4 Prosperity

The “Prosperity” theme of the 2030 Agenda aims at ensuring “access to prosperous and fulfilling lives” and covers the interactions between economic, social and technological progress and the environment. Relying on the global indicator framework, this chapter assesses whether OECD countries are likely to achieve the SDG targets focusing on Prosperity by 2030. It shows where OECD countries are standing in terms of their current performance but also considers recent changes over time, and what part of the 2030 Agenda currently remains unmeasurable. It also discusses some of the main impacts of the COVID-19 pandemic on the Prosperity targets.

Introduction

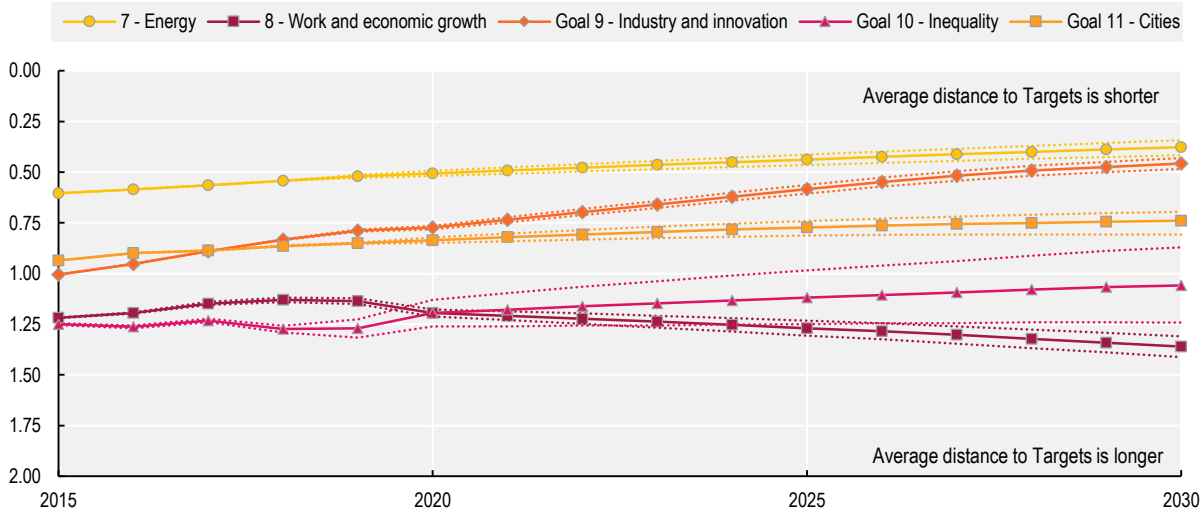
The 2030 Agenda is a call to action for all countries to act for a better and more sustainable future for all. At its core is a set of 17 Sustainable Development Goals balancing the three dimensions of sustainable development: economic, social and environmental. Since the adoption of the sustainable development agenda in 2015, its broad scope has often been characterised by five broad themes, i.e. the "5Ps" (UN, 2015[1]): People, Planet, Prosperity, Peace and Partnerships. The goals and targets that belong to the Prosperity category focus on ensuring *"*access to prosperous and fulfilling lives*"* and on the interactions between economic, social and technological progress, on one side, and the environment, on the other. This category encompasses targets on energy (Goal 7); growth, productivity and labour market outcomes (Goal 8); infrastructures, industry and innovation (Goal 9); inequality within and between countries (Goal 10); and cities and urbanisation (Goal 11).

All SDGs are interconnected. Therefore, making progress towards the Prosperity SDGs also provides an opportunity to empower people and ensure inclusiveness and equality. Reducing residential segregation and providing access to good-quality affordable housing (Goal 11) for instance, requires consideration of policies for poverty reduction (Goal 1), health improvement (Goal 3), better child development (Goal 4), and equality of opportunity and social inclusion (Goal 10). More broadly, economic growth (Goal 8) needs to be made sustainable if it is to be consistent with climate goals (Goal 13). To ensure long-term prosperity, economic frameworks also need to consider natural resource efficiency and the critical interlinkages between water (Goal 6), energy (Goal 7) and terrestrial and marine biodiversity (Goals 14 and 15) (OECD, 2019[2]).

Even before the pandemic hit, OECD countries were not on track to achieve the targets of the Prosperity goals. Figure 4.1 shows how OECD countries are on average performing on the 2030 Agenda over time. In 2015, OECD countries were on average[1] closest to reaching the targets for the goals on energy (Goal 7) and industry, innovation and infrastructures (Goal 9) and furthest from achieving the targets for the goals on the economy (Goal 8), cities (Goal 11) and inequality (Goal 10).

OECD countries are making modest progress towards Prosperity goals, although the pace of progress varies among the goals – with no substantial progress on the economy (Goal 8), inequality (Goal 10) and cities (Goal 11), but steady gains for energy (Goals 7) and infrastructure (Goal 9). Based on this performance, a projection of these trends suggests that, unless additional policy actions are taken, countries are unlikely to achieve the Prosperity goals. Energy and Infrastructure would come closest, but no OECD country is on track to reach all the targets even for these goals. For example, while the Goal 7 target on the availability of reliable electricity will likely be met in OECD countries, it is very unlikely that they will meet the targets relating to clean energy and sustainable use. One important point to keep in mind is that all goals cover many different aspects, and focusing on the aggregated results may mask the heterogeneity of achievements (see Box 4.1). To overcome some of the challenges relating to composite measures, this chapter dives into the details of the underlying targets to provide a more exhaustive picture of where countries stand on the 2030 Agenda.

Figure 4.1. OECD countries' average distance to SDG targets over time by goal, Prosperity



Note: Based on available data series. This figure shows the average distance that OECD countries are projected to travel towards the SDGs based on recent trends; hence these distances are based on existing policies and do not account for the additional measures that OECD countries may have introduced since the latest observation available. Distances are measured in standardised units (see the methodological annex for details), with 0 indicating that the 2030 level has already been attained. Full lines show OECD countries' average performance against all targets under the relevant goal. Dashed lines show the confidence interval (10th and 90th percentiles of estimated trends). When data are not available for specific years, these are imputed using linear interpolation between the two closest available observations. Past (i.e. before the first available year) and future (i.e. after the latest available year) trajectories are imputed using Monte Carlo simulations (see the methodological annex for details).

Source: All data is taken and adapted from (UNDESA, 2021[3]), *SDG Global Database*, https://unstats.un.org/sdgs/unsdg and (OECD, 2021[4]), *OECD.Stat,* https://stats.oecd.org/ (accessed on 29 October 2021).

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The COVID-19 pandemic has affected countries' progress towards achieving Prosperity targets in different ways. The economic impact on output growth has been significant in all countries, contributing to a fall in OECD economies of almost 5% in 2020 (OECD, 2021[5]). Still, helped by government and central bank support but also by progress in vaccination, the economic recovery proved to be strong while remaining uneven among countries (OECD, 2021[6]). Beyond GDP growth, the pandemic has exacerbated some of the long-standing structural weaknesses of OECD countries that risk causing long-term damage to job prospects and living standards. In most OECD countries, government support measures have helped offset some of the adverse implications of the COVID-19 crisis on economic and social conditions. Support measures to firms and workers are offsetting the impact of the crisis but the pandemic has disrupted employment dynamics – around 22 million jobs disappeared by the end of 2020 (OECD, 2021[7]). In addition, the highly sectoral nature of the crisis has meant that some workers have shouldered the bulk of the burden, while others not only suffered less, but benefited more quickly from the recovery. Young people for instance have been particularly affected by the ravages of the crisis. Overall, while the COVID-19 crisis has highlighted the importance of ICT infrastructures and, more generally, the capacity of science, technology and innovation systems to respond strongly and flexibly to a world crisis, large differences in vaccination rates between countries are adding to the unevenness of the recovery and may exacerbate inequality between countries.

Goal 7 – Affordable and clean energy

Goal 7 aims at *"*ensuring access to affordable, reliable, sustainable and modern energy for all*"*. Almost all OECD countries provide universal access to energy, and over the past two decades the share of renewables has increased. Nonetheless, current energy mixes still rely predominantly on fossil fuels, implying that the greening of energy systems, as set out in the 2030 Agenda, requires a strong increase in the share of renewables. Beyond access to clean energy, Goal 7 also aims at reducing the energy intensity of economic activities. Meeting this objective will require ramping up energy efficiency policies.

As further detailed below (see Impact of the COVID-19 pandemic on), the COVID-19 pandemic has impacted the energy sector in many different ways, and renewables have covered a greater share of electricity generation as a result of lockdown measures and low electricity demand. Yet, as stressed by the International Energy Agency (IEA), the rapid but uneven economic recovery from the COVID-induced recession is putting major strains on parts of today's energy system, sparking sharp price rises in natural gas, coal and electricity markets. For all the advances being made by renewables and electric mobility, 2021 is seeing a large rebound in coal and oil use (IEA, 2021[8]).

Assessing OECD countries' performance on Goal 7

This report uses data from the *SDG Global Database* together with OECD sources. Yet, the starting point always remains the global indicator framework, curated by the IAEG-SDGs. Table 4.1 shows that data allow the monitoring of three of the five targets underpinning Goal 7. For this goal, one indicator on the renewable energy share in the total electricity generation sourced from OECD databases[2] complements the *SDG Global Database*. Although it is not aligned with the global indicator framework, which focuses on the renewable energy share in total final energy consumption, drawing from IAE sources allows covering a complementary aspect of the energy mix, namely energy supply.[3] On top of the indicators listed in Table 4.1, the database includes an extra data series to monitor Target 7.a to provide additional context to the understanding of Goal 7 (details and data for all indicators are available at https://www.oecd.org/wise/the-short-and-winding-road-to-2030-data-chapter-4-prosperity.xlsx).

Table 4.1. Available data series supporting the monitoring of Goal 7

Indicator code	Indicator Label	Available over time	Primary source
7.1.1	Proportion of population with access to electricity	Yes	*SDG Global Database*
7.1.2	Proportion of population with primary reliance on clean fuels and technology	Yes	*SDG Global Database*
7.2.1	Renewable energy share in the total final energy consumption	Yes	*SDG Global Database*
7.2.1	*Renewable energy share in the total electricity generation*	Yes	OECD
7.3.1	Energy intensity level of primary energy	Yes	*SDG Global Database*

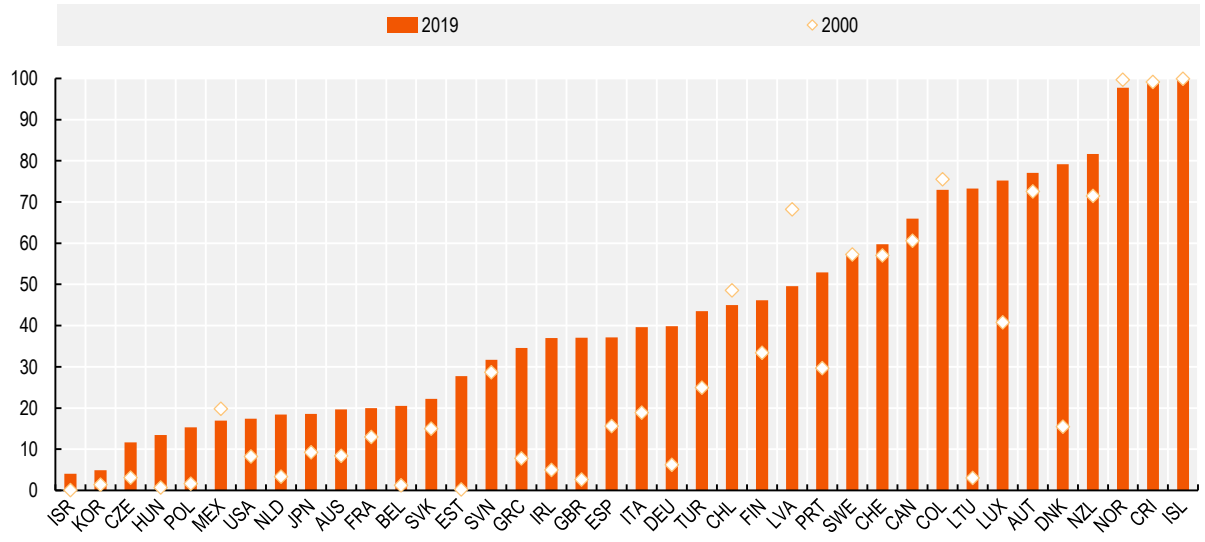
Note: Indicators in italic are not included in the global indicator framework but are used in this report to tailor the analysis to OECD countries.

Figure 4.3, panel A, shows that almost **all OECD countries provide universal access to modern energy services**. In the global indicator framework, Target 7.1, which aims at *"*ensuring universal access to affordable, reliable and modern energy services*"*, is measured through two indicators. The first refers to the proportion of population with access to electricity; in this respect, in 2019, all OECD residents had access to electricity. The second indicator is a measure of "primary reliance on clean fuels and technology".[4] These two indicators confirm the high achievements of OECD countries in terms of access to modern energy services, with countries such as Colombia and Mexico still possessing margins to modernise their energy systems.[5] Colombia will be on track, though, if the positive trend observed over

the past two decades continues. Conversely, Mexico has stagnated on this indicator since 2003 and is unlikely to be on a path that would allow meeting the target.

Despite progress in most OECD countries, in 2019, the current energy mix is still far from being green, with contribution of renewables to total primary energy supply limited to around 10% (OECD, 2022[9]). Beyond access to electricity, Goal 7 promotes clean sources of energy through Target 7.2, which calls on countries to "increase substantially the share of renewable energy in the global energy mix". For global monitoring, the IAEG-SDGs proposes as indicator the share of renewable energy in the total final energy consumption. In addition to this indicator, this report also includes an indicator based on OECD data sources for the share of renewable energy in the total electricity generation. While no quantified objective is specified by the 2030 Agenda for this target, the International Renewable Agency (IRENA) suggested in 2013 to double the share of renewables to achieve the energy transition (IRENA, 2013[10]). The target level to be reached by 2030 has been operationalised in this report as doubling the OECD median value observed in 2015, i.e. reaching 33% of renewable energy on the consumption side and 61% on the production side. The two data series are highly correlated across countries (0.78) and show that 14 countries (Nordic and Baltic countries besides Estonia, as well as Austria, Colombia, Canada, Costa Rica, Switzerland, Portugal and New Zealand) are getting close to meeting the target (on average over both measures). Conversely, seven OECD countries are at a large distance from the target, with Israel and Korea being furthest. Focusing on the production side of energy, Figure 4.2 shows that 14 OECD countries were considered to be close to the target (i.e. above 48%), and with an upward trend since 2000. Yet, in Chile and Mexico both measures of the share of renewables are not displaying any progress, while in Turkey, Colombia, Latvia and Israel only one of the two measures is increasing over time.

Figure 4.2. Renewable energy share in the total electricity generation (Target 7.2)



Source: (OECD, 2022[11]), "Green growth indicators", *OECD Environment Statistics* (database), https://doi.org/10.1787/data-00665-en (accessed on 21 March 2022).

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While energy efficiency plays an essential role in accelerating the transition to a less energy-intensive economic system, only half of OECD countries have made progress on this over the past two decades. Goal 7 aims at providing universal access to clean energy, and it also includes a specific commitment to "double the global rate of improvement in energy efficiency by 2030" (Target 7.3). To measure this target, total primary energy supply is benchmarked against GDP in order to assess its intensity.[6] In line with the wording of the 2030 Agenda, the target level is set as doubling the OECD median

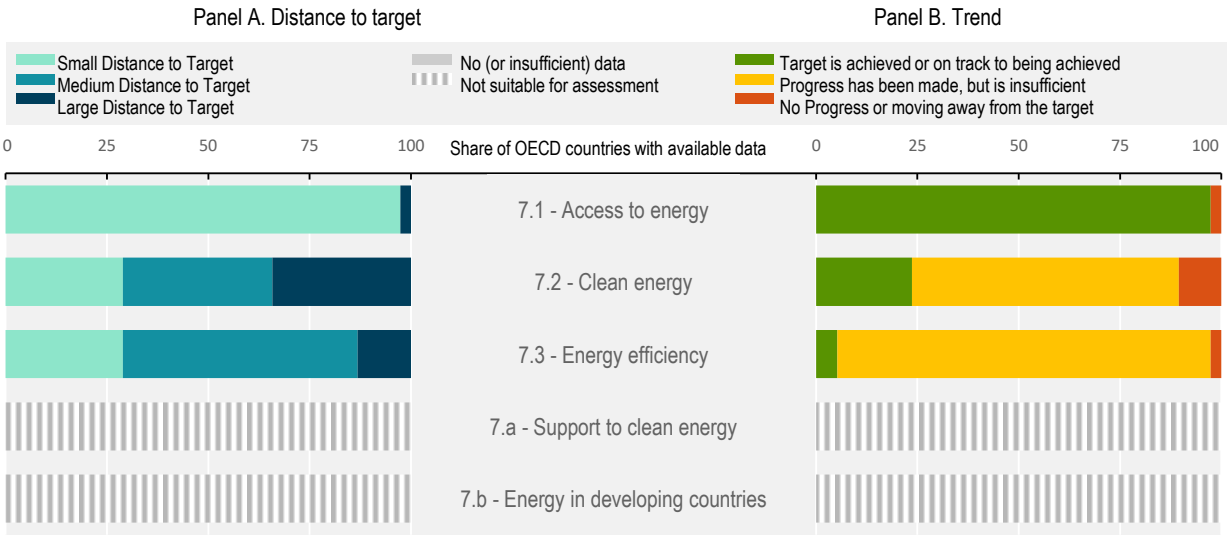
value observed in 2015 – i.e. 1.73 mega joules (MJ) per unit of GDP. Based on this measure and target level, in 2018, five OECD countries were at a large distance from the target, with intensity levels above 4.7 MJ per unit of GDP; these include Korea, Estonia, Finland, Canada and Iceland (where intensity was around 10 times higher than the target value). Available data suggest that all OECD countries except Iceland have been reducing their energy intensity over the past 20 years. Still, as stressed by the IEA, energy intensity gains would need to more than double to help close the gap between government pledges and a 1.5 C trajectory over the next ten years – and to underpin further emissions reductions post-2030 (IEA, 2021[8]).

