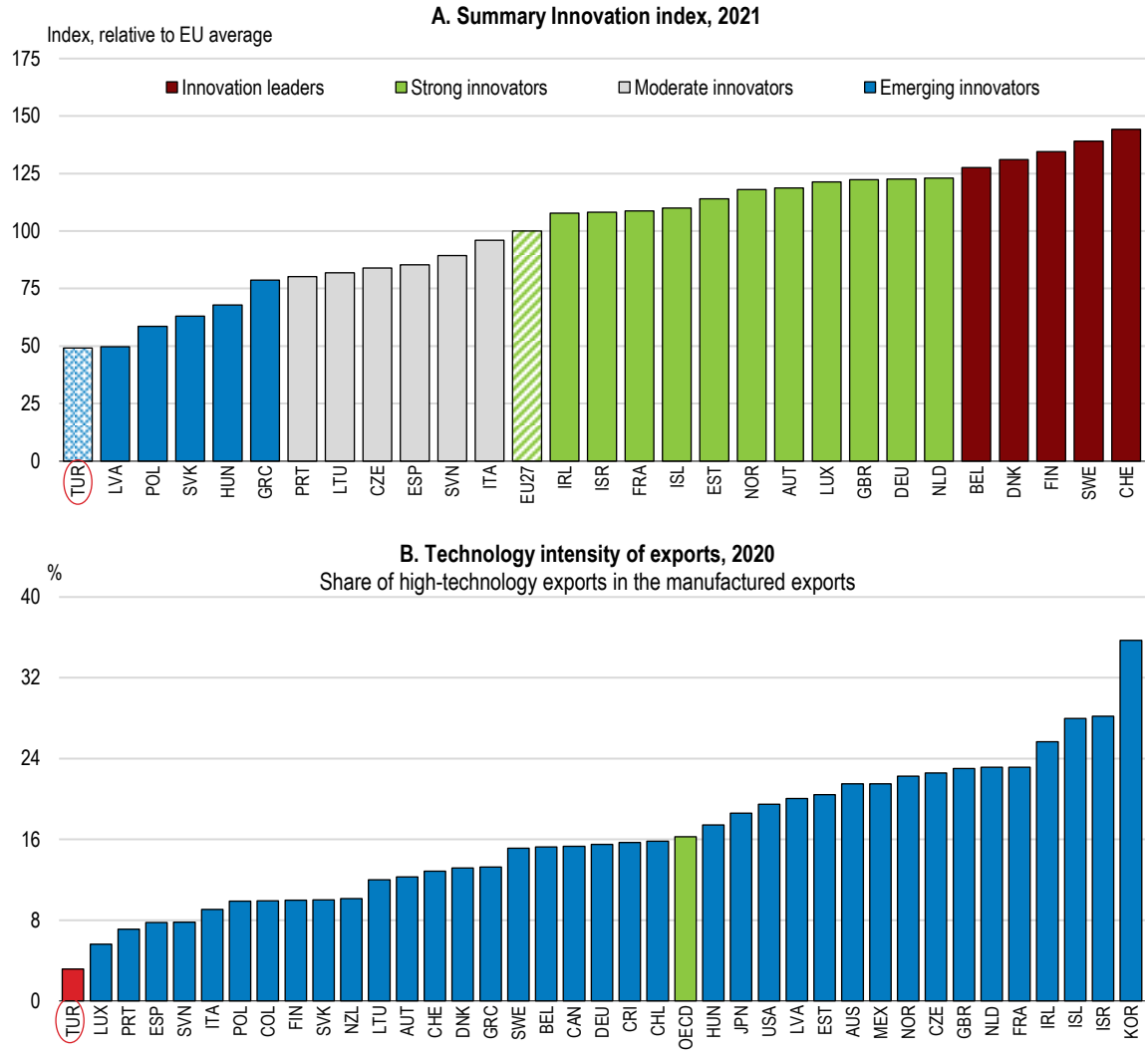
Enhancing research and innovation

Support for technological progress and innovation needs to be strengthened to foster productivity growth and raise living standards sustainably. Innovation performance lags behind other OECD countries (Figure 1.27, Panel A) and there are indications that technological upgrades to production have slowed over the past decade (Akat and Gürsel, 2020[32]). The technology content of exports has not improved significantly over the past decade: Turkish exports are the least technology-intensive among OECD countries (Figure 1.27, Panel B). To promote innovation and technological progress, it is necessary to create a favourable environment for research and development (R&D), including a stable macroeconomic environment (see above), a skilled workforce (Chapter 2), healthy competition and well-functioning product and labour markets (Chapter 2) (Bloom, Reenen and Williams, 2019[33]). In addition to these policies, many OECD countries provide direct and indirect incentives to increase R&D expenditures.

Figure 1.27. Türkiye's innovation performance is weak

Summary Innovation index, 2021



Note: The colours show normalised performance in 2021 relative to the EU 27 average in 2021: green above 125%; grey: between 100% and 125%; blue: between 70% and 100%; and below 70 %.
Source: European Commission, European Innovation Scoreboard 2021; and World Bank, World Development Indicators.

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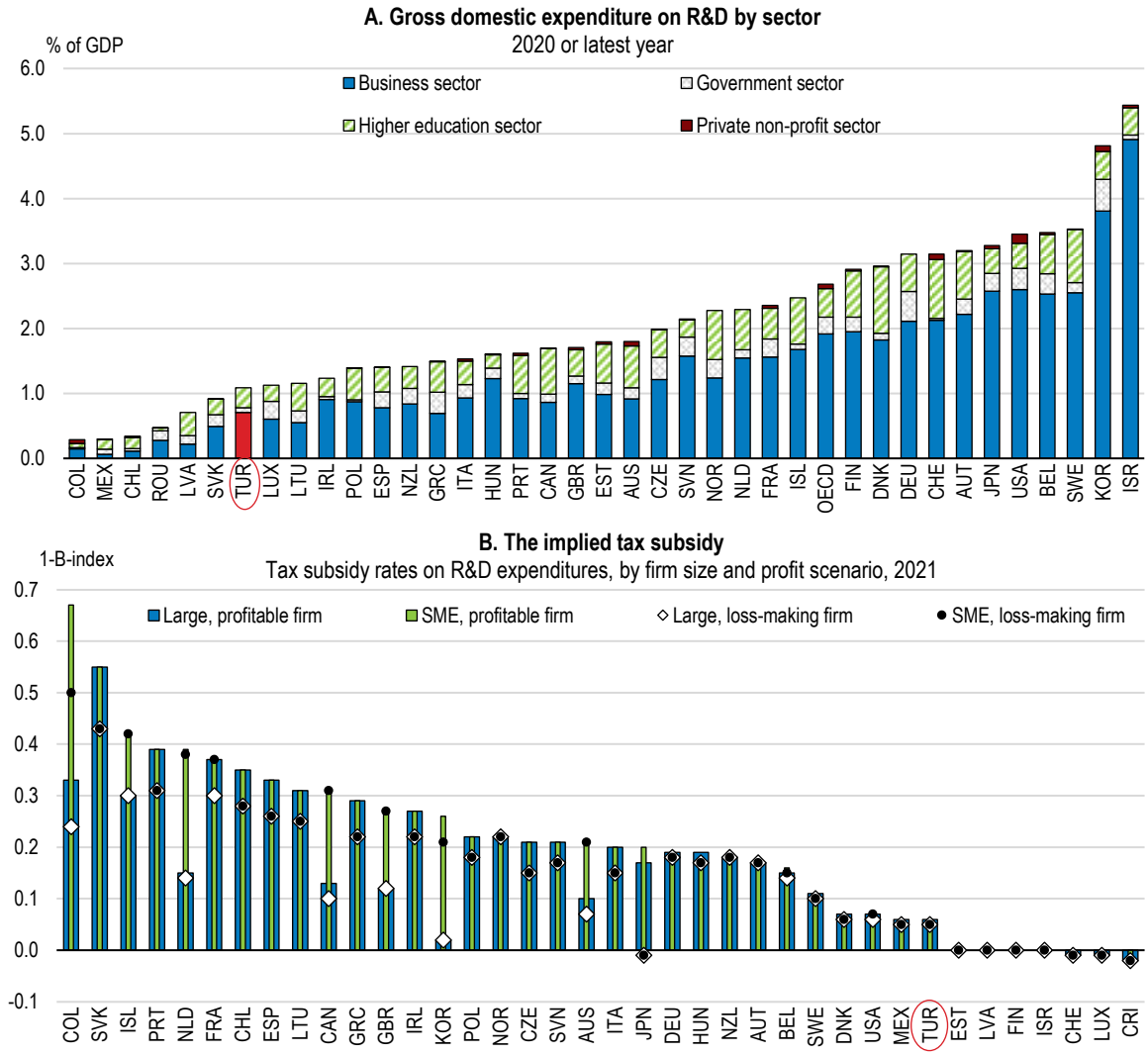
Türkiye's spending on R&D remains low in international comparison (Figure 1.28, Panel A). Government support has almost doubled in the past 10 years mainly due to higher tax incentives. Türkiye relies on incentives that reduce the cost of R&D: accelerated tax depreciation and equipment used in R&D is exempt from stamp tax, fees and customs duties. Other documents related to R&D, innovation, and design projects benefit from stamp tax exemption. Türkiye also relies on income tax incentives: wages of researchers working in companies established in Technology Development Zones or in specific R&D projects are exempt from income withholding tax. Profits derived from products developed as a result of R&D activities, so called "patent box", in these parks or Technology development zones are exempt from corporate income tax. Still, the marginal subsidy rate for R&D embodied in the tax system remains significantly below the OECD median for both SMEs and large companies (Figure 1.28, Panel B) and the overall generosity of the preferential tax treatment for R&D investment is much smaller than in most other OECD countries (Appelt, Hanappi and Cabral, 2021[47]).

Figure 1.28. Spending on R&D is low



Note: Implied marginal tax subsidy rates, presented for different firm size and profitability scenarios, are calculated based on headline tax credit/allowance rates, providing an upper bound value of the generosity of R&D tax support, not reflecting the effect of thresholds and ceilings that may limit the amount of qualifying R&D expenditure or value of tax relief. See http://www.oecd.org/sti/rd-tax-stats-bindex-ts-notes.pdf for more details.

Source: OECD (2022), OECD Research and Development Statistics (database); and OECD, R&D Tax Incentives Database, http://oe.cd/rdtax, December 2021.

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International evidence suggests that tax incentives that reduce the cost of R&D should be strengthened at the expense of income tax incentives. Generally, R&D tax incentives hold the prospect of generating significant positive long-term growth effects (IMF, 2016[48]; OECD, 2016[49]) but their structure matters. Evidence from other countries shows that incentives that directly reduce the cost of R&D investment, such as tax credits or accelerated depreciation, are more efficient. In contrast, income tax incentives are generally less effective (OECD, 2016[49]; IMF, 2020[25]). Income tax incentives are often redundant, insofar as the investment would have also been undertaken without them. In this regard, evaluations of patent box regimes used in Türkiye show that such regimes either have no discernible impact on R&D or, where they do have an impact, entail significant fiscal costs (Gaessler and Hall, 2018[50]; IMF, 2020[25]). Before changing the R&D tax treatment, the authorities should prepare a proper evaluation of the current incentives.

Besides tax incentives, Türkiye also provides direct government support. Various government programmes encourage innovation by providing grant-funding to the academic sector, companies and the state's research and development labs. Over the years, a more strategic and selective approach towards high-technology projects has been followed. The authorities have also used several support schemes to promote innovation in one area. For example, support to TOGG - a fully electric "Türkiye's Automobile" – has involved government regulations, massive government funding, promotional tools and infrastructure building. Despite progress in this area, there is room to strengthen coordination between different governmental bodies that can help prevent duplication of grants and support schemes (RIOT, 2020[51]).

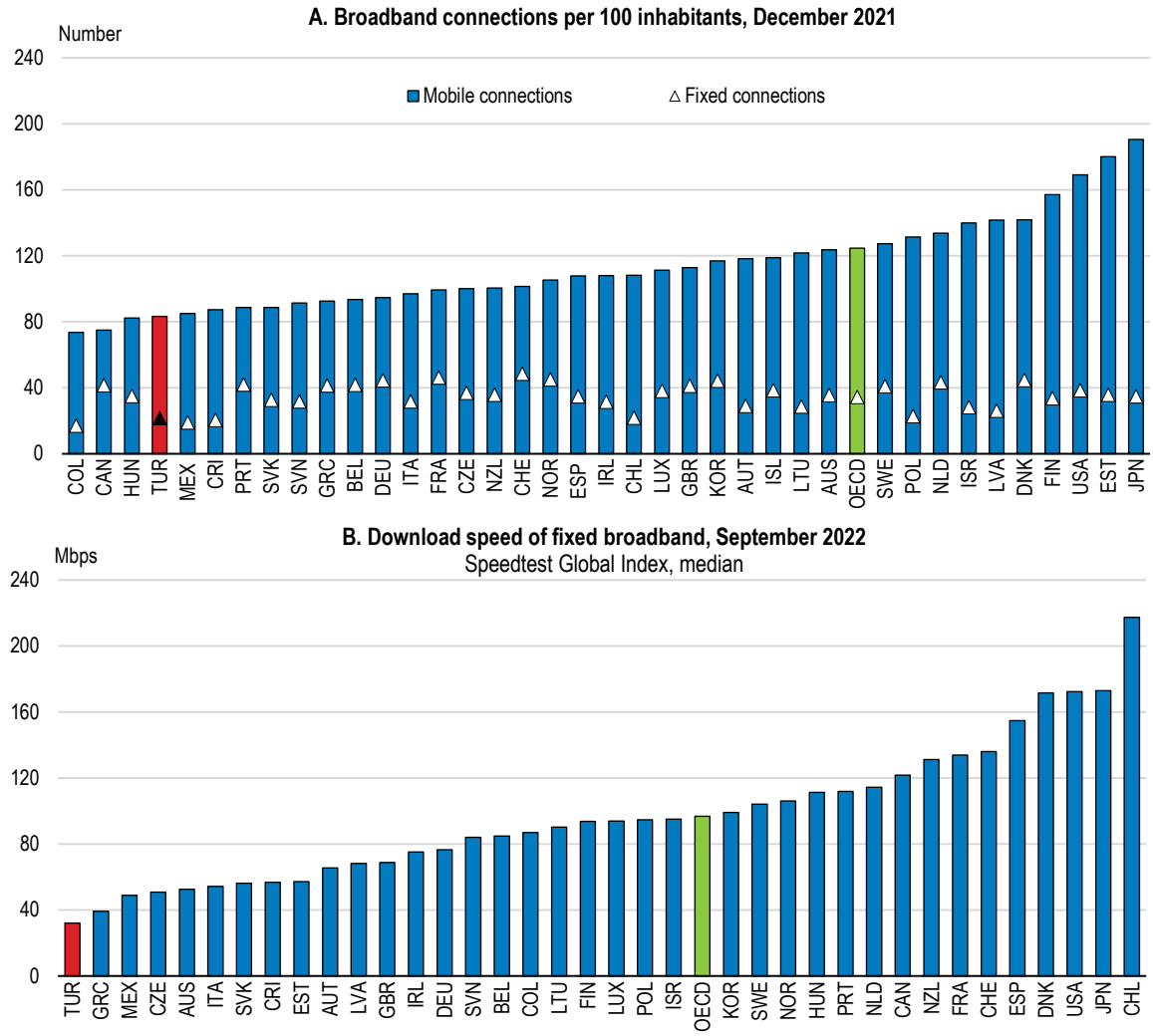
One of the main challenges in Türkiye is to strengthen cooperation and collaboration between universities and industries on research projects (RIOT, 2020[51]; EC, 2021[22]). In many OECD countries, such collaboration is strong and a key driver of innovation, patents and start-ups (OECD, 2019). One way forward in Türkiye would be to increase the number of grants or performance contracts that incentivise such co-operation and collaborative research projects. The authorities should also support strategic, long-term-oriented forms of co-operation that involve multiple stakeholders from industry, civil society, research and government. A very effective way to promote university/industry collaboration is labour mobility, a key channel of science-industry knowledge transfer. Some OECD countries promote two-way mobility schemes, from firms to universities and universities to firms (OECD, 2019[52]).

Promoting the digital transformation

Digital technologies can spur innovation and the Turkish business sector has room to better exploit this potential. Only about half of Turkish companies have a web presence, compared to almost 80% on average in OECD countries. Only about 25% of all employees use computers with internet access (55% in the OECD area). The digitalisation of businesses in OECD countries is gathering pace, facilitated by technological developments such as machine-to-machine communication and the Internet of Things, which can produce high-profile innovations such as telemedicine and autonomous vehicles. In Türkiye, the penetration of key technologies for developing the Internet of Things is among the lowest in the OECD (OECD, 2020[53]).

Strengthening the digital infrastructure would accelerate digital transformation. Empirical evidence suggests that access to high-speed broadband is an increasingly important determinant of productivity while access to the high-speed network can determine whether a firm survives (Gal et al., 2019[54]). In Türkiye, the number of fixed broadband subscriptions per 100 inhabitants (22%) and the speed of fixed broadband (29.4) are low in international comparison (Figure 1.29). Only about 28% of the overall fixed broadband connections is via fibre, compared to almost 35% on average in OECD countries. Moreover, as in some OECD countries, a huge divide persists between rural areas and cities, with fixed broadband download speeds in rural areas 40% slower than in cities (OECD, 2021[55]).

Figure 1.29. Access to high-quality digital infrastructure is low



Source: OECD, Broadband Portal; and Speedtest (Ookla).

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The development of the ICT sector is a priority for Türkiye, and the government has introduced various initiatives and measures to promote investments in this area. According to the National Broadband Strategy and Action Plan, the government intends to develop broadband infrastructure, increasing the speed and facilitating the access of socially disadvantaged groups. It also targets 100% internet access for households at 100 Mbit/sec by 2023.

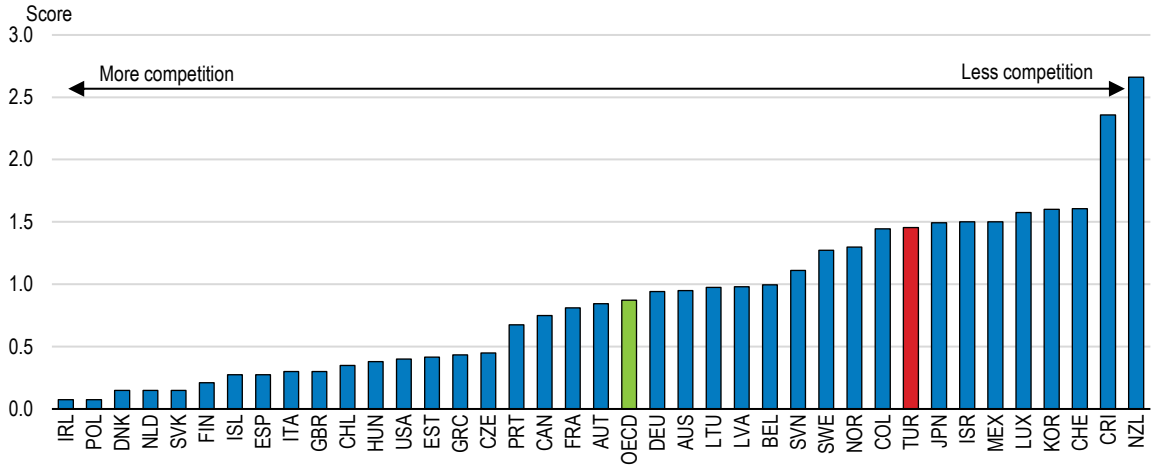
Lowering the high entry barriers faced by private investors (Figure 1.30) would help achieve these ambitions. The regulatory framework in Türkiye already includes obligations imposed on all infrastructure-owning operators to share their available passive infrastructure with other operators. However, there is evidence that new operators face regulatory impediments (Eroğlu, 2021[21]). In practice, some public infrastructure owners have denied sharing their facilities, and others have prevented the sharing of facilities built by the operators on their infrastructure (Köksal, 2020[56]; TELKODER, 2020[57]). The authorities should continue to reduce barriers to broadband deployment to make investments easier and cheaper for communication operators. In this regard, many OECD countries are reducing approval and construction times for network rollout. For example, the European Union does not require authorisation requirements for the deployment of small-area wireless access points that comply with certain characteristics. Belgium

is promoting access to existing infrastructure by central electronic counters created in each region for applying for and granting licenses swiftly (OECD, 2021[55]).

Increased access to information and public assets also plays a crucial role for broadband deployment. In Türkiye the System for Electronic Communication Infrastructure enables operators to issue and follow their requests regarding facility sharing. One option to further improve access to information on broadband infrastructure would be follow the experience in some other OECD countries. In particular, some countries provide information on locations where concessionaries can deploy communication infrastructure on public assets, such as buildings, to increase efficiency in deploying communication networks, lower the costs for infrastructure deployment, and increase coverage across the country (OECD, 2021[55]).

Figure 1.30. Regulatory barriers in the communications sector are high

Product market regulation index for fixed E-communications



Note: Information is based on laws and regulation in place on 1 January 2018 for all OECD countries except Estonia, Costa Rica and the United States (based on 1 January 2019). E-communications include both voice services and data services.
Source: OECD (2022), OECD 2018 Product Market Regulation database, oecd.org/economy/reform/indicators-of-product-market-regulation.

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The authorities should consider decreasing or abolishing taxes related to broadband internet services to further boost internet services. In Türkiye, internet providers with wired, wireless and mobile services are subject to sector-specific taxes and annual fees. Evidence from other countries suggests that taxes on providers of telecom services can restrict network access and production efficiency (IMF, 2017[58]; OECD, 2016[49]).

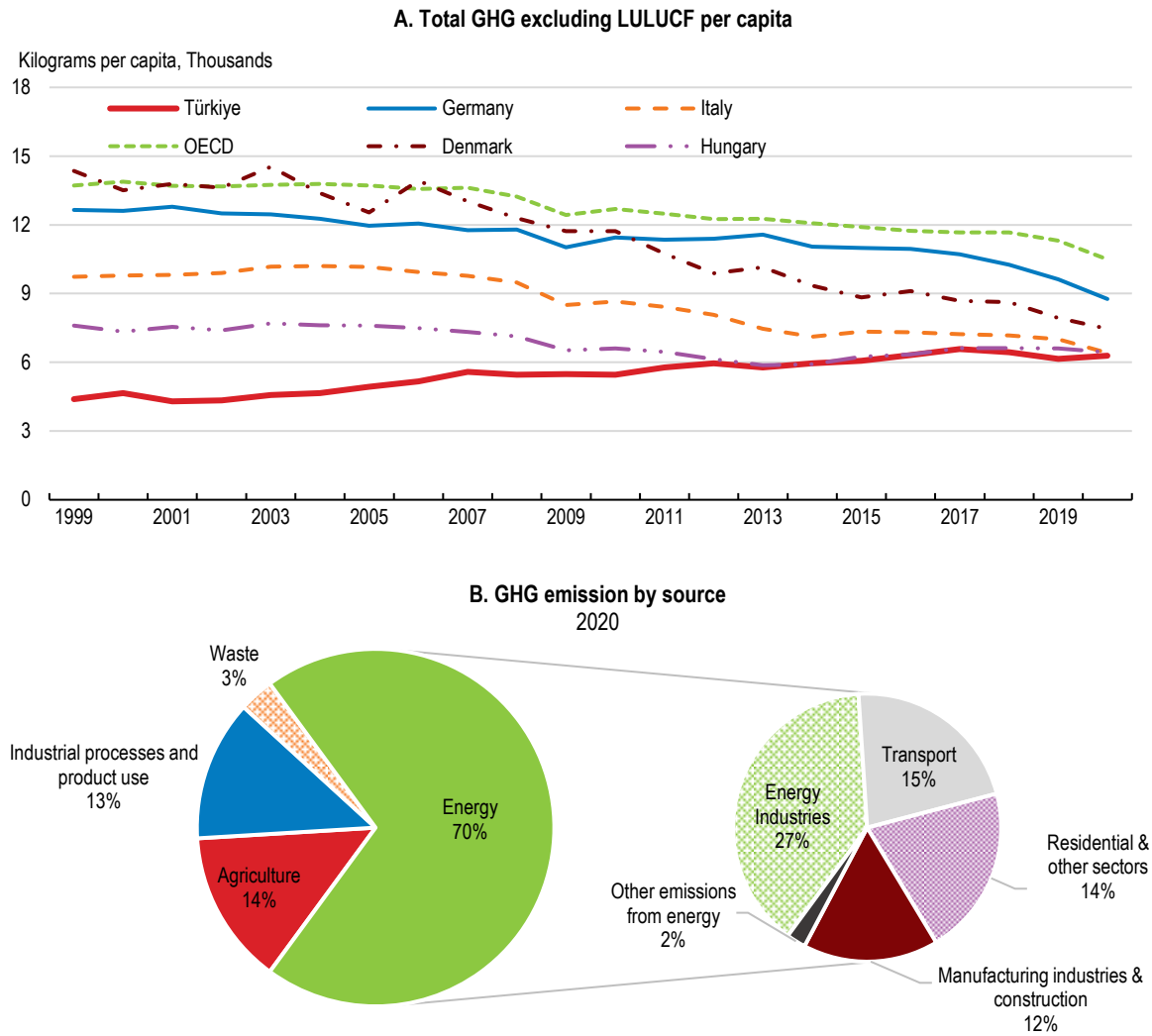
The government should continue to support the digital uptake among businesses and the expansion of e-commerce. E-commerce enables firms to reach new markets and often serves as the backbone for new business model developments. Diffusion of online purchases in Türkiye is low but has increased rapidly. Türkiye promotes e-government services and the e-commerce environment among businesses. For example, a consumer protection law aims at establishing trust in the consumer virtual environment through legal regulations. Moreover, tailored advice is provided on regulations relevant to new business models using digital technology. KOSGEB, the organisation affiliated to the Ministry of Industry and Technology, provides 13 different support programmes offered to SMEs. Many services are provided for SMEs through the e-Government Gateway, from recruitment processes to document verification. These are steps in the right direction but support could be further expanded to small businesses seeking to adjust to new business models. Many OECD countries target small and medium-sized enterprises aiming to increase digital skills, technology awareness and adoption (OECD, 2020[53]).

Promoting the green energy transition

Türkiye is vulnerable to climate change. Almost one third of Türkiye's surface area is at high risk of land degradation and desertification (Uzuner and Dengiz, 2020[59]). An increasing frequency of hot days and changing precipitation patterns are already being observed. Moreover, climate-related disasters and extreme events have become more frequent in Türkiye over the past two decades (World Bank, 2022[5]).

The government has made ambitious climate change commitments, ratifying the Paris Agreement in October 2021 with a net zero emission target by 2053. Greenhouse gas emissions in Türkiye are relatively low on a per capita basis and have increased less than activity. However, net emissions have grown over the past decade (Figure 1.31), with energy-related emissions representing the largest share of all emissions (70%). Reaching the zero-emission target will be challenging given expected population growth and economic convergence. On current policies, Türkiye's electricity demand is expected to increase by more than 50% by 2030 (TEIAS, 2021[60]).

Figure 1.31. Greenhouse gas emissions per capita are relatively low but have not yet started to decline



Source: OECD (2022), OECD Environment Database.