The distance to target is not assessed for the two "means of implementation" targets under this goal (7.a and 7.b). Target 7.a aims at *"*enhancing international cooperation to facilitate access to clean energy research and technology*"* and *"*promoting investment in energy infrastructure and clean energy technology*"*. It is monitored through a measure of International financial flows in support of clean energy research and development and renewable energy production. Following the global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development, this indicator is repeated under Target 12.a. Target 7.b focuses on infrastructure and technology for modern and sustainable energy services in developing countries and is to be monitored through a measure of the power of installed renewable energy-generating capacity.[7] Rather than indicators of performance, for which one can say what is good performance and what is poor performance, these indicators are considered as informative and are useful to contextualise Goal 7. In addition, no data are available to monitor performance on the latter indicator.

Summing up

Overall, despite considerable progress on clean energy targets in most OECD countries over the past two decades, current efforts fall short of increasing energy efficiency and the use of renewables. On the relatively positive side, virtually all OECD residents have access to modern energy services (Target 7.1, Figure 4.3, panel A), and the share of renewable energy is increasing on both consumption and production sides in the majority of OECD countries (Target 7.2, Figure 4.3, panel B). Yet fossil fuels still dominate the energy mix. Similarly, available data suggest that few OECD countries can be considered as energy efficient, and less than half are progressing towards greater efficiency (Target 7.3).

Figure 4.3. Distance to targets and trends over time in OECD countries, by SDG target, Goal 7



Note: Panel A shows the distribution of OECD countries in terms of the distance that they need to travel to reach each SDG target. Distances are measured in standardised units (s.u.) – see the methodological annex for details. Countries' distances, based on the level of the indicators in the most recent available observation, have been grouped into three clusters: small distances (i.e. less than 0.5 s.u.), shown in light blue; medium distances (from more than 0.5 s.u. to 1.5 s.u.), shown in medium blue; and large distances (i.e. more than 1.5 s.u.), shown in dark blue. Panel B shows the distribution of OECD countries in terms of their recent changes in the indicators for each target. Countries' progress, based on changes in the indicators over recent years, are grouped into three clusters: those whose recent pace of progress should be sufficient to meet the target by 2030, shown in green; those whose recent progress should be insufficient to meet the target by 2030, shown in orange; and those whose recent performance has been stagnating or moving further away from the 2030 target, shown in red – see the methodological annex for details.

Source: All data is taken and adapted from (UNDESA, 2021[3]), *SDG Global Database*, https://unstats.un.org/sdgs/unsdg and (OECD, 2021[4]), *OECD.Stat,* https://stats.oecd.org/ (accessed on 29 October 2021).

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Impact of the COVID-19 pandemic on Goal 7

Renewables have claimed a greater share of electricity generation as a result of low electricity demand during the lockdown period (Target 7.2). In all regions that implemented lockdown measures, the electricity supply underwent a notable shift towards low-carbon energy sources in the first quarter of 2020. Aside from renewables, which are largely unaffected by electricity demand, most other sources of electricity declined in the first quarter of 2020. In the European Union, the share of renewables in electricity generation increased in the weeks following the onset of lockdown measures (in part due to lower demand, which drove coal and gas out of the power mix). In the United States, the decline of coal-fired generation accelerated in the weeks that followed the lockdown measures, while gas-fired generation fell slightly, and generation from renewables rose (IEA, 2020[12]). In addition, in 2020, even while economies bent under the weight of COVID-19 lockdowns, renewable sources of energy such as wind and solar PV continued to grow rapidly, and electric vehicles set new sales records (IEA, 2021[13]). Yet, the rapid but uneven economic recovery from the COVID-induced recession is putting major strains on parts of today's energy system, sparking sharp price rises in natural gas, coal and electricity markets. For all the advances being made by renewables and electric mobility, 2021 is seeing a large rebound in coal and oil use. Largely for this reason, it is also seeing the second-largest annual increase in CO_2 emissions in history. Public spending on sustainable energy in economic recovery packages has mobilised only around one-third of the investment required to jolt the energy system onto a new set of rails (IEA, 2021[8]). As summarised in Table 4.2, the effect on distances to target is likely to be positive in the short-term but may not last over time.

Even before the COVID-19 crisis, further action to increase energy efficiency (Target 7.3) was urgently needed to counteract the declining pace of energy efficiency improvement observed since 2015 (IEA, 2020[14]). As a result of the crisis and of continuing low energy prices, energy intensity improved by only 0.8% in 2020, roughly half the pace (corrected for the effects of the weather) achieved in 2019 (1.6%) and 2018 (1.5%). As stressed by the IEA (2020[14]), annual improvements in energy efficiency are well below the pace needed to achieve global climate and sustainability goals. But the COVID-19 crisis also adds a new layer of uncertainty. While it threatens to delay investments by businesses and households in more efficient technologies, the crisis may also trigger changes to behaviour that could reduce energy intensity in some instances but increase it in others.[8] Thus, while the full impact of the COVID-19 crisis may take years to properly play out, the crisis clearly poses both risks and opportunities for global energy efficiency (IEA, 2020[14]). As summarised in Table 4.2, the effect on distances to target is likely to be negative in the short-term but is much more uncertain in the longer run.

Table 4.2. Summary impact of the COVID-19 pandemic on Goal 7 in OECD countries

	Short-term impact of the pandemic	Long-term impact of the pandemic
7.1 – Access to energy	none	none
7.2 – Clean energy	positive	mixed
7.3 – Energy efficiency	negative	
7.4 – Support to clean energy		
7.5 – Energy in developing countries		

Note: * refers to targets with a 2020 deadline. The table summarises the likely impact of the pandemic in the short-run (i.e. one to two years after the pandemic hit) and in the long-run (i.e. by 2030) on SDG targets. The overall impact is characterised through five distinct categories: "positive" if the COVID-19 pandemic has a favourable impact on the target, "negative" if the COVID-19 pandemic has a deleterious impact on the target, "mixed" if the impact on the target is different among countries or among the different dimensions of the target, "none" when it is not expected that the COVID-19 pandemic will have an impact, and the cell is left blank when data are not available or when available studies do not allow firm conclusion. These findings reflect OECD work on the impact of the pandemic (see https://www.oecd.org/coronavirus) as well as work conducted by other international organisations and academia.

Goal 8 – Decent work and economic growth

Goal 8 aims at promoting "sustained, inclusive and sustainable economic growth" as well as employment and decent work. Even before the pandemic hit, many economies were struggling with sluggish growth and structural problems (OECD, 2021[15]). Labour productivity growth in the OECD area remained well below rates observed before the 2008 global financial crisis, while labour markets featured stubbornly high long-term unemployment, poor job quality and high insecurity. Yet, there were also some areas of progress. For instance, while the material footprint of OECD countries remains at levels that are not sustainable, a vast majority of them have decoupled consumption of materials from economic growth. Beyond macro-economic measures of performances, Goal 8 also includes other objectives such as protecting labour rights or strengthening access to financial services, areas where OECD countries show a rather good performance.

The economic impact of the COVID-19 crisis on output growth has been significant in all countries. While it contributed to a fall in OECD economies of 4.6% in 2020, the strong policy support, the deployment of effective vaccines and the resumption of many economic activities allowed OECD GDP to rise above its pre-pandemic level in the third quarter of 2021. Still, the recovery is uneven within advanced economies. The COVID-19 pandemic exposed a number of long-standing structural weaknesses that have exacerbated the short-term costs of the crisis and risk leaving long-term scars on GDP growth and job prospects. Despite support measures to firms and workers, the pandemic has disrupted employment dynamics, and the labour market remains imbalanced. Labour market conditions are currently recovering, with job retention measures such as short-time work schemes and wage subsidies continuing to help preserve employment. Still, by the end of 2020, around 22 million jobs had disappeared in OECD countries (OECD, 2020[16]).

Assessing OECD countries' performance on Goal 8

This report uses data from the *SDG Global Database* together with OECD sources. Yet, the starting point always remains the global indicator framework, curated by the IAEG-SDGs. Table 4.3 shows that data allow the monitoring of eight of the 12 targets underpinning Goal 8. For this goal, five indicators sourced from the OECD complement the *SDG Global Database*. While three of them align with the global indicator framework, drawing from OECD data sources allows for being timelier (8.4.2, 8.5.2 and 8.6.1), offers longer time-series (8.4.2 and 8.6.1) and/or provides a wider country coverage (8.5.2). In the case of indicators focusing on GDP and productivity growth, departing from the indicators from the global indicator framework by focusing on a 15-year time frame rather than annual rates allows avoiding results being driven by cyclical fluctuations (8.1.1 and 8.2.1). On top of the indicators listed in Table 4.3, the database includes eight additional data series to monitor Targets 8.1, 8.2, 8.9, 8.10 and 8.a, but these are considered to be mainly informative in the context of Goal 8 (details and data for all indicators are available at https://www.oecd.org/wise/the-short-and-winding-road-to-2030-data-chapter-4-prosperity.xlsx).

Table 4.3. Available data series supporting the monitoring of Goal 8

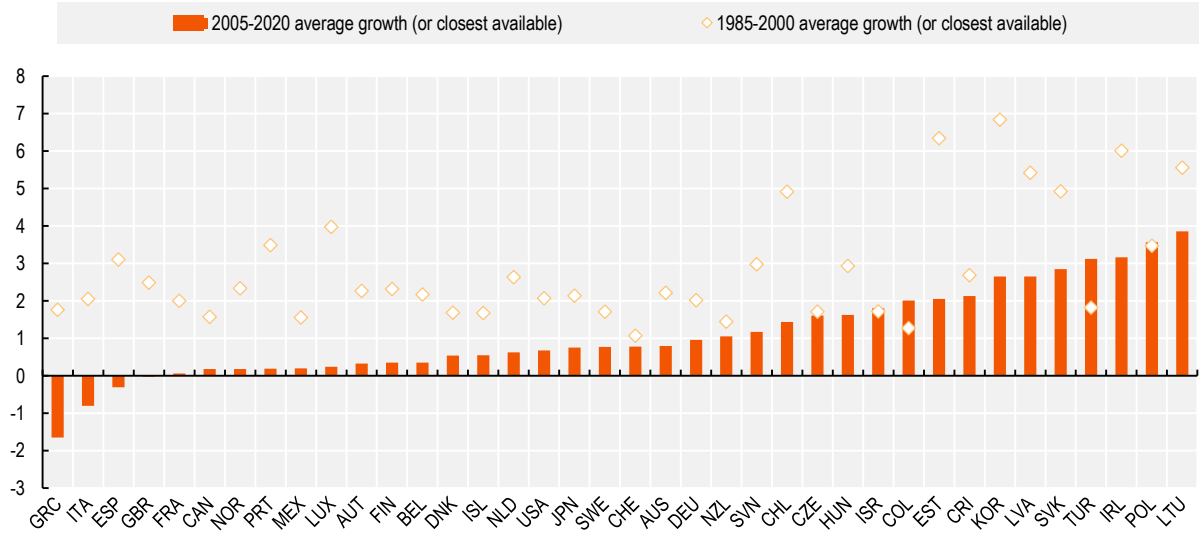
Indicator code	Indicator Label	Available over time	Primary source
8.1.1	*15 years average annual growth rate of real GDP per capita*	Yes	OECD
8.2.1	*15 years average annual growth rate of real GDP per hours worked*	Yes	OECD
8.4.2	Domestic material consumption per unit of GDP	Yes	*SDG Global Database*
8.4.2	Domestic material consumption per GDP	Yes	OECD
8.5.1	Average hourly earnings of employees	Yes	*SDG Global Database*
8.5.2	Unemployment rate	Yes	OECD
8.5.2	Unemployment rate, by sex and age	Yes	*SDG Global Database*

Indicator code	Indicator Label	Available over time	Primary source
8.5.2	Unemployment rate, by sex and disability	No	*SDG Global Database*
8.6.1	Proportion of youth not in education, employment or training	Yes	OECD
8.6.1	Proportion of youth not in education, employment or training	Yes	*SDG Global Database*
8.8.1	Fatal occupational injuries among employees	Yes	*SDG Global Database*
8.8.1	Non-fatal occupational injuries among employees	Yes	*SDG Global Database*
8.8.2	Level of national compliance with labour rights (freedom of association and collective bargaining) based on ILO textual sources and national legislation	No	*SDG Global Database*
8.10.2	Proportion of adults with an account at a financial institution or mobile-money-service provider	Yes	*SDG Global Database*
8.b.1	Existence of a developed and operationalised national strategy for youth employment, as a distinct strategy or as part of a national employment strategy	No	*SDG Global Database*

Note: Indicators in italic are not included in the global indicator framework but are used in this report to tailor the analysis to OECD countries.

The COVID-19 pandemic hit while many OECD economies were already struggling with sluggish growth (OECD, 2021[15]). Target 8.1 focuses on economic growth, calling upon countries to "sustain per capita economic growth in accordance with national circumstances" and is measured through the annual growth rate of GDP per capita. Yet, this report rather considers the 15-year average per capita growth, sourced from OECD databases. Using a 15-year horizon, which is the time period of the Agenda, allows smoothing out variance in the data due to cyclical economic fluctuations. Hampered by the COVID-19 pandemic and the 2008 global financial crisis, in 2020 the long-term growth was low in 27 OECD countries (i.e. below 1.7%), while only Turkey, Ireland, Lithuania and Poland achieved long-term growth greater than 3.1% a year (Figure 4.4).[9] The remaining six countries (the Slovak Republic, Latvia, Korea, Estonia and Costa Rica) are at a medium distance from the target. Over time, developments highlight the slowdown of economic growth in almost all OECD countries. Over the past two decades, long-term growth has been on an upward trend only in Colombia and Turkey.

Figure 4.4. 15 years average annual growth rate of real GDP per capita (Target 8.1)



Note: The earlier period refers to the 15-year period prior to 2000 for Japan; 2005 for the Czech Republic and Poland; 2006 for Hungary and Costa Rica; 2007 for the Slovak Republic; 2008 for Estonia; 2010 for Slovenia, Israel, Latvia and Lithuania; and 2001 for otherwise. The later period refers to the 15-year period prior to 2019 for Japan and 2020 for otherwise.
Source: OECD calculations based on (OECD, 2022[17]), "Gross domestic product (GDP)" (indicator), https://doi.org/10.1787/dc2f7aec-en (accessed on 29 October 2021).

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In 2020, labour productivity growth in the OECD area remained weak and well below rates observed before the global financial crisis.[10] Target 8.2 calls on countries to "achieve higher levels of productivity of economies through diversification, technological upgrading and innovation, including through a focus on high value added and labour-intensive sectors". At a global level, this target is measured through the annual growth rate of real GDP per employed person. In this report, it is measured by the 15-year average growth rate of real GDP per hours worked. Two different reasons underpin this choice. First, adjusting for hours worked provides a more accurate assessment of labour productivity and is particularly important in a cross-country comparison (Ward, Zinni and Marianna, 2018[18]; Ahmad et al., 2003[19]).[11] Second, averaging over 15 years, which is the time period of the Agenda, allows smoothing out variance in the data and avoiding the results being driven by cyclical fluctuations. Given the lack of a clear target to be reached, performance is benchmarked against the highest growth rates observed in 2015 (i.e. 3.6% of the average annual growth rate of real GDP per hours worked between 2000 and 2015 based on growth observed in Korea, Lithuania, Latvia and the Slovak Republic). With 15-year average growth ranging from 3.2% to 4.1%, only five OECD countries can be considered to be at a short distance to the target (Ireland, Costa Rica, Colombia, Korea, and Lithuania), while seven are considered to be at a medium distance, and 27 at a large distance – with Finland, the Netherlands, Italy, Norway, Luxembourg, Mexico and Greece being furthest away. Since 2000, annual growth in labour productivity has slowed in all OECD countries, with only the exceptions of Turkey, Colombia, Iceland, Israel and Costa Rica. Despite rapid technological change, the increasing participation of firms and countries in global value chains, and rising education levels, productivity growth has slowed across all advanced economies.[12] As stressed by the OECD (2019[20]), the slowdown in productivity growth has affected all major sectors, while being particularly evident in manufacturing.