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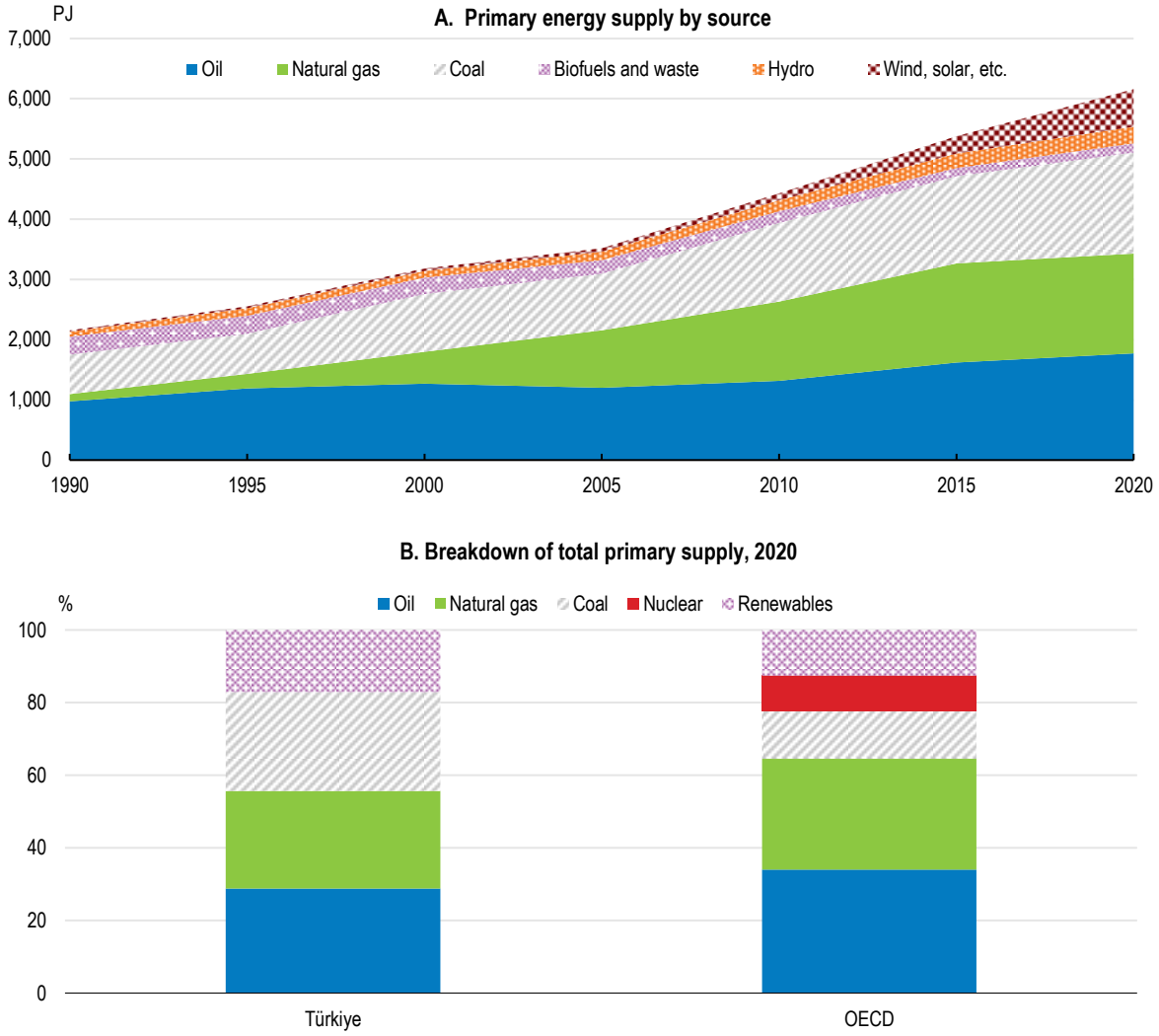
Strong growth in energy demand over the past two decades, driven by rapid economic and population growth, has increased import dependency. Primary energy supply in Türkiye is dominated by fossil fuels (Figure 1.32) and 70% of these are imported. Türkiye imports 99% of its gas, 93% of its oil and around 50% of its coal, leaving the economy exposed to supply disruptions and price volatility in regional and global energy markets. Russia's war against Ukraine has highlighted the risks arising from high energy import dependency. To improve the economy's resilience, Türkiye should further diversify energy sources and boost domestic clean energy resources.

Figure 1.32. Energy supply is dominated by fossil fuels



Note: Total energy supply excludes electricity and heat trade. Coal also includes peat and oil shale where relevant.
Source: IEA (2022), IEA World Energy Balances (database).
Note: Total energy supply excludes electricity and heat trade. Coal also includes peat and oil shale where relevant.

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Transitioning away from coal-fired power

Coal accounts for about one third of Türkiye's greenhouse emissions and is the second-largest primary energy source, after oil (Figure 1.32). Most coal mined in Türkiye is lignite, which has a lower heating value and is more polluting than other types of coal. Türkiye has 2.3% of the world's proven lignite reserves and coal mining is part of the government's strategy to reduce dependency on imported natural gas.

Support to the domestic coal sector is generous (IEA, 2021[61]). Power generation from coal is subsidised, including production subsidies, wage subsidies for miners and fixed-price power purchasing guarantees. The difference between the user price and the socially-efficient price – that reflects the full societal costs of coal use, including environmental costs -- is one of the highest in the OECD (IMF, 2021[62]).

Gradually phasing out coal-fired power is essential to achieve the government's net zero target. This will require gradually scrapping subsidies to coal, which could reduce Türkiye's current greenhouse gas (GHG) emissions by as much as 5% without a significant GDP loss (World Bank, 2022[63]). Gradually removing fossil fuel subsidies, when the current war-related energy crisis recedes, would increase incentives to invest in clean energy and energy efficiency (see below). Türkiye should also enhance efforts to acquire technologies that limit the environmental impact and GHG emissions of coal mining, such as carbon capture and storage programmes for coal-fired power generation.

Box 1.8. Diversification to improve energy security

Key elements of Türkiye's energy security policy include increasing domestic gas production, diversifying import sources and boosting domestic storage capacity.

1. **Increasing domestic gas production.** In 2020 and 2022, sizeable gas reserves (a total of 710 bcm) were discovered in the Black Sea. Exploiting the Sakarya gas field, which is planned to start in 2023, can significantly reduce gas imports. At full capacity, it has a potential to meet 30% of the country's current gas demand.
2. **Diversifying import sources.** Türkiye's natural gas storage capacity has increased to improve energy security and accommodate seasonal fluctuations. At the end of 2022, the total capacity of underground natural gas storage facilities reached 5.6 bcm and it is expected to increase to 10 bcm in 2024, which will correspond to approximately 20% of total annual gas demand (IEA, 2021[61]). In 2021, almost half of the gas imports were from Russia.
3. **Boosting domestic storage capacity.** Türkiye has also created a number of LNG terminals. Türkiye's current natural gas storage capacity is 5.6 bcm and it will reach 10 bcm in 2024.

Another element of energy diversification the development of nuclear capacity in Türkiye. According to government plans, three nuclear power plants will be built, each with four 1 200 MWe reactors. Construction of the first nuclear power plant is underway. The plant will consist of four units of Russian WWER-1200 reactors and is to be fully completed by the end of 2026. The first unit started to be built in 2018 and the government expects it to be completed by 2023.

Stepping up efforts to support renewable energy resources

Increasing renewable energy capacity coupled with energy efficiency could reduce GHG emissions and dependency on energy imports. Türkiye has already made significant progress on this front. Türkiye's renewable capacity has tripled in the past 11 years, with government support, including preferential feed-in tariffs, procurement auctions for renewable energy and subsidies for rooftop solar installations. In 2020, renewables accounted for one fifth of total energy supply, with an increasing share of wind and solar energy (Figure 1.32), and close to 44% of total electricity generation -- the government target for 2023.

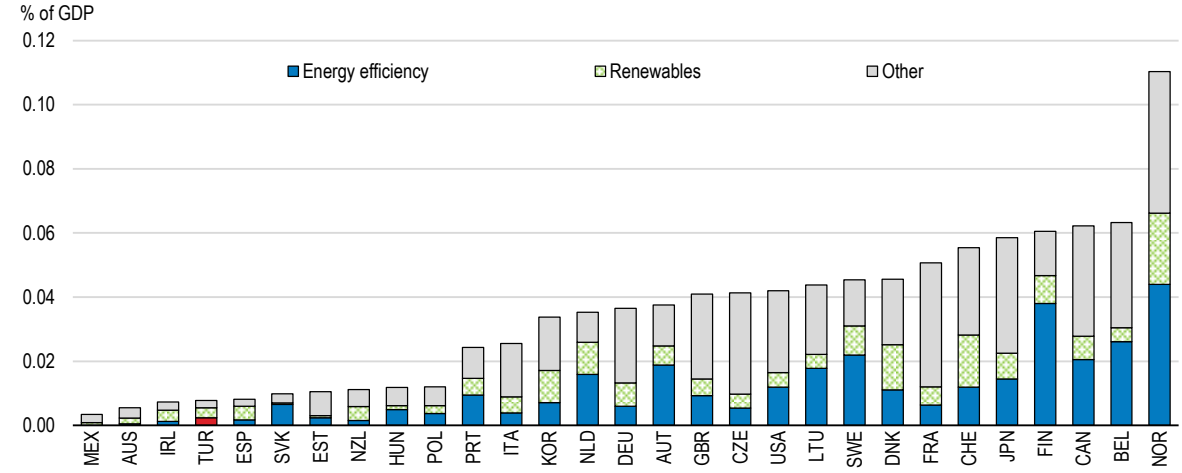
The potential for renewables is large and various policy reforms could help better exploit it. Türkiye uses only an estimated 3% of its solar potential, and 15% of its onshore wind potential (IEA, 2021). The unpredictable investment environment and difficulties regarding permit procedures are among the main barriers for investment in renewables in Türkiye (Ozcan, 2021[64]). Making the regulatory and policy environment more predictable to boost private investment will require: streamlining planning processes for

competitive auctions, including by setting up regular intervals for auctions; avoiding changes after the auction is completed; and reducing the length and cost of land acquisition. Experience from other OECD countries also shows that establishing a single body responsible for issuing all required licenses or establishing a spatial committee to coordinate the broader electricity network is key to promote investment in renewables (OECD, 2021[65])

Higher levels of renewable penetration will require a more flexible electricity system. A large share of renewable energy comes from hydropower, which is highly volatile, leaving Türkiye vulnerable to risks. The share of hydro in total power generation varies between 20 and 30%. For example, in 2014 and 2021, droughts caused sudden drops in production of hydropower and led to higher imports of fossil fuels. Investing in large-scale batteries combined with demand-side price signals, and incentivising consumers to use renewable power when it is cheap, are parts of the solution. Denmark, the country with one of the most reliable power systems in Europe, is managing weather-dependent renewable electricity via effective grid management, gas peaking plants and baseload biomass as well as aligning different sources of renewable energy (OECD, 2021[65]). With cost-benefit solutions for power system flexibility, including system-friendly location of wind and solar capacity, energy storage, flexible thermal generators, and demand response, Türkiye can increase the share of renewables to 50% by 2030 (Saygin, 2021[66]). Devoting more public resources to acquire and deploy technological solutions to climate change is also important, including new and emerging technologies in renewables, power storage or carbon storage. Türkiye spends less than many other OECD countries in this area (Figure 1.33).

Figure 1.33. Public support for energy research, development and deployment is low

Government expenditure on R&D, 2020 or latest year



Note: "Other" includes spending on fossil fuels, nuclear, hydrogen and fuel cells, other power and storage technologies, other cross-cutting technologies/research, and unallocated spending.
Source: IEA, Energy Technology RD&D Budgets database.

StatLink https://stat.link/n9sypv

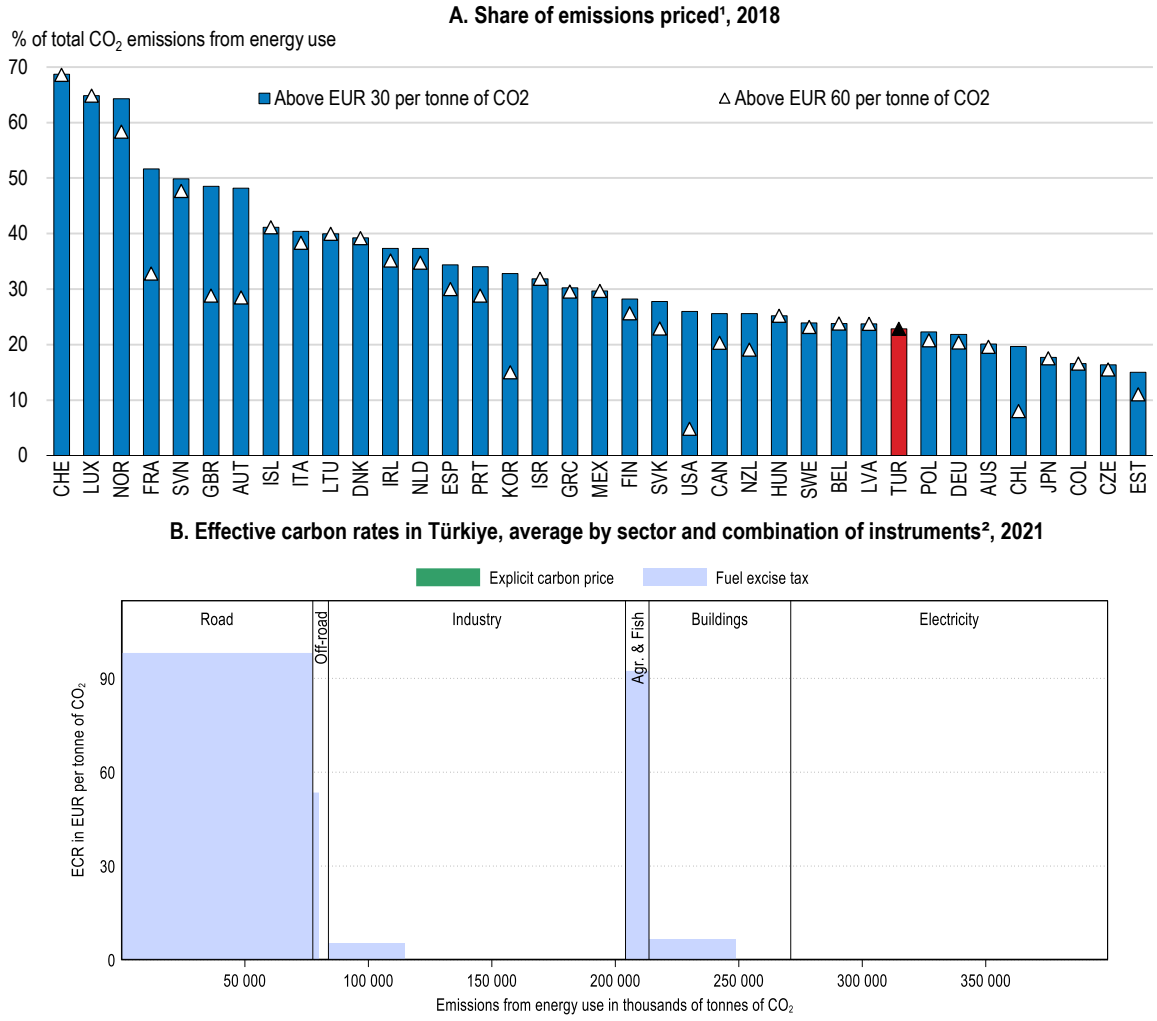
Stepping up efforts to improve energy efficiency

Türkiye has taken measures to improve energy efficiency and is investing almost USD 11 billion (1.5% of annual GDP) over the period from 2019 to 2023 to reduce Türkiye's primary energy consumption by 14%. The National Energy Efficiency Action Plan 2017-2023 includes 55 actions covering the main sectors, namely buildings and services, energy, transport, industry and agriculture and cross-cutting areas. Still, more could be done to improve energy efficiency. In the housing sector, this will require more stringent and well-enforced building standards for new buildings and retrofitting the old residential and public buildings. These investments can be cost effective. If 300 000 buildings were retrofitted each year, annual

energy savings could surpass investment needs in 2037 (World Bank, 2022[63]). The conversion of approximately 8 million street lights to more efficient LED alternatives could deliver a savings potential of over 70% (IEA, 2021[61]).

To increase energy efficiency and reduce GHG emissions, Türkiye should consider raising carbon prices. Türkiye does not have an explicit carbon pricing system but has implicit carbon prices – in particular from fuel excise taxes. However, a large share of GHG emissions from energy use is not taxed. At present, the implicit carbon price is lower than in most other OECD countries (Figure 1.34). Introducing an emissions trading scheme aligned with the European system would contribute to reduce GHG emissions and prepare Türkiye for the implementation of the EU Carbon Border Adjustment Mechanism, the transition phase is set to start in 2023 for five sectors (steel, cement, fertiliser, power and aluminium).

Figure 1.34. Carbon emissions are priced below the levels seen in most other OECD countries



1. The figure only includes explicit carbon pricing from carbon taxes, ETSs and fuel taxes, not other market and regulatory measures.
2. Emissions-weighted average by sector and combination of instruments (explicit carbon price only, fuel excise only, both, none). Taxes are those applicable on 1 April 2021. Emissions refer to energy-related CO2 only and are calculated based on energy use data for 2018 from IEA's World Energy Statistics and Balances. The figure includes CO2 emissions from the combustion of biomass and other biofuels. All rates are expressed in real 2021 EUR using the latest available OECD exchange rate and inflation data; change can thus be affected by inflation and exchange rate fluctuations. Prices are rounded to the nearest eurocent. For more information, see source.
Source: OECD Effective Carbon Pricing Dataset; and OECD (2021), Carbon Pricing in Times of COVID-19: What Has Changed in G20 Economies?, OECD, Paris, https://www.oecd.org/tax/tax-policy/carbon-pricing-in-times-of-covid-19-what-has-changed-in-g20-economies.htm.cing-turkey.pdf.

StatLink https://stat.link/z6exqn

Table 1.7. Past recommendations and actions taken in green transition area

Recommendations	Actions taken
Implement a carbon pricing policy, applicable gradually after the COVID-19 shock and encompassing all sectors.	The draft Climate Change Law has been prepared and will establish the necessary legal and institutional framework for the National Emission Trading System as a carbon-pricing tool.
Prepare and publish daily local air quality indicators according to international standards in the entire territory. Develop a holistic strategy to improve air quality.	The number of stations monitoring air quality has increased from 36 in 2005 to 370 in 2022. The data are transferred to the Environment Reference Laboratory Data Operation Center and simultaneously published on the website.
Implement the recommendations of the 2019 OECD Environmental Performance Review of Turkey. In particular, adopt a new National Climate Change Action Plan as planned by the authorities.	The Long-Term Climate Change Strategy and the National Climate Change Action Plan (2023-2030) are being updated, setting medium- and long-term targets for 2030 and 2053, to determine the country's roadmap for combating climate change.
Design a strategy to increase the share of renewable resources in primary energy production, drawing notably on the solar potential.	The share of renewable energy in electricity production has been steadily increasing, including solar energy from 1% in 2017 to 4.2% in 2021.
Consider tax reliefs for energy-saving investments in the building sector. Continue to prepare the business sector to the introduction of border carbon taxes by trade partners.	The “Green Deal Action Plan” of Türkiye was published in July 2021. It includes 32 objectives and 81 actions under 9 main headings, outlining the green transformation of Türkiye’s industries and the adoption of measures for harmonising with the EU Green Deal, especially in areas related to trade and industry.

MAIN FINDINGS	RECOMMENDATIONS (key ones in bold)
Implementing a rules-based macroeconomic policy framework	
As in other countries, supply-side constraints and energy prices have put pressures on prices. Lira depreciation and low interest rates have further contributed to push consumer price inflation. In 2022, the CPI stood at 72.3% and inflation expectations far exceed the 5% policy target. Frequent changes in the central bank's board members have undermined domestic and international confidence in the independence of the central bank.	**Tighten monetary policy, including by increasing the main policy rate.** **Strengthen confidence in the independence of the Central Bank, including by reducing the turnover of the Bank's board members.**
While the banking sector seems to be in good health and well capitalised, the quality of assets may deteriorate as the economy slows and macroeconomic vulnerabilities increase.	Publish stress tests of the banks to provide information on risks.
Although public debt is internationally low, it was on an upward trajectory. Fiscal pressures may intensify in the future. Inflation has a particularly negative effect on low-income groups as food and energy tend to account for a larger share of their budget. .	**Where needed, provide targeted and temporary fiscal support to vulnerable groups.** **Bring the primary fiscal balance back to a 1% surplus. Adopt a medium-term fiscal strategy to prepare for long-run fiscal challenges.**
Türkiye has a narrow tax base and there is room to improve expenditure efficiency.	Reduce VAT exemptions to improve tax collection and administration. Reduce the use of tax restructuring to improve tax compliance. Carry out regularly expenditure reviews.
Rising contingent liabilities are making the economy more vulnerable to economic shocks. Foreign currency-denominated payment guarantees for public private partnerships (PPPs) and foreign exchange-protected depositare exposing public finances to exchange rate risk. These deposits (amounting to about 10% of GDP) can have a large fiscal cost. As of November 2022, these costs stood at 0.6% of annual GDP.	**Further strengthen the framework for supervising and monitoring PPPs by introducing generic PPP legislation.** **Gradually phased out foreign exchange-protected deposits.** **Publish annual Fiscal Policy Reports, with short and longer-term projections and risk scenarios for liabilities, including contingent ones.**
Making the regulatory framework effective and predictable	
Product market regulations are stringent. The licensing and permits system is the most restrictive in the OECD as are entry barriers and administrative burdens on start-ups.	**Create a one-stop shop issuing all licenses and authorisations.** **Apply the "silence-is-consent" principle to reduce the administrative burden related to obtain permits and licences.**
The perception of corruption is high and has deteriorated in recent years. Türkiye has not yet a dedicated whistle-blower protection law or anti-corruption body.	**Adopt an anti-corruption strategy underpinned by credible action plans. Establish a permanent and independent anti-corruption body.**
Support innovation, research and the digital economy	
Co-operation and collaboration in R&D between universities and industry need to be further improved.	Provide grant support to long-term co-operation arrangements that involve multiple stakeholders from industry, civil society, research and government. Promote labour mobility support schemes between firms and universities.
The number of fixed broadband subscriptions per inhabitants and the speed of fixed broadband is internationally low.	The authorities should continue to reduce barriers to broadband deployment to make investments easier and cheaper for private communication operators.
Promoting the green energy transition	
Coal accounts for about one third of total greenhouse gas emissions in Türkiye. Greenhouse gas emissions per capita are low in international comparison but have grown fast in recent years. The implicit carbon price is lower than in other OECD countries and a large share of carbon emissions are not taxed, in particular in the electricity sector.	Make emission pricing more consistent across sectors, including by **gradually scrapping various subsidies to coal** and by raising the carbon price. **Replace coal subsidies for poorer households by means-tested income support programmes without linking aid to fossil fuel consumption.**

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2 Labour market and education reforms are needed to create more and better jobs

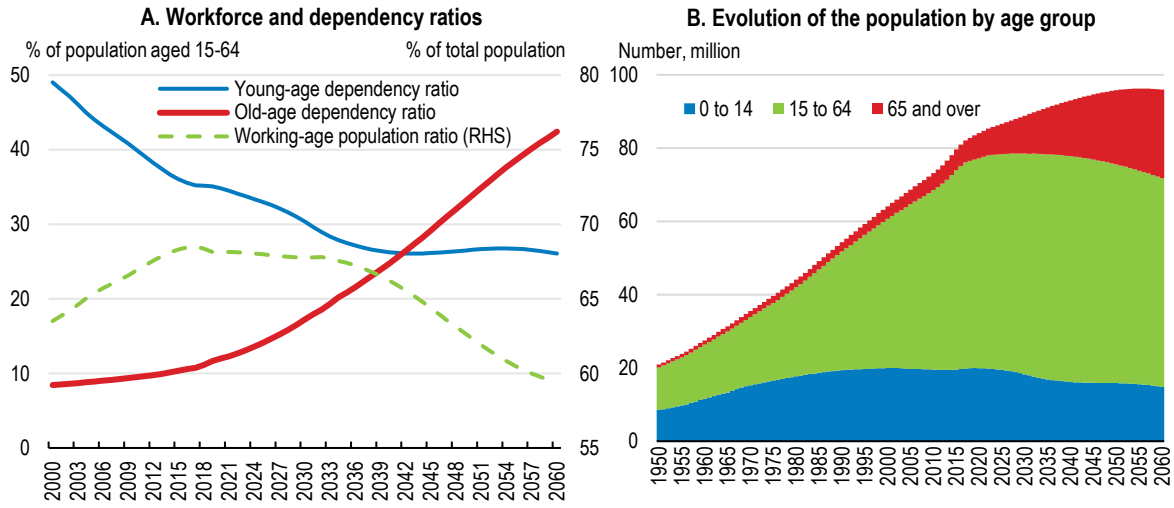
Dennis Dlugosch, OECD

The Turkish economy grew strongly over the past two decades and created many jobs. However, given its young and growing workforce, Türkiye needs to ramp up efforts to achieve high-quality formal job creation. A sizeable share of the workforce, mostly female workers, does not actively participate in the labour market. While informality has decreased significantly, it is still widespread and entrenches productivity differences across firms. Rigid labour market rules, particularly the high severance pay but also minimum wages, impede formal job creation. More flexible labour markets should be part of a comprehensive reform programme that shifts job loss protection to a broader-based unemployment insurance scheme, supported by well-designed activation policies. While educational attainment has risen impressively, a growing number of vacancies, significant skill mismatches and a low level of adult skills highlight the need to address the quality of education and to improve on the matching of talent to jobs.

Despite the progress made by the Turkish economy over the past two decades, several labour market weaknesses persist: elevated informality coupled with low employment rates, to a large extent driven by very low labour force participation of women compared to other OECD countries, and poor labour market prospects for many youths.

The size of the Turkish workforce will increase over the next two decades (Figure 2.1). This amplifies the need to address existing labour market weaknesses. While a growing workforce can be a source of economic growth, tapping the demographic dividend necessitates strong formal job creation while equipping the young and growing population with skills relevant for labour markets. If net job creation parallels growth of the working age population, population growth could add more than 1 percentage point to GDP growth until the year 2032. A higher pace of job creation could lead to faster growth.

Figure 2.1. The demographic window is open



Note: Population estimates from 2022 are based on the medium fertility variant projection scenario. Young-age dependency ratio refers to people aged below 15 and over per 100 people of working age defined as those at ages 15 to 64. Old-age dependency ratio refers to the number of population aged 65 and over per 100 people of working age defined as those at ages 15 to 64.
Source: OECD calculations based on UN (2022), "Total population (both sexes combined) by single age" in the 2022 Revision of World Population Prospects.

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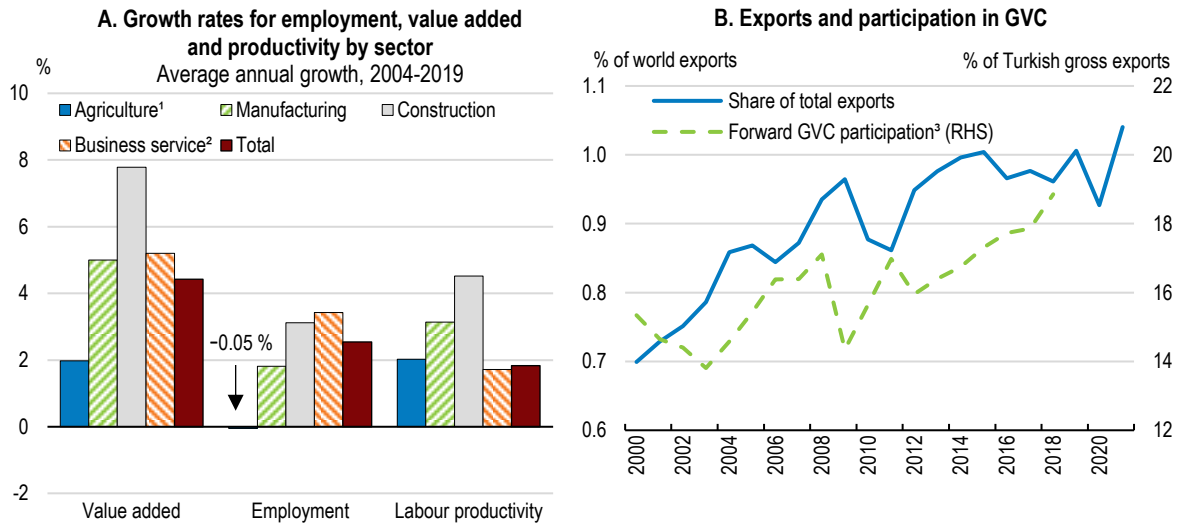
The first section of this chapter sheds light on these weaknesses and underlines the urgency for decisive policy action, given that structural change, including automation and digitalisation, is rapidly changing skill needs and the set of jobs available (OECD, 2019[1]). The second and third section discuss how more flexible labour market regulations and a broader-based unemployment insurance system bundled with well-designed activation policies would provide the foundation for robust formal job creation and a healthy pace of resource reallocation towards the most productive economic activities. The fourth section examines how the educational system can better align the supply of skills with evolving labour market needs. Labour market and education reforms are key to boost high-quality formal job creation but need to be combined with the reforms of economic framework conditions proposed in Chapter 1.