The distances to Target 8.3 are not assessed due to insufficient data. One target (8.3) of the 2030 Agenda focuses specifically on decent work and informality, calling on countries to "promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage formalization and growth of micro-, small- and medium-sized

enterprises including through access to financial services". For global monitoring, the IAEG-SDG proposed to measure Target 8.3 with data on the proportion of informal employment in total employment. While this share is estimated to be about 18% in developed countries (OECD/ILO, 2019[21]), available measures do not allow covering enough OECD countries to come up with a comparative assessment. This target is therefore not discussed further in this report.

OECD countries have been decoupling the consumption of materials from economic growth. Target 8.4 calls upon countries to "improve progressively through 2030 global resource efficiency in consumption and production, and endeavour to decouple economic growth from environmental degradation in accordance with the 10-year framework of programs on sustainable consumption and production with developed countries taking the lead". This target, which focuses on the use of resources, is measured through data on domestic material consumption (DMC) per unit of GDP. Following the global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development, this indicator is repeated under Target 12.2.[13] While the need to reduce DMC has been clearly recognised in a number of fora, there is no agreement on the level to be reached. To overcome this problem, the target level has been set in this report using the distribution of OECD outcomes as observed in 2015 (i.e. 143 g of DMC per unit of GDP in the three best-performing OECD countries, including the Netherlands, the United Kingdom and Japan).[14] Overall, slightly less than half of OECD countries are close to this target level, with a few of them reporting much higher levels. The distance from the target level is considered to be large (i.e. more than 0.55 kg per unit of GDP) in four countries, most notably in Chile, where it exceeds 1.7 kg per USD. Since 2000, material productivity has improved in more than three-quarters of OECD countries, reflecting efficiency gains in production processes, changes in material mixes and lower demand for materials following the 2008 financial crisis (OECD, 2020[22]). However, this gain may also reflect the substitution of domestic production of material by imports. When accounting for all materials needed to satisfy domestic final demand in OECD countries, i.e. including materials extracted abroad and embodied in imported goods (i.e. a demand-based measure), progress is more modest, and the material footprint, including materials extracted abroad and embodied in international trade, has increased in many OECD countries (OECD, 2020[22]).

The COVID-19 crisis has exacerbated structural problems in many labour markets, including high long-term unemployment, persistent inequality, poor job quality and insecurity (OECD, 2021[15]). Target 8.5 aims at fostering employment and decent work, calling upon countries to "by 2030 achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value". The global indicator framework identifies two measures to monitor this target: the average earnings of employees (indicator 8.5.1) and the unemployment rate (8.5.2). Regarding the former, country performance is benchmarked using the level of hourly (rather than per employee) earnings prevailing in the three top-performing countries (Switzerland, Denmark and Norway) in 2015 (i.e. constant USD 2015 PPP 24 per hour). On this basis, the distance from target is short (i.e. greater than constant USD 2015 PPP 20 per hour) in 12 OECD countries, with distances being shortest in Switzerland, Denmark, Norway, Luxembourg and the United States. Conversely, 11 OECD countries are at a large distance from the target (i.e. with hourly earnings below USD 13 per hour, i.e. almost half the target level), with Turkey, Costa Rica, Portugal, Chile, Colombia and Mexico being the furthest. As noted in OECD (2018[23]), growth in real earnings remained sluggish over the past decade due to weak productivity growth and an increase in low-pay jobs[15] but also due to the decoupling between wages and productivity.[16] As a result, only a minority of OECD countries have achieved a statistically significant increase in hourly earnings (13 out of 27).

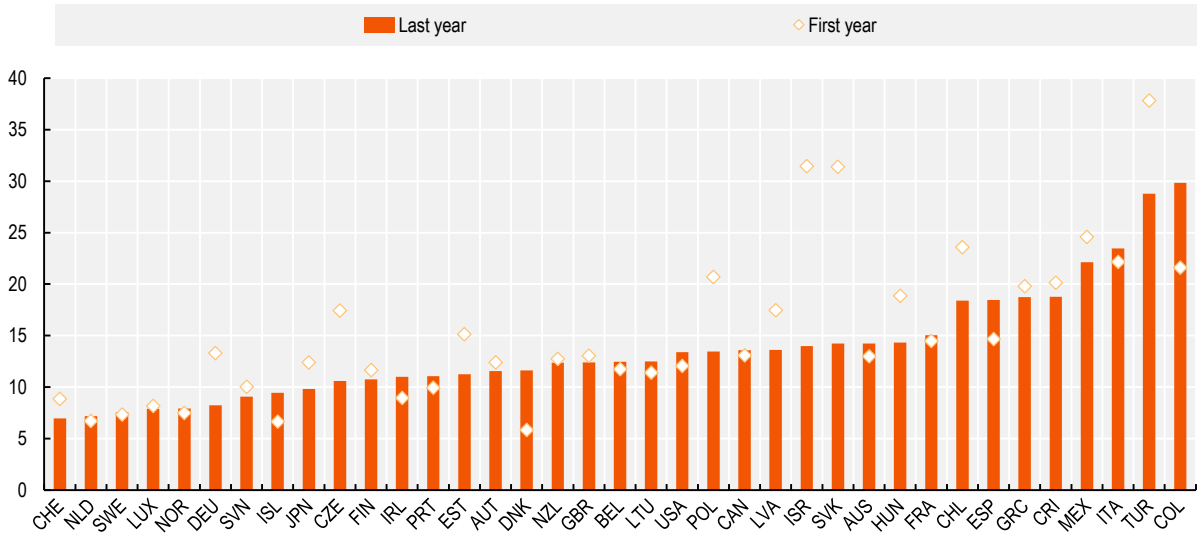
Beyond the level of earnings, Target 8.5 is also monitored through the share of the labour force who are unemployed (while the target aims at "achieving full employment", the target level has been operationalised at 3% to reflect frictional unemployment and possible measurement errors). In 2020, OECD countries presented a diverse picture. The pandemic led to record unemployment rates across the OECD area, and even if rates have been falling from their April 2020 peak, they remain above the rates observed in

February 2020, before the COVID-19 pandemic hit.[17] Overall, 14 OECD countries are at a short distance from the target (with unemployment rates below 5% for people aged 15 and over). For instance, the Czech Republic, Japan, Germany and Poland exhibit rates as low as 3%, while many other countries (including the Netherlands, the United Kingdom and Mexico) cluster around 4%. On the other hand, the unemployment rate is still strikingly high in the southern European countries (at 16% in Greece and Spain, and at 9% in Italy) but also in Latin American countries (at 20% in Costa Rica, 16% in Colombia and 11% in Chile). Since 2000, some OECD countries have achieved large falls in unemployment, particularly Germany and Israel, where the unemployment rate more than halved over the last decade, as well as the Czech Republic, Japan and Poland.[18] Yet, no reduction in unemployment (or even the opposite, i.e. an increase) is evident in the majority of OECD countries (30 out of 38).

While the share of youth Not in Employment, Education or Training (NEET) remained large in a vast majority of OECD countries in 2019, many of them have made progress over the last two decades. Beyond employment for all (Target 8.5), the 2030 Agenda also includes a specific target (8.6) on youth, calling countries to *"*by 2020 substantially reduce the proportion of youth not in employment, education or training*"*. As in the case of unemployment, the target level for the share of NEET has been set in this report at 3%. Despite some differences between OECD and UN data,[19] both suggest that very few OECD countries were at a short distance to the target in 2019 (i.e. with NEET rates below 6%). Using OECD data, no OECD country falls in this category, while UN data suggest that Japan, the Netherlands, Iceland, Norway and Sweden are close to this target level. Similarly, both measures suggest that most OECD countries are at a large distance from the target (i.e. with NEET rates above 11%),[20] with Mediterranean countries (including Israel, Spain, Greece, Italy and Turkey) and Latin American countries (including Chile, Costa Rica, Mexico and Colombia) being furthest away. Over the past two decades, around 40% of OECD countries showed some progress, with reductions in NEET rates being largest in Germany, Poland, the Czech Republic, Chile, Turkey, the Slovak Republic, Hungary and Israel (Figure 4.5).

Figure 4.5. Youth not in education, employment or training (Target 8.6)

As a percentage of the total number of young people (aged 15-29 years)



Note: First year refers to 2000 for Germany, Denmark and Turkey; 2002 for Latvia and Israel; 2003 for Slovenia, Iceland, Finland and Estonia; 2004 for Austria and New Zealand; 2005 for Lithuania; 2009 for Chile; 2013 for Costa Rica and Colombia; and 2001 for otherwise. Last year refers to 2014 for Japan; 2017 for Chile; 2019 for Germany, Denmark and Turkey; and 2020 for otherwise.
Source: (OECD, 2021[24]), "Youth not in employment, education or training (NEET)" (indicator), https://doi.org/10.1787/72d1033a-en (accessed on 29 October 2021).

StatLink https://stat.link/ypm4rk

Target 8.7 on forced labour cannot be assessed due to lack of data. Target 8.7 focuses on the elimination of more exploitative forms of labour (calling on countries to *"*take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms*"*), with global monitoring based on measures of the prevalence of child labour. The lack of comparable data for OECD countries prevents the inclusion of this target in this report. While the prevalence of child labour is strongly correlated with countries' level of economic development, it is typically overlooked in more advanced economies. Yet, dedicated data collection is also needed in OECD countries, for instance, to assess how adolescents combine work at home or in paid employment with school attendance and how technological changes affect the risk of children being exposed to hazardous forms of work (Thévenon and Edmonds, 2019[25]).

Despite some disparities, compliance with labour rights in OECD countries is generally high, and there are few (and declining) work-related fatalities. Target 8.8 (*"*protect labour rights and promote safe and secure working environments of all workers, including migrant workers, particularly women migrants, and those in precarious employment*"*) is monitored at the global level through two indicators, as proposed by the global indicator framework. The first indicator focuses on the prevalence of work accidents (fatal and non-fatal), and the target value has been set at 0 (i.e. no fatal or non-fatal work accidents). As stressed by the OECD (OECD, 2007[26]), workplace accidents are the most visible manifestation of the hazards of paid work. Most work accidents are non-fatal. Around 2015, fatal work accidents were most frequent (and thus the distance from target was larger) in Mexico, Turkey, Costa Rica and the United States (with more than 5 deaths per 100 000 employees), but rates are the lowest in Iceland, Colombia, the Netherlands and the United Kingdom (less than 1 death per 100 000 employees).[21] In a majority of OECD countries (25 of 34), death rates have been declining over the past two decades. Non-fatal accidents are more common, ranging in 2015 from less than 900 cases per 100 000 workers in 14 OECD countries (thus considered to be at a short distance to the target) to more than 2 700 cases per 100 000 workers in seven of them (Portugal, Mexico, Chile, France, Spain, the Netherlands and Costa Rica). Yet, they also appear to have declined in most OECD countries (23 out of 34). These downward trends can be explained by many factors, including the contraction of some of the most dangerous industries, such as coal mining and shipping, and the expansion of the service sector (OECD, 2007[26]; OECD, 2017[27]), but also due to the tightening of insurance rules, which may have increased employers' incentives to under-report minor accidents. Beyond workplace accidents, Target 8.8 is also monitored through a measure of countries' compliance with labour rights (mainly freedom of association and collective bargaining), ranging from 0 (highest level of compliance and the target level) to 10 (worst level of compliance).[22] Based on this measure, compliance in OECD countries is generally high. Using the distribution of outcomes in the OECD area, distances are considered to be short when they fall below 0.5 and large when they are above 1.5. Overall, most OECD countries (21) are at a short distance to the target value, with 12 having reached the target already (Austria, Belgium, Estonia, Finland, Ireland, Iceland, Israel, Italy, Latvia, Norway, the Slovak Republic and Sweden). Five are far from target (Australia, Chile, Mexico, Colombia and Turkey), while three are not assessed due to lack of data (New Zealand, Korea and the United States).

The data available on Target 8.9 are not suitable for assessment. Target 8.9 aims at implementing policies to promote sustainable tourism (*"*by 2030 devise and implement policies to promote sustainable tourism which creates jobs, promotes local culture and products*"*). Yet, the indicator selected for global monitoring (tourism direct value-added as a proportion of GDP[23]) only captures the size of the tourist sector. In the context of this report though, this indicator is considered to be informative of the national context. Therefore, OECD countries' performance with respect to this target is not assessed.

Most OECD residents already have access to banking services, but financial inclusion remains an issue for some. Target 8.10 focuses on *"*strengthening the capacity of domestic financial institutions to encourage and to expand access to banking, insurance and financial services for all*"* and is monitored through indicators on the number of commercial bank branches and automated teller machines (ATMs)

per 100 000 adults and the share of adults with a bank account. This target is assessed only partially in this report, as the densities of ATMs and of commercial bank branches are considered to be mainly informative of the national context. While greater access to financial services may be related to a higher number of ATMs and commercial branches, digital technologies significantly reduce the importance of geographical proximity to these facilities. As stressed by the OECD (2018[28]), the importance of physical locations for providing financial services has dropped considerably over time, thereby reducing the usefulness of this measure.

The second indicator pertaining to this target shows that many OECD countries (16) are already at or close to universal access (operationalised at 97% of adults having a bank account to allow for uncertainties in the measurement), while in 10 additional OECD countries the share of adults with a bank account is above 89%, and the distance from target is short. Yet, 11 countries are still at a medium distance (in Poland, Greece, the Slovak Republic, Lithuania, the Czech Republic, Hungary and Chile access varies from 72% to 89%) or at a long distance (in Turkey, Costa Rica, Colombia and Mexico the share is below 72%). Assessing trends in this indicator over time is not straightforward. While 20 OECD countries are likely to stay at (or attain) universal coverage, and five are likely to significantly improve their performance, 10 do not show any specific trends in this indicator or experienced a fall. Yet, as stressed by the OECD (2021[29]), financial inclusion goes well beyond having a bank account. For instance, in OECD countries, many people's knowledge does not extend beyond basic transactions.[24]

Target 8.a focuses on aid for trade ("increase Aid for Trade support for developing countries, particularly LDCs [Least Developed Countries], including through the Enhanced Integrated Framework for LDCs"), **but despite available data for global monitoring, it is not covered in this report.** As in the case of other aid-related targets, despite the existence of a clear international benchmark for total ODA provided by donor countries (0.7% of gross national income), the preferred sectoral breakdown of this aid will depend on the needs of each recipient and the priorities of each donor, implying that a higher share of ODA devoted to trade would necessarily come at a cost for other sectors of ODA.

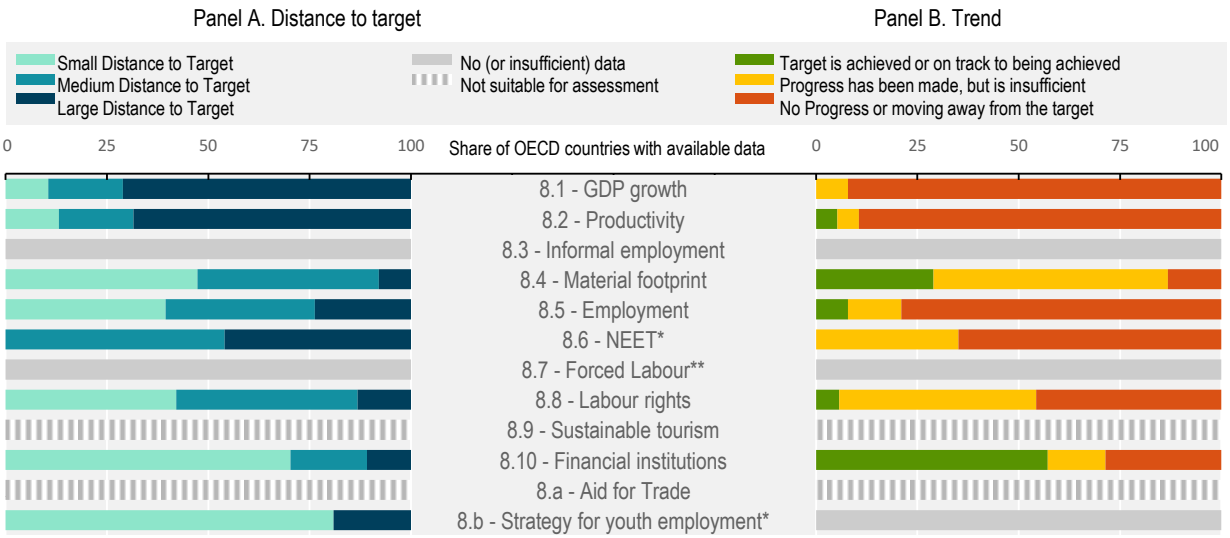
Very few OECD countries lack a national strategy for youth employment. Target 8.b calls on countries to *"*develop and operationalise a global strategy for youth employment and implement the ILO Global Jobs Pact*"* by 2020. The target is monitored through a measure that captures the existence of a developed and operationalised national strategy for youth employment, ranging from 0 (worst possible score) to 3 (best possible score and thus target value). The measure, produced by the International Labour Organisation (ILO), is available only for 21 OECD countries and suggests that most of them (17) have such national strategies. Yet, available data suggest that, in 2020, Chile, New Zealand, Turkey and Costa Rica still had some way to travel towards the full implementation of such frameworks.