Labour market challenges and opportunities

Automation, digitalisation, and changes in global value chains are altering skill needs

The structure of the Turkish economy has changed considerably in the past two decades and will continue to change. Job creation in business service and manufacturing sectors coupled with urbanisation has raised living standards and allowed many workers to move away from low-productivity subsistence farming (Figure 2.2, Panel A). Lower income regions in the Eastern parts of the country could close part of the gap in living standards (OECD, 2014). Exports increased as the economy got more integrated into global value chains (Panel B). Labour productivity, also spurred by increased competition with worldwide markets, rose by more than 3% annually over 2003-19.

Figure 2.2. Rapid economic catch-up came on the back of growth in productivity and exports



1. Refers to agriculture, hunting, forestry and fishing.
2. Refers to business service sectors excluding real estate sector.
3. Defined as the ratio of domestic value added embodied in foreign countries' exports over gross exports.
Source: OECD (2022), OECD Structural Analysis (STAN) Databases; and OECD (2022), Trade in Value Added (TiVA) 2021 Edition. (database).

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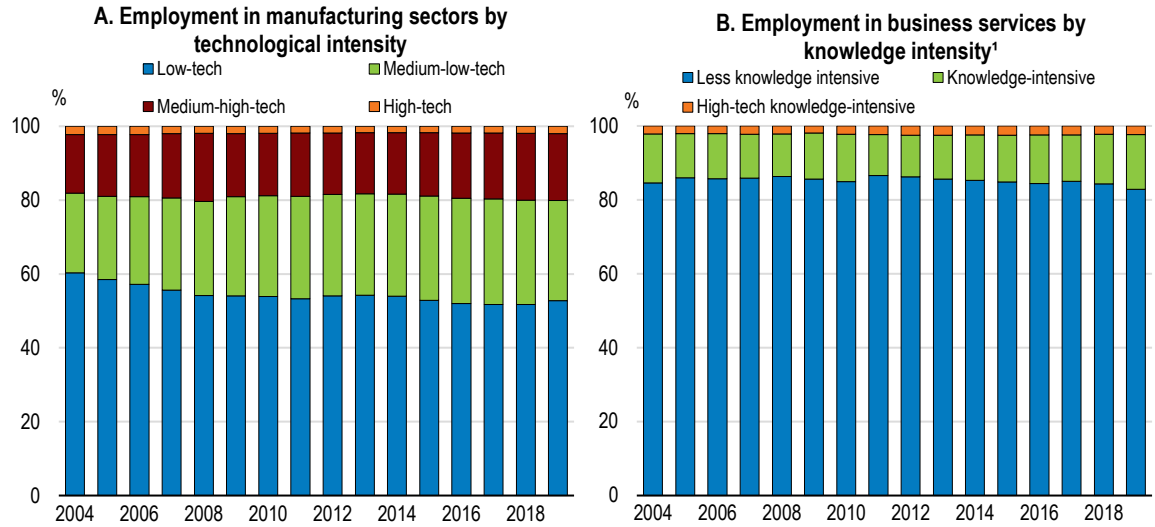
The increase in labour productivity, export orientation and stronger integration in global value chains has boosted employment in sectors with higher levels of technological sophistication and knowledge intensity (Figure 2.3). Whereas in 2004 around 60% of workers in manufacturing were employed in low-technology sectors, like food products or textiles, only just over 50% of workers were employed in these sectors in 2019. Over the same period, the share of medium-low (e.g., rubber and plastics) and medium-high technology (e.g., electrical equipment) sectors in total manufacturing employment increased significantly. Similarly, formal employment in business service sectors shifted towards more knowledge-intensive activities. These trends in aggregate employment mirror changes in job profiles as the share of jobs that require cognitive skills expanded while the share of jobs that require manual skills contracted (World Bank, 2019).

Figure 2.3. Employment in sectors with higher technological sophistication and knowledge intensity increased



Note: According to the Eurostat's aggregation of the manufacturing industry by technological intensity and the service sector by knowledge intensity. Classification based on NACE at 2-digit level. An exception was made for security and investigation activities that are classified as less knowledge-intensive service sector instead of knowledge-intensive service sector because separate data on this sector are not available and it was aggregated with other sectors which are less knowledge intensive.
1. Refers to business service sectors excluding real estate sector.
Source: OECD (2022), OECD Structural Analysis (STAN) Databases.

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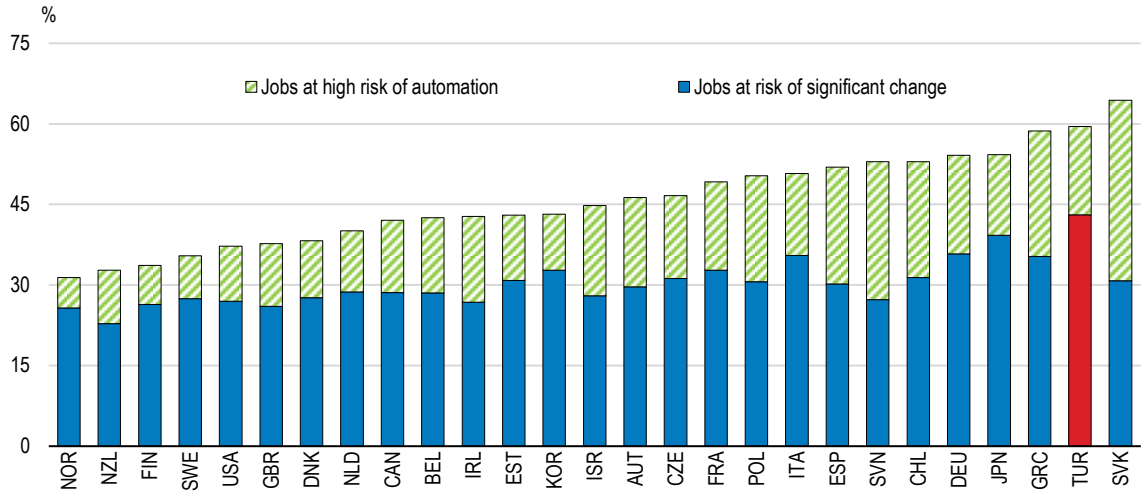
Further integration in global value chains will continue to increase demand for high-skilled jobs while automation will likely reduce demand for some job tasks (Arntz, Gregory and Zierahn, 2016[2]). Although lower-skilled workers often perform job tasks that are prone to automation, the risk of significant changes in job requirements also encompasses other types of workers. For example, some parts of the job duties of lawyers are already replaced or facilitated by machines (OECD, 2019[3]). Technological progress and structural reforms that help Türkiye better respond to global demand will support a further upward move in global value chains and likely push up wages, thereby triggering even more changes in skill demand and in the set of jobs available. Meanwhile the share of jobs at high risk of automation is elevated (Figure 2.4). At the aggregate level, a high risk of automation does not necessarily lead to lower employment growth. On the contrary, while some job tasks might get redundant, technological progress also stimulates further job creation (Scarpetta and Pearson, 2021[4]). However, workers will need to adapt to changing tasks by upgrading their skill sets to occupy the new jobs that will be created.

Figure 2.4. The share of jobs at high risk of automation is elevated

The share of jobs at high risk of automation and significant change[1]



1. Based on the survey of Adult Skills (PIAAC, 2012). Jobs are at high risk of automation if the likelihood of their job being automated is at least 70%. Jobs are at risk of significant change if the likelihood is between 50 and 70%.
Source: Nedelkoska, L. and G. Quintini (2018), "Automation, skills use and training", OECD Social, Employment and Migration Working Papers, No. 202.

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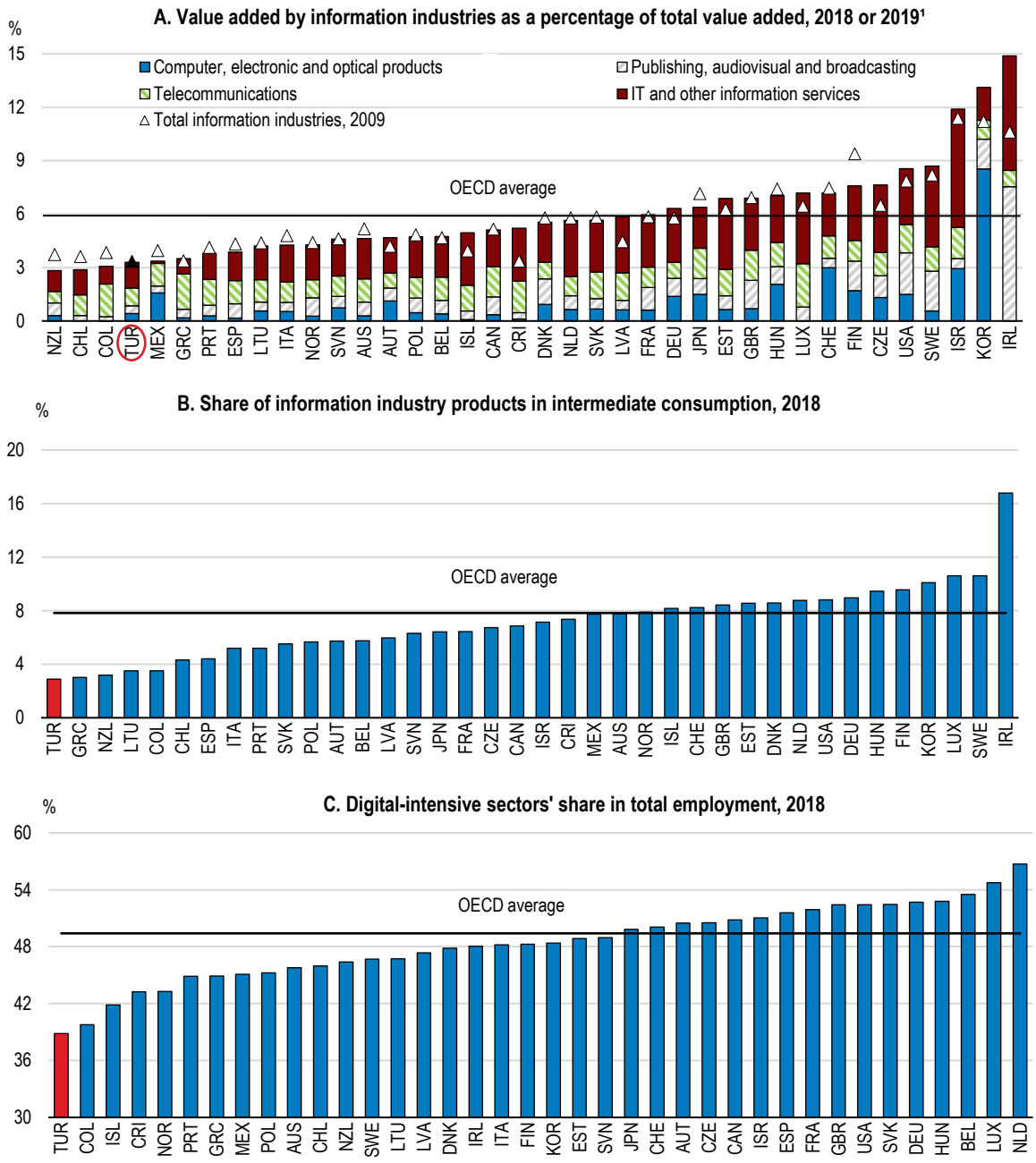
Digitalisation amplifies the need for a swift adaptation of skills. Despite significant progress, digitalisation is less widespread than in other OECD countries. The share of value added of the ICT sector and digital services lags (Figure 2.5, Panel A). Information products do not yet play a substantive role as inputs in other industries (Figure 2.5, Panel B). Subsequently, the share of digital intensive sectors in total employment is comparatively low (Figure 2.5, Panel C). Thus, in addition to the elevated risk of automation, the necessary catch-up in digitalisation will come on the back of a change in the profile of many more existing jobs (OECD, 2019[1]). The economic shock induced by the COVID-19 pandemic has given a push to the use of digital technologies in firms and households and has amplified the catch-up process by providing an additional incentive for firms to rely less on labour and speed up automation (OECD, 2021[5]).

Figure 2.5. The digital revolution will alter the set of jobs available



1. Australia, Chile, Lithuania, Latvia, Portugal, and Switzerland for 2017 and Israel for 2016. Data on total information industries for Chile and Israel refer to 2006, instead of 2009 and come from OECD (2019), "Measuring the Digital Transformation: A Roadmap for the Future".
Source: OECD (2022), OECD Structural Analysis (STAN) Databases; and OECD Going Digital Toolkit (2022).

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Creating more and better formal jobs is key to reduce informality

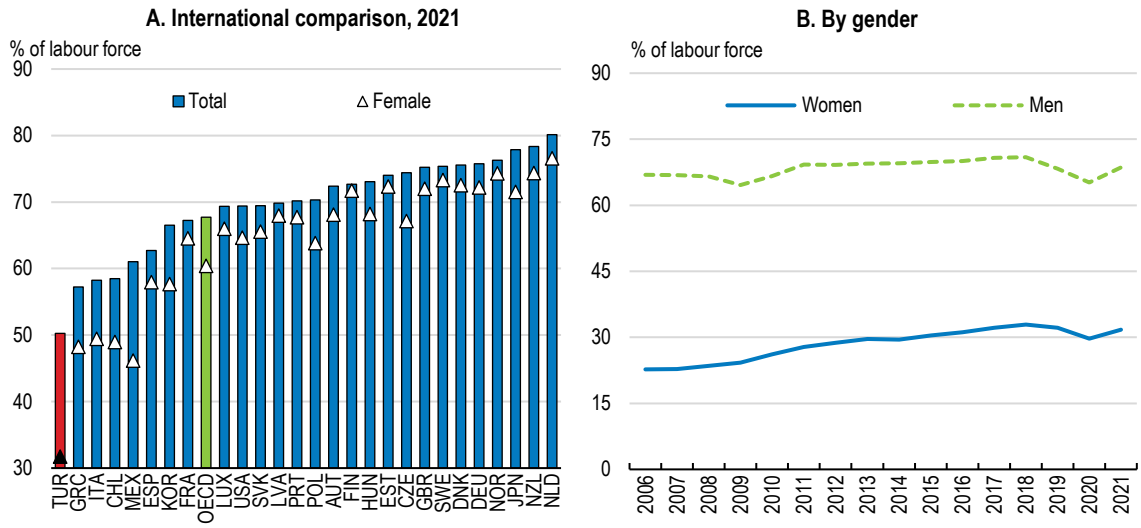
Economic growth in Türkiye does not create enough formal jobs. Aggregate employment ratios in Türkiye are the lowest across the OECD (Figure 2.6, Panel A). While employment ratios of prime-aged men are roughly comparable to the OECD average, employment ratios of female workers lag behind

(Figure 2.6, Panel B). Estimated cyclical sensitivities of unemployment and employment to GDP growth suggest that economic growth creates less new jobs over the short run than elsewhere (see Box 2.1). The growing workforce amplifies the need to speed up formal job creation.

Comparatively low formal job creation is the flipside of widespread informal and semi-formal work practices. Despite a considerable decrease over the past two decades, informal workers still account for around 26% of total employment. While informality is higher in agriculture, the 17% share of informal workers in non-agricultural sectors is still sizeable (see Box 2.2). For many firms, making use of informal and semi-formal work practices is a strategy to avoid costly regulations and taxation that provides them with an advantage over fully formal firms (Mohammad, 2021[6]).

Figure 2.6. The employment rate is low

Employment rate, 15-64 year-olds



Source: OECD (2022), OECD Labour Force Statistics (database).

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Informal work comes with several negative consequences for workers. Informal workers are not covered by employment-related social protection and therefore, are excluded from social safety nets. This contributes to income inequalities but also exposes informal workers to less safe working environments and conditions. In addition, informal workers often earn less than formal workers, exacerbating inequalities (Ohnsorge and Yu, 2021[7]). There is a close link between informality and poverty. Informality goes hand in hand with a smaller tax base for corporate and personal income taxes and therefore limits the government's ability to support vulnerable groups.

Informal and semi-formal work practices (see Box 2.2 for a definition) impede upscaling and make it harder for firms to tap returns to scale. Firms that predominantly employ informal workers often opt to stay small to circumvent the costs of formalisation. Indeed, firms in Türkiye tend to cluster around the size thresholds used to determine the set of regulations and subsidies firms are exposed to (Özlale and Polat, 2019[8]). Informality makes it also more difficult for fully formal firms to grow as they may face unfair competition from informal competitors. Furthermore, informal firms have less or no access to banking services and finance, constraining or even forestalling productivity-enhancing investments.

Box 2.1. Cyclical unemployment and employment sensitivities

The cyclical sensitivity of unemployment and employment to GDP growth can help to assess an economy's capacity to create jobs. Okun's law provides a nice framework to estimate these sensitivities (Ball, Leigh and Loungani, 2017[9]; Schwellnus, Koelle and Stadler, 2020[10]; An, Bluedorn and Ciminelli, 2022[11]). Importantly, these sensitivities should be interpreted as conditional correlations of growth and unemployment and employment and do not lend themselves to any structural interpretation. Nevertheless, a comparison of sensitivities across countries can help to shed light on how the relationship between job creation and economic growth.

Methodology and data

The sensitivities are estimated based on quarterly country-by-country time-series regressions of growth of unemployment and employment on up to two lags of GDP growth. Data comes from the OECD's ADB database. The ranking of countries according to the size of the estimated elasticity is robust to employing a panel model, where the coefficient of GDP growth is interacted with country fixed effects and using gaps from deviations from a long-run trend, either using the Hodrick-Prescott filter or potential growth, instead of growth rates.

Results

The results suggest that, over the short term, changes in unemployment and employment react less to GDP growth than in many other OECD countries (Figure 2.7). This finding is in line with an interpretation that rigid rules on labour markets, a high minimum-to-median wage and an expensive severance pay system discourage formal job creation but also cushion labour markets from the fallout of economic crisis and other structural changes that could lead to unemployment. Estimates based on a shorter and more recent time span show that cyclical sensitivities have increased, suggesting that the capacity of the Turkish economy to create jobs has strengthened in recent years. The results are broadly in line with more elaborate models that allow for an asymmetric relationship between GDP growth and unemployment and employment (Coşar and Yavuz, 2021[12]).

What are the dynamics of informal and formal employment following a shock to aggregate activity?

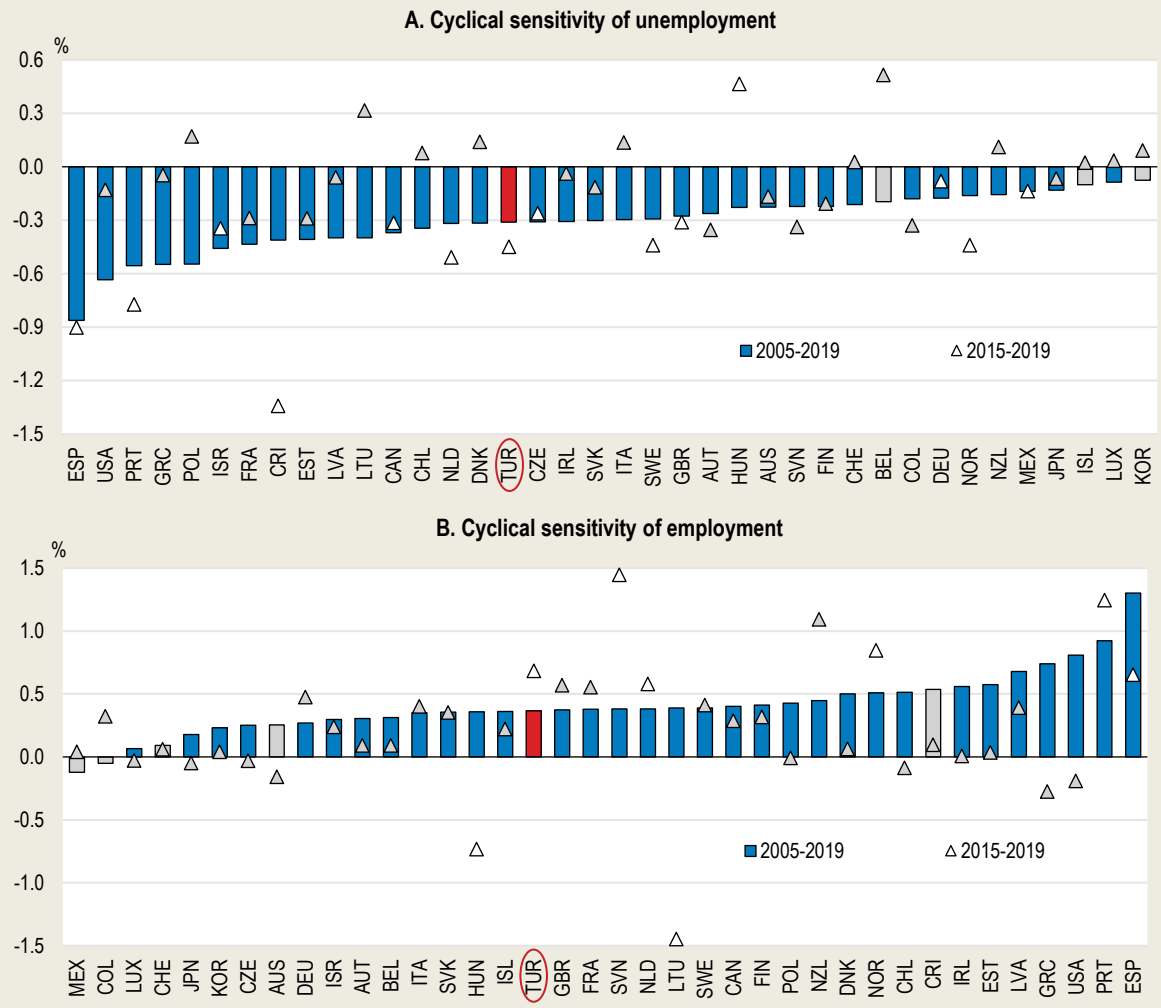
The estimated cyclical sensitivities remain silent about the dynamics following a shock to aggregate activity. In an economy that is characterised by informality, it is a priori not clear to what extent an economic expansion leads to formal job creation and whether formal job creation substitutes or complements informal job creation.

The second part of the empirical analysis looks at labour market dynamics in more detail labour by estimating a sign-restricted structural vector autoregression (VAR). The VAR uses the logarithmized levels of informal and formal employment, unemployment, and vacancies (Schiman, 2021[13]). Monthly data is sourced from Turkstat and the Turkish public employment agency (İŞKUR) and ranges from January 2005 to December 2019. The VAR is estimated with Bayesian techniques that account for parameter but also model uncertainty. The sampling requires five thousand draws with structural shocks that satisfy the sign restrictions to stop.

The restrictions that identify a shock to aggregate activity are standard in the literature (Schiman, 2021[13]) and postulate a decline in the number of unemployed workers and an increase in vacancies during an economic upturn. The empirical analysis also postulates that economic growth leads to an increase in informal employment, consistent with the view that the informal sector is very responsive to the business cycle. The sign of the impact on total employment was left unrestricted.

The impulse response analysis suggests that an aggregate activity shock initially increases both informal and formal employment (Figure 2.8). At the same time, vacancies increase. Thus, over a relatively short window of around 10-12 months, informal and formal job creation are complementary. Then, informal job creation slows down significantly while more formal jobs are created filling all the open vacancies. This suggests that, over the medium term, economic expansions shift the composition of total employment towards formal employment.

Figure 2.7. Estimated sensitivities of unemployment and employment to GDP growth



Note: The cyclical sensitivities are based on quarterly country-by-country regressions of growth in employment or unemployment on GDP growth of up to two lags. In Panel A and B, bars and triangles in grey represent estimates that were not significant at the 10 % significance level.
Source: OECD calculations.

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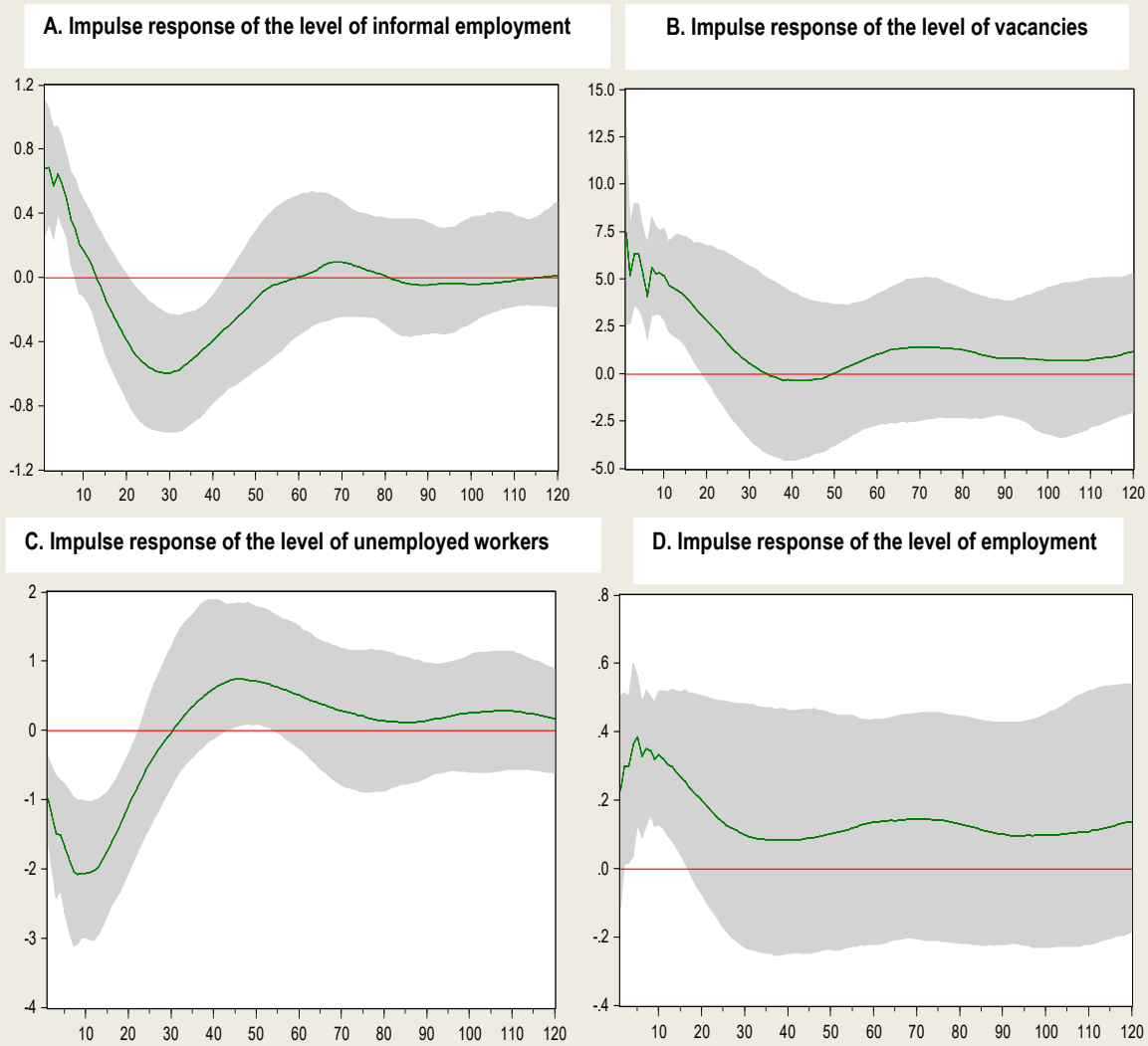
Figure 2.8. Labour market dynamics following a shock to aggregate activity



Note: Impulse response (green line) of a monthly VAR, estimated with Bayesian methods, employing a diffuse Normal-Wishart prior on the reduced-form parameter matrix and the reduced-form variance-covariance matrix. The VAR includes the logarithmized seasonally adjusted levels of informal employment, vacancies, unemployed and employed workers. The aggregate activity shock is identified by sign-restrictions (unemployment: -; vacancies: +; informal employment: +). The grey shaded area depicts 68% credible sets, the green line point-wise medians. The horizon of impulse responses amounts to 10 years (120 months). The time sample underlying the estimation of the reduced form VAR comprises the 2005M01 to 2019M12 period.
Source: OECD calculations.

Box 2.2. Informality remains high

The business sector is fragmented alongside different degrees of formalisation

Informal employment makes up around 29% of total employment among all workers above the age of 15 (Figure 2.9, Panel A). Informal employment refers to employment not registered with social security institutions. The rate of informality is given as the share of informal workers in total employment, i.e., the sum of formal and informal employment.

Besides informality, semi-formal work practices are frequent in many sectors and regions (OECD, 2021[5]). In semi-formal arrangements, workers are registered with social security institutions but undertake some work-related tasks outside their formal work contract. This can range from occasionally moonlighting a few extra hours to practices where workers are hired on contracts that deliberately do not encompass the envisaged working hours or wages. Wage underreporting, i.e. disclosing a lower wage than the actual one to public authorities, is a frequent form of semi-formal employment.

The business sector is fragmented according to the degree of formalisation of businesses. Previous *OECD Economic Surveys of Türkiye* have differentiated businesses as follows: 1) micro- and small-sized firms predominantly operating in agricultural or construction sectors; 2) medium-sized family businesses, i.e., firms that grew from informal businesses into larger entities and while formalised still make use of informal workers or 3) larger and fully formal firms. The last category comprises the growing share of young, sophisticated start-ups that operate in high-technology sectors.

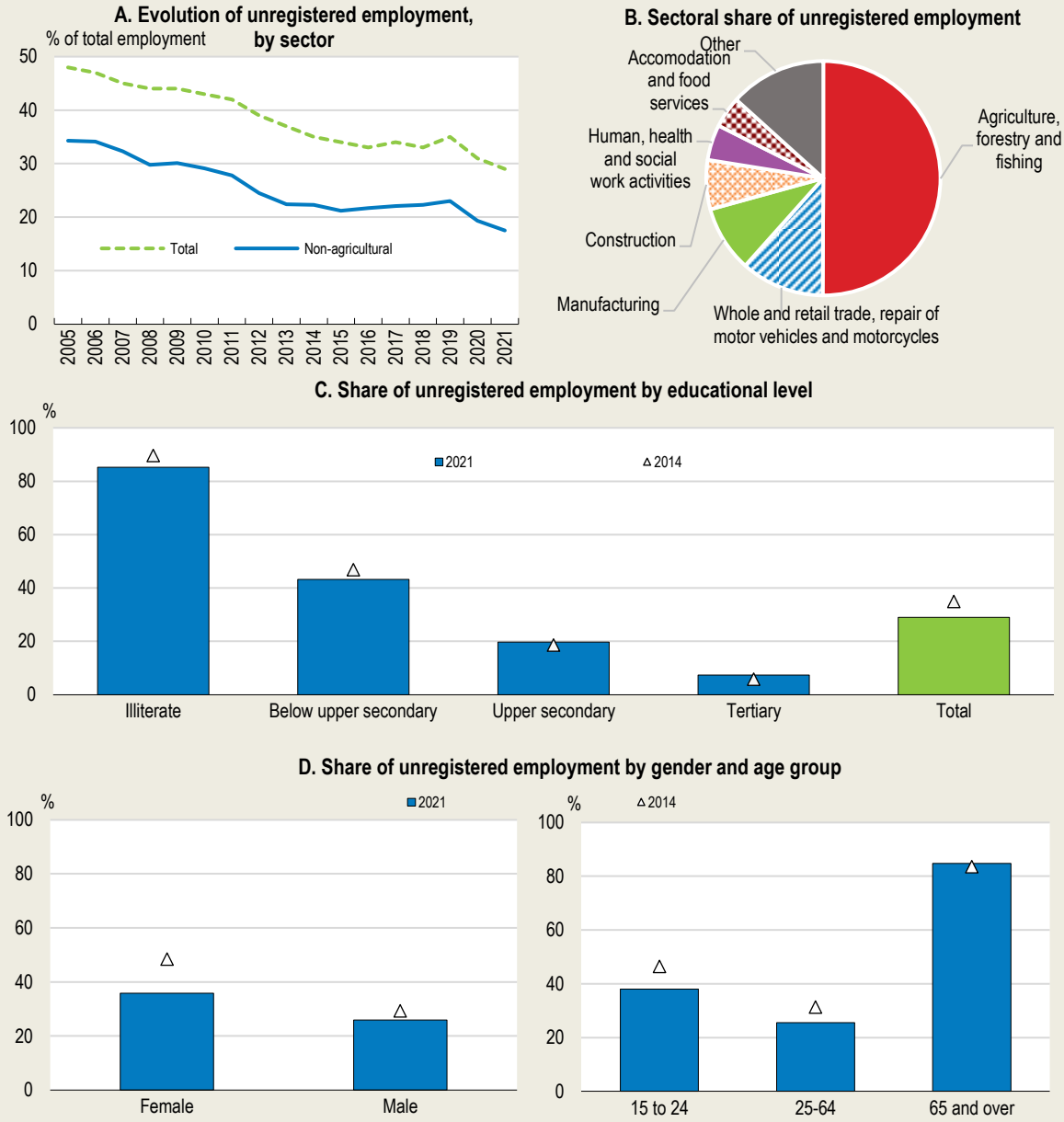
While still widespread, informality is trending downwards

In 2021, the agricultural sector employed more than half of all informal workers (Figure 2.9, Panel B). Wholesale and retail trade, manufacturing and construction sectors also employed sizeable shares of informal workers. Informality is to a large extent concentrated across smaller firms. The majority of informal workers are employed in micro-sized firms, i.e. firms with 1 to 9 employees, mostly family businesses. The share of informal workers decreases significantly with firm size (Bağır, Küçükbayrak and Torun, 2021[14]). While more than half of the workers employed in micro-sized firms are not registered with the social security system, less than 5% of total workers are informal across large firms, i.e. firms with more than 50 employees. Informality is correlated with the regional share of total value added of agricultural sectors and thus differs significantly across regions (Bağır, Küçükbayrak and Torun, 2021[14]).

While still elevated, the rate of informality has been declining steadily over the last two decades. Similarly, wage underreporting declined (Bağır, Küçükbayrak and Torun, 2021[14]). The significant decline in informality results from a range of factors, most importantly from increasing firm sizes, a smaller share of agricultural sectors in total value added and an increase in the level of aggregate education (Bağır, Küçükbayrak and Torun, 2021[14]). Indeed, the rate of informality is significantly lower for workers with higher educational attainment (Figure 2.9, Panel C). Furthermore, policy measures like stricter enforcement of existing labour market laws and fines have also helped to lower informality.

Women, younger but also older workers are more likely to work in informal jobs (Figure 2.9, Panel D). The higher share of informality among women is due to the significantly higher share of female workers who work in small family-owned agricultural businesses (World Bank, 2019[15]). However, the gender gap in informality is much smaller in non-agricultural sectors. Before the 1999 comprehensive pension reform, early retirement was common and contributed to elevated levels of informality of older workers (Bağır, Küçükbayrak and Torun, 2021[14]).

Figure 2.9. Despite trending downwards, informality is high



Note: Informality is measured as the number of people working without any social security relating to their main job. In Panel D, data are based on Turkstat's labour force survey's education classification. Those who are literate, but without any diploma are included in the population with below upper secondary education.
Source: Turkstat.

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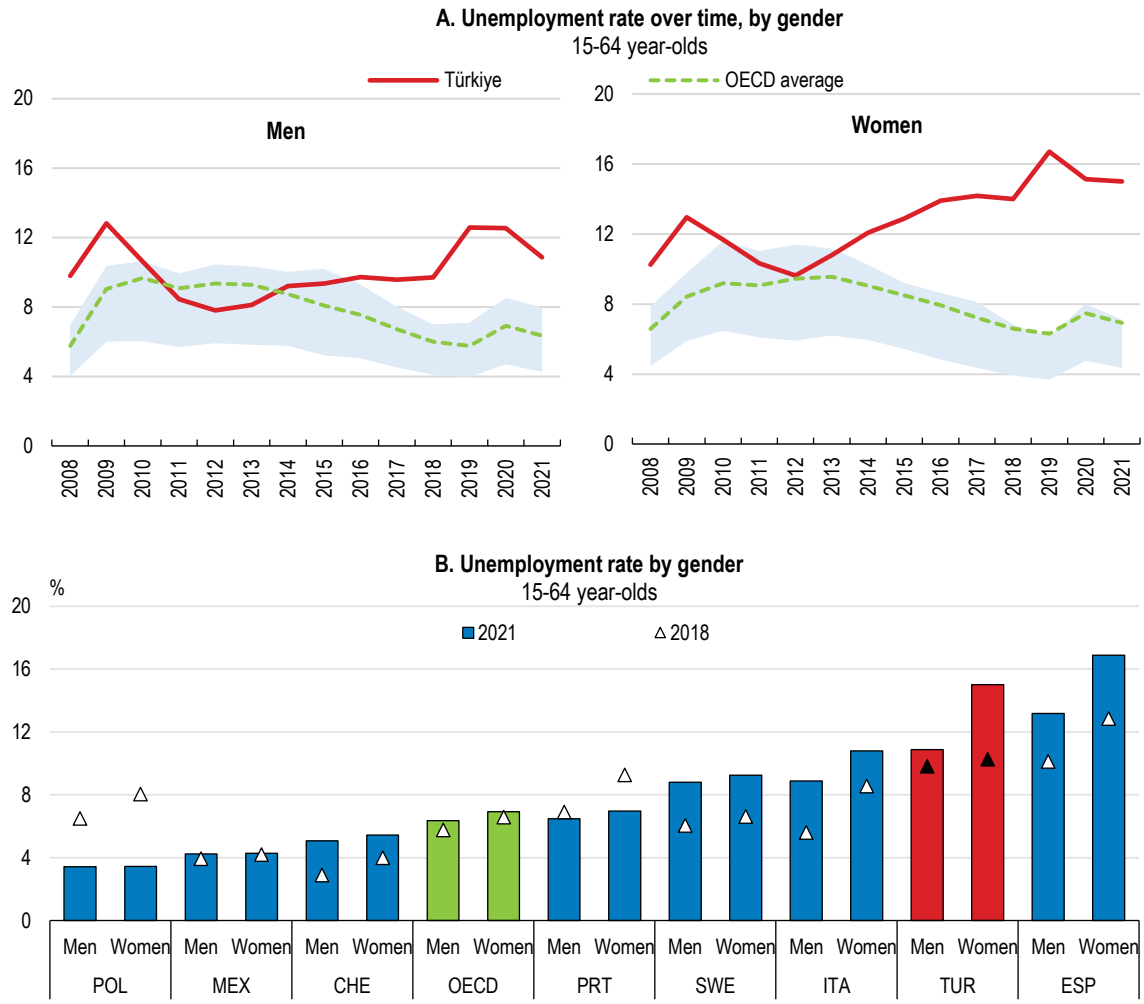
Vulnerable groups need to be better integrated into the labour market

High unemployment rates have been a long-standing feature of the Turkish labour market (Figure 2.10). While the rapid economic catch-up over the past two decades has led to strong job growth, at an average pace of 600 000 formal jobs per year, it did not suffice to outpace the increase in workers joining the labour force. Unemployment is much more prevalent for female and younger workers. The headline unemployment rate appears to understate labour market slack. Broad labour underutilisation, which is defined as the sum of inactive, unemployed, and involuntary part-time workers as a share of the working-age population, is significantly above the OECD average.

Figure 2.10. Unemployment has been persistently high, particularly for women



Note: In Panel A, the shaded area denotes the 25th to 75th percentile range of available data for OECD countries. Unweighted average of 37 countries for the OECD aggregate.
Source: OECD calculations based on OECD Labour Force Statistics (database).

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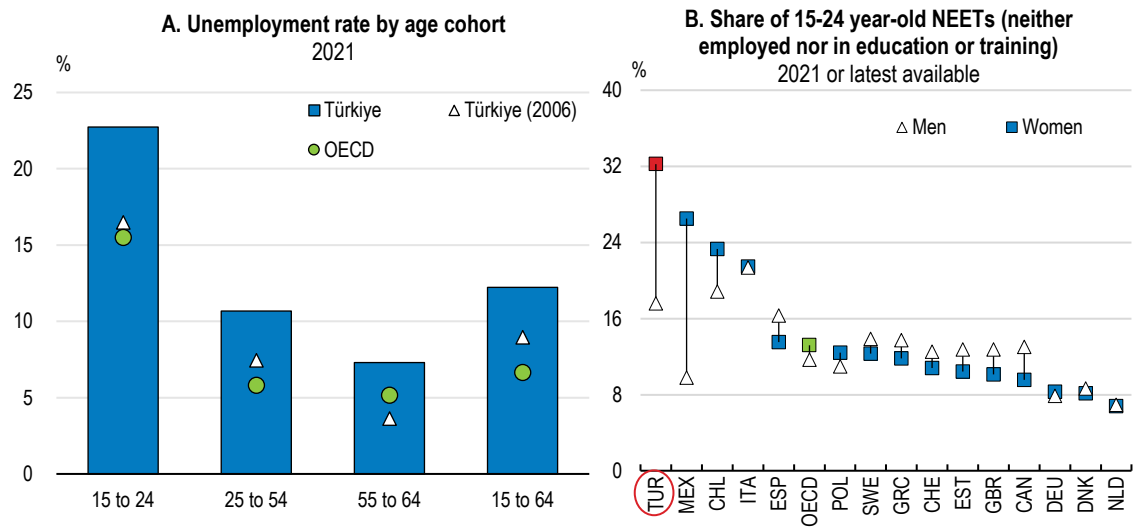
Youth face particularly poor labour market prospects. Youth unemployment is significantly above the OECD average even though it recently declined, to 17.8% in November 2022 (Figure 2.11, Panel A). Besides, many young adults are outside the labour market, and neither in education nor training

(Figure 2.11, Panel B). Youth not in employment, education, or training (NEETs) are deprived from the opportunity to improve their human capital, either through education or work experience. This is particularly worrying given that extended periods of inactivity or unemployment at young age are negatively associated with future employment opportunities and earnings and thus bear the risk of trapping people in low-income jobs and poverty (Carcillo et al., 2015[16]). Most NEETs aged between 15-24 years are women.

Figure 2.11. Many youths are unemployed or neither in employment, education or training



Note: In Panel A, unweighted average of 37 countries for the OECD aggregate.
Source: OECD (2022), Labour Force Statistics (database) and OECD Education at a Glance Database.

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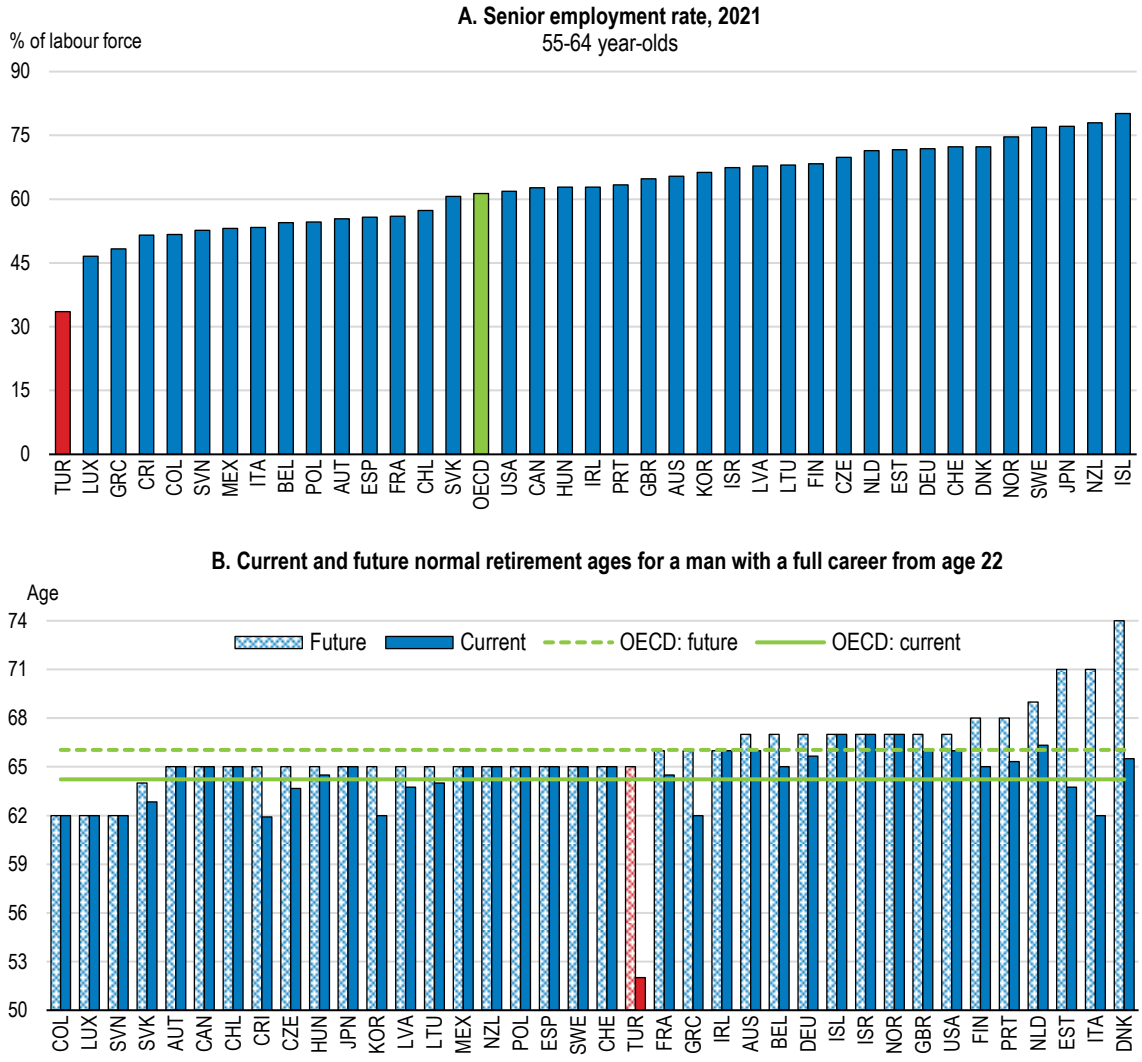
Employment ratios of workers aged between 55 and 64 are the lowest across the OECD, largely reflecting low labour force participation rates (Figure 2.12). Before the industrialisation of the Turkish economy, early retirement was common, largely driven by the high share of agricultural sectors and the prevalence of physical labour. Consequently, the effective retirement age in Türkiye today is higher than the normal retirement age, contrary to most other OECD countries. However, since the 1999 comprehensive pension reform, retirement ages have been increasing steadily and workers entering the labour force today, after a full career, will retire at 65, broadly in line with regulations in other OECD countries. A recent reform in December 2022 dropped the retirement age requirement for workers who joined the workforce before September 1999 and had a formal work contract for at least 20 years.

Figure 2.12. Low employment ratios of older workers reflect past incentives to early retirement



Note: In Panel B, current and future refer to retirements in 2020 and workers entering the labour market in 2020, respectively.
Source: OECD (2022), OECD Labour Force Statistics (database); and OECD (2021), Pensions at a Glance 2021: OECD and G20 Indicators.

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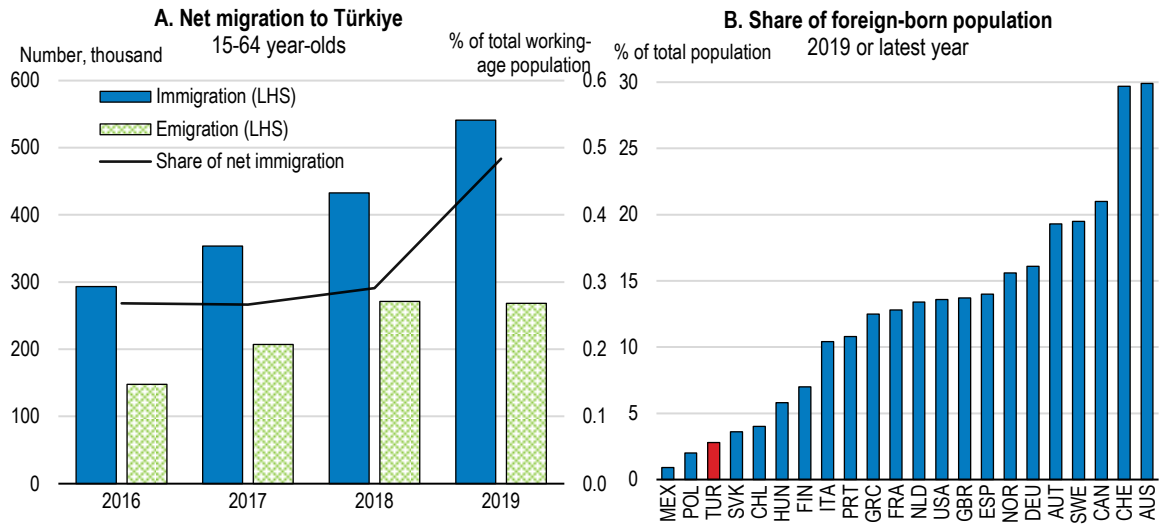
Positive net immigration adds to natural population growth (Figure 2.13). The integration of immigrants exacerbates existing labour market challenges. On average, net migration has added more than 250 000 persons per year since 2016. In 2019, more than a third of immigrants were citizens of Iraq, Turkmenistan, or Afghanistan. Türkiye also hosts around 3.8 million refugees, mostly from Syria, the largest refugee population in the world (see also Box 2.3). Most of the refugees work in the informal sector (Caro, 2020[17]).

Figure 2.13. Positive net immigration flows increase the size of the population



Note: Data on foreign-born population refer to all people who have migrated from their country of birth to their current country of residence. People born abroad as nationals of their current country of residence are also included.
Source: Turkstat, Migration Statistics; and OECD (2022), OECD International Migration Statistics (database).

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Box 2.3. Refugees from the Syrian civil war in the Turkish labour market

Türkiye's open-door policy has allowed refugees to flee from the Syrian civil conflict to the provinces in the South-East of Türkiye, neighbouring the war-torn parts of Northern Syria. By the end of 2017, around 3.2 million refugees had arrived in Türkiye. The largest increases in refugees were observed in 2014 and 2015. Türkiye currently hosts around 3.8 million refugees, the largest refugee population worldwide.

With the entering into force of the temporary protection regulation from October 2014, Syrian nationals, refugees and stateless persons from Syria are granted temporary protection status. Six months after having received this temporary protection status, they are eligible to obtain work permits for six months. Employers initiate the application for work permits.

Most Syrians in Türkiye tend to work in the informal sector, predominantly in textile and construction sectors. While unemployment rates of Syrian refugees are roughly comparable to those of Turkish nationals, the significantly lower labour force participation of Syrian women and the much higher share of NEETs across Syrian refugees stand out (Caro, 2020[18]).

The average age of Syrian refugees living in Türkiye is 23, compared to 33 for Turkish nationals (Caro, 2020[18]). The conflict has interrupted the education of many Syrians. As a result, the share of Syrians that could not complete primary education is over 30% higher than that of their Turkish hosts (Caro, 2020[18]). However, differences in educational attainment at higher levels tend to be much smaller. The Board of Education, which issues equivalence documents of educational degrees obtained abroad by foreign students who intend to pursue studies in Türkiye, provides help to smoothen the transition of Syrian students into the Turkish education system.

Empirical evidence suggests that the influx of refugees from Syria has had limited effects on aggregate labour markets. Most refugees have found work in informal sectors (Tumen, 2016[19]; Ceritoglu et al.,

2017[20]; Bağır, 2018[21]; Aksu et al., 2022[22]). Some of the native workers who were displaced by refugees in the informal sector could, however, find a new job in the formal sector, though some also either left the labour force or became unemployed (Ceritoglu et al., 2017[20]; Aksu et al., 2022[22]). The larger pool of informal workers available has helped firms, particularly smaller ones in labour-intensive informal sectors, to increase production (Altındağ, Bakış and Rozo, 2020[23]). Firm creation in the informal sector increased, too.

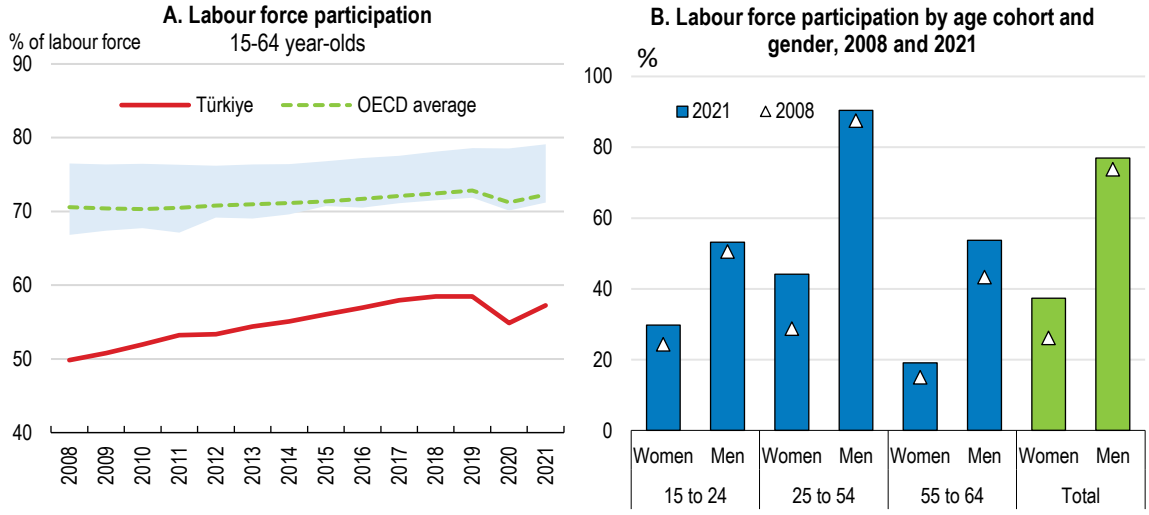
The Turkish authorities have rolled out numerous initiatives to help refugees to integrate into labour markets, supported by the European Union, the United Nations, and the United Nations Refugee Agency. Refugees are also eligible to tap help from active labour market policies provided by the Turkish Employment Agency (İŞKUR). This includes vocational training, on-the-job training programmes and language training. Several other initiatives, including public awareness and information campaigns but also simplified legal processes for work permits and cash for work programmes, aim to help with the integration of refugees into work and daily life.

Boosting labour market prospects of women

Better integrating women into the labour market needs to be a key priority. Labour force participation and employment ratios of women are very low (Figure 2.14). A lack of child-care services entrenches cultural norms in which women are expected to provide the bulk of care for children and older family members as well as various other types of housework (Mercan, 2020[24]). Furthermore, the rise of service and industrial sectors at the expense of agriculture has reduced employment opportunities of women. While the necessary adaption to urbanisation is still ongoing and can lead to higher labour force participation without the need for intervention, the lack of affordable and high-quality child-care services constitutes an impediment to the participation of women in the labour force and requires swift and decisive policy action. A better activation of the female talent pool would also help to address skill shortages.

Solely rising labour force participation of women risks increasing the already high unemployment rates of women which relates to their educational profile. Particularly in older cohorts, women are less educated than men (World Bank, 2019[15]). While in most recent cohorts more women graduate from tertiary education than men, unemployment rates of women who graduated from tertiary education are significantly above their male counterparts, owing, at least partly, to field of study choices that are not well aligned with labour market needs. Therefore, policy action that aims at incentivising more women to actively participate in the labour force needs to be flanked with career counselling, adult training and job placement services, ideally targeted at women.