Summing up

Overall, OECD countries show a very diverse performance across the different dimensions of Goal 8 on economic growth and decent work. Most OECD countries have been grappling with slow(ing) long-term economic growth (Target 8.1) and labour productivity growth (Target 8.2) (Figure 4.6, panel A). Apart from economic growth and labour productivity, more than half of OECD countries also face high unemployment rates and low hourly earnings of employees (Target 8.5). Despite some progress in the past decades, too many young adults remain not in employment, education or training (Target 8.6). On a more positive side, domestic material consumption has decoupled from economic growth and is decreasing in about nine in ten OECD countries, albeit at an insufficient rate (Target 8.4, Figure 4.6, panel B) and quite often at the cost of higher CO_2 emissions embodied in international trade. On working conditions, available data show that compliance with labour rights in OECD countries is generally high, and there are few (and declining) work-related fatalities (Target 8.8). Goal 8 also includes other areas such as developing national strategies for youth employment (Target 8.b) and strengthening access to banking

services (Target 8.10), where around three in four OECD countries show high performance (Figure 4.6, panel A).

Figure 4.6. Distance to targets and trends over time in OECD countries, by SDG target, Goal 8



Note: * refers to targets with a 2020 deadline. ** refers to targets with a 2025 deadline. Panel A shows the distribution of OECD countries in terms of the distance that they need to travel to reach each SDG target. Distances are measured in standardised units (s.u.) – see the methodological annex for details. Countries' distances, based on the level of the indicators in the most recent available observation, have been grouped into three clusters: small distances (i.e. less than 0.5 s.u.), shown in light blue; medium distances (from more than 0.5 s.u. to 1.5 s.u.), shown in medium blue; and large distances (i.e. more than 1.5 s.u.), shown in dark blue. Panel B shows the distribution of OECD countries in terms of recent changes in their indicators for each target. Countries' progress, based on changes in the indicators over recent years, are grouped into three clusters: those whose recent pace of progress should be sufficient to meet the target by 2030, shown in green; those whose recent progress should be insufficient to meet the target by 2030, shown in orange; and those whose recent performance has been stagnating or moving further away from the 2030 target, shown in red – see the methodological annex for details. The figure also highlights targets with no data to assess either their current distance or their pace of progress (shown in grey). Time series are considered as missing when there are two or fewer data points for each country; indicators are considered as missing when they are unavailable for 20 OECD countries or more, or for less than three world regions – see the methodological annex for details.
Source: All data is taken and adapted from (UNDESA, 2021[3]), *SDG Global Database*, https://unstats.un.org/sdgs/unsdg and (OECD, 2021[4]), *OECD.Stat,* https://stats.oecd.org/ (accessed on 29 October 2021).

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Impact of the COVID-19 pandemic on Goal 8

After a sharp GDP decline of 4.7% in 2020 in the OECD, prospects for a global recovery have been improving, helped by the gradual deployment of effective vaccines and continued macroeconomic policy support. In many countries, the scale of the economic disruption from the pandemic has been exceptionally large, and the recovery is likely to be prolonged (Target 8.1). The decline in OECD GDP was substantially larger than in the 2008 global financial crisis. In the third quarter of 2020, GDP growth rates started to recover across OECD countries and returned to pre-pandemic levels in the first quarter of 2021 (OECD, 2021[30]). This reflects the prompt and massive policy support for firms and households from the outset of the crisis, including the additional measures announced this year, successful public health measures to limit transmission of the COVID-19 virus and, above all, the rapid rollout of effective vaccines (OECD, 2021[6]). Yet, the economic upturn since mid-2020 has been uneven and remains far from complete. The pandemic affected all countries' GDP in 2020 but with some noticeable disparities. Cross-country variation in GDP growth arises from many different sources, including the timing and severity of the pandemic and of the associated policy responses and the different sectoral mixes of economic activities in each country

but also differences in statistical practices (OECD, 2021[5]). Though current OECD projections are highly uncertain and subject to future revision, as summarised in Table 4.4, they suggest that, beyond the pandemic's short-term effect, its economic consequences may be long-lasting: average annual global growth of potential output from 2019 to 2022 could be around 0.25 percentage point weaker than estimated prior to the pandemic. If this persists, and there are no offsetting policies, the effect of the pandemic on GDP may last for more than a decade in most OECD countries (OECD, 2021[5]).[25]

The effects of the pandemic on productivity are also complex (Target 8.2). The health and economic crisis due to the COVID-19 pandemic, and the physical distancing measures introduced to cope with it, have forced many firms to introduce telework (working from home) on a large scale. This may catalyse a wider adoption of teleworking practices after the crisis, with a broad range of uncertain effects on productivity (OECD, 2020[31]). Overall, the data available so far show significant cross-country discrepancies in developments in labour productivity (per hour worked) between 2019 and 2020, with for example large increases in Canada, Italy and the United States, and overall stability in France and Germany (the effect is then considered to be mixed in Table 4.4). Looking ahead, the sectoral developments underlying these aggregate evolutions will need to be carefully analysed. In the longer term, the main risk to productivity depends on whether the crisis will have long-lasting effects on the productive capacity of the economy by triggering a surge in bankruptcies, not only of the least productive firms as in the usual creative destruction process, but also of more productive ones due to falling revenues and short-term insolvencies (OECD, 2021[32]).

Domestic material consumption (DMC) is likely to decline sharply in 2020 before reverting to (or exceeding) pre-crisis levels (see Table 4.4). The pandemic has led governments and companies to take exceptional measures to contain the spread of the virus and protect the lives of citizens and workers. These measures have disrupted global production and supply chain systems and are likely to have resulted in a sharp decline in the consumption of raw materials (Target 8.4) in the short term. However, this one-off expected decline is not likely to have a long-term impact on DMC unless structural changes lead to consumption patterns that differ significantly from pre-pandemic ones.

After a peak of unemployment in the first quarter of 2020, labour market conditions are improving gradually, but the scars of the crisis may last for long (see Table 4.4). Unemployment data are among the timeliest of those used for global monitoring of the 2030 Agenda, and they allow assessing Target 8.5 in almost real time. In the first months of the crisis, the impact of COVID-19 on OECD labour markets was much larger than that observed in the first months of the 2008 global financial crisis. Following the pandemic onset, the average OECD unemployment rate rose from 5.4% in the first quarter of 2020 to 8.6% in the following quarter (OECD, 2021[30]). Unemployment rates and countries' initial unemployment response to the COVID-19 crisis nevertheless varied starkly. In a few countries, unemployment immediately jumped to record levels, while in others it increased only modestly or not at all.[26] Yet, the extent of the shock on the labour market goes beyond the number of unemployed (OECD, 2020[16]). Despite a massive shift to telework, in all countries the number of those effectively working collapsed as companies put part of their workforce on hold through subsidised job-retention schemes. As people and governments have come to learn how to live alongside the virus, behaviours have adapted, and restrictions have become looser and more targeted. This has enabled many to return to work (OECD, 2021[7]). The OECD area's unemployment rate declined since its peak in April 2020 but remains above the level observed in February 2020, before the COVID-19 pandemic hit. Labour market conditions are projected to improve gradually, with unemployment rates unlikely to fall back to their pre-pandemic levels until after end 2022 in many countries (OECD, 2021[5]). Still, the highly sectoral nature of the crisis has meant that some workers have shouldered the bulk of the burden, while others not only suffered less but benefited more quickly from the recovery. Young people and temporary workers, for instance, have been particularly affected by the ravages of the crisis (OECD, 2021[7]).

Youth employment took a dive with the pandemic (Target 8.6). The current crisis reveals the vulnerability of young people in the labour market. In April 2020, the OECD-average unemployment rate

among 15-24 year-olds surged to 19%, the highest rate in decades. In May 2020, 12.8 million youth were unemployed in the OECD area, a 38% increase from January 2020. Although youth unemployment declined in the following months – as did the unemployment figures for older generations – it remains considerably above the pre-crisis figures. Moreover, many young people gave up their job search – and thus no longer classify as unemployed, but as inactive – as companies have frozen hiring in response to the strict social distancing measures and reduction in their activities.

International tourism suffered a dramatic 80% fall in 2020 as the pandemic hit, with the decline highlighting the sector's major impact on the environment and on local communities (Target 8.9). As an activity that is inherently dependent on people's movement and interactions, tourism has been one of the sectors hardest hit by the pandemic and may be one of the last to recover. In 2019, international tourist arrivals reached 1.5 billion, with domestic tourism accounting for a further 9 billion. Tourism contributed directly to 3% of GDP in G20 economies, 6% of G20 total exports and 6% of G20 employment. Then in March 2020, tourism came almost to a standstill. International tourist arrivals fell by almost 80% in 2020. Scenarios from the UN World Tourism Organization (UNWTO) indicate that it may take between two-and-a-half and four years for international arrivals to return to pre-pandemic levels. The halt in tourism is also having a knock-on impact on the wider economy, owing to supply chain effects and other linkages, leading to estimated total losses that are up to three times greater than those seen directly in the sector itself (OECD, 2021[33]). Yet, the pandemic also highlighted further that, for many destinations, tourism growth in recent years was economically, socially and environmentally unbalanced, negatively affecting the environment and the host communities upon which tourism depends. The pandemic has therefore dramatically changed the policy context for tourism. Looking beyond the immediate challenge of minimising the negative impacts of the crisis, fostering safe travel, and supporting a sustainable recovery, many countries are now exploring the opportunity to fast track the move to greener, more sustainable tourism development (OECD, 2021[34]).

Table 4.4. Summary impact of the COVID-19 pandemic on Goal 8 in OECD countries

	Short-term impact of the pandemic	Long-term impact of the pandemic
8.1 – GDP growth	negative	negative
8.2 – Productivity	mixed	
8.3 – Informal employment		
8.4 – Material footprint	positive	none
8.5 – Employment	negative	negative
8.6 – NEET*	negative	negative
8.7 – Forced Labour**		
8.8 – Labour rights		
8.9 – Sustainable tourism	mixed	positive
8.10 – Financial institutions		
8.a – Aid for Trade		
8.b – Strategy for youth employment*		

Note: * refers to targets with a 2020 deadline. ** refers to targets with a 2025 deadline. The table summarises the likely impact of the pandemic in the short run (i.e. one to two years after the pandemic hit) and long run (i.e. by 2030) on SDG targets. The overall impact is characterised through five distinct categories: "positive" if the COVID-19 pandemic has a favourable impact on the target, "negative" if the COVID-19 pandemic has a deleterious impact on the target, "mixed" if the impact on the target is different among countries or among the different dimensions of the target, "none" when it is not expected that the COVID-19 pandemic will have an impact, and the cell is left blank when data are not available or when available studies do not allow firm conclusions. These findings reflect OECD work on the impact of the pandemic (see https://www.oecd.org/coronavirus) as well as work conducted by other international organisations and academia.

Goal 9 – Industry, innovation and infrastructure

Goal 9 calls on countries to "build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation". Where performance can be measured, OECD countries report short distances from targets and significant progress over time. However, performance can be measured for only four of the eight targets underpinning Goal 9. The remaining targets cannot be unambiguously benchmarked, because the normative direction (what is good performance and what is poor performance) is unclear. While Goal 9 encompasses issues such as the quality of transport infrastructures, the inclusiveness and sustainability of the industrial sector, the scientific and technological capabilities of countries and access to modern communication infrastructures, performance can only be assessed for the environmental impacts (CO_2 emissions) of infrastructure, the level of investment in R&D and access to information and communication technologies.

Despite the paucity of data, early evidence suggests that the effects of the pandemic on transport and infrastructures may last. The crisis hit the manufacturing sector harder than did the financial crisis of 2007-08, and while government support prevented it from taking its toll on small-scale industries, many headwinds persist. The COVID-19 pandemic has also created new opportunities for small- and medium-sized enterprises, due to shifting global value chains, stronger local business ecosystems and the green transition. It also highlighted the resilience of communication infrastructure and, more generally, the capacity of science, technology and innovation systems to respond strongly and flexibly.

Assessing OECD countries' performance on Goal 9

This report uses data from the *SDG Global Database* together with OECD sources. Yet, the starting point always remains the global indicator framework, curated by the IAEG-SDGs. Table 4.5 shows that data allow the monitoring of four of the eight targets underpinning Goal 9. For this goal, four indicators sourced from the OECD complement the *SDG Global Database*. While three of them align with the global indicator framework, drawing from OECD sources allows being timelier and offering longer time-series (9.5.1 and 9.5.2) or allows greater comparability (9.4.1).[27] In other cases, relying on OECD data sources allows tailoring the analysis to OECD countries in order to mirror specific conditions (9.c.1). On top of the indicators listed in Table 4.5, the database includes 16 extra data series to monitor Targets 9.1, 9.2, 9.a, 9.b and 9.c, but these are considered to be mainly informative in the context of Goal 9 (details and data for all indicators are available at https://www.oecd.org/wise/the-short-and-winding-road-to-2030-data-chapter-4-prosperity.xlsx).

Table 4.5. Available data series supporting the monitoring of Goal 9

Indicator code	Indicator Label	Available over time	Primary source
9.2.1	Manufacturing value added per capita	Yes	*SDG Global Database*
9.2.1	Manufacturing value added as a proportion of GDP	Yes	*SDG Global Database*
9.4.1	Carbon dioxide emissions from fuel combustion per unit of GDP	Yes	OECD
9.4.1	Carbon dioxide emissions per unit of GDP	Yes	*SDG Global Database*
9.4.1	Carbon dioxide emissions per unit of manufacturing value added	Yes	*SDG Global Database*
9.5.1	Gross domestic expenditure on research and development as a percentage of GDP	Yes	OECD
9.5.1	Research and development expenditure as a proportion of GDP	Yes	*SDG Global Database*
9.5.2	Researchers (in full-time equivalent) per million inhabitants	Yes	*SDG Global Database*
9.5.2	Researchers per capita	Yes	OECD
9.c.1	*Total fixed broadband subscriptions per 100 inhabitants*	Yes	OECD
9.c.1	Proportion of population covered by at least a 4G mobile network	Yes	*SDG Global Database*

Note: Indicators in italic are not included in the global indicator framework but are used in this report to tailor the analysis to OECD countries.

Given the lack of data, Target 9.1 cannot be assessed in this report. Global monitoring of Target 9.1 ("develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all") relies on a measure of individual access to infrastructure (the proportion of rural population who live within 2 km of an all-season road) and a measure of passenger and freight volumes. While the former has a clear normative direction and would have a natural target (all residents should be able to access infrastructures), data are not available for OECD countries. The assessment is less clear-cut for the latter indicator. The level of passenger and freight volumes by mode of transport provides useful insights, yet it is highly dependent on the national context and cannot be included as a measure of performance in this report.

The intensity of manufacturing value added varies greatly among OECD countries in terms of trends and levels. Target 9.2 ("promote inclusive and sustainable industrialization, and by 2030 raise significantly industry's share of employment and GDP in line with national circumstances, and double its share in LDCs") focuses on industry, with global monitoring focused on two dimensions: i) manufacturing value added (measured as a proportion of GDP and per capita) and ii) manufacturing employment (measured as a proportion of total employment). However, while all countries could legitimately aim at maximising manufacturing value added, the share of manufacturing (in total employment or in GDP) is highly dependent on the national context and does not lend itself to an assessment whereby higher shares always imply better outcome. Therefore, the comparative assessment included in this report relies only on the measure of manufacturing value added,[28] while the relative size of manufacturing is considered to be a measure informing on the national context. As no target level of value added is specified in the 2030 Agenda, country performance is gauged vis-à-vis the level prevailing among the top OECD countries with higher shares in 2015 i.e. slightly above 20% of GDP (namely in Switzerland, Korea, Japan and Ireland) and above constant USD 2015 PPP 7 500 per capita (i.e. in Switzerland, Germany and Ireland). Overall, in 2020, when aggregating both measures of manufacturing value added, seven OECD countries are close to the 2030 target (Ireland, Korea, Switzerland, Japan, the Czech Republic, Slovenia and Germany), while 12 are far from it (but only Chile, Latvia, Costa Rica, Colombia and Greece report large distances to both targets). Differences in the levels of GDP per capita partly mitigate these results. High levels of GDP per capita in Luxembourg and Norway imply a much shorter distance when manufacturing value added is benchmarked against population rather than against total GDP (while the opposite is true for Slovenia and the Czech Republic). Over time, 18 OECD countries appear to be on a stable (or even declining) trend for both measures, while 14 appear to be progressing in both cases. Yet, the pace of progress on both indicators is likely to be sufficient to reach the target for only two countries (Ireland and Korea) and another two countries (the Czech Republic and Switzerland) on only one indicator.

Target 9.3 is not assessed in this report. Target 9.3 ("increase the access of small-scale industrial and other enterprises, particularly in developing countries, to financial services including affordable credit and their integration into value chains and markets") aims at increasing the integration of small-scale firms in value chains and markets. It is monitored by two indicators: i) the proportion of small-scale enterprises in industry value added and ii) the proportion of small-scale enterprises with a loan or a line of credit. As for Target 9.2, the share of small-scale enterprises in industry value added is dependent on the national context and does not lend itself to an assessment whereby higher shares always imply better outcomes. Therefore, this indicator is considered to be mainly informative of the national context, but it is not used to assess performance. The latter indicator (proportion of small-scale enterprises with a loan or a line of credit) is available only for 18 OECD countries and cannot be included in the report.

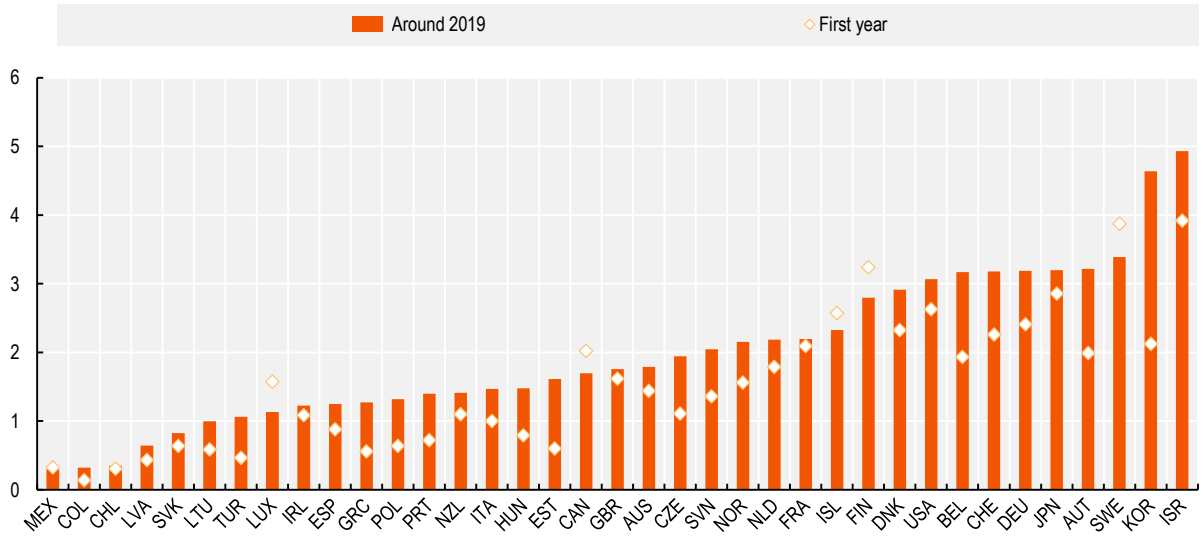
While CO_2 emissions are being decoupled from GDP, emissions per unit of manufacturing value added are still increasing in some OECD countries. Target 9.4 ("by 2030 upgrade infrastructure and retrofit industries to make them sustainable, with increased resource use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, all countries taking action in accordance with their respective capabilities") aims at making infrastructure and industries sustainable. It

is monitored through an indicator on the amount of carbon dioxide emissions (per unit of GDP, per unit of GDP from fuel combustion, and per unit of manufacturing value added). While the need to reduce industrial emissions is obvious, no target level is defined by the 2030 Agenda. For the purpose of this report, the target is benchmarked based on the level of emissions observed in 2015 in OECD countries with the lowest emissions – i.e. around 100 g of CO_2 emissions per unit of GDP and 85 g of CO_2 per unit of manufacturing value added.[29] Overall, around 2019,[30] Switzerland, Ireland, Sweden and Denmark were the OECD countries with the lowest level of industrial emissions and were therefore considered as having already achieved the target for both measures. In addition, on average across different measures, eight more OECD countries are considered to be close to the target (the United Kingdom, France, Costa Rica, Lithuania, Italy, Austria, Latvia and Norway), while eight are considered as being still far away from the target (Turkey, the Czech Republic, the Slovak Republic, Korea, Estonia, Poland, Canada and Australia). Due to differences in the structure of national economies, some differences arise when looking at performance per unit of GDP or per unit of manufacturing value added. For instance, Korea and Estonia report much better results when CO_2 emissions are benchmarked against manufacturing value added. Over time the picture depends on the metric used. Emissions per unit of GDP are decreasing in all OECD countries except Chile. Yet, progress achieved over the past two decades is not likely to allow reaching the target for a vast majority of them (23 or 27 of the 38 member states, depending on the source used). Patterns on emissions per unit of manufacturing value added are even less encouraging, with six OECD countries not reporting any progress (Luxembourg, New Zealand, Israel, Greece, Mexico and Costa Rica).

Scientific research was enhanced in almost all OECD countries. Target 9.5 aims at enhancing scientific research ("Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending") and is monitored by the amount of R&D expenditure as a share of GDP and the number of researchers (in full-time equivalent) per million inhabitants. While the 2030 Agenda clearly states that the number of researchers as well as the budgets devoted to research should be increased, it does not provide any numerical value to be reached. Following the procedures defined in the methodological annex, the target is based on the levels of R&D expenditure and the densities of researchers observed in 2015 in OECD countries with the highest performance – i.e. 3.3% of GDP devoted to R&D and around 5 900 researchers (in full-time equivalent) per million inhabitants.[31] The two indicators are highly correlated (0.83) and, with a few exceptions, they suggest that, in 2019, eight countries were at short distances to the target on both indicators (Sweden, Korea, Austria, Denmark, Switzerland, Japan, Germany and Belgium), and another eight countries do well on only one of the two indicators (Israel[32], Iceland, the United States, Norway, the Netherlands, New Zealand, Ireland and Finland) – using the OECD distribution of outcomes, distances are short if R&D expenditures are greater than 2.8% of GDP and researcher density is above 5 000 per 1 000 000. Conversely, 10 countries (Poland, Spain, Italy, the Slovak Republic, Turkey, Latvia, Chile, Mexico, Costa Rica and Colombia)[33] were considered as far from the target for both indicators, and another nine were far for only one indicator (New Zealand, Ireland, Portugal, Canada, Luxembourg, Estonia, Hungary, Greece and Lithuania). Over the past two decades, R&D intensity and/or employment in research increased in the vast majority of OECD countries – see Figure 4.7 for R&D expenditure. Yet, as stressed by OECD work on science and technology data and indicators (OECD, 2021[35]), this aggregate picture may hide significant disparities among the different streams of research. For instance, an experimental mapping of government R&D support onto SDG clusters suggests that support for "industry and knowledge" is more than twice the support to the other sectors assessed (health and society, planet and infrastructure and security) (OECD, 2021[35]).

Figure 4.7. Research and development expenditure (Target 9.5)

As a percentage of GDP



Note: First year refers to 1998 for Australia; 2001 for Mexico, Greece, New Zealand, Canada, Norway, Denmark, Australia and Sweden; 2007 for Chile; and 2000 for otherwise. Around 2019 refers to 2017 for Australia and Switzerland; 2018 for Chile; 2020 for Mexico, Canada and Australia; and 2019 for otherwise.
Source: (OECD, 2021[36]), "Main Science and Technology Indicators", *OECD Science, Technology and R&D Statistics* (database), https://doi.org/10.1787/data-00182-en (accessed on 29 October 2021).

StatLink https://stat.link/uojd98

As with other ODA-related targets, Target 9.a is not assessed in this report. Target 9.a aims at *"*facilitating sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, LDCs, LLDCs [Landlocked Developing Countries] and SIDS [Small-Island Developing States]*"*, and it is monitored by an indicator of the total official international support to infrastructure. Despite available data, the indicator is not analysed in this report, as a higher share of total ODA to one area would imply lower shares in other areas, which are also targeted by the 2030 Agenda. Yet, OECD data show that official development aid for economic infrastructure has been constantly on the rise over the last decade. Within this total, the main sectors assisted were transport and the banking and financial services sector.

Target 9.b is not assessed in this report. Target 9.b aims at *"*supporting domestic technology development, research and innovation in developing countries including by ensuring a conducive policy environment for inter alia industrial diversification and value addition to commodities*"*. The target is monitored through an indicator on the proportion of medium and high-tech manufacturing value added in the total value added of developing countries. As such, this indicator is not used to assess performance (increasing the share of medium- and high-tech manufacturing in total value added would be detrimental to other sectors).

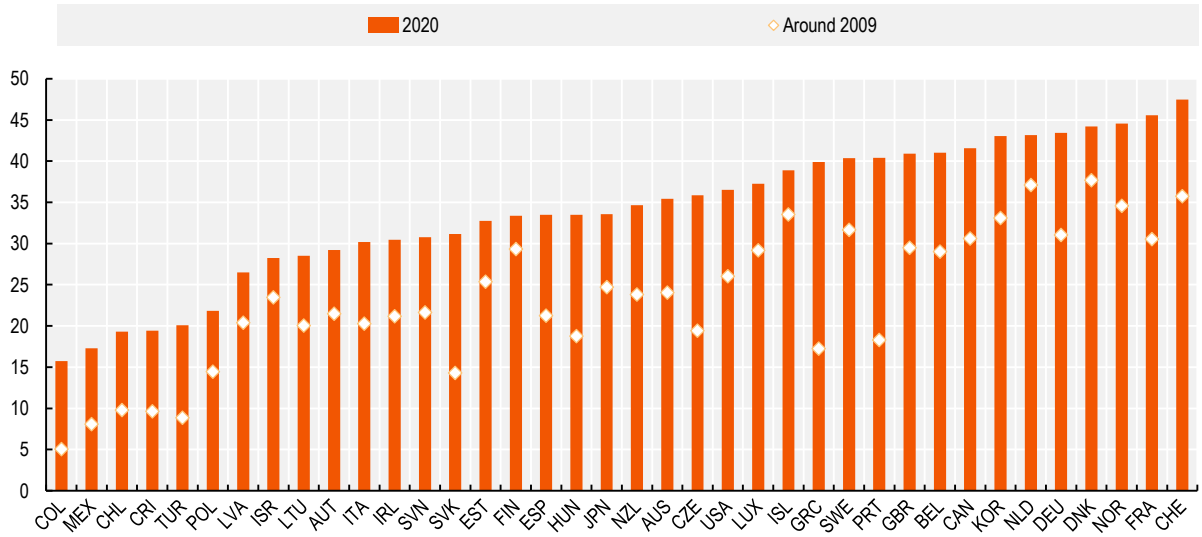
Almost all OECD residents are connected to mobile networks. Target 9.c aims at *"*significantly increasing access to ICT and striving to provide universal and affordable access to internet in LDCs by 2020*"*. The global indicator framework proposes to measure this through data on the proportion of population covered by different generations of the mobile network (2G, 3G and 4G). However, as operators in many OECD countries have announced the "shutting down" of legacy wireless networks (e.g. 2G/3G networks) and the transition to the next evolution of mobile networks (OECD, 2020[37]), this report does not take into account mobile coverage of 2G and 3G networks.[34] In order to account for possible measurement errors, the target level is set in this report at 97% of the total population. Overall, in 2019,

almost all OECD residents were connected to mobile networks. In a few cases, though, some countries are still slightly below the 97% threshold. For instance, 4G mobile coverage ranges between 88% and 97% of the population in seven OECD countries, including Chile, Ireland, Mexico, Costa Rica, Israel, Latvia and Turkey. Over time, though, all OECD countries have been progressing very rapidly towards universal coverage, and 33 out of 38 OECD countries are expected to meet the target by 2030.

Still, persistent connectivity divides remain. While the global indicator framework proposes to monitor access to ICT through a mobile network, relying on this measure alone for OECD countries may mask significant connectivity gaps. Therefore, to assess whether people and firms are actually connected, the present report also assesses connectivity through measures of broadband penetration. Given that fixed broadband subscriptions are usually shared by all members of a household, it is not obvious what would be the minimum value for which access would be universal. For this reason, the target value has been set at 40 subscriptions per 100 inhabitants, using the 10th percentile of the OECD distribution in 2015, with Denmark, the Netherlands and Switzerland being the top three-performing countries.[35] Figure 4.8 shows that, in 2020, 16 OECD countries were already at this rate or close to it (i.e. there were more than 36 subscriptions per 100 inhabitants), but seven were considered as far from the target with subscription rates below 27 (Turkey, Chile, Latvia, Poland, Costa Rica, Mexico and Colombia). Yet, even in countries with higher penetration rates, some difference in the levels of access may occur in terms of geography (e.g. as urban and rural areas), by gender, by age, by skill level, and in general, by different vulnerable groups in society (OECD, 2021[38]). Still, subscription rates are increasing in all OECD countries.

Figure 4.8. Total fixed broadband subscriptions (Target 9.c)

Per 100 inhabitants



Note: Around 2009 refers to 2012 for Costa Rica and 2009 for otherwise.
Source: (OECD, 2021[39]), "Fixed broadband subscriptions" (indicator), https://doi.org/10.1787/902e48ee-en (accessed on 29 October 2021).

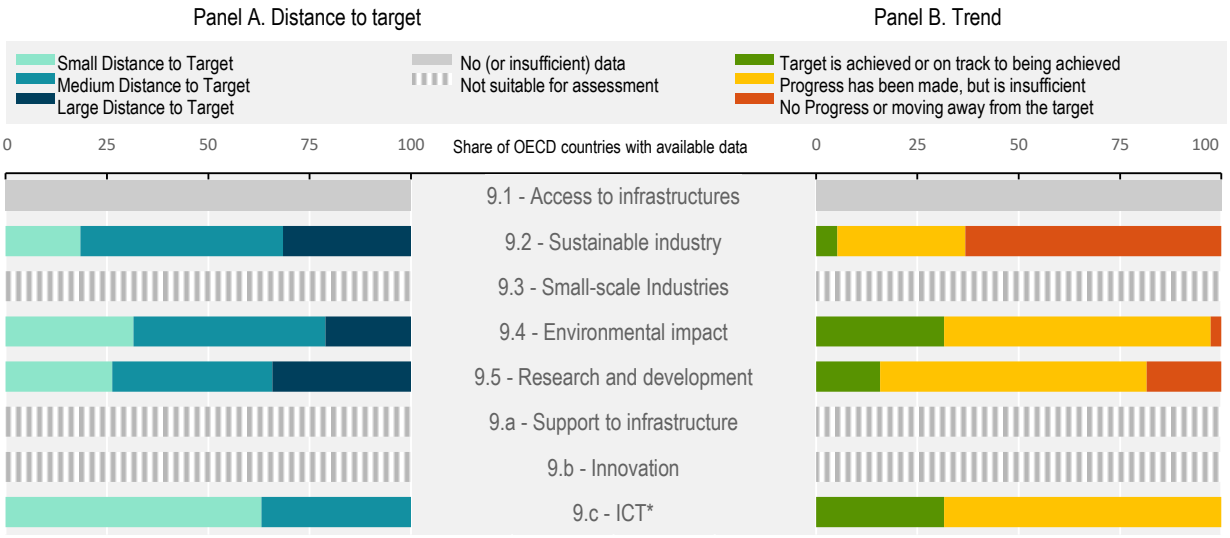
StatLink https://stat.link/s5pgyw

Finally, while it may be out of the scope of this report, it is important to stress that closing the connectivity divide means not only providing access to broadband but also accessing the high-quality communication networks and services at affordable prices. To do this, it would be important to measure the availability of broadband through indicators such as coverage, penetration and uptake as well as the performance (i.e. quality) of the broadband connection within and across countries (OECD, 2021[38]).