Figure 2.14. Labour participation is low as few women join the labour force



Note: In Panel A, the shaded area denotes the 25th to 75th percentile range of available data for OECD countries.
Source: OECD calculations based on OECD Labour Force Statistics (database).

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Fostering the provision of early childhood education

The lack of affordable early childhood education and care services makes it difficult for women to participate in the labour force. While pre-school education is not compulsory in Türkiye, enrolment rates quadrupled between 2002 and 2022, one of the largest increases across the OECD. However, the increase started from a low base and enrolment rates in early childhood education and care services for 0-2 and 3–5-year olds remained among the lowest across the OECD until recently.

Policymakers need to ramp up efforts to increase the provision of high-quality, easy to reach and affordable childcare. This should be coupled with appropriate funding as low-quality pre-school experience may have detrimental effects on development and learning. Importantly, access to childcare facilities should not be made contingent on labour market status, so that informal workers could benefit too. Improving the provision of childcare and education services helps to boost labour force participation of women and improve educational outcomes. While public policy plays an important role in facilitating labour force participation of women, more equal job market prospects across gender also require an adaptation of modernisation of social norms regarding family and career choices of men and women (Kleven et al., 2022[25]).

Increasing the provision of child education and care services is a key priority for the government. Various measures have been rolled out to increase the physical capacity of public childcare facilities and schools. Several ongoing experiments directly support the employment and labour force participation of mothers, including vocational training courses, on-the-job trainings and other projects offered by the Ministry of Labour and Social Security (see Box 2.4 for some examples). Further, since 2016, the so-called half-time working allowance provides financial support for female employees in formal contracts, and employees who adopted a child under the age of three, who need to take unpaid leave after maternity leave to take care of their children.

In line with the targets specified in the 11th Development Plan and the Presidential Annual Programme for 2022, the authorities expected the schooling rate of 5-year olds to reach 89% by the end of 2022. This should help to increase the labour force participation of women with children, which is still significantly

below the participation of women without children (Dedeoğlu,, Adar and Sırali, 2021[26]). According to a McKinsey study conducted in co-operation with the Turkish Industry and Business Association, GDP could increase by 20% if Türkiye were to reach the average OECD activity rate of women (53.1% in 2019) within 10 years ((McKinsey and Tüsiad, 2016[27]), 2016).

The increase in capacity would be a welcome step, since due to limited supply, only a fraction of families with children were eligible to public childcare services (Gökmen, 2021[28]). If not eligible, women with children often dropped out of the labour force to take on childcare duties or relied on private providers, including family members and other informal providers.

Box 2.4. Supporting formal employment of mothers: some examples of ongoing projects

Promoting Educated Child Caregivers – the EDU-CARE project

The EDU-CARE, co-financed by the EU, project aims at professionalising jobs related to childcare services but also to promote formal employment across babysitters. Within the EDUCARE project, mothers, who have a formal work contract and have children aged between 0-36 months, have access to a subsidy, if they employ a babysitter with a formal qualification. A further one-time payment is provided for employing a babysitter who has attended a course that grants a babysitter certificate. The goal of the EDU-CARE project is to provide 3 700 jobs for child caregivers and to ensure 3 700 mothers, who are at risk of withdrawal from the labour market due to care responsibilities, to continue participating in labour markets.

Institutional Child-care services – the INST-CARE project

The institutional child-care support programme intends to support formal employment of women with young children by facilitating access to institutional childcare services. Mothers can tap a monthly subsidy if they have a formal employment contract, earned up to twice the gross minimum wage and pay school fees regularly. The project targets 10 250 women who either register for the first time or remain registered to the social security systems as full-time employees.

The Women-Up project

The project supports female employment in small-scale and young enterprises founded by female entrepreneurs in seven different provinces (Şanlıurfa, Kahramanmaraş, Samsun, Ankara, Aydın, Denizli, İstanbul). Specifically, financial support of monthly TRY 5 150 is provided to eligible beneficiaries for up to 20 months. So far, 4 000 female entrepreneurs and 4 000 female formal workers have benefitted from this project.

As in many other OECD countries, the provision of childcare infrastructure and education services is lower in rural areas. Several initiatives aim at facilitating childcare in rural regions, including transportable and cheaper to construct container-based kindergartens (“mobile” kindergartens), or by sending so-called mobile teachers to more remote regions. Furthermore, the minimum number of students required to open a primary school in rural areas was lowered from 10 to 5. An additional support programme amounting to around TRY 500 million (about 0.02% of GDP), to reduce the cost of pre-school education for families with children living in socio-economically disadvantaged households is expected to be rolled out in 2022. Several alternative access models were piloted in 2022.

Towards a more equal sharing of care services across gender

Unpaid household duties also constrain a more active participation of women in the labour market. Women take on the bulk of care of the elderly work, besides childcare and other household duties. This forces

many of them to drop out of the labour force or to seek informal employment opportunities that better allow to combine work, care and household duties (Dedeoğlu,, Adar and Sırali, 2021[26]). Traditional gender and cultural norms tend to augment women's domestic responsibilities (Alnıaçık, Gökşen and Yükseker, 2019[29]).

Increasing the uptake of paternity leave would constitute an important signal to foster a more equal sharing of household and care work across genders. Currently, mothers are entitled to a maternity leave of 16 weeks, in line with the OECD average while fathers can only take one week (OECD, 2020[30]). Overall, parental leave entitlements are less generous than in many other OECD countries–32 weeks on average (OECD, 2020[30]). A more pronounced switch to a parental leave benefit model as opposed to a benefit model centred on mothers can help to improve labour market prospects of mothers (World Bank, 2019[15]). Several OECD countries, including Iceland, Sweden and Korea succeeded in incentivising fathers to take on more childcare care work by using so-called "daddy quotas", i.e. specific portions of paid parental leave reserved to non-transferable entitlements for fathers, or bonus months, where both parents obtain more paid leave if fathers take a pre-defined period of paternity leave (OECD, 2016[31]).

Labour market reforms to create more and better formal jobs

Promoting labour market flexibility through sound regulations

Employment legislation is relatively rigid in Türkiye. This pertains to regulations concerning regular workers but also pertains to other work arrangements. Strict labour market rules for regular workers are, to large extent, driven by the costly severance pay system (Figure 2.15, Panel A). Combined with one of the OECD's highest minimum-to-median wage ratio, this results in comparatively high costs of formal job creation.

Restrictions on the use of standard fixed-term and temporary work agency contracts are stringent since they can only be used in the context of seasonal and agricultural work (Figure 2.15, Panel B). More industries, in particular business services, should be eligible to tap fixed-term and temporary work agency contracts. Such additional flexibility could help smooth the transition into formal jobs for the youth and female workers (World Bank, 2019[32]). Moreover, demanding reporting and authorisation requirements should be reconsidered as they hamper a more widespread use of fixed-term and temporary work agency contracts.

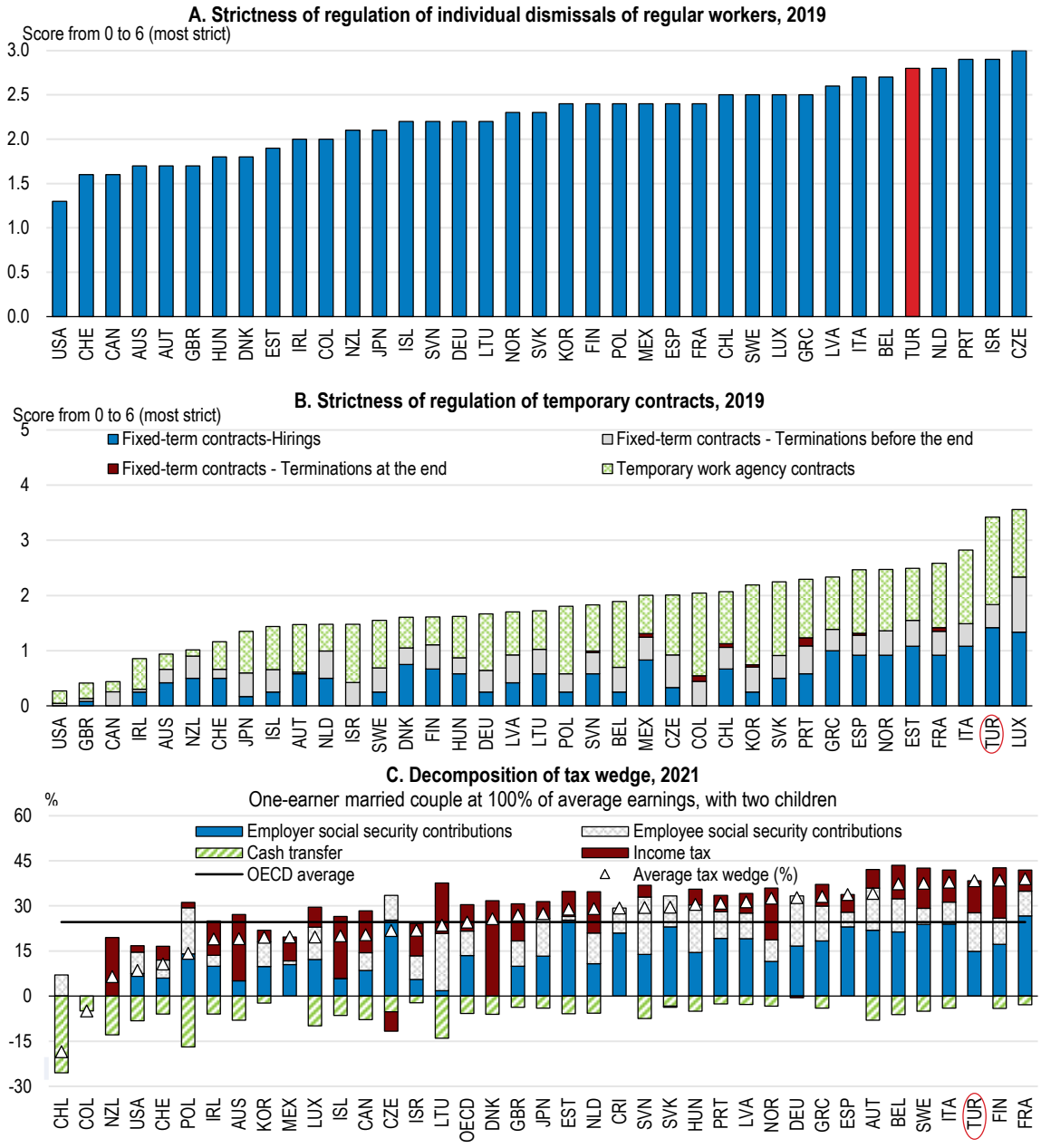
Part-time work is less prevalent in Türkiye than elsewhere. An important reform of the Turkish Labour Law in 2016 paved the way for various flexible work models, including part-time work (OECD, 2016[33]). While part-time workers make up only around 9.5% of all employed workers, significantly below the EU average of 16.5% (European Commission, 2022[34]), hours worked on part-time formal work contracts have increased since the 2016 reform (World Bank, 2019[32]).

Technological progress, in particular digitalisation, will shift the range of suitable work models away from traditional employee-employer relationships and will likely come with a rise in alternative work arrangements (OECD, 2019[1]). In 2020, the authorities sought to facilitate the use of fixed-term contracts, including by allowing for several renewals of fixed-term contracts for younger and older workers. However, the social partners objected and no consensus was reached. Moreover, to allow for more labour market flexibility, the Turkish Employment Agency (İŞKUR) authorises private employment agency to provide employment intermediation services.

In implementing labour market reforms to promote formal job creation by reducing the costs of job creation, it is important to ensure that workers do not bear a disproportionate burden of adjustment. This implies that more flexible rules for fixed-term and temporary work agency contracts should be part of a comprehensive approach that also allows for more flexible permanent contracts. While alternative work

arrangements have some advantages for employers and employees, they likely also give rise to less steady and more uncertain careers and thus increase employment and income risks, at least for some workers. Subsequently, ensuring sufficient social protection of workers and adequate access to high-quality re-employment services needs to an integral part of a comprehensive labour market reform.

Figure 2.15. Employment protection regulations are stringent and labour taxation is high



Source: OECD (2022), OECD Indicators of Employment Protection Database, 2021 Edition; and OECD Tax Wedges Database.

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High labour tax wedges also discourage formal job creation. Employee and employer social security contributions and net averages tax rates are high, as they cover parts of the costs of the universal health insurance system (OECD, 2022[35]). In addition, there are no cash transfers or other forms of support for

families with children, e.g., preferential tax provisions (OECD, 2022[35]). As a result, the tax wedge for one-earner married couples with two children are large compared to other OECD countries (Figure 2.15, Panel C). The authorities provide income taxes exemptions. In January 2022, a change in the regulations pertaining to income tax exemptions resulted in a decline of labour tax wedges for average income earners by 2 percentage points. Overall, lowering labour costs would help to improve labour markets prospects, especially for vulnerable groups, as was the case following previous reforms in Türkiye (Sunel, Kanık and Taşkın, 2014[36]).

There are 18 different premium incentives, support measures and discounts in place to reduce the burden for employers stemming from contributions to the pension system, health insurance and unemployment insurance. For example, with the so-called 5 points discount on premiums, the government subsidises 5 percentage points of the mandatory employer contribution to disability, old age and death insurance premiums of 11%, if premiums are paid regularly (OECD, 2021[37]). Other measures target specific contributions or beneficiaries, such as subsidising 25% of universal health insurance, employers in specific regions or job creation for vulnerable groups like the youth or women. Streamlining and simplifying the system of incentives, support measures and discounts would provide room to reduce employer social security contributions while safeguarding the financing of social security systems.

High minimum wages impede formal job creation

Türkiye has a country-wide minimum wage. The minimum wage is set by the Minimum Wage Determination Commission, an independent tripartite body encompassing 15 representatives, five each from the government, employer, and employee organisations. Decisions are taken by majority and in the event of a tie, the chair has a casting vote. Its decisions are based on a proposal from social partners, considering the social and economic situation of the country and the general situation of wages and living conditions. In case employer and employee representatives disagree, the institutional set-up of this Commission implies that the government sets the minimum wage.

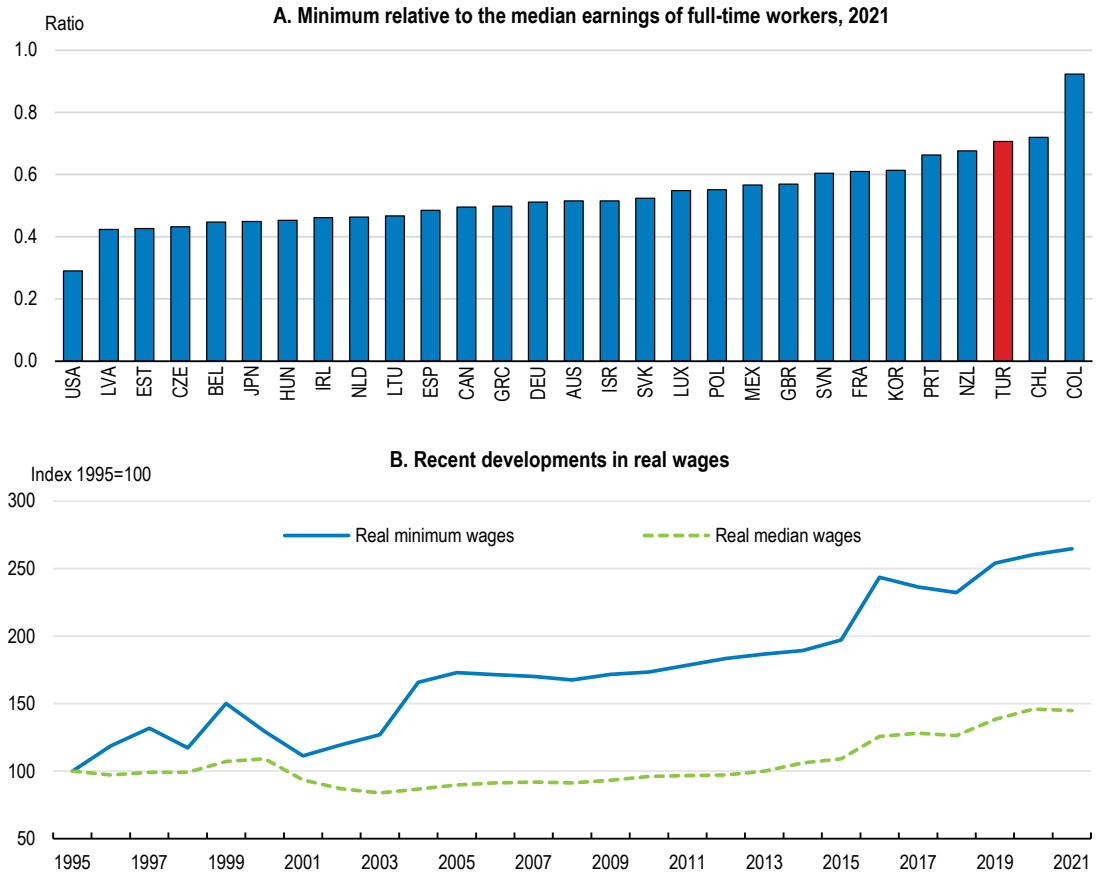
If moderate and well-designed, minimum wages constitute an effective policy tool to increase labour force participation and safeguard living standards (ILO, 2012[38]; OECD, 2019[1]). In emerging markets, minimum wages can also help to anchor wages in informal sectors, lead to higher wages for formal and informal workers and thus reduce poverty (Yüncüler and Yüncüler, 2016[39]). However, overly large increases in minimum wages weigh on job creation, particularly among less skilled and younger workers (OECD, 2019[1]). The impact tends to be stronger for women, younger and older workers. In economies characterised by high levels of informality, regular and modest increases in the minimum wage do not appear to be associated with losses in formal employment, though increases in informal employment have been observed (Broecke, Fort and Vandeweyer, 2017[40]).

The minimum wage has grown faster over the last two decades than the median wage and the minimum-to-median wage ratio is now one of the highest among OECD countries (Figure 2.16, Panel A). Minimum wage growth has also outpaced the growth of consumer prices and productivity. Between 2000 and 2021, the annual average minimum wage increases surpassed consumer price inflation by around 4 percentage points. Over the same time, labour productivity grew by roughly 3%. Most recently, the minimum wage was raised by 50% in January 2022, 30% in July 2022 and 55% in January 2023 to compensate for high inflation. Around 65% of workers in formal employment earn wages close to the official minimum wage. Most of them work in construction, repair, personal service, or manufacturing sectors with a relatively low level of technological sophistication (World Bank, 2019[15]). To compensate employers for the relatively high minimum wage, the authorities provide tax incentives and subsidies to reduce social security contributions paid by employers for minimum wage earners. A thorough evaluation of these subsidies would help gauge which measures could be phased out.

Due to the significant regional differences in income per capita and costs of living, the minimum wage is not well aligned with local socio-economic conditions (see also Box 2.5). In some regions the minimum

wage is higher than GDP per capita. This may disincentivise minimum wage earners in poorer regions to search for employment elsewhere and thus undermines regional mobility and contributes to informality.

Figure 2.16. Minimum wages are relatively high



Note: Minimum wages apply to workers aged 16 and over under the Minimum Wage Regulation. Median wages are estimated using gross earnings of full-time employees in enterprises with 10 employees or more in the formal sectors, based on the Structure of Earnings Survey of Türkiye.
Source: OECD (2022), OECD Labour Statistics (database).

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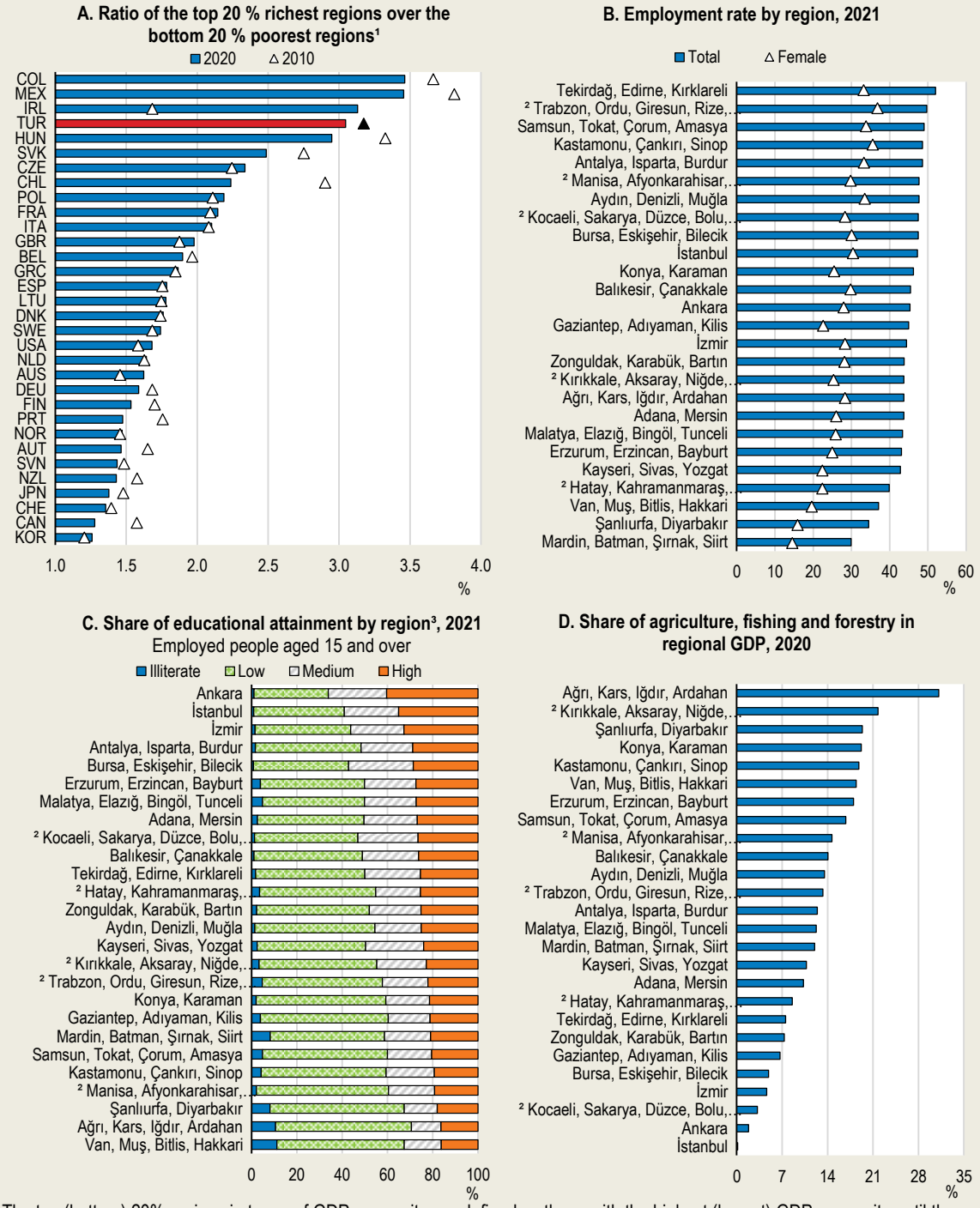
Box 2.5. Income per capita varies considerably across regions

Despite strong growth in income per capita in lagging regions, regional disparities remain high (Figure 2.17, Panel A). The real minimum wage at the end of 2021, i.e., before the further increases of 2022, amounted to TRY 42 930, or USD 14 073 at 2021 purchasing power parities. At the same time, the most lagging regions in Middle South-eastern Anatolia and East Eastern Anatolia generated a GDP per capita of less than TRY 26 000.

There is a close link between regional job prospects and the sectoral breakdown of economic activity. Regions where agricultural sectors contribute relatively more to value added tend to display lower employment rates (Figure 2.17, Panels B and D). Regional disparities in income per capita also relate to considerable differences in the level of educational attainment (Figure 2.17, Panel C). In several regions the share of illiterate people is close to the percentage of people with tertiary education (OECD, 2017[41]). Illiteracy rates throughout the country tend to be higher for women.

Figure 2.17. Income across regions varies with the share of agricultural sectors and the level of educational attainment



1. The top (bottom) 20% regions in terms of GDP per capita are defined as those with the highest (lowest) GDP per capita until the equivalent of 20% of national population is reached. Based on GDP per capita values expressed at 2015 constant prices, using OECD country deflators and converted into constant USD purchasing power parities (PPPs), 2015 reference year.
2. The full names of the region categories are as follows: Trabzon, Ordu, Giresun, Rize, Artvin, Gümüşhane; Manisa, Afyonkarahisar, Kütahya, Uşak; Kocaeli, Sakarya, Düzce, Bolu, Yalova; Kırıkkale, Aksaray, Niğde, Nevşehir, Kırşehir; and Hatay, Kahramanmaraş, Osmaniye
3. Low education refers to below upper secondary education, medium education refers to upper secondary (including vocational) education and high education refers to above medium education.
Source: OECD (2020), OECD Regional Statistics (database); and Turkstat.

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The high minimum-to-median wage ratio drives up the costs of formal job creation. This gives informal and semi-formal firms, at least to some extent, a cost advantage over fully formal firms since they can deviate from the country-wide minimum wage. Fully formal firms do not benefit from this flexibility. Therefore, the high minimum wage tends to impede job creation in the formal sector and incentivises firms, particularly smaller ones, to hire workers without complying with labour market and social security regulations. Given the already high minimum wage, as compared to the median wage, future minimum wage increases in Türkiye should be approached with caution and assessed very carefully in terms of potential labour market effects. Any increases should be communicated well in advance.

Several OECD countries have lower minimum wages for younger workers, to facilitate their integration into the labour market, or regional minimum rates Türkiye experimented with both approaches, age-specific and regional minimum wages. However, there are constitutional barriers today that prevent a renewed experiment with both differentiations in national-wide minimum wages. Türkiye had a reduced minimum wage for 15-16 year olds but abolished it in 2014. The implied increase in the minimum wage of around 24% for 15-year old workers is estimated to have reduced their employment rates by up to 3 percentage points, underlining that youth minimum wages can be an effective tool to help younger workers to enter the labour market (Dayioglu, Küçükbayrak and Tumen, 2020[42]). The implied increase has also reduced their labour force participation (Bakis, Hiscariklilar and Filiztekin, 2015[43]). Regional minimum wages were in place between 1969 and 1974 but were abandoned due to widespread non-compliance.

Adjustments to the minimum wage, particularly in times of rising inflation, need to safeguard a balance between the needs of workers and firms. Going forward, one option to achieve this would be for social partners to set a minimum wage floor through the Minimum Wage Determination Commission combined with more recourse to collective bargaining at the sector- or enterprise-level. Collective agreements on top of a national minimum wage floor would help companies and workers to find more tailored solutions - in addition to national regulations - for a fair sharing of costs (Cazes, Garnero and Pacifico, 2022[44]). Many OECD countries have sectoral rates, either in addition to a national rate, as in Australia, or without a national rate, as in Norway (OECD, 2019[1]). In Australia, industry- and occupation-wide regulations, determined by the Fair Work Commission, set sector- and skill-specific wages, on top of a national-wide minimum wage (OECD, 2019[1]). However, more recourse to collective bargaining at the sectoral or firm-level in Türkiye needs to be understood as a medium- to long run goal as it necessitates an increase of the relatively low levels of trade union density and of the coverage of collective agreements.

A high degree of predictability of minimum wages helps firms to plan ahead and avoids that sudden increases give rise to liquidity shortages. Following a pre-defined publicly disclosed set of clear guidelines would alleviate the adjustment burden for firms but also ensure alignment with evolving economic conditions.