Summing up

Overall, the assessment of Goal 9 is limited to only half of the targets underpinning it. Among those, the current performances vary, and while a majority of OECD countries show some progress, few will be able to reach the target by 2030 if current trajectories continue (Figure 4.9, panel B). First, the intensity of manufacturing value added varies considerably among OECD countries, and six out of ten countries are not making any progress towards the target or even moving further away (Target 9.2). Second, despite significant progress in reducing the environmental impacts of industry in most OECD countries over the past two decades, only one-third of them are expected to have made adequate reductions in industrial CO_2 emission levels by 2030 (Target 9.4). Beyond the targets relating to industry and manufacturing, Goal 9 also includes targets relating to innovation and infrastructure. For the most recent year, only one in four OECD countries is close to the desired levels, but almost all of them are raising their levels of research and development expenditure and the density of researchers (Target 9.5). Finally, while connectivity gaps remain an issue, available data suggest that no OECD country appears to be far from reaching target on increasing ICT and internet access – the only target with a 2020 deadline (Target 9.c, Figure 4.9, panel A).

Figure 4.9. Distance to targets and trends over time in OECD countries, by SDG target, Goal 9



Note: * refers to targets with a 2020 deadline. Panel A shows the distribution of OECD countries in terms of the distance that they need to travel to reach each SDG target. Distances are measured in standardised units (s.u.) – see the methodological annex for details. Countries' distances, based on the level of the indicators in the most recent available observation, have been grouped into three clusters: small distances (i.e. less than 0.5 s.u.), shown in light blue; medium distances (from more than 0.5 s.u. to 1.5 s.u.), shown in medium blue; and large distances (i.e. more than 1.5 s.u.), shown in dark blue. Panel B shows the distribution of OECD countries in terms of recent changes in their indicators for each target. Countries' progress, based on changes in the indicators over recent years, are grouped into three clusters: those whose recent pace of progress should be sufficient to meet the target by 2030, shown in green; those whose recent progress should be insufficient to meet the target by 2030, shown in orange; and those whose recent performance has been stagnating or moving further away from the 2030 target, shown in red – see the methodological annex for details. The figure also highlights targets with no data to assess either their current distance or their pace of progress (shown in grey). Time series are considered as missing when there are two or fewer data points for each country; indicators are considered as missing when they are unavailable for 20 OECD countries or more, or for less than three world regions – see the methodological annex for details.

Source: All data is taken and adapted from (UNDESA, 2021[3]), *SDG Global Database*, https://unstats.un.org/sdgs/unsdg and (OECD, 2021[4]), *OECD.Stat,* https://stats.oecd.org/ (accessed on 29 October 2021).

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Impact of the COVID-19 pandemic on Goal 9

While the pandemic has not had a direct impact on individual access to infrastructure, it is likely to have a lasting impact on transport (Target 9.1). As highlighted by the International Transport Forum (ITF, 2021[40]), the COVID-19 pandemic has posed an unprecedented challenge to the transport sector (both passenger and freight volumes). It has brought cities to a standstill, halted international travel and strained supply chains, forcing logistics operations to pivot radically to keep goods flowing. Early evidence collected by the ITF illustrates the strong impact that each wave of COVID-19 had on the total volumes of travel and its different modes. Given that the impact of the pandemic on Target 9.1 is likely to be uneven within economies and among mode of transports, the expected effect is classified as mixed (Table 4.4).

Beyond access to infrastructure, Goal 9 also encompasses many other dimensions, including the promotion of an inclusive and sustainable industrialisation (Target 9.2). **The blow to the manufacturing sector was greater from the pandemic than from the global financial crisis.** While service sectors requiring close proximity between consumers and producers, or between large groups of consumers, were hard hit across all economies, manufacturing was also affected. The unprecedented protective policy that governments deployed preserved firms and jobs and the economic fabric more generally in most advanced economies. As a result, the manufacturing sector is now growing rapidly, with merchandise trade rebounding strongly as borders gradually reopen and travel slowly resumes (OECD, 2021[5]). While recovery packages have the potential to shape the medium-run impact of the COVID crisis on the manufacturing sector and to incentivise firms to further contribute to the SDGs (OECD, 2021[41]), too many headwinds persist, and there is some uncertainty about the evolution in the medium to long-term (Table 4.4). As highlighted by OECD (2021[42]), disruption in the supply chains during the COVID-19 outbreak highlighted the interconnectedness between countries through global value chains and spurred renewed debate about the costs and benefits of globalisation. The pandemic may encourage some reshoring motivated by strategic considerations. This would in turn affect the dynamics of the manufacturing sector.[36]

Small-scale industries have been strongly affected by the pandemic (Target 9.3). With limited cash reserves to survive lockdowns and drops in sales, the crisis posed a significant challenge to many of them. The coronavirus pandemic has affected SMEs on both the supply side (companies experience a reduction in the supply of labour) and demand side (a dramatic and sudden loss of demand and revenue for SMEs severely affects their ability to function, and/or causes severe liquidity shortages). The various impacts are hitting both larger and smaller firms. However, the effect on SMEs has been especially severe, particularly because of higher levels of vulnerability and lower resilience related to their size (OECD, 2020[43]). Yet, in the longer run, considerable uncertainty surrounds the situation of small and medium-sized enterprises (SMEs) in general (Table 4.4). While they account for the bulk of companies, value added and employment in OECD countries, preliminary evidence suggests that SMEs have been more affected by COVID-19 than other firms (Chetty et al., 2020[44]), and that policy support has been crucial in keeping them afloat (OECD, 2020[45]). Nevertheless, little is known about their financial position. Most of the analysis on SMEs currently relies on simulations and indicates that small firms are facing more critical liquidity and solvency issues than are large ones, and to a potentially large number of near-term insolvencies (OECD, 2021[5]).

As highlighted in the Planet chapter, the severe reduction in economic activity and mobility has caused an unprecedented decline of global carbon dioxide emissions (Target 9.4). According to the IEA (2021[8]), global energy-related CO_2 emissions fell by about 6% in 2020, the largest annual drop in global energy-related CO_2 emissions since the Second World War – around twice as large as the combined total of all previous reductions since that time. However, carbon dioxide can stay in the air for centuries, and, despite lower CO_2 emissions, atmospheric concentrations of these gases continued to increase during the pandemic (NOAA, 2021[46]). In addition, the overall decline in CO_2 emissions masks significant variations among countries and over the time of year. For instance, compared to 2019, reductions in energy-related CO_2 emissions were estimated to be larger in advanced economies than in emerging

market and developing economies (IEA, 2020[47]). In addition, while 2020 marked the largest absolute decline in global CO_2 emissions in history, the evidence of a rapid rebound in emissions and energy demand in many economies underscores the risk that CO_2 emissions could rise significantly in 2021 (IEA, 2020[48]).

Science, technology and innovation systems have responded strongly and flexibly to the COVID-19 crisis (Target 9.5). Newly funded research initiatives worth billions of dollars have been set up in record time, and research and innovation have led to the rapid development of vaccines. At the same time, such widespread engagement risks diverting research efforts away from non-COVID-19-related topics. The effects of the pandemic, particularly lockdowns, have also disrupted the normal functioning of innovation systems, endangering key productive and innovation capabilities, especially in hard-hit sectors. On an aggregate basis, business investments in research and innovation are pro-cyclical, and thus prone to contracting in times of crisis. This crisis may be different, since some of the top global R&D players expanded their activities during the crisis. The pandemic could exacerbate existing gaps in business research and innovation activities between "leading" and "laggard" sectors, large and small firms, and geographical areas (OECD, 2021[49]).

The COVID-19 pandemic has fuelled demand for high-quality connectivity. With mobility restricted during the pandemic, many residents of OECD countries have been working and studying from home. In this unprecedented situation, the resilience and capability of broadband networks have become even more critical. Not only has the COVID-19 pandemic fuelled demand for high-quality connectivity, but it has also increased the awareness among policy makers across the OECD that it is now urgent to act to close connectivity divides, in particular with rural and remote areas (OECD, 2021[38]). Yet, the COVID-19 pandemic has also delayed the deployment of major recent technologies such as 5G (OECD, 2020[37]). Overall, while the impact of the pandemic on Target 9.c is deemed to be mixed in the very short run, operators are catching up quickly, and many countries are investing to expand broadband as a way to recover from the crisis. Therefore, the pandemic's overall impact on connectivity should be rather positive in the longer term (Table 4.4).

Table 4.6. Summary impact of the COVID-19 pandemic on Goal 9 in OECD countries

	Short-term impact of the pandemic	Long-term impact of the pandemic
9.1 – Access to infrastructures	mixed	mixed
9.2 – Sustainable industry	negative	
9.3 – Small-scale Industries	negative	
9.4 – Environmental impact	positive	none
9.5 – Research and development	mixed	
9.a – Support to infrastructure		
9.b – Innovation		
9.c – ICT*	mixed	positive

Note: * refers to targets with a 2020 deadline. The table summarises the likely impact of the pandemic in the short-run (i.e. one to two years after the pandemic hit) and in the long-run (i.e. by 2030) on SDG targets. The overall impact is characterised through five distinct categories: "positive" if the COVID-19 pandemic has a favourable impact on the target, "negative" if the COVID-19 pandemic has a deleterious impact on the target, "mixed" if the impact on the target is different among countries or among the different dimensions of the target, "none" when it is not expected that the COVID-19 pandemic will have an impact, and the cell is left blank when data are not available or when available studies do not allow firm conclusions. These findings reflect OECD work on the impact of the pandemic (see https://www.oecd.org/coronavirus) as well as work conducted by other international organisations and academia.

Goal 10 – Reduced inequalities

Goal 10 aims at reducing inequality within and between countries. Income inequality had been on the rise in most OECD countries over the past decades, and around one in ten OECD residents is considered as relatively income poor. In addition, while tax and benefit systems remain key to prevent people falling into poverty and to reduce inequality, they have become less redistributive over time. Beyond inequality within countries, Goal 10 also aims at reducing inequality between countries. In particular, it covers issues such as the representation of developing countries in global institutions, migration and mobility, and access to international markets and international development flows (such as ODA, FDI and remittances). Despite the paucity of data, the situation seems to be more positive on this front. On migration, for instance, it appears that most OECD countries have developed policies to facilitate migration and mobility. Yet, despite encouraging trends, many OECD countries keep tariff barriers to least developed countries on some segments of their economies, and more efforts are needed to reduce the cost of remittance transfers.

The COVID-19 pandemic has had a diverse impact on Goal 10, exposing pre-existing inequalities and risking the widening of structural gaps. Within countries, redistribution through tax and transfers has been key to limit the economic impact of a crisis on vulnerable populations. In most OECD countries, government support measures to households have helped offset some impacts of the COVID-19 crisis on income inequality and poverty. It has nevertheless affected almost every dimension of people's lives, with differential impacts across countries and groups of people. The pandemic also has had a direct impact on inequalities between countries. The pandemic's economic impact has been uneven among economies, shifting the composition of GDP across sectors. It also has had dramatic consequences on both migration and development and financial flows (including ODA, FDI and remittances).

Assessing OECD countries' performance on Goal 10

This report uses data from the *SDG Global Database* together with OECD sources. Yet, the starting point always remains the global indicator framework, curated by the IAEG-SDGs. Table 4.7 shows that data allow the monitoring of eight of the 10 targets underpinning Goal 10. For this goal, five indicators sourced from the OECD complement the *SDG Global Database*. While three of these indicators align with the global indicator framework, drawing from OECD sources allows offering longer time-series (10.1.1, 10.4.1 and 10.4.2) or being timelier (10.2.1 and 10.4.1). Relying on OECD sources also allows monitoring Target 10.3, for which data in the *SDG Global Database* insufficiently cover OECD countries. On top of the indicators listed in Table 4.7, the database includes three extra data series to monitor Targets 10.7 and 10.a, but these are considered to be mainly informative in the context of Goal 10 (details and data for all indicators are available at https://www.oecd.org/wise/the-short-and-winding-road-to-2030-data-chapter-4-prosperity.xlsx).

Table 4.7. Available data series supporting the monitoring of Goal 10

Indicator code	Indicator Label	Available over time	Primary source
10.1.1	Growth rates of household expenditure or income per capita (difference)	No	*SDG Global Database*
10.1.1	*Difference between the annual average growth rates among the bottom 40 percent of the population and the total population (3-year average)*	Yes	OECD
10.2.1	Relative income poverty rate	Yes	OECD
10.2.1	Proportion of people living below 50 percent of median income	Yes	*SDG Global Database*
10.3.1	*Share of population that believes their place of residence is a good place to live for racial and ethnic minorities*	Yes	OECD
10.4.1	Labour share of GDP	Yes	*SDG Global Database*
10.4.1	Compensation of employees as a share of GDP	Yes	OECD

Indicator code	Indicator Label	Available over time	Primary source
10.4.2	Relative redistribution	Yes	OECD
10.4.2	Redistributive impact of fiscal policy, Gini index	No	*SDG Global Database*
10.5.1	Non-performing loans net of provisions to capital	Yes	*SDG Global Database*
10.5.1	Regulatory Tier 1 capital to risk-weighted assets	Yes	*SDG Global Database*
10.5.1	Regulatory capital to assets	Yes	*SDG Global Database*
10.5.1	Return on assets	Yes	*SDG Global Database*
10.5.1	Net open position in foreign exchange to capital	Yes	*SDG Global Database*
10.5.1	Non-performing loans to total gross loans	Yes	*SDG Global Database*
10.5.1	Liquid assets to short-term liabilities	Yes	*SDG Global Database*
10.7.2	Countries with migration policies to facilitate orderly, safe, regular and responsible migration and mobility of people, by policy domain	No	*SDG Global Database*
10.a.1	Proportion of tariff lines applied to imports with zero-tariff	Yes	*SDG Global Database*
10.c.1	Corridor remittance costs as a proportion of the amount remitted	No	*SDG Global Database*
10.c.1	SmaRT corridor remittance costs as a proportion of the amount remitted	No	*SDG Global Database*

Note: Indicators in italic are not included in the global indicator framework but are used in this report to tailor the analysis to OECD countries.

Over the past two decades, income inequality has risen in most OECD countries. Target 10.1 ("by 2030 progressively achieve and sustain income growth of the bottom 40% of the population at a rate higher than the national average") aims at fostering income growth of the bottom 40% of the population, and thus indirectly at reducing income inequality. The target is measured by the difference in percentage points between the income growth rate observed among the bottom 40% of the population and that observed among the total population.[37] When income is growing faster for the poorer population than the national average, inequality falls; conversely, when the income growth of the poor is lower than the national average, income inequality rises. The 2030 Agenda does not provide any ready-to-use target. Country performances are thus benchmarked in this report against the level prevailing in the top-performing OECD countries in 2015 (i.e. namely a pro-poor growth of 0.9 percentage point higher than the national average over the past five years).[38] In 2018, OECD data were available for 34 OECD countries. Six of them (Costa Rica, Lithuania, Luxembourg, Denmark, Switzerland and the United Kingdom) are classified as close to the target (on average, over the past five years, the income of the bottom 40% rose more than 0.5 percentage point faster than the national average), and 15 are considered as far from the target (income growth of the bottom 40% was 0.3 point below the national average), with the furthest being Greece, Estonia and Mexico (more than 2 percentage points below average growth). This means that, on average, inequality remains on the rise in most OECD countries. Taking a longer time-span confirms that most OECD countries have become more unequal. OECD data suggest that 18 countries (out of the 25 for which time series are available) showed no progress (or are even regressing) on Target 10.1. These patterns are in line with previous OECD analysis showing that, in many OECD countries, the 40% of the population at the lower end of the distribution benefited little from economic growth. In some cases, low earners have even seen their incomes fall in real terms (OECD, 2015[50]).

Beyond income inequality, poverty remains an issue in most OECD countries. Goal 10 also aims at empowering and promoting social, economic and political inclusion, operationalised through measures of relative income poverty. Target 10.2 calls on countries to "empower and promote the social, economic and political inclusion of all irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status" by 2030. While the language of the 2030 Agenda does not provide guidance for Target 10.2, the target was set in line with Target 1.2 for the sake of consistency (i.e. a relative poverty rate of 5.5%). For the latest year available (2018 in most OECD countries), one in ten OECD residents is considered as relatively income poor. This means that, on average, OECD countries still have a large distance to travel to meet the target. As underlined by Morelli, Smeeding and Thompson (2015[51]), most OECD countries

have not shown any improvement on relative income poverty. Data included in this report suggest that only four OECD countries achieved some reduction in relative income poverty over the past 15 years (Ireland, Mexico, Poland and the United Kingdom). Yet, OECD (2019[52]) notes that, keeping the value of the relative poverty line constant (i.e. using an "anchored" poverty line) may have a significant impact on the picture, with increases in income poverty much higher than what is suggested by "relative" income poverty.

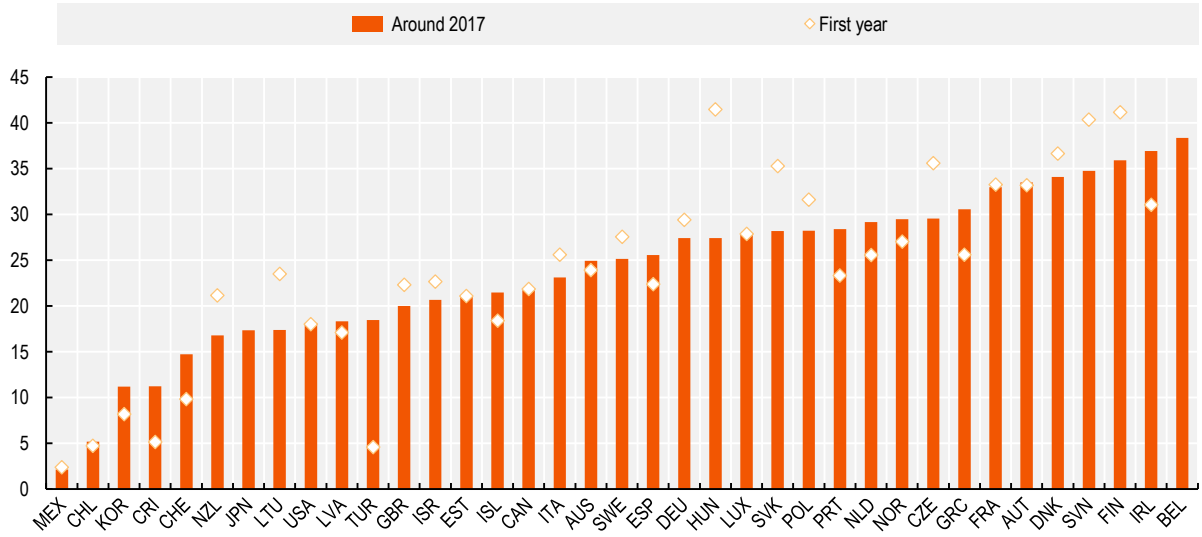
In terms of ensuring equal opportunity to racial and ethnic minorities, two in five OECD countries are regressing. Target 10.3 focuses on inequality of opportunity ("ensure equal opportunity and reduce inequalities of outcome, including through eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and actions in this regard"). Usually, inequality of opportunity (or "ex ante inequality") refers to how different circumstances involuntarily inherited or faced by individuals could affect their economic achievements later in life (Bourguignon, 2018[53]). For instance, it may refer to the impact of family background on education and skills (see discussion on Target 4.5 in the People chapter for more info). According to the global indicator framework, this target should be monitored through an indicator on the "proportion of population reporting having personally felt discriminated against or harassed in the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law", yet UN data do not cover enough OECD countries on a comparable basis to be included in this report. Following the global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development, this indicator is repeated under Target 16.b. Still, the share of population believing their place of residence is a good place to live for racial and ethnic minorities, an indicator that is based on non-official surveys, provides some insights.[39] While, in theory, the target level should be set at 100%, it has been operationalised at 97% to allow for measurement errors. In 2021 (or most recent year), only four OECD countries (Norway, Canada, Portugal and New Zealand) are at a short distance to the target, with more than 88% of the population feeling that their place of residence is a good place to live for racial and ethnic minorities. Conversely, in 13 OECD countries, this share falls below 70%. It is even below 60% in Greece and Lithuania and below 50% in Israel. While a majority of countries are on an upward trend (21 of 37 with available data), Portugal and Norway are the only OECD countries that are on a trend that would allow reaching the target by 2030. In addition, it may be important to note that inequality of outcomes (see discussion on Targets 10.1, 10.2 and 10.4) and inequality of opportunities go hand in hand, largely because higher outcome inequality curbs social mobility and opportunities for the poor and people from disadvantaged backgrounds (OECD, 2015[50]).

In all OECD countries, income inequality is greatly reduced through tax and benefit systems, but these redistributive effects have weakened over time. Target 10.4 (*"*adopt policies especially fiscal, wage, and social protection policies and progressively achieve greater equality*"*) aims at narrowing income inequality. While the range of policies mentioned in the target is wide, the global indicator framework benchmarks it against two different indicators: i) the labour share of GDP[40] and ii) the redistributive impact of fiscal policies.[41] The labour share is the share of economy-wide value added allocated to labour compensation. While labour shares have long been stable, a growing body of evidence suggests that they have been subject to a secular decline (ILO and OECD, 2015[54]). As no ideal level of the labour share can be defined, performance is benchmarked against the highest levels of labour share prevailing among OECD countries in 2015. Using OECD data on the compensation of employees from the National Accounts, this benchmark is set at 52% of GDP (with the top-performing countries being Switzerland, Germany, France and the United States).[42] In 2019, most OECD countries (21) were close to or even above this threshold (i.e. more than 48% of GDP going to employees). For eight of them, however, this share was below 41%, with these countries considered as far away from the target (Greece, Poland, Italy, Chile, Colombia, Turkey, Ireland and Mexico). The dynamic analysis confirms that many OECD countries (18) have been experiencing a decline of the labour share. If the trends observed over the past 20 years were confirmed, then only six OECD countries would be at target level by 2030 (Canada, Estonia, Latvia, Slovenia, Germany and Switzerland).

Beyond labour compensation, Target 10.4 also includes a measure of redistribution through taxes and cash transfers. In all OECD countries, these government programmes significantly reduce income inequality. This is why "net" or "disposable" income inequality is much lower than "market" income inequality. Given that no target level for redistribution is set in the 2030 Agenda, performance is gauged vis-à-vis the highest levels of redistribution observed among OECD countries in 2015 (the target level is operationalised at 38%, benchmarked against the levels observed in Finland, Belgium, Slovenia and Ireland).[43] In 2018 (or closest available year), six OECD countries (Belgium, Ireland, Finland, Slovenia, Denmark and Austria) are considered to be close to the target, with redistribution reducing the pre-tax Gini by more than a third (Figure 4.10). Conversely, in 16 of them, the redistribution rate is below 23%, and it is even below 15% in Switzerland, Costa Rica, Korea, Chile and Mexico. Based on past trends, only seven OECD countries are progressing on this front (Greece, the Netherlands, Portugal, Iceland, Turkey, Switzerland and Costa Rica). These insights are confirmed by other OECD work highlighting the widespread decline in redistribution across the OECD, both on average and in the majority of countries for which data going back to the mid-1990s are available (OECD, 2015[50]; Causa and Hermansen, 2017[55]). This decline was primarily associated with a reduction in cash transfer redistribution and with reforms of tax systems that have cut marginal tax rates for high earners. Still, personal income taxes played a less important and more heterogeneous role across countries.[44]

Figure 4.10. Redistribution through taxes and cash transfers (Target 10.4)

Relative difference between Gini coefficient of household market incomes and Gini coefficient of household disposable incomes



Note: First year refers to 1999 for Finland; 2000 for Canada; 2002 for the United Kingdom; 2005 for Poland; 2006 for Latvia, Switzerland, Italy, Hungary, Portugal and Greece; 2007 for Spain and Australia; 2008 for Germany; 2009 for Chile; 2010 for Costa Rica; 2011 for New Zealand, Turkey, Israel, the Netherlands and Denmark; 2012 for Mexico, Australia and France; 2013 for the United States, Estonia and Sweden; 2015 for Korea and Luxembourg; and 2004 for otherwise. Around 2017 refers to 2014 for New Zealand; 2016 for the Netherlands; 2017 for Iceland, Switzerland, Hungary, Chile and the United States; 2019 for Canada, the United Kingdom, Latvia and Sweden; 2020 for Costa Rica; and 2018 for otherwise.
Source: (OECD, 2021[56]), *OECD Income Distribution Database*, https://stats.oecd.org/Index.aspx?DataSetCode=IDD (accessed on 29 October 2021).

StatLink https://stat.link/d0i7ws

Target 10.5 ("improve regulation and monitoring of global financial markets and institutions and strengthen implementation of such regulations") focuses on the regulation of global financial markets. It is monitored

through a series of financial indicators such as: i) non-performing loans to total gross loans; ii) return on assets; iii) regulatory capital to assets; iv) non-performing loans net of provisions to capital; v) regulatory Tier 1 capital to risk-weighted assets, vi) liquid assets to short-term liabilities and vii) net open position in foreign exchange to capital. In the absence of specific reference values, for all the indicators performance is gauged relative to the levels observed in the top-performing OECD countries.[45] Overall, a vast majority of OECD countries are at a medium distance from attaining Target 10.5. The most notable exceptions are Estonia and Switzerland, where the distance is short on average, and Greece, which is considered to be far from target. Looking at trends over time suggest that 13 OECD countries are on a stable to downward trend. Only 13 are experiencing improvements in most indicators (the United States, Latvia, Switzerland, Israel, Norway, the Netherlands, Germany, Sweden, Lithuania, Denmark, the United Kingdom, Korea and Estonia).

Target 10.6 is not suitable for assessment for OECD countries. Target 10.6 aims at ensuring an "enhanced representation and voice for developing countries in decision-making in global international economic and financial institutions". It is monitored by the proportion of members and voting rights of developing countries in different international organisations. Following the global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development, this indicator is repeated under Target 16.8. While this issue is key to reflect the good functioning of international co-operation, it is not included in this report as it is mainly relevant for non-OECD countries.

Most OECD countries have developed migration policies to facilitate migration and mobility. Target 10.7 calls on countries to "facilitate orderly, safe, and responsible migration and mobility of people, including through implementation of planned and well-managed migration policies" and is underpinned by indicators focusing on very different aspects: i) recruitment costs of foreign workers borne by the employee as a proportion of monthly income earned in the country of destination; ii) countries with migration policies that facilitate the orderly, safe, regular and responsible migration and mobility of people; iii) number of people who died or disappeared in the process of migration towards an international destination; and iv) proportion of the population who are refugees. At the time of drafting this publication, data were available only for the second and fourth indicators. Yet, given that the latter do not have a clear normative direction, this section will discuss only whether OECD countries have developed migration policies that "facilitate orderly, safe, regular and responsible migration and mobility of people".[46] By this measure, most OECD countries (18) were already at the target level in 2019. The 10 remaining countries for which data exist are considered as far from the target despite differences in achievement: nine countries (Italy, Germany, Australia, Ireland, Latvia, Slovenia, Denmark, Turkey and Japan) are classified as "partially meeting" the target, while Mexico is classified as "requires further progress". At present, the available time series do not allow understanding how national migration policies have been changing over time.

Duty-free treatment for the least developed countries and developing countries varies among OECD countries. Target 10.a calls on countries to "implement the principle of special and differential treatment for developing countries, in particular least developed countries, in accordance with WTO agreements". Progress on this target is monitored by the average share of national tariff lines that are free of duty for the least developed countries (LDCs) and developing countries.[47] As no ideal target can be set, the level to be achieved (69%) is defined using the observed OECD distribution of scores, with the best-performing countries being Iceland, Colombia, Chile and Luxembourg. In 2019, the results from OECD countries were quite diverse, ranging from 42% of tariff-lines that are free of duty in the United States to more than 75% in Chile. Overall, 11 OECD countries apply duty free for more than 64% of tariff-lines and are thus considered as close to the target (Chile, Iceland, Costa Rica, Estonia, Slovenia, Latvia, Colombia, Luxembourg, Greece, the Slovak Republic and Hungary). Conversely, 11 are considered as far from target, with rates below 54% (Italy, Korea, New Zealand, Belgium, Portugal, the United Kingdom, Canada, France, Japan, Turkey and the United States). Over time, the proportion of products imported worldwide from the least developed countries and developing countries that are exempted from tariffs has increased

in almost all OECD countries, with only four of them (most of which are considered to be close to target already) not showing significant improvement.

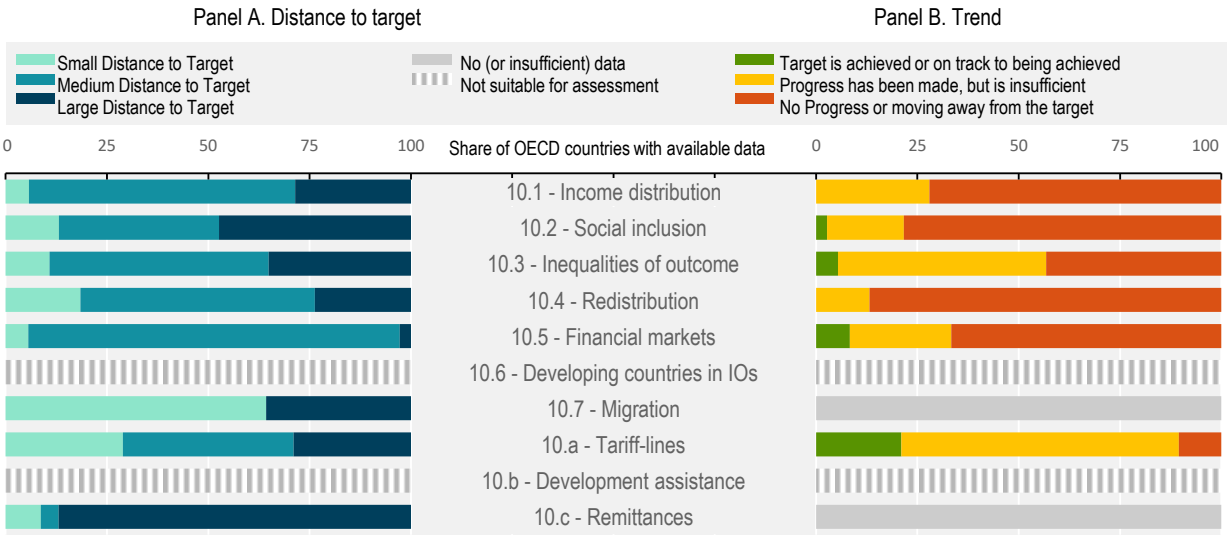
Target 10.b is not assessed in this report. Target 10.b focuses on "encouraging ODA and financial flows, including foreign direct investment, to states where the need is greatest, in particular LDCs, African countries, SIDS, and LLDCs, in accordance with their national plans and programs". As in the case of other aid-related targets, specific ODA streams are not assessed in this report.

Target 10.c commits countries to "reduce to less than 3% the transaction costs of migrant remittances and eliminate remittance corridors with costs higher than 5%" by 2030. The global indicator framework proposes to monitor Target 10.c by an indicator of remittance costs as a proportion of the amount remitted. Although the *SDG Global Database* includes this indicator, it does not cover enough OECD countries. Hence, the present assessment relies on two other measures: i) the share of counterparts for which corridor remittance[48] costs are below 5%; and ii) the share of counterparts for which SmaRT corridor remittance costs are below 5%.[49] For Target 10.c, the 2030 Agenda provides clear guidance on the target to be reached. It pledges the elimination of remittance corridors with costs higher than 5%. As the indicator focuses on the counterparts for which these costs are below 5%, the target level is set at 97% to allow for some measurement error. Data for both indicators are available only for 23 OECD countries. In 2019, only two OECD countries reported corridor costs below this threshold among all counterparts (Chile and Korea), while all other countries are considered to be far from target, with corridor costs above 5% in over half of their counterparts. When it comes to SmaRT remittances, the situation is slightly better: six OECD countries (Chile and Korea but also Costa Rica, Austria, Norway and Spain) are close to the target and five (Japan, Switzerland, Australia, France and Belgium) are at a medium distance. Available data do not allow to gauge progress over time consistently.

Summing up

Overall, in the absence of stepped-up efforts, inequality is expected to remain a major issue for OECD countries. In terms of inequality within countries, most OECD countries are showing worsening trends. Income inequality is on the rise in most OECD countries (Target 10.1), and, for the few OECD countries that appear to be on a downward trend, progress is not likely to allow meeting the target (Figure 4.11, panel B). Similarly, the relative income poverty rate is increasing in eight in ten OECD countries (Target 10.2), and nor are trends encouraging when it comes to inequalities of outcome (Target 10.3). In addition, while redistributive tax-and-benefit systems help reducing inequality (Causa and Hermansen, 2017[55]), nine in 10 OECD countries have become less redistributive over the past decades (Target 10.4). Beyond inequality within countries, although some of the related targets cannot be assessed, available data suggest that OECD countries show a slightly more positive performance in terms of inequality among countries. Duty-free treatment for LDCs and developing countries is considered close to target for about one in four OECD countries, and the vast majority of them are making progress (Target 10.a). On migration, many OECD countries have already developed policies to facilitate safe and orderly migration and mobility (Target 10.7). Conversely, the cost of remittance corridors remains high, with large distances to the target level in the majority of OECD countries (Target 10.c). Finally, on financial soundness indicators, a vast majority of OECD countries are at a medium distance from attaining Target 10.5, and only 13 of them are experiencing improvements in most indicators.