Shifting job loss protection from the severance pay system to unemployment insurance

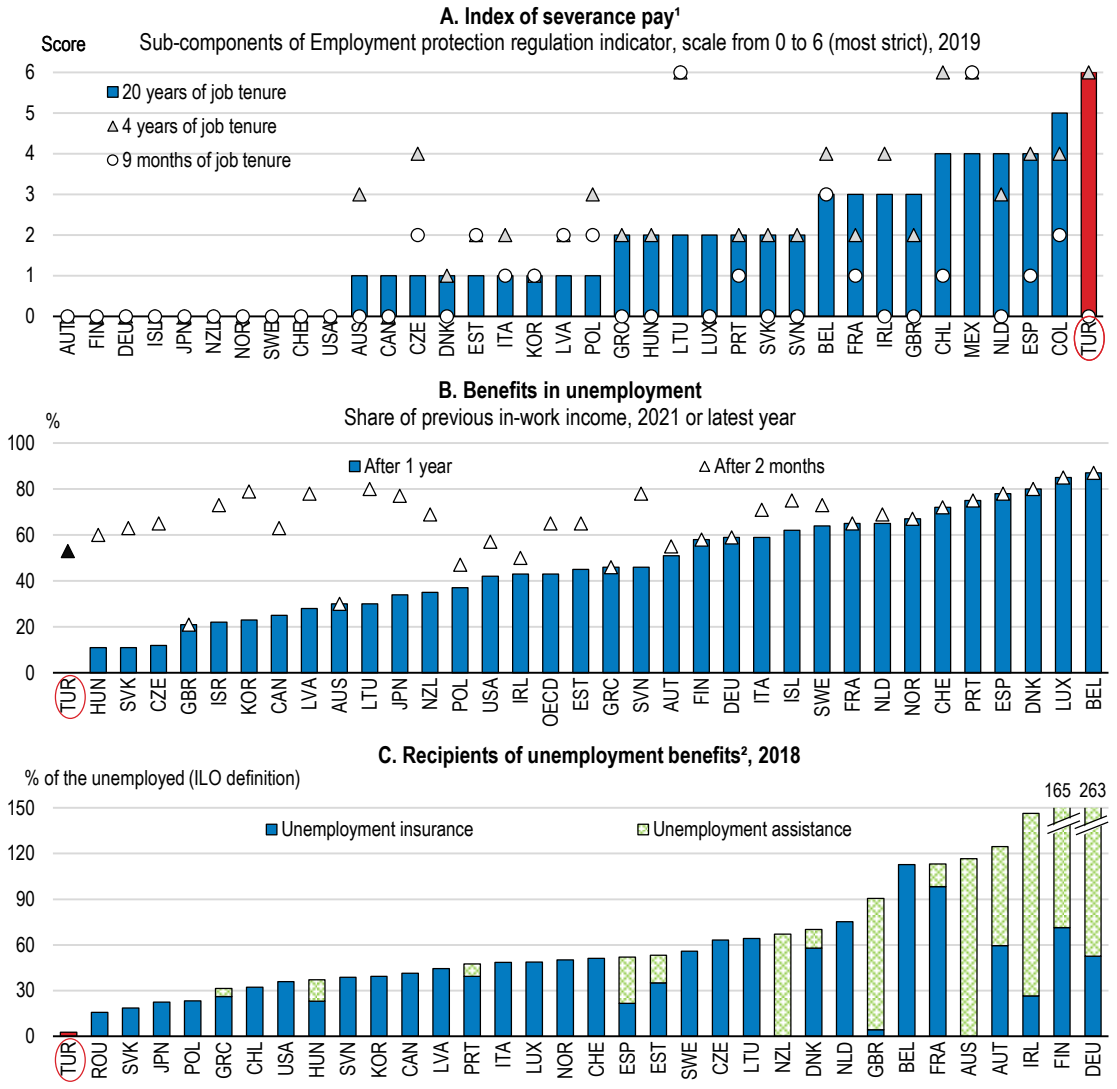
Spurring formal job creation requires reconsidering the advantages and disadvantages of the severance pay system. While the severance pay system lifts firing costs for employers and protects laid-off workers by disbursing benefits, it also hampers formal job creation and a healthy pace of reallocation of labour towards more productive sectors and firms (Holzmann and Vodopivec, 2012[45]).

The regulations governing severance payments in Türkiye are the strictest across the OECD. (Figure 2.18, Panel A). Eligibility for severance pay starts after one year of formal employment. From then on, workers are entitled to severance pay equal to one month for every year of service. For example, a worker with 12 years of job tenure is eligible for a severance pay equal to a full year of salary. The amount of severance pay is capped and cannot exceed the retirement bonus of the highest-level civil servant. In July 2022, the maximum monthly severance pay was lifted to TRY 15 371 (around EUR 850 at the time). Severance pay in Türkiye is bound to the current employer and not portable. Job creation thus also depends on whether firms can shoulder the necessary precautionary savings for future severance payments (Holzmann and

Vodopivec, 2012[45]). Since informal workers are not eligible to severance pay, businesses can be tempted to rely more on informal sources of labour.

Besides, the eligibility criteria imply that formal workers with "non-standard" employment histories are deprived from the social protection that the severance pay system provides. For example, workers with successive employment spells of less one year with different employers or, more generally, workers with frequent changes of employers, may have insufficient social protection. Employees can only tap unemployment insurance if they were covered by social security for at least 600 days in the previous three years and paid contributions for at least 120 days. This constitutes a significant hurdle for many workers on fixed-term contracts. The eligibility requirements of the unemployment insurance system need to be re-considered.

Figure 2.18. Severance pay is relatively high while the generosity of unemployment benefits is low



1. Values for 9 months, 4 years and 20 years of job tenure are registered as zeros for Austria, Finland, Germany, Iceland, Japan, New Zealand, Norway, Sweden, Switzerland, and the United States.
2. See OECD SOCR database via www.oecd.org/social/recipients.htm for more details.
Source: OECD (2022), OECD Indicators of Employment Protection Database, 2020 Edition; and OECD (2022), Benefits in unemployment, share of previous income (indicator); and OECD (2022), OECD SOCR database.

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A reform of the severance pay system has been on the agenda for many years. The 10th and 11th Development Plans list this reform as a key priority (Turkish Ministry of Treasury and Finance, 2021[46]). However, previous attempts to reform the severance pay system failed to reach a consensus between employer organisations and trade unions.

A reform of the severance pay system needs to encompass a wider reform of social protection, particularly the unemployment insurance system. Typically, for an emerging economy, severance pay constitutes an important source of job protection (Figure 2.18, Panel A). The introduction of unemployment insurance in 2000, besides other passive labour market policies in place that provide income support, was an important step (Box 2.6). However, the coverage of the unemployment insurance system is narrow due to strict eligibility criteria. The high incidence of informal employment further restricts the base of the unemployment insurance system as informal workers do not contribute to the system (World Bank, 2019[15]). As a result of the relatively narrow base, benefits, measured as a share of previous in-work income, and the share of unemployed workers who receive these benefits are the lowest across the OECD (Figure 2.18, Panel B and Panel C). Within the National Employment Strategy for 2014-2023, the authorities examine how to provide more social protection through the unemployment insurance system. Further, revising and improving the capabilities of the unemployment insurance fund is a main priority for the public employment agency (İŞKUR).

Informality also raises considerable challenges for designing an effective unemployment insurance system. Since informality is difficult to monitor, unemployed workers can tap unemployment benefits while simultaneously working informally. If informality is widespread, such practice drives up benefit claims and undermines the effectiveness of the unemployment insurance system (OECD, 2018[47]).

A comprehensive reform of the severance pay and unemployment insurance system should move from the protection of existing jobs towards the protection of workers. Structural change, including the digital transformation, will entail job losses for workers whose tasks and skills get redundant. Protecting existing jobs, for example through the severance pay system and other rigid employment regulations, will delay necessary adjustment. However, ensuring sufficient social protection for workers to bridge spells of unemployment while providing good access to effective re-employment services would facilitate reallocation towards more productive employment. Overall, workers could be better protected through the unemployment insurance system while severance pay is reduced.

Extending the coverage of the unemployment insurance system requires activation policies that balance sufficient support with incentives to search for a new job. On the one hand, the content and design of active labour market programmes need to adapt to changing needs, for example by also reaching out to workers who are not unemployed but at high risk of unemployment. Such prevention and early intervention services have proven effective if well-designed (OECD, 2019[1]). On the other hand, extending the coverage of the unemployment insurance system should come with a careful re-evaluation of responsibilities for benefit recipients. While weak work incentives are usually not a key impediment to the uptake of new employment, they often imply that unemployed workers do not participate, or only to a small extent, in active labour market programmes (OECD, 2019[1]). Indeed, for Türkiye, the OECD Indicator of Strictness of Activation Requirements suggests that the activation of benefit recipients could be improved. In particular, this concerns the incentives to search, prepare for or accept a new job. Stronger incentives to participate in activation programmes need to come alongside an extension of the coverage of the unemployment insurance system.

Introducing individual unemployment saving accounts is one option to increase incentives to stay in formal employment or to seek new employment swiftly after getting unemployed (Holzmann and Vodopivec, 2012[45]; OECD, 2018[47]). With individual unemployment savings accounts, workers use their own savings during times of unemployment. Thus, they internalise the cost of unemployment benefits which considerably limits the risk of moral hazard (Asenjo and Pignatti, 2019[48]). Any savings not withdrawn at retirement should be credited to pension entitlements, further increasing incentives to stay in, or return to,

formal employment. However, due to the absence of risk-pooling, individual savings accounts may not provide sufficient support for the unemployed, either because workers are unable to save enough or because unemployment spells are long and frequent. Such individual saving accounts also cannot insure against catastrophic events, like long-term disability (OECD, 2019[1]). Further, contributors may be exposed to considerable investment risks, depending on how the savings are invested. Therefore, individual savings accounts should not replace the existing unemployment insurance system but rather complement it. This would allow to combine the incentive structure of individual accounts with the risk-pooling of a common fund. Chile provides an interesting example of an unemployment insurance system that combines individual unemployment accounts with a collective fund (Box 2.7).

Box 2.6. Passive labour market policies in Türkiye

Unemployment benefits

Unemployment insurance is compulsory in Türkiye for formal jobs. Unemployment benefits are not means-tested and not taxable. The government, employers and employees contribute to the unemployment insurance system. Some basic statistics on the number of applicants, contributors, entitled workers and annual disbursements are provided in Table 2.1. The premiums are based on monthly gross incomes and amount to 1% for employees, 2% for employers and 1% for the government. Besides unemployment benefits, İŞKUR also pays health insurance premiums of unemployed workers and provides various active labour market policies.

Workers can only tap unemployment benefits if they have contributed to the mandatory insurance scheme for a minimum of 600 days in the last three years and if they had a formal job within the last 120 days before the termination of their contract.

Benefits amount to 40% of average gross earnings over the last four months but do not exceed 80% of the gross amount of the monthly minimum wage.

Table 2.1. Statistics on contributions and disbursements of the unemployment insurance system

	Number of applicants (In millions)	Number of entitled workers (In millions)	Beneficiaries (In millions)	Disbursements (In million TRY)
2018	1.64	0.85	1.31	4.82
2019	1.96	1.02	1.67	7.99
2020	1.51	0.51	1.13	6.20
2021	1.47	0.65	0.90	4.81
2022*	1.11	0.52	0.98	6.14

Note: Statistics for 2022 pertain to August 31, 2022.
Source: Turkish Ministry of Labour and Social Security, 2022.

Wage guarantee fund

The wage guarantee fund covers the wages of employees if the employer had to file for bankruptcy and unpaid wages are outstanding. Wages are covered up to three months. The maximum amount of support through the wage guarantee fund amounts to TRY 35 107.90 in 2022. Only workers registered with social security institutions can tap this support.

Job loss compensation

Workers whose contracts are terminated following privatisation can apply for support through the job loss compensation scheme. The set of eligible workers comprises employees who worked for a minimum of 550 days in the workplace that got privatised. Only workers who also qualify for severance pay can get job loss compensation. The benefits through this scheme amount to twice the net daily minimum wage on the termination of the labour contract.

The half-time working allowance after birth or child adoption

Female employees who gave birth or families who adopted a child under the age of three are supported through the "Half-Time Working Benefit after Birth and Child Adoption Allowance". The support amounts to the gross daily minimum wage and is paid for workers who have paid unemployment insurance premiums for at least 600 days in the past three years and who are working half of the weekly working time. The duration of the half-time working benefit is paid for a maximum of 30 days for the first birth, a maximum of 60 days for the second birth and 90 days for any subsequent birth.

Social assistance

The Ministry of Family and Social Services provides several social assistance benefits, in line with Türkiye's poverty alleviation strategy. Most beneficiaries do not participate actively in the labour market, due to disability or old age. However, a small number of them are currently employed.

Several reforms over the past decade have improved access to active labour market programmes and have helped to widen access to social assistance programmes. Since 2010, the beneficiaries of social assistance, who are able to work, are registered with İŞKUR and thus also benefit from its various active labour market programmes. A further reform from 2012 allows families in need who are registered with the social security system to benefit from social assistance. Moreover, since 2018, when social assistance beneficiaries are employed by private employers, social security contributions are paid by the Ministry of Family and Social Services for one year.

Box 2.7. Combining individual unemployment savings accounts with a collective fund: the case of Chile

Before Chile's 2001 reform, unemployment protection was based on a mixture of unemployment subsidies and severance pay (Holzmann and Vodopivec, 2012[45]). With the 2001 reform, Chile introduced mandatory individual unemployment savings accounts to which both workers and employers pay contributions. The individual accounts were complemented by social insurance with self-insurance through a common solidarity fund, the *Fondo de Cesantia Solidario*. The mandatory contributions to the individual savings accounts are split between workers and employers. The government and employers provide the contributions to the solidarity fund.

Workers need to fulfil certain criteria to be able to tap their savings accounts (Table 2.2.). Any withdrawals from individual accounts are triggered by the separation from the employer, regardless of the reason. In case workers have insufficient resources on their individual accounts, eligible workers can make withdrawals from the common fund. The resulting unemployment benefits are linked to past earnings with a declining schedule. If eligible, permanent workers can also tap the benefits of the severance pay system.

Table 2.2. The unemployment benefit system in Chile

Contract type	Contributions to individual accounts	Contribution to the Solidarity Fund	Requirement for access when unemployed		Benefits
			To individual accounts	To the Solidarity Fund	
Permanent contract	Worker 0.6% of wages Employer 1.6% of wages For a maximum of 11 years	0.8% of wages for all the duration of the contract	12 continuous or discontinuous contributions in the last 24 months. Voluntary or involuntary termination of contract.	12 contributions in the last 24 months. The last three contributions need to be done continuously and from the same employer. Having insufficient resources in individual account. Dismissal due to unforeseeable circumstances, force majeure or due to the needs of the company.	In the first month, 70% of the average wage of the last 6 or 12 months. This percentage falls progressively to 30% from the sixth month onwards. Workers receiving the benefits from the individual accounts can collect benefits until their balance is exhausted. The Solidarity Fund covers up to the fifth month (if permanent worker) or third month (if fixed term worker). For fixed-term workers the replacement rate starts are 50%, 40% and 35%. The benefit received is in proportion of the average earnings of the last 12 months and has maximum and minimum caps. The benefits received from the Solidarity Fund are conditional on enrolment in public employment services.
Fixed-term contract	Employer 2.8% of wages	0.2% of wages	6 continuous or discontinuous contributions in the last 24 months. The last three contributions need to be done continuously and from the same employer. Proof of termination of contract.		

Source: (OECD, 2022[49]).

In case of a lack of political capital for a more comprehensive reform, policymakers could decrease the burden to employers of the current system - and thus incentivize formal job creation - by introducing portable severance pay accounts. Portable accounts, for example following the example of Austria (Box 2.8), would decouple severance pay from the current employer while preserving most of their benefits.

Box 2.8. Making severance pay portable: the cases of Austria and Brazil

Prior to the 2003 reform of employment protection legislation, severance payments in Austria were not portable and relatively high, thus broadly comparable to the system currently in place in Türkiye. Severance pay could represent up to a full year of wages for employment spells of 25 years. Employees lost their entitlement if they terminated the work contract since only termination by the employer or by mutual agreement gave rise to an entitlement to severance pay. Since severance pay was bound to the current employer, job mobility was impeded. Further, while employers were required to provision up to half of future payments, simultaneous severance payments could expose firms, particularly SMEs, to liquidity problems (Holzmann and Vodopivec, 2012[45]; OECD, 2018[47]). With the 2003 reform, individual savings accounts replaced the severance pay system. Individual accounts are funded with contributions from employers. Besides their scheduled contributions, employers did not face additional costs at the time of dismissal. Excess savings on individual accounts were added to workers' pensions. Employees are entitled to severance pay irrespective of how the work contract was terminated. Ex-post evaluations confirm that the reform supported the mobility of employees (Hofer, Schuh and Walch, 2011[50]; Kettemann, Kramarz and Zweimüller, 2017[51]).

Brazil also has a severance pay system based on individual savings accounts (The Guarantee Fund for Length of Service) – with one important difference. Besides severance pay, employers are required to pay an additional indemnity payment to dismissed workers. When switching to a system based on individual accounts, firms suddenly face regular contributions instead of uncertain one-off payments. Over the short term, these regular contributions increase firms' costs (Hijzen and Salvatori, 2021[52]). An additional indemnity payment that is reduced over time while the regular contributions increase, can help avoid a too sudden increase in these costs.

Better targeting activation policies to tackle job displacement

İŞKUR, the Turkish public employment agency, offers active labour market programmes comprising job and vocational counselling services, training and wage and hiring subsidies. In 2021, close to TRY 9.1 billion have been disbursed, roughly amounting to 0.6% of GDP, in line with the average public expenditure on active labour market policies across OECD countries. Active labour market programmes are financed by the unemployment insurance fund. There are four main hiring subsidies that aim at increasing the level of formal employment:

- In the "Additional Employment Incentive", İŞKUR subsidises labour taxes and social security premiums for each new employed formal worker, defined as the number of workers above the average number of workers registered with social security in the prior year. The maximum support period is 12 months.
- Employment of youth and women is supported through an incentive that covers part of the employers' social security premiums from 6 to a maximum of 54 months. Only new workers can qualify for this subsidy. Further, employing new workers with certain vocational qualifications is also supported through this subsidy.
- 33.5 percentage points of the total social security premiums, which amount to 34.5% of salaries, are reimbursed by İŞKUR if a firm hires a worker out of unemployment. Only workers who have received unemployment benefits prior to their new job are eligible.
- For firms with less than 50 employees, a fourth subsidy reimburses insurance premiums up to a threshold of five employees per employer for new workers or workers who have previously received cash wage support.

All programmes are monitored, evaluated and regularly adapted to the needs of labour markets. Besides these incentive programmes, İŞKUR is currently implementing the "Labour Market Support Programme for Young People Neither in Education, Employment or Training (NEET-PRO)". With the NEET-PRO programme, grants are disbursed to universities, professional chambers, local governments, development agencies and non-governmental entities to support projects that intend to increase youth employment. The programme also includes a monthly job search allowance, paid up to a maximum of four months, and a one-time reallocation allowance.

Moreover, unemployed workers can gain work experience with a private sector employer through on-the-job-training programmes implemented by İŞKUR. The duration of this training can range from three to six months and İŞKUR pays a daily allowance to participants, including insurance benefits. Firms do not need to pay trainees' wages during the training. More than 2.3 million workers have benefitted from on-the-job training between 2009 and 2021. Around half of the beneficiaries were women.

In general, well-designed hiring subsidies have a range of advantages, but their effectiveness and costs depend on their design. They tend to have lower deadweight costs, i.e., costs that arise from supporting employment that would have been generated without any subsidy, than wage subsidies (Brown, 2015[53]; OECD, 2019[54]; OECD, 2022[55]). They also appear to be more effective in bringing vulnerable workers into employment than training measures, public work programmes or public education (Sianesi, 2008[56]). Temporary and targeted hiring subsidies also constitute effective countercyclical tools to support the labour market during economic recoveries (OECD, 2021[57]). To reduce deadweight costs and to increase effectiveness, hiring subsidies should be targeted towards workers with otherwise low exit rates out of unemployment (Brown, 2015[53]). The authorities should streamline existing programmes and focus support at the most vulnerable groups, for example the youth, older workers, women, low-skilled or long-term unemployed. Allocating at least some of the funds devoted to wage subsidies to hiring subsidies would help to increase their scope.

Besides hiring and wage subsidies, İŞKUR also offers all workers registered as unemployed job placement and education counselling services and vocational training courses. Currently, İŞKUR employs around 5 000 counsellors who help jobseekers find or change jobs but also give advice on how to improve skills. In the first half of 2022, İŞKUR managed to place more than 900 000 workers into jobs. Around 605 private employment offices support İŞKUR in providing additional job placement services. However, since 204, 492 000 workers have applied for job placement services with private employment agencies. Job counsellors are supported by İŞKUR's profile-based counselling system, that provides targeted counselling services, individual action plans but also allows to track the labour market performance of workers who used İŞKUR's counselling services. For participants in vocational training courses, İŞKUR pays a daily allowance and various insurance premiums, including health insurance. Around a third of the beneficiaries of vocational training courses are young adults. In total around 1.3 million people have benefitted from vocational training offered by İŞKUR since 2012. Empirical evidence from randomized experiments in Türkiye suggests that the impact on formal employment of vocational courses offered by İŞKUR is limited, at least in the long run (Hirshleifer et al., 2016[58]). There is room to increase the scope of job placement services given the high number of unfilled vacancies. Part of the funds devoted to the provision of vocational training courses could help to support job placement services by İŞKUR. Further, engaging private job placement and counselling providers through performance-based renumeration could support public efforts.

Leveraging data and digital tools to provide information on job vacancies can help deliver higher quality services to the unemployed. Better data use and digitalisation could help alleviate skill shortages through a more efficient match of candidates to jobs (Algan, Crépon and Glover, 2018[59]). The authorities launched several initiatives in this respect. The *Skill Map of Türkiye* – a project by the Human Resource Office of the Presidency, a public body that disseminates contemporary human resources management practices for public and private entities – provides information on the regional distribution of skills based on data from Social Security institutions. The database allows to obtain data on educational attainment and level of skills of the active workforce, broken down by age and gender, at a granular regional level. This can help to investigate which regions provide labour with a sufficient skill set and thus may contribute to lower the costs of human resource planning. İŞKUR could complement such tools with digital solutions that directly allow to match vacancies to suitable candidates. For example, the French Public Employment Service has developed an application ("La Bonne Boîte") which allows jobseekers to target their unsolicited applications at enterprises that would be likely to employ them. İŞKUR's ongoing initiative to create an online job matching system and a nationwide skill inventory that would allow to track changing skill needs and identify skill gaps to provide the matching of job seekers to vacancies is a welcome step in this direction. The use of digital tools and data in public employment services should be evaluated regularly to ensure they serve their purpose (OECD, 2022[60]).

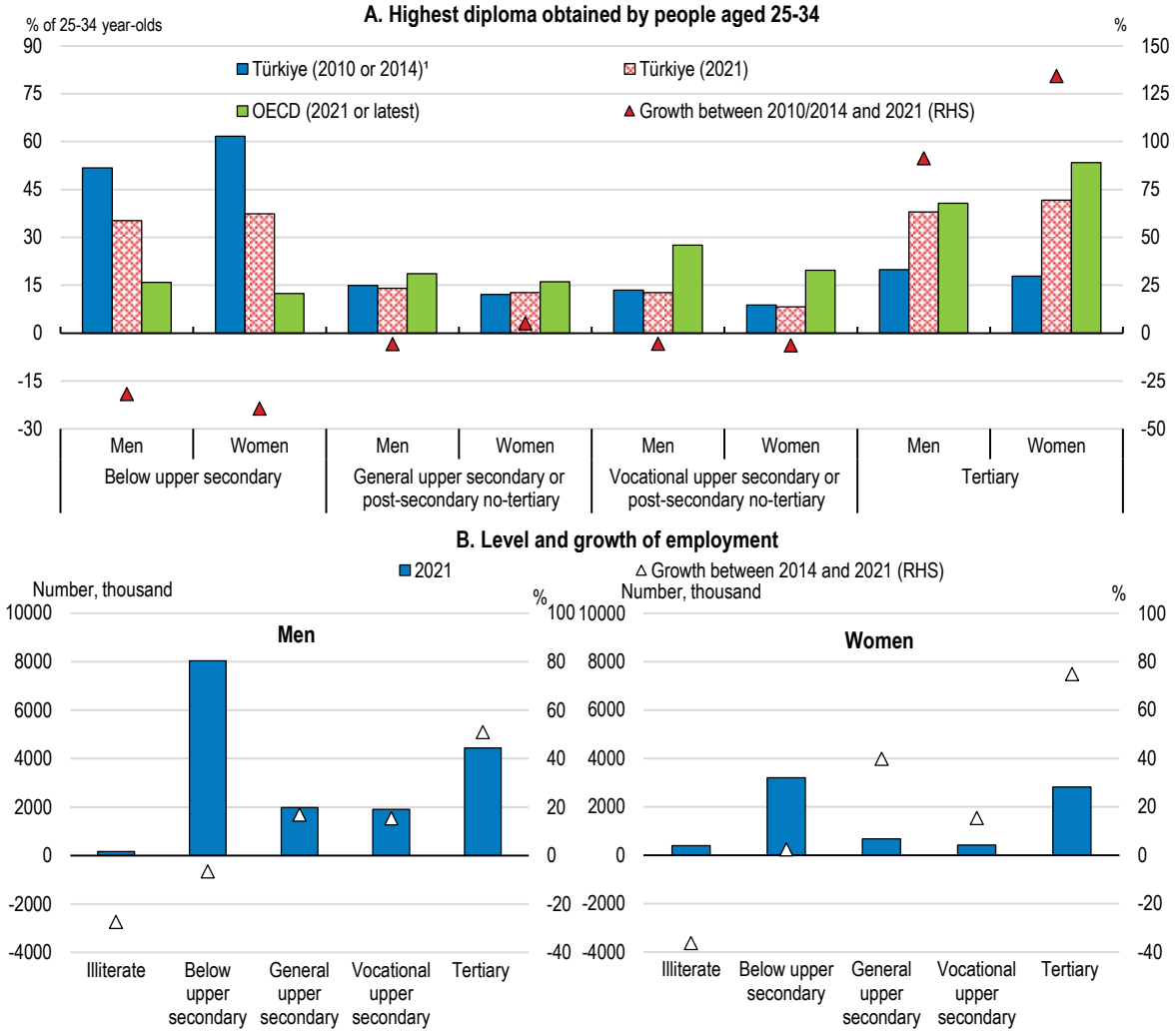
Transparent, non-discriminatory and competency-based recruitment procedures contribute to an efficient matching of labour market demand and supply. Pronounced regional disparities and gender-based cultural expectations in terms of labour market participation, field of study and job choice, could complicate the transition from education to employment for female students. The authorities are aware of this issue and have developed a web-based tool that bundles all opportunities for recruitment and internship in public institutions in a non-discriminatory way (Box 2.9). This tool also directly links public recruitment to Digital Türkiye. Thus, personal details and information on students' performance at school and university are automatically entered into the Career Gate system.

Aligning the supply of skills with evolving labour market needs

The educational system has made ample progress but has only partially met higher skill demand

Educational attainment improved significantly over the past decade (Figure 2.19, Panel A), on the back of higher public expenditure on education. Most of the higher expenditure was devoted to tertiary education (OECD, 2019[61]) and the share of 25–34-year-olds with tertiary education has more than doubled. Graduation rates of young adults from upper secondary education improved considerably (OECD, 2019[61]). At the same time, the share of young adults with below upper secondary or upper secondary education decreased or remained flat. The tertiary educational attainment of women has increased fast, closing the gap with men but still lags the OECD average.

Figure 2.19. Educational attainment has improved but gaps remain



Note: Data in Panel B are based on Turkstat labour force survey's education classification. Those who are literate but without any diploma are included in people with below upper secondary education.
1. Data on breakdowns between general and vocational upper secondary or post-secondary no-tertiary education refer to 2014.
Source: Turkstat; and OECD (2022), Education at a Glance database.

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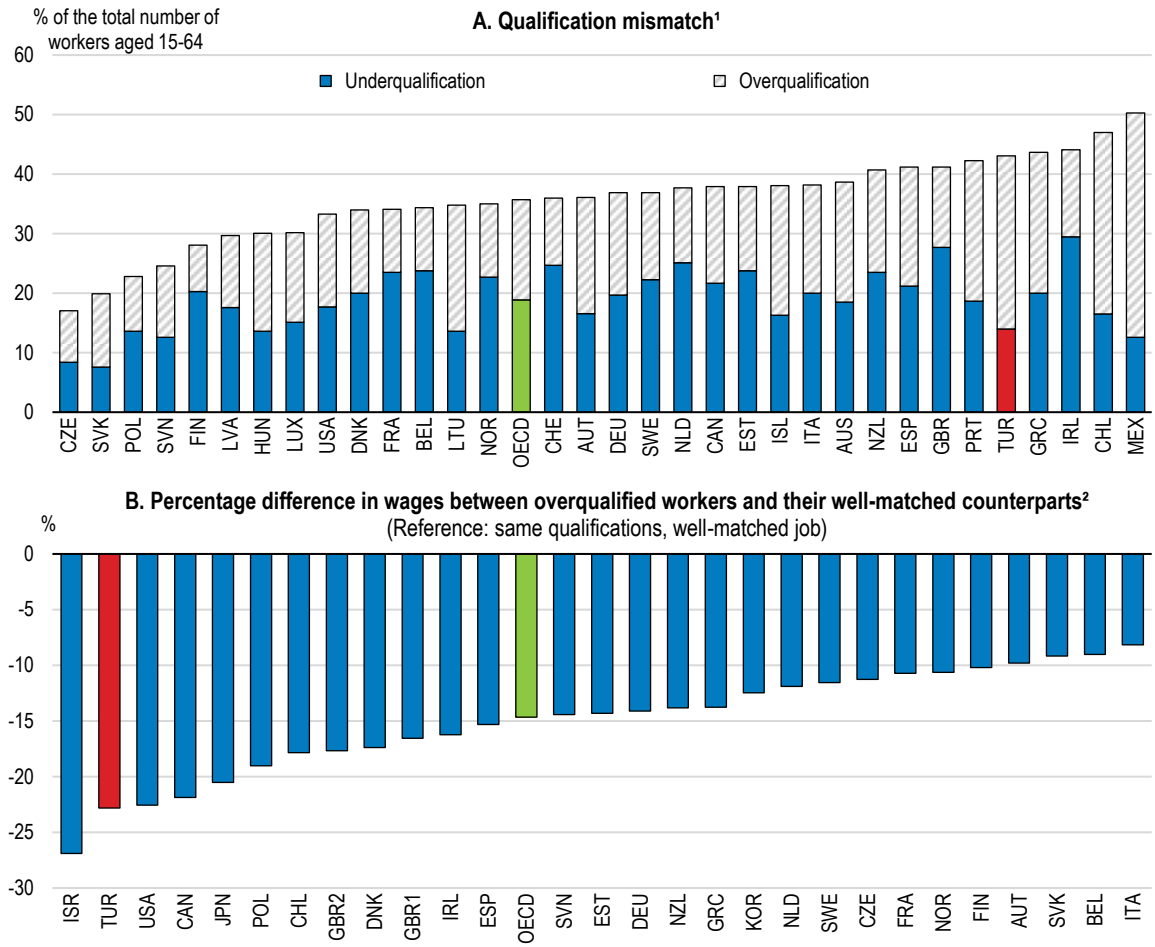
The increase in educational attainment met a higher demand for skills in labour markets. Over the past decade, the number of workers in formal employment with tertiary education outpaced employment of workers with lower educational attainment (Figure 2.19, Panel B). Employment of female tertiary and upper secondary educated workers rose more sharply than for male workers though the increase did not suffice to reach the level of male workers in formal employment.

Despite the considerable improvement of educational attainment, gaps remain. Around 40% of 25–34-year-olds still do not have an upper secondary degree (Figure 2.19, Panel A). As a result, the share of 25–34-year-olds with tertiary or upper secondary vocational education falls short of the OECD average, particularly for women. Furthermore, the fast increase in tertiary educational attainment has resulted in a polarization of educational profiles of workers. This polarization relates to skill shortages, which are particularly pronounced for workers with medium-level skills. This suggests that there is room for increasing the number of graduates from upper secondary education programmes to remedy skill shortages.

Figure 2.20. The skill mismatch is large and over-qualified workers receive lower wages



1. Qualification mismatch occurs when workers have an educational attainment that is higher (overqualification) or lower (underqualification) than that required by their job.
2. Based on the empirical analysis results shown in the publication, OECD (2016) in the source. Chile, Greece, Israel, New Zealand, Slovenia and Turkey: Year of reference 2015. All other countries: Year of reference 2012. Data indicated as Belgium correspond to Flanders; GBR1 = England and GBR2 = Northern Ireland.
Source: OECD (2022), OECD Labour Statistics (database), "Skills for Jobs"; and OECD (2016), Skills Matter: Further Results from the Survey of Adult Skills, Table A5.12; OECD Survey of Adult Skills (PIAAC) Databases.

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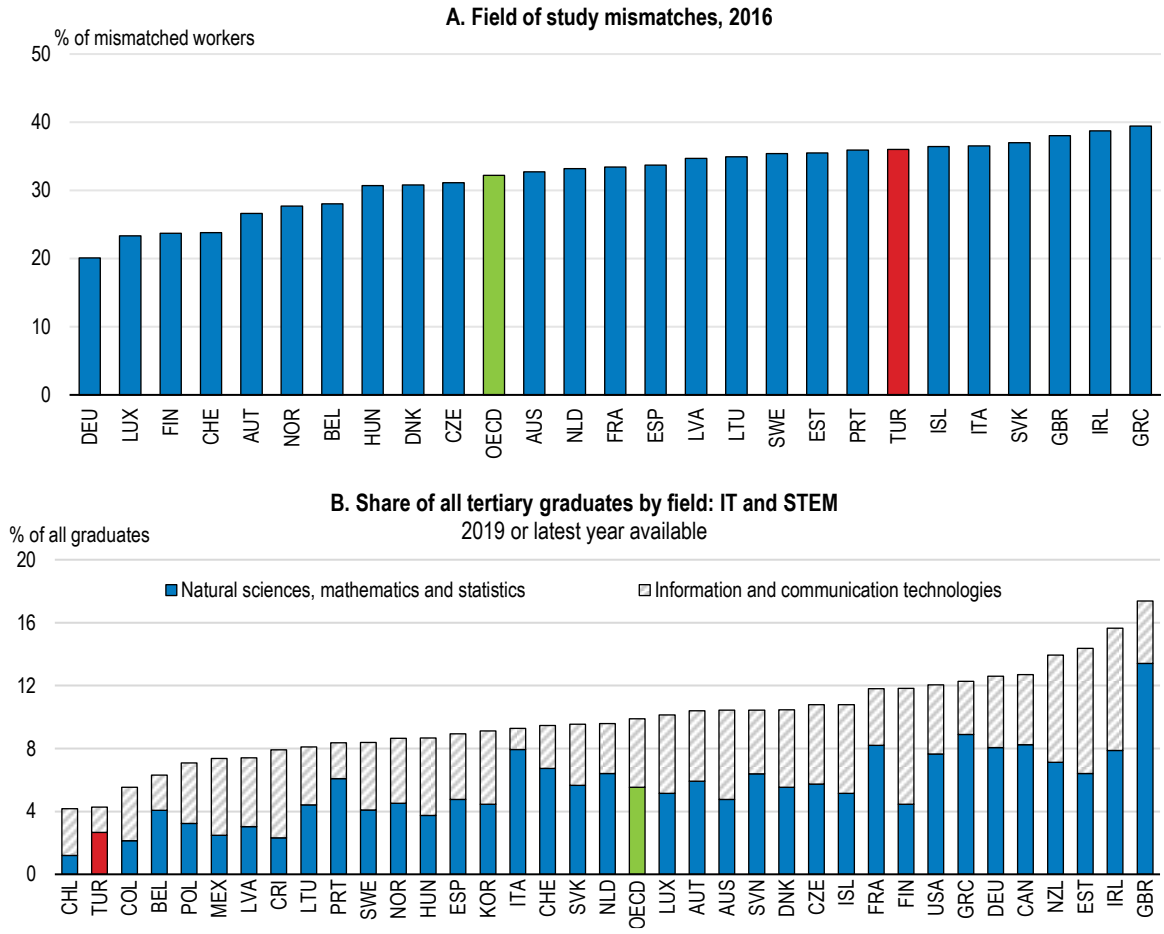
Significant skill mismatches have emerged alongside the fast expansion of educational attainment (Figure 2.20, Panel A). Around one third of workers in formal employment are overqualified for their current job, significantly above the OECD average of 17%. The share of underqualified workers is below the OECD average. Overqualified workers suffer from relatively large wage penalties as compared to their well-matched counterparts with a similar educational background (Figure 2.20, Panel B). However, income polarization among overqualified workers results to a considerable extent from increasing wage inequalities across occupations..

Figure 2.21. Study fields of graduates do not match the needs of labour markets



Note: Field-of-study mismatch occurs when a worker has a qualification in a different field than required for his/her job.
Source: OECD (2022), OECD Education at a Glance database; and OECD Labour Statistics, "Skills for Job" (database).

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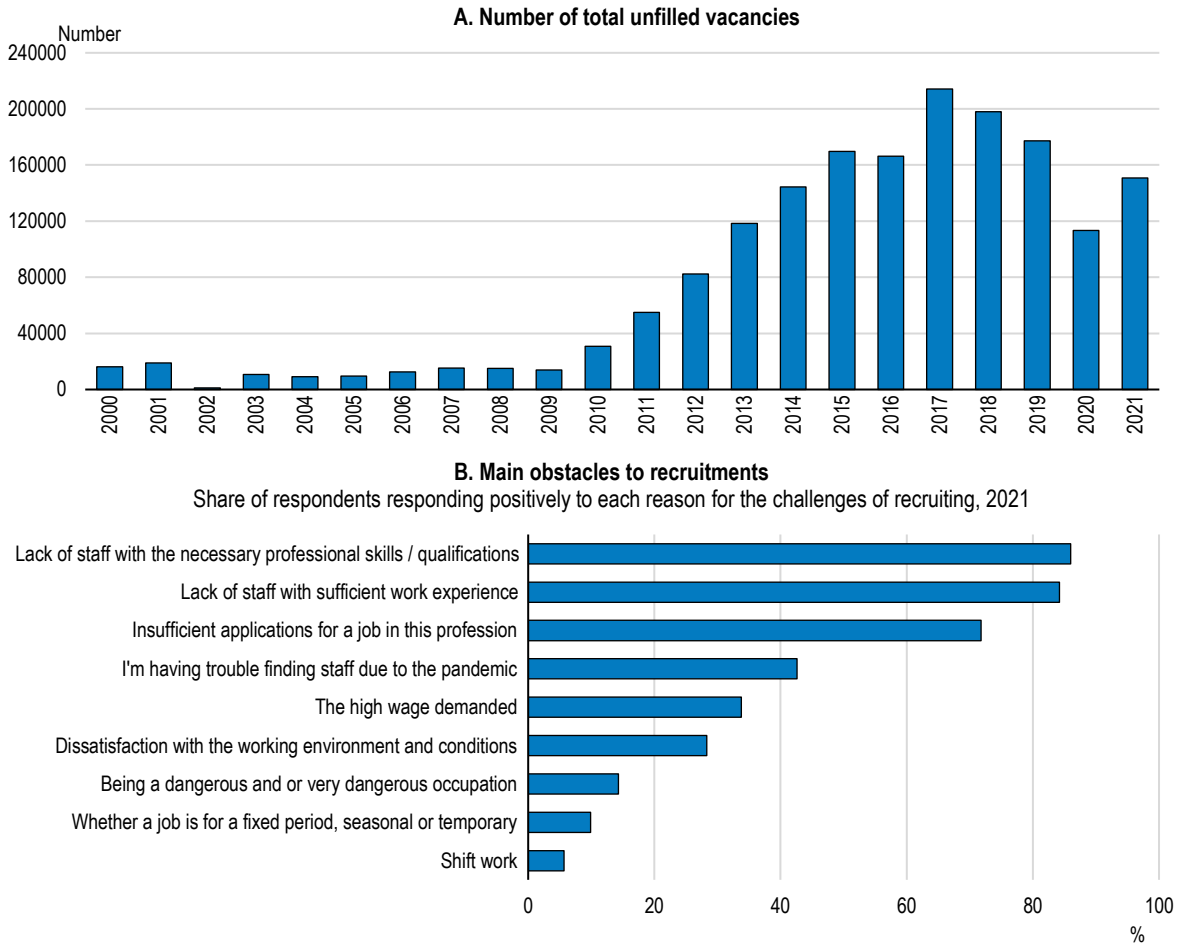
Study fields chosen by students are not well aligned with labour market needs. Around 40% of university graduates work in jobs that do not match the skills acquired during education (Figure 2.21, Panel A). The share of all tertiary graduates studying IT- and STEM-related fields is one of the lowest across the OECD (Figure 2.21, Panel B). These study choices are not aligned with employment outcomes. Data from UNI-VERI, a national research project that evaluates the labour market performances of university graduates by field of study and publicly discloses the results, show that more than 60% of business management graduates only earn around the minimum wage. Moreover, nearly 60% of them are likely to face medium- to high-level of skills mismatches. The prospects for law students are better since most of them faces no skill mismatches. Still, around 40% of law graduates only earn the minimum wage. Addressing these mismatches would allow to tap a double dividend given that a better matching of occupations with workers'

skills can lead to significant increases in labour productivity besides the increase in human capital (Adalet McGowan and Andrews, 2015[62]).

Figure 2.22. Unfilled vacancies increase despite the elevated unemployment rate



Source: İŞKUR (Turkish Employment Agency); and İŞKUR, "Labour Market Review 2021".

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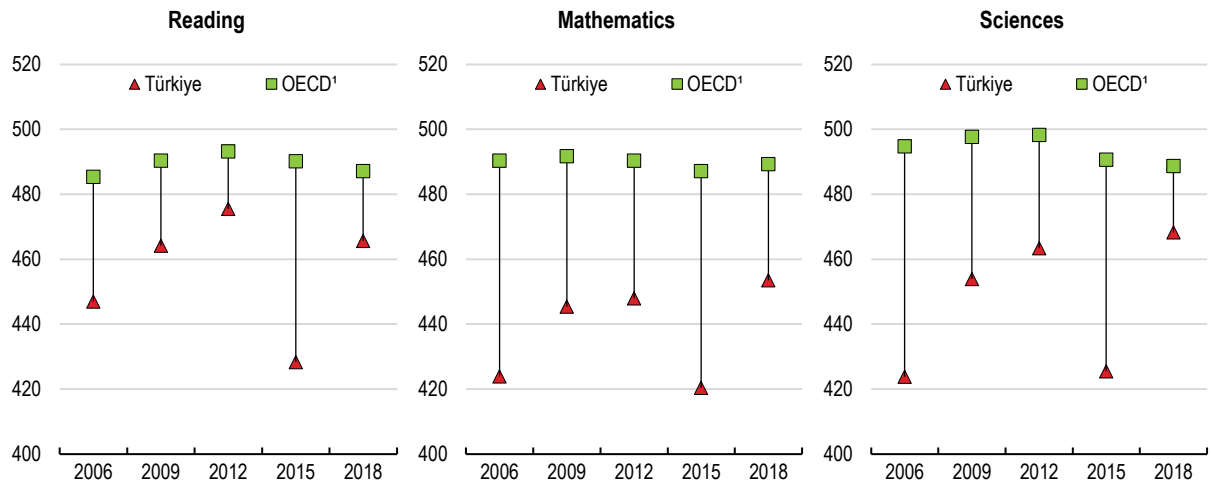
Besides mismatches, skill shortages currently stand at their highest level in over 15 years (Manpower, 2021[63]). An increasing share of vacancies cannot be filled despite elevated unemployment rates (Figure 2.22, Panel A). More than 80% of employers in Türkiye report difficulties in filling vacancies. Shortages are widespread, affecting several economic sectors but are particularly pronounced in manufacturing sectors and activities related to operations and logistics (Manpower, 2021[63]). Most vacancies cannot be filled due to a lack of professional skills or qualification or insufficient work experience (Figure 2.22, Panel B). The 2021 Labour Market Research Study conducted by İŞKUR, the Turkish employment agency, highlights that skill shortages relate to a lack of workers with medium skills. The shortage of workers with medium-level skills appears persistent as previous analysis came to the same conclusion (OECD, 2018[64]; Turkish Ministry of National Education, 2018[65]).

Improving the quality of general education

The development of basic skills through the educational system is a key pillar in preparing talent for the labour market. Regular updates of curricula are needed to align learning outcomes with changing labour market needs. While tertiary and secondary enrolment rates have increased, the large number of young people neither employed nor in education or training (NEETs) is worrying. A high share of the NEETs has less than high school completion (World Bank, 2019[15]). This may reflect the relatively poor job prospects for those educated youth, which may discourage some from studying.

Figure 2.23. There is room to improve educational outcomes further



1. The unweighted OECD averages over time are calculated using OECD PISA Data Explorer (https://pisadataexplorer.oecd.org/ide/idepisa/).
Source: OECD (2019), "PISA 2018 Results (Volume I): What Students Know and Can Do" and OECD (2022), PISA Data Explorer.

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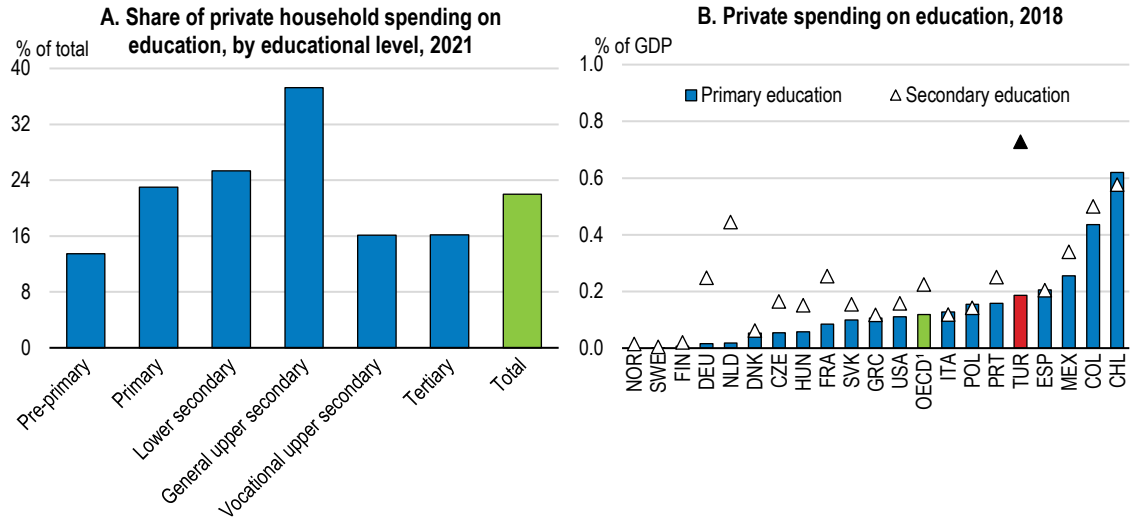
The quality of general education needs to improve. Learning outcomes for 15 year-olds in reading, mathematics and science are below the OECD average (Figure 2.23). The satisfaction of parents with the quality of schools is low (OECD, 2021[5]). Low test scores of 15-year-olds can relate to the under-supply of early childhood education.

Türkiye has a growing number of privately operated schools. The share of students enrolled in private schools across all layers of education has jumped from around 3% in the school year 2012-13 to nearly 8% in the year 2020-21. The increase in enrolment rates in private schools goes hand in hand with an increasing share of private spending on education. Households account for nearly 9% of total spending on primary education in Türkiye and 20% of lower secondary education, significantly above the OECD average (Figure 2.24).

Figure 2.24. Private spending on education is high



1. Unweighted average of 38 OECD countries.
Source: Turkstat; and OECD (2022), Private spending on education (indicator).

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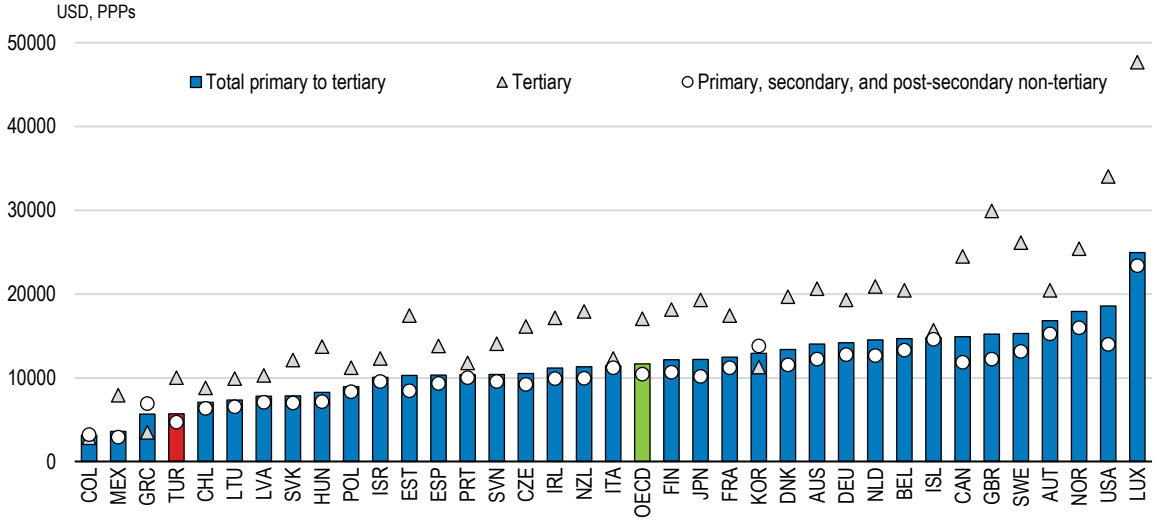
The government should increase public spending on primary education given the remaining gaps in educational outcomes and the large share of private spending. Public spending on primary education relative to GDP is below the OECD average despite a relatively young population (Figure 2.25) Some reallocations across education levels could raise overall spending effectiveness. Implementing evidence-based spending rationalisations in education, for example based on the OECD's evaluation and assessment frameworks for improving school outcomes, would help.

Figure 2.25. Education spending is tilted towards tertiary education

Expenditure per student based on full-time equivalent enrolment, by educational level, 2018



Note: For Canada, primary, secondary and post-secondary non-tertiary education includes pre-primary programmes.
Source: OECD (2022), OECD Education at a Glance (database).

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Teacher quality can positively influence learning outcomes of students. Limited salary progression for teachers in Türkiye decreases the attractiveness of the profession (OECD, 2019[61]). Empirical evidence from Israel underlines that performance-based pay can have positive long-term outcomes (Lavy, 2020[66]). Such a system would also incentivize participation in additional training (OECD, 2020[67]). Furthermore, performance-based pay could encompass a component that adds a further pay bonus for teachers who can improve learning outcomes in regions with lower educational attainment and higher drop-out rates.

An in-depth review of learning standards, curricula and teaching methods would help to identify outdated practices. Modern and less-academic learning standards, with teaching focussed on group-work and self-initiative, can help to unlock otherwise untapped cognitive and socio-emotional skills. Following a review of practices, Brazil recently aligned learning standards and methods with international best practices (OECD, 2020[68]). An update of curricula should also encompass digital and foreign language skills, a crucial element to support Turkish firms' integration in global value chains and digitalisation..

Improving digital skills

The lack of digital skills, besides limited access to fast broadband, is a major bottleneck hampering a more widespread adoption of ICT tools and activities (OECD, 2021[5]). Improving digital skills can help spur digital adoption across industries and ultimately lead to substantial productivity gains (Gal et al., 2019[69]). The digital skills of Turks appear to have improved over the last decade, albeit from a seemingly low level (OECD, 2021[5]). Survey results from the Turkish Statistical Institute show that the majority of the population uses the internet and computers regularly, supported by the widespread use of e-government services. Workers need a well-rounded set of skills to thrive in the digital workplace. This set is not limited to skills related to numeracy and problem-solving in a technology-rich environment but also needs to encompass literacy and socio-emotional skills (OECD, 2019[3]).

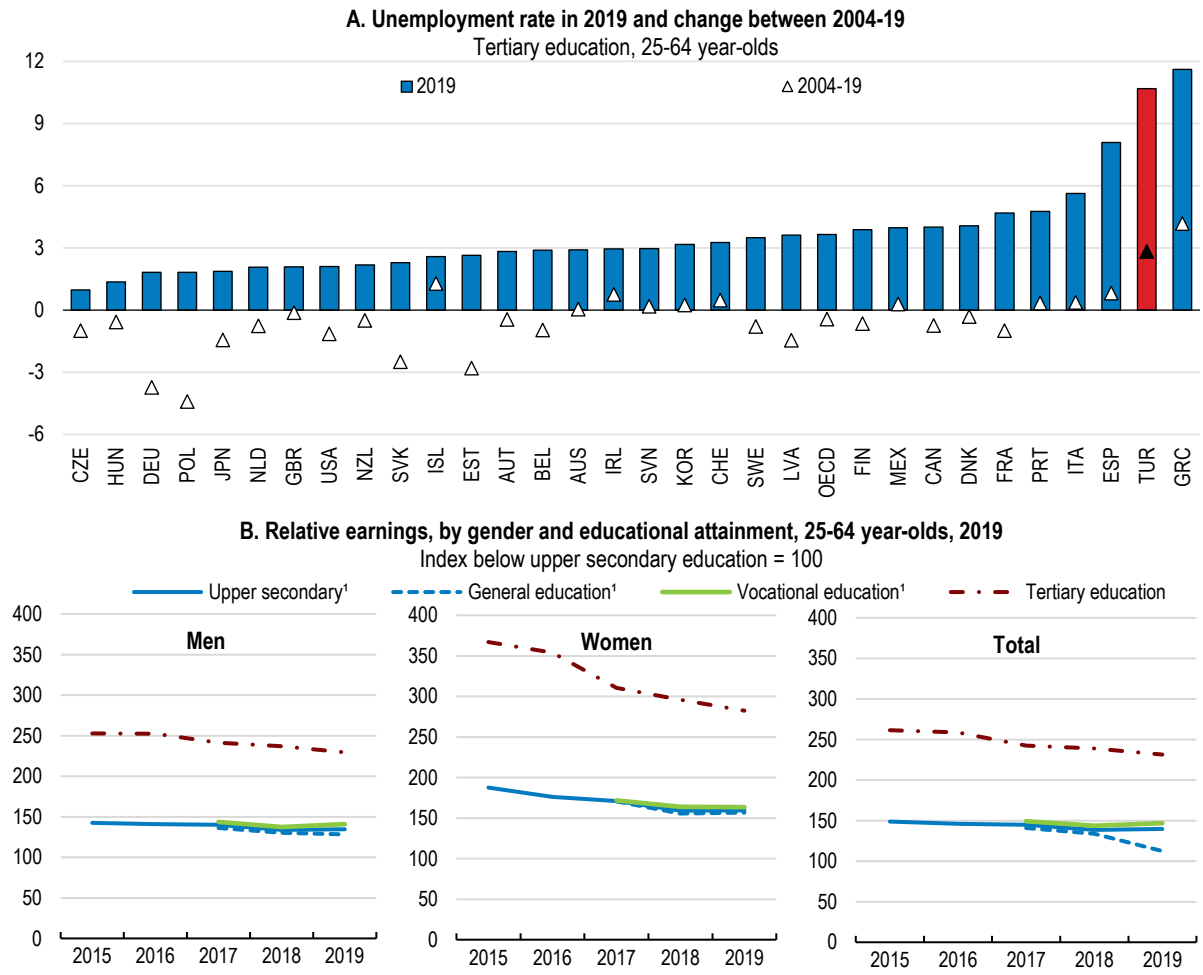
Policy actions specifically targeted at spurring digital skills should complement ongoing reforms that aim at boosting the level of general skills. To improve digital skills, various educational programmes have been developed and are already provided in schools and universities. However, mainstreaming the development of digital competencies and contextualising learning outcomes for digital skills across all levels of the formal education and training system would help ensure a wider dissemination of digital skills (OECD, 2022[70]). Based on *Education Vision 2023*, Türkiye has already succeeded in mainstreaming entrepreneurship learning in curricula at all levels of education, together with several additional projects geared towards teaching entrepreneurship in schools (OECD, 2021[5]). Policymakers could therefore leverage on the existing infrastructure and the organisational capital built for entrepreneurship learning to mainstream the uptake of digital skills across the formal education system. Quality training for teachers on how to use and integrate ICT in their teaching most effectively needs to complement any efforts to improve the acquisition of digital skills.

Strengthening tertiary education

The government should prioritise the quality of tertiary education over the quantity of graduates with a tertiary degree. The share of young adults with a tertiary degree increased from around 15% in 2008 to over 39% in2022 (OECD, 2022[71]). Furthermore, the number of universities has increased from 75 in 2002 to 208 in 2022. While the share of young adults with a tertiary degree still falls short of the OECD average by more than 10 percentage points, the swift and stark increase in the supply of tertiary graduates has been accompanied by a rise in the unemployment rate of tertiary graduates (Figure 2.26, Panel A). Unemployment rates and the length of the period of unemployment of tertiary graduates tend to reflect their higher reservation wages. Results from the PIAAC survey also suggest that the quality of tertiary education is lagging: the gap in skills of tertiary educated adults to the OECD average is significantly higher than for workers with below or upper secondary education. The shrinking wage premia for a university

graduate compared to graduates with only secondary education further suggests that there is an oversupply of tertiary graduates and that the surge in graduates from tertiary education may have been too fast (Orbay, Aydede and Erkol, 2021[72]).

Figure 2.26. The unemployment rate of tertiary graduates is elevated



1. It includes non-tertiary upper secondary education.
Source: OECD (2022), OECD Labour Force Statistics (database).

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Good and easy access to information about content, quality and labour market outcomes of tertiary education programmes contribute to reducing mismatches by guiding prospective students in their choices. At the same time, information about students' labour market outcomes could also incentivise universities to align curricula with labour market needs. The *National Youth Employment Strategy 2021-2023*, launched in October 2021, includes several measures aimed at strengthening the relationship between education and employment, for example outreach initiatives to better inform parents and prospective students about study choices. Part of the outreach targets women. Moreover, the Human Resource Office of the Presidency has developed an innovative tool to help students and parents to get information on labour market outcomes of different study choices by offering detailed information on expected wages, time to find a job and skill mismatch for around 81 different programmes (Box 2.10). Career counselling

consultants can also tap the UNI-VERI database for information to help prospective students with their career planning.

Box 2.9. Career gate: providing merit-based job and internship opportunities in the public sector

The Career Gate platform is the central hub for all job and internship applications with ministries and their subsidiaries. Employers from the private sector can participate on a voluntary basis. The platform lists all public job postings and standardises the job application process. Public institutions and participating private institutions receive applications through the platform and can carry out various assessment procedures.

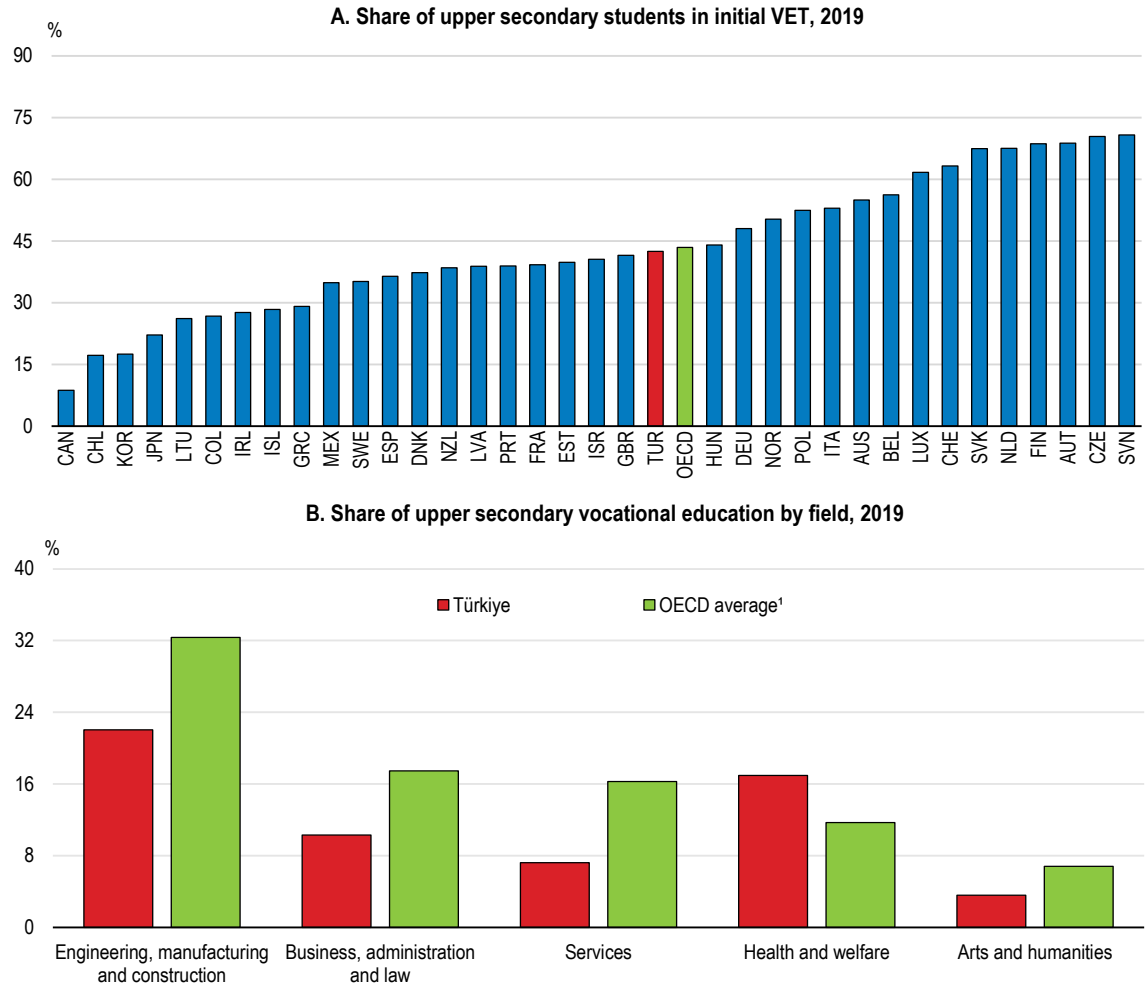
The internship module of the Career Gate platform started as a pilot project in 2020 but, due to its success, was quickly extended to all public institutions. Since its start, more than 245 000 offers for internships have been made available and a total of 110 000 students have successfully secured an internship position through the Career gate platform.

The information entered by applicants, for example personal information, high-school graduation information or foreign language exam results, is verified since it is linked with official public databases through the Turkish e-government system. The system automatically checks whether applicants match the job requirements listed in the vacancy. Candidates not eligible to apply to the postings are not allowed to pursue the application. Furthermore, for internships, the system guarantees some anonymity and prevents a gender bias in recruitment as the hiring institution cannot see the name, gender or address of applicants.

Policies to foster the uptake and quality of vocational education and training

Vocational education and training (VET) in Türkiye could play a larger role in addressing skill shortages. The OECD *Skills for Jobs* database suggests that contrary to most other OECD countries, around 7 out of 10 jobs that face skill shortages are related to medium-skilled occupations (OECD, 2018[64]). VET graduates are traditionally employed in middle-skilled occupations (Vandeweyer and Verhagen, 2020[73]). Unemployment rates of VET graduates are a touch lower than for tertiary graduates. VET graduates in Türkiye can also command a relatively high wage premium as compared to other OECD countries, though still lower than graduates from tertiary education. While the share of secondary graduates and students enrolled in vocational programmes is around the OECD average (Figure 2.27), it falls short of the rates observed in other countries with large export-orientated manufacturing sectors like Austria, the Czech Republic, Germany, or Switzerland.

Figure 2.27. There is room to increase the number of graduates from upper secondary education



1. Unweighted average of 33 countries except Türkiye.
Source: OECD (2022), OECD Education at a Glance database and OECD calculations.

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Vocational education and training can be an important tool to reduce the share of youth unemployment and NEETs. Work-based learning in VET programmes helps equip students with generic and job relevant skills (Musset, 2019[74]). The positive effect of work experience on employment rates of graduates from vocational training is particularly pronounced in Türkiye (Figure 2.28). Moreover, work-based learning, as compared to classroom learning, facilitates the acquisition of soft skills which are increasingly important to succeed in labour markets (Deming and Kahn, 2018[75]). Improving work-based learning in schools would therefore help to improve youth's labour market prospects. This requires engaging employers, who are often reluctant to offer work placements and ensuring equal access also for at-risk students.

Figure 2.28. Graduates with work experience do better in the labour market than those without

Employment rates of vocational graduates by type of work-based learning, 15-24 year-olds

Note: Based on the results from the labour force survey -ad hoc modules, 2016. The category "part-time independent experience" refers to any work activity carried out outside from the academic curriculum. The category for "total employment rate" refers to the average employment rate of the whole 15-24 year-old population. The groups of vocational graduates taken into account comprises both ISCED 3 (upper secondary graduates) and ISCED 4 (post-secondary non-tertiary graduates).
Source: Eurostat (2016), LFS ad hoc modules - Young people on the labour market.

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VET curricula need to be updated regularly to safeguard their alignment with skill demand in labour markets. The Vocational Education Board, which operates under the roof of the Ministry of National Education, determines together with relevant stakeholders the needs for apprenticeships and vocational training in different economic sectors. It also evaluates vocational and technical education at the national level. In addition, the Union of Chambers and Commodity Exchanges of Türkiye supports the provision of vocational education. Besides, several private sector entities provide vocational programmes in close alignment with public standards and requirements. Provincial Employment and Vocational Education Boards support national efforts at the regional level by monitoring skills demands and proposing regional vocational courses.

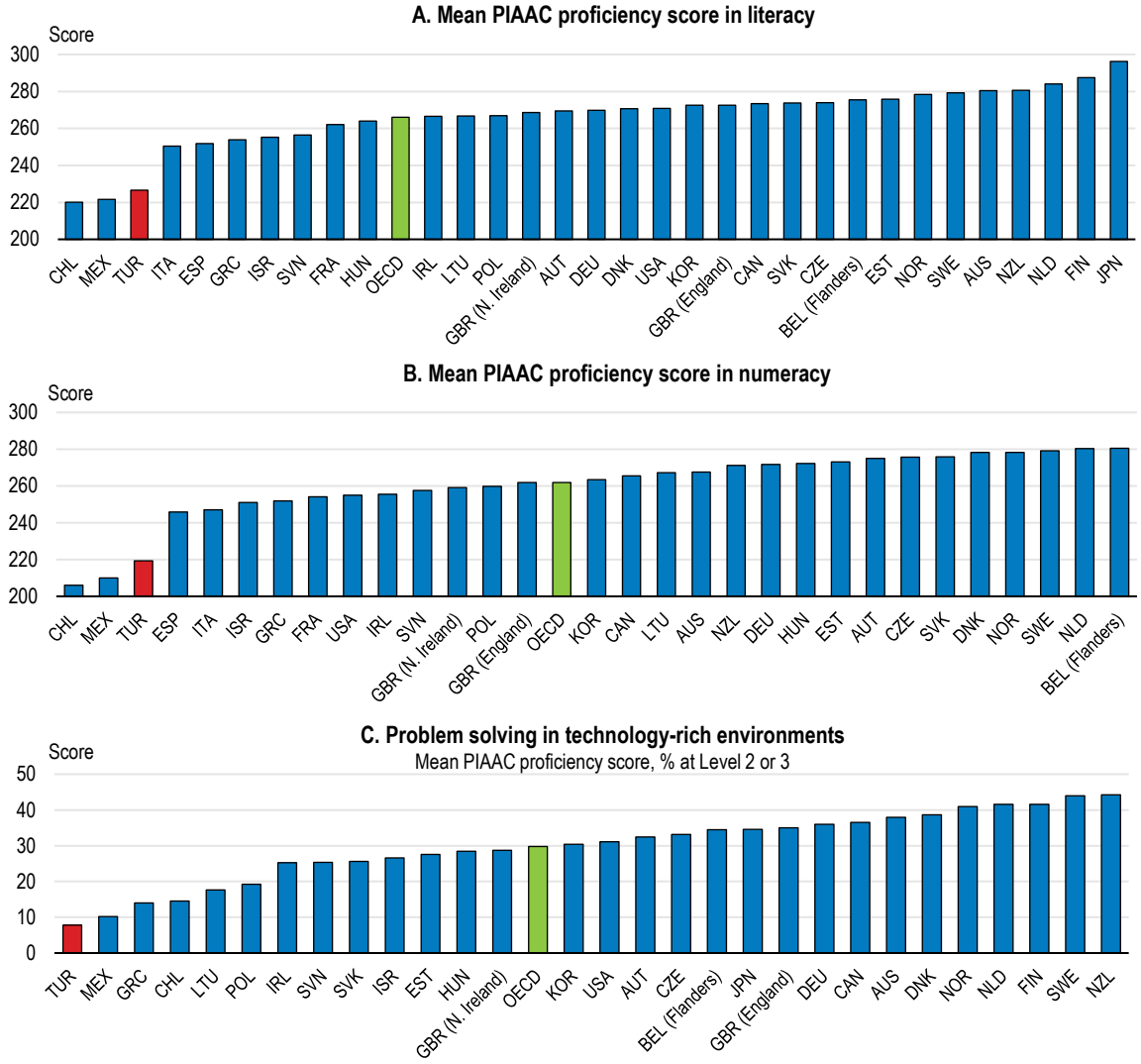
While job prospects for vocational graduates are good, blue-collar work suffers from low reputation, similar to many other OECD countries. This underlines the need for specific career guidance to help young people better understand what VET programmes have to offer, including their labour market prospects. The Human Resource Office of the Presidency has prepared a promising project, the so-called Career Counselling Information System, which enables school advisers, psychological counsellors, and guidance teachers to compare jobs and institutions based on the labour market performance of graduates from vocational schools of higher education and higher education programmes. In contrast to UNI-VERI, which only features tertiary education programmes, the Career Counselling Information System also allows to evaluate the labour market performance of 42 vocational schools delivering higher education. An extension of this system would be a welcome step in addressing the low reputation of vocational education.

Towards a new culture of continued education and training

The relatively low level of adult skills underlines the need for a continued updating of skills (Figure 2.29). Training and lifelong learning can, supported by career guidance for adults, counteract skill depreciation and contribute to a swifter reallocation of occupations to newer, more productive sectors (OECD, 2021[76]).

Digitalisation will likely require more frequent updates of professional and technical skills of business owners, managers, engineers, and workers. While the initial education system plays a bigger role in equipping workers with skills when the workforce is relatively young and growing, a well-developed and effective system of lifelong learning is also important in aligning skills with labour market needs.

Figure 2.29. Educational attainment of adults has improved but skills lag behind



Source: OECD Survey of Adult Skills (PIAAC) (2012, 2015, 2018), Tables A2.2, A2.4 and A2.7.

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Box 2.10. The UNI-VERI project: Evaluating labour market prospects of tertiary degree programmes

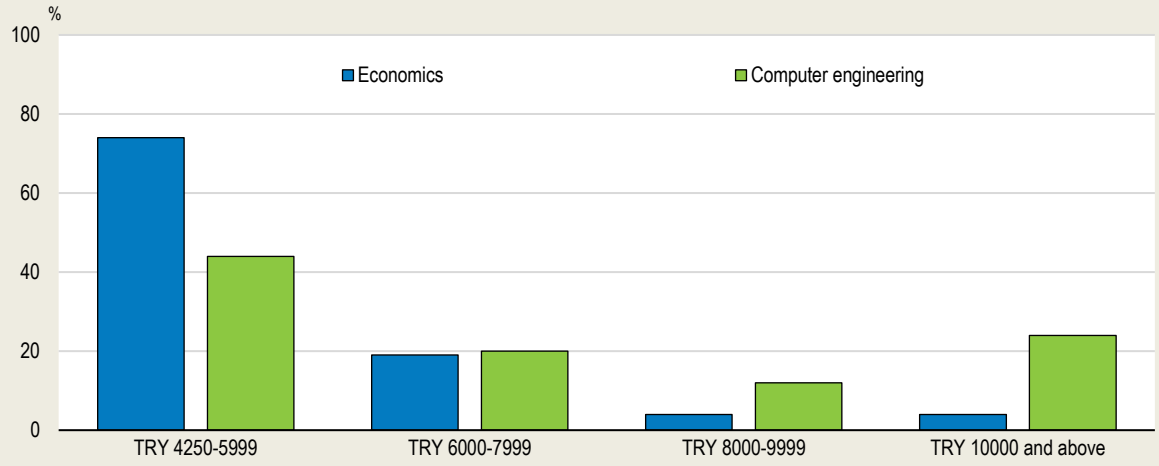
The UNI-VERI project was started in 2019 by the Human Resources Office of the Presidency. It provides a free to use website that allows to compare the labour market prospects of around 81 higher education programmes across six indicators, comprising entry wages to the share of graduates in public employment (see Figure 2.30 for an example).

UNI-VERI is based on several administrative databases. It brings together data on graduates from the Council of Higher Education with employee information from the Social Security Institutions database. The underlying administrative data are anonymized.

The project essentially provides access to three different layers of data. First, data aggregated at the country level is publicly available through the UNI-VERI website and allows high-school students, tertiary education professionals and policymakers to compare different degree programmes. Second, school rectors and career center professionals can get access to labour market outcomes of graduates from their university. This allows to compare the performance of their institution across several indicators with similar programmes in Türkiye. Third, counselling teachers in high schools can access data on labor market performance of all degree programmes at each university in Türkiye. A further layer covers the labour market performance of vocational degree programmes in tertiary education.

Figure 2.30. An innovative digital tool to compare job market prospects of different study fields

Share of graduates by entry-level monthly wage



Note: Data rely on information of graduates from a 4-year program between 2014 and 2019. Graduates of online faculties of universities and over the age of 35 are not included in the sample. The university graduate information obtained from the Council of Higher Education are matched with the employee information from the Social Security Institution (SSI). Reported wages are adjusted for inflation and expressed in terms of 2021 prices. See the source for more details.
Source: Presidency of The Republic of Türkiye, Human resources office, https://www.cbiko.gov.tr/en/projects/uni-veri.

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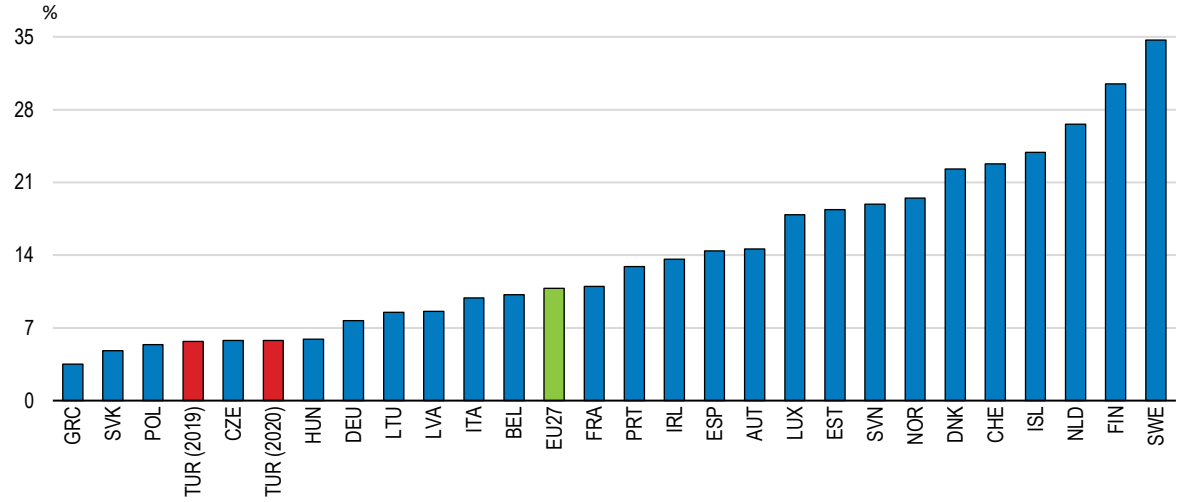
Figure 2.31. Participation in lifelong learning is low

Participation in lifelong learning, 25-64 year-olds, 2021



Note: Adults participating in education and training in the four weeks preceding the survey. Turkish data for 2021 is not available.
Source: Eurostat (2022), Education and Training Statistics, "Adult learning statistics".

StatLink https://stat.link/qid8f7

Only few adult workers participate in lifelong learning (Figure 2.31). Further, in line with other OECD countries, the heterogeneity in uptake of training across different levels of education is high: the share of high-skilled adults participating in lifelong learning is almost 50% higher than the share of low-skilled adults. This is particularly worrying given that low-skilled workers are in greatest need of expanding their skills. An awareness campaign targeted at enterprises but also workers would help foster a lifelong learning culture among Turkish adults. Experience from several OECD countries shows that proactive campaigns that target public spaces, e.g., kindergartens and schools, can be successful in reaching out to lower-skilled workers. Mobile information centres, following the example of the city of Brussels in 2017, could also be beneficial to engage low-qualified jobseekers in adult learning (OECD, 2020[77]).

Individual learning accounts can provide the soil for an effective system of lifelong learning. With individual learning accounts, workers accumulate training rights over time. The rate of accumulation can depend on the initial skill level, thereby providing greater opportunities to lower-skilled workers. The accumulated funds can then be used to purchase training from certified providers. However, non-wage labour costs are already relatively high, especially for the many small businesses. Public support for funding training accounts in Türkiye could help to avoid further increases in non-wage related costs for employers. This support could be higher for lower-skilled or otherwise vulnerable workers. Experience from several OECD countries with individual learning accounts is promising, provided the authorities ensure quality safeguards for participants (OECD, 2021[78]). Individual learning accounts in France have helped to increase participation rates of lower-skilled workers (OECD, 2019[79]). Besides individual learning accounts, leveraging digital tools, for example like the Distance Learning Gate of the Human Resource Office of the Presidency, which offers free training to public employees, can constitute a cost-effective way to increase the number of training participants.

Individual learning accounts have a range of features that make them particularly relevant for Türkiye. First, they empower workers to access training, in particular if training rights are portable. Second, individual learning accounts lay the ground for a competitive market for re-skilling services. This helps to ensure that the set of training provided is in line with labour market needs. Learning accounts also reduce the high opportunity costs of adult learning by providing a framework for modular training which can be spread over

time. Indeed, training entails some extra costs for businesses in the short term. Workers need to be replaced for the time of training while wages for those on training still need to be paid. Smaller firms are particularly exposed to the opportunity costs and often cannot send workers on training due to concerns over how to finance it or over finding suitable replacement. Financial support would help to ensure that workers in smaller firms also have access to training.

To be successful, learning accounts need to be accompanied by a thorough assessment of individuals' current and future skill needs. Recognition of prior learning can serve to identify training needs and to acknowledge and certify experience and skills from on-the-job training, informal apprenticeships, and other forms of non-formal education (OECD, 2017[80]). Recognition of prior learning is particularly helpful for vulnerable workers, for example informal workers, migrants, or refugees, and could contribute to smoothen the transition of informal workers into the formal workforce (Meghnagi and Tuccio, 2022[81]). Türkiye has already set up the framework and infrastructure for validating non-formal and informal learning, including for migrants and refugees (Akkök, 2019[82]). Further efforts to build up quality assurance, the inclusion of qualifications but also the validation of non-formal and informal learning would be welcome (European Commission, 2018[83]).

MAIN FINDINGS	RECOMMENDATIONS (key ones in bold)
Better labour market regulations to promote job creation in the formal sector	
Rigid employment rules, including for fixed-term and temporary work agency contracts, are contributing to the widespread use of informal and semi-formal work practices.	**Make permanent work contracts more flexible and increase the scope for fixed-term and temporary work contracts, while ensuring social protection of workers and access to reemployment services.**
The tax wedge on labour is high, partly reflecting social security contributions. A large variety of incentives are used to mitigate the negative impact on job creation in the formal sector.	Assess the cost-effectiveness of the various incentives, consider a leaner system with lower contribution rates and remove subsidies that provide similar incentives.
A high minimum wage, relative to median wages, reduces the prospects for low-income workers to obtain formal employment, particularly for women and young workers.	**Ensure that minimum wages are affordable for firms, for example by setting a minimum wage floor at the national level and promoting collective bargaining at the enterprise level.**
The severance pay system makes formal job creation very costly and, since it is bound to the current employer, hampers the reallocation of labour to more promising activities and businesses. Unemployment insurance fails to provide sufficient social protection to all workers.	**Shift social protection from the severance pay system to a broader-based unemployment insurance. Introduce portable severance accounts.**
Boosting labour market prospects of women	
Formal employment rates of the youth and female workers lag behind. Labour force participation of women is the lowest across the OECD.	**Continue to bring more women into formal employment, including by reallocating funds devoted to wage subsidies to well-designed hiring subsidies targeted at women and other most vulnerable groups.**
Efforts to increase the labour force participation of women risks increasing the already relatively high unemployment rates of women.	Ensure the availability of career counselling, adult training and job placement services targeted towards the needs of women.
Public spending on primary education is below the OECD average while the population is relatively young and educational outcomes lag behind. High private spending on primary education exacerbates inequalities of opportunities.	**Increase and broaden the provision of quality early childhood and primary education.**
Women take on the bulk of domestic care services, including but not limited to childcare. Mothers are entitled to a maternity leave of 16 weeks, in line with the OECD average while fathers can only take one week.	Increase the uptake of paternity leave to signal the importance of a more equal sharing of care work across gender, for example by introducing paid bonus months for paternity leave if fathers take a pre-defined period of paternity leave.
Better targeted activation policies to address job displacement	
Skill mismatches and shortages prevail.	Increase the number of persons receiving counselling services by engaging private job placement and counselling providers through performance-based renumeration.
Job vacancies are elevated.	Through the use of more comprehensive digital tools, support the improvement of public job counselling services.
Adjusting the supply of skills to evolving labour market needs and digitalisation	
Some learning curricula and related teaching methods for primary and secondary education appear outdated.	Combine modern learning standards and curricula with new teaching methods to foster group-work and self-initiative and improve soft skills.
Improving digital skills can help to increase the adoption of digital technologies, which have a potentially large productivity dividend.	Develop a holistic strategy for digital skills and better mainstream digital skills across all layers of the formal education system.
While the share of young adults with tertiary education increased significantly, there are important fields of study mismatches.	Increase the use of the UNI-VERI website and underlying database through a public awareness campaign.
There are significant shortages regarding middle-level skills. Middle-level jobs suffer from low reputation. The government has recently introduced innovative tools to assess educational institutions' outcomes and disclose results to the public to steer choice.	**Enhance up-to-date information on labour market outcomes for graduates from vocational education tracks, for example by extending the Career Counselling System.**
Adult skills are lower than in most other OECD countries. At the same time, participation in lifelong learning programmes is low.	Incentivise adult participation in high-quality lifelong learning, for example through individual learning accounts and improved career guidance. Consider financial support for smaller firms to support adult training across all firm sizes.

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Alongside a fast recovery from the COVID-19 pandemic, macroeconomic policies and high commodity prices have contributed to surging inflation, growing external imbalances and implicit liabilities. These vulnerabilities reduce the economy's resilience to shocks. Anchoring inflation expectations remains a key challenge going forward. Making the regulatory framework more predictable and flexible would help to strengthen economic resilience. Strict regulations limit the entry of new firms, shielding incumbents from internal and external competition. Ensuring a rules-based, level-playing field for firms requires enforcing rules without exemptions. More flexible labour markets would create more high-quality formal jobs but should be accompanied by a comprehensive reform programme that shifts job loss protection to a broader-based unemployment insurance scheme and well-designed activation policies. Ramping up efforts to increase female employment is key to address high rates of non-participation of women. Equipping young people with relevant skills would allow to make the most of the demographic dividend while also addressing rising skill mismatches.

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