Figure 4.11. Distance to targets and trends over time in OECD countries, by SDG target, Goal 10



Note: IOs refers to International Organisations. Panel A shows the distribution of OECD countries in terms of the distance that they need to travel to reach each SDG target. Distances are measured in standardised units (s.u.) – see the methodological annex for details. Countries' distances, based on the level of the indicators in the most recent available observation, have been grouped into three clusters: small distances (i.e. less than 0.5 s.u.), shown in light blue; medium distances (from more than 0.5 s.u. to 1.5 s.u.), shown in medium blue; and large distances (i.e. more than 1.5 s.u.), shown in dark blue. Panel B shows the distribution of OECD countries in terms of recent changes in their indicators for each target. Countries' progress, based on changes in the indicators over recent years, are grouped into three clusters: those whose recent pace of progress should be sufficient to meet the target by 2030, shown in green; those whose recent progress should be insufficient to meet the target by 2030, shown in orange; and those whose recent performance has been stagnating or moving further away from the 2030 target, shown in red – see the methodological annex for details. The figure also highlights targets with no data to assess either their current distance or their pace of progress (shown in grey). Time series are considered as missing when there are two or fewer data points for each country; indicators are considered as missing when they are unavailable for 20 OECD countries or more, or for less than three world regions – see the methodological annex for details.

Source: All data is taken and adapted from (UNDESA, 2021[3]), *SDG Global Database*, https://unstats.un.org/sdgs/unsdg and (OECD, 2021[4]), *OECD.Stat,* https://stats.oecd.org/ (accessed on 29 October 2021).

StatLink https://stat.link/h1r4t6

Impact of the COVID-19 pandemic on Goal 10

In most OECD countries, government support measures to households have helped offset some impacts of the COVID-19 crisis on income inequality and relative poverty (Targets 10.1 and 10.2). While most macro-economic measures such as GDP or employment dramatically declined during the crisis, average household disposable income per capita (as measured by national accounts) increased by 3.9% in the second quarter of 2020, thanks to government cash transfers (OECD, 2020[57]) – and even by 8.2% between the end of 2019 and the first quarter of 2021. Job retention schemes have been one of the main policy tools used by a number of OECD countries to contain the employment and social fallout of the crisis. By reducing labour costs, job retention schemes have prevented a surge in unemployment, while they have mitigated financial hardship and buttressed aggregate demand by supporting the incomes of workers on reduced working time (OECD, 2020[58]). More concretely, while data on average household income do not allow meaningful inferences on the impact of the crisis on income poverty, recent research using micro-simulation models tend to confirm the positive role played by safety nets in reducing household poverty and income inequality[50] (Figari and Fiorio, 2020[59]; Brewer and Tasseva, 2020[60]; Almeida et al., 2020[61]; Lustig et al., 2020[62]; Li et al., 2020[63]; Han, Meyer and Sullivan, 2020[64]). In addition, beyond poverty, recent evidence suggests that low-income households have been largely sheltered from income drops, while the self-employed, mainly in the upper half of the income distribution, have been affected

more. While this implies stable relative poverty rates in the short run, it also points towards (possibly temporary) drops in income (Grabka, 2021[65]).

While it is difficult to appreciate the very short-term evolution of discrimination, there is some evidence suggesting that this has increased during the pandemic (Target 10.3 – see Table 4.8**)**. For instance, since the start of the pandemic the UN has documented a rise in discrimination, hate speech, social and economic exclusion, stigma and obstacles facing LGBTIQ+ people when it comes to accessing healthcare, education, employment and essential services (UN, 2021[66]). More generally, as stressed by the OECD (2020[67]), many studies suggest that discrimination strongly increases in times of a slack labour market.

As noted above, redistribution through tax and transfers (Target 10.4) has been key to limit the economic impact of a crisis on vulnerable populations, as it plays a critical role in softening the drop in income linked to the crisis. However, the heavy reliance on support measures also raises the possibility that progress may be reversed should the measures be withdrawn. Supporting everyone and closing social protection gaps will remain key priorities beyond the crisis (OECD, 2020[68]), in particular for the large number of non-standard workers who are left behind even in countries with the most advanced social protection schemes. So-called non-standard workers, i.e. part-time workers, the self-employed and workers on fixed-term contracts, account for around 40% of employment on average across OECD European countries, reaching more than 50% in Italy, the Netherlands, Spain and Greece. In many countries, non-standard workers have less access to social protection compared to full-time employees with open-ended contracts (OECD, 2020[45]).

As highlighted by the OECD (2021[5]), **the COVID-19 crisis has demonstrated that a sound financial system (Target 10.5) is key for effective monetary policy transmission and economic resilience during downturns**. Monetary policy remains very accommodative in advanced economies. Policy interest rates have been kept at historically low levels, and forward guidance has stressed that they would remain at their current levels for a considerable time. OECD countries rapidly deployed special COVID-19 emergency liquidity and lending facilities that are now been adjusted in line with changing market conditions. While accommodative monetary policies need to be maintained in the major advanced economies, as currently planned, to help preserve favourable financing conditions, the crisis should not be used as an excuse to roll back regulatory reforms and compromise common international standards and an international level playing field (OECD, 2021[5]).

The COVID-19 crisis has had major consequences for migration flows (Target 10.7). As stressed by the OECD (2020[69]), before the pandemic, permanent migration flows to the OECD amounted to 5.3 million people in 2019, with similar levels for 2017 and 2018. Following the onset of the pandemic, almost all OECD countries restricted admissions of foreigners, and permanent migration flows to OECD countries declined by more than 30% in 2020 (OECD, 2021[70]). Given weaker labour demand, severe travel restrictions as well as the widespread use of teleworking among high-skilled workers and remote learning by students, it is likely that mobility will not return to previous levels for some time. Migrant workers have often been on the frontline of the crisis in many OECD countries. They account for a large share of the OECD medical workforce and other key sectors, such as transport, cleaning, food manufacturing and IT services. Migrants are also more exposed to the health impacts of the pandemic, with studies in a number of OECD countries finding evidence of infection risk among migrants that is at least twice as high as that among the native-born (OECD, 2020[69]). While the majority of OECD countries used temporary measures to mitigate the effect of COVID-19, including specific measures to facilitate the entry of health care and seasonal agricultural workers, the lack of migrant workers risks creating bottlenecks and disruptions in supply chains.

Since the outbreak of the COVID-19 pandemic, most OECD countries implemented trade and trade-related measures (Target 10.a). The WTO (2021[71]) estimated that, among G20 countries, around two-thirds of these measures had a trade-facilitating nature, while one-third could have been considered as

trade restrictive (thus the short-term impact is summarised as positive in Table 4.8). Several of these measures, originally introduced in immediate response to the pandemic, have been extended in 2021. The reduction or elimination of import tariffs and import taxes make up 60% of the trade-facilitating measures taken, and several G2O economies reduced their tariffs on a variety of goods such as Personal Protective Equipment (e.g. face masks), sanitisers, disinfectants, medical equipment and medicine/drugs. Many OECD countries temporarily eliminated their import tariffs on COVID-19 vaccines (including the European Union, Japan, Korea, Mexico, the United Kingdom and the United States). In addition, some countries eliminated, suspended or waived the payment of other taxes and/or duties or decided to defer the payment of tariffs and other taxes on all imported products (WTO, 2021[72]).

The impact of the pandemic on official development assistance is uncertain (Target 10.b). Official development assistance can help absorb the shocks from the decrease in external private investment and remittances – especially in countries that do not have the fiscal resources and reserves to do so on their own. As part of the immediate response to the crisis, multilateral donors such as the IMF and the World Bank provided swift liquidity to developing countries. The economic and fiscal challenges in donor countries will have as-yet unclear short, medium and potentially long-term effects on official development finance (Table 4.8). With donor countries' budgets tightening due to increased domestic spending and public revenue shortfalls, they may face constraints in scaling up development spending. DAC members declared their ambition to "strive to protect ODA budgets" during the COVID-19 crisis (DAC/OECD, 2020[73]). Since many ODA budgets were finalised before the outbreak of COVID-19, the effect of the global economic recession on ODA levels might take time to materialise.

While the pandemic is not deemed to impact remittance costs directly, it could hit the volume of remittances more severely than any previous financial crisis (Target 10.c). To facilitate the transfer of remittances during the COVID-19 pandemic and mitigate the impact of the reduction and loss of remittances on receiving countries, OECD countries have concentrated their efforts on reducing the costs of sending remittances, promoting the use of digital channels and allowing universal access to safe and cheap remittance channels, for example by declaring remittances as essential services (EMN/OECD, 2020[74]). Despite this, in 2020, remittances to developing countries shrank by 20% from 2019 (World Bank, 2020[75]). Countries with fragile contexts along with small island developing states, which are most dependent on the inflow of remittances, will suffer most from this drop. In the medium to long-term, remittance levels will depend on the size of migration flows and on the global economic recovery. Barriers to migration remain and could stifle remittances in years to come, while it will take time to remove forced quarantines and entrance bans. The immediate decline of remittances will reverse if growth rebounds in the advanced economies, but it may take more time to remove the temporary barriers to migration. As a result, migration, whether through studying or working, could act as a brake on the income growth of countries traditionally sending migrants (OECD, 2020[76]).

Table 4.8. Summary impact of the COVID-19 pandemic on Goal 10 in OECD countries

	Short-term impact of the pandemic	Long-term impact of the pandemic
10.1 – Income distribution	positive	
10.2 – Social inclusion	positive	
10.3 – Inequalities of outcome	negative	
10.4 – Redistribution	mixed	
10.5 – Financial markets	mixed	
10.6 – Developing countries in IOs	none	none
10.7 – Migration	negative	negative
10.a – Tariff-lines	positive	
10.b – Development assistance		
10.c – Remittances	negative	

Note: The table summarises the likely impact of the pandemic in the short-run (i.e. one to two years after the pandemic hit) and in the long-run (i.e. by 2030) on SDG targets The overall impact is characterised through five distinct categories: "positive" if the COVID-19 pandemic has a favourable impact on the target, "negative" if the COVID-19 pandemic has a deleterious impact on the target, "mixed" if the impact on the target is different among countries or among the different dimensions of the target, "none" when it is not expected that the COVID-19 pandemic will have an impact, and the cell is left blank when data are not available or when available studies do not allow firm conclusions. These findings reflect OECD work on the impact of the pandemic (see https://www.oecd.org/coronavirus) as well as work conducted by other international organisations and academia.

Goal 11 – Sustainable cities and communities

Goal 11 focuses on cities, aiming at making them more inclusive, safer, more resilient and more sustainable. Still, in the global indicator framework the country level remains the main spatial scale at which this report measures and reports progress towards the SDGs. While some work conducted at the OECD goes beyond national averages to uncover territorial disparities (see Box 4.1), the present chapter tracks national averages across dimensions that are particularly relevant for cities.

Economic development is typically associated with growing urbanisation, and cities are hotspots for a range of social and environmental challenges. Cities in OECD countries are getting cleaner. More and more waste is being diverted from landfills and incinerators to then feed back into the economy through recovery and recycling. Levels of fine particulate matter ($PM_{2.5}$) have also been decreasing in most urban areas. On the other hand, $PM_{2.5}$ remains a threat to human health, and urban sprawl remains a threat to biodiversity. Goal 11 aims at making cities "inclusive, safe, resilient and sustainable" and should therefore cover many other areas such as access to transport and green areas or protection of the world's cultural and natural heritage. Unfortunately, very little comparable data are available on these aspects for OECD countries.

The reduction in economic activity induced by the pandemic in all OECD countries has led to an overall improvement of environmental conditions in cities. As a result, the COVID-19 crisis has led to temporary improvements in air quality and reduced pressures on biodiversity. Yet, in the absence of further measures, these benefits will not last. Conversely, in many cases, the COVID-19 pandemic has highlighted or even exacerbated existing challenges, in particular inequalities in housing conditions and in access to green spaces.

Box 4.1. Measuring the distance to the SDGs in regions and cities

The OECD localised indicator framework for SDGs

The OECD has developed a framework to localise SDG targets and indicators and measure the distance that regions and cities need to go to reach each of the 17 SDGs. This consensual, comparable and standardised framework allows to benchmark performances within countries and across regions and cities in order to support public action across levels of government. The OECD localised indicator framework gets part of its inspiration from the OECD country-level framework presented in the series of *Measuring the Distance to SDG Targets* (OECD, 2019[77]), particularly for the methodology to measure distance and the definition of end values. However, due to the nature and objectives of each tool, there are methodological differences between the two frameworks.

In the context of OECD countries, around 105 out of the 169 SDG targets have been identified as very relevant for regions and cities. Through an extensive literature review and expert consultation, the 169 SDG targets from the United Nations (UN) indicator framework have been classified by their level of relevance (to be measured) at the subnational scale (place-relevant) and by their applicability to the context and specificities of OECD countries. The result is a selection of 105 SDG targets – and more than 100 indicators – for OECD regions and cities (also referred to as "subnational SDG targets"). With its 100+ indicators, the OECD localised framework covers at least one aspect of each of the 17 SDGs for both regions and cities. Nevertheless, the coverage in terms of indicators and targets is higher for regions than for cities (here defined as "Functional Urban Areas"). Although the set of indicators aims to cover the broad spectrum of all 17 SDGs, the coverage of indicators also varies across SDGs.

The OECD visualisation tool for SDGs in regions and cities

The OECD has developed a visualisation tool to help policy makers to measure the distance of regions and cities to the SDGs (see oecd-local-sdgs.org). In its current version, the tool covers around 600 regions and 600 cities from OECD and partner countries and includes more than 100 indicators to monitor progress across the 17 SDGs. These indicators can be visualised individually or as a composite index.

The web tool allows each region and city to visualise its distance to suggested end values for 2030 compare it to its country peer regions or cities and to the country average, as well as with respect to all OECD regions and cities. With the objective of enhancing partnerships and the sharing of best practices for the SDGs at the local level, the tool also suggests profiles of similar regions or cities from different countries that overall are performing better on their path towards achieving the SDGs.

Beyond its aim to foster peer-learning and policy dialogues across regions and cities, the tool also seeks to increase the accountability of governments with regards to the SDGs and raise awareness of the SDGs across the society at large.

Source: (OECD, 2020[78]), *A Territorial Approach to the Sustainable Development Goals: Synthesis report*, OECD Urban Policy Reviews, OECD Publishing, Paris, https://doi.org/10.1787/e86fa715-en.

Assessing OECD countries' performance on Goal 11

This report uses data from the *SDG Global Database* together with OECD sources. Yet, the starting point always remains the global indicator framework, curated by the IAEG-SDGs. Table 4.9 shows that data allow the monitoring of six of the 10 targets underpinning Goal 11. For this goal, four indicators sourced from the OECD complement the *SDG Global Database*. While two of them (indicators 11.6.1 and 11.6.2) align with the global indicator framework, drawing from OECD sources allows offering both more up-to-date data and longer time-series. In another two cases (11.1.1 and 11.3.1), relying on OECD sources allows monitoring countries' performance on targets for which no or insufficient data are available in the *SDG Global Database* (details and data for all indicators are available at https://www.oecd.org/wise/the-short-and-winding-road-to-2030-data-chapter-4-prosperity.xlsx).

Table 4.9. Available data series supporting the monitoring of Goal 11

Indicator code	Indicator Label	Available over time	Primary source
11.1.1	*Overcrowding rate*	Yes	OECD
11.3.1	*Average annual change in built area per capita*	Yes	OECD
11.5.1	Number of directly affected persons attributed to disasters per 100 000 population	No	*SDG Global Database*
11.5.1	Number of deaths and missing persons attributed to disasters per 100 000 population	No	*SDG Global Database*
11.5.2	Direct economic loss attributed to disasters relative to GDP	No	*SDG Global Database*
11.6.1	Municipal Solid Waste collection coverage	No	*SDG Global Database*
11.6.1	Material recovery rate of municipal waste (recycling and composting)	Yes	OECD
11.6.2	Annual mean levels of fine particulate matter	Yes	*SDG Global Database*
11.6.2	Mean population exposure to $PM_{2.5}$ in metropolitan areas	Yes	OECD
11.a.1	Countries that have national urban policies or regional development plans that respond to population dynamics, ensure balanced territorial development and increase local fiscal space	No	*SDG Global Database*
11.b.1	Score of adoption and implementation of national DRR strategies in line with the Sendai Framework	No	*SDG Global Database*
11.b.2	Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies	No	*SDG Global Database*

Note: Indicators in italic are not included in the global indicator framework but are used in this report to tailor the analysis to OECD countries.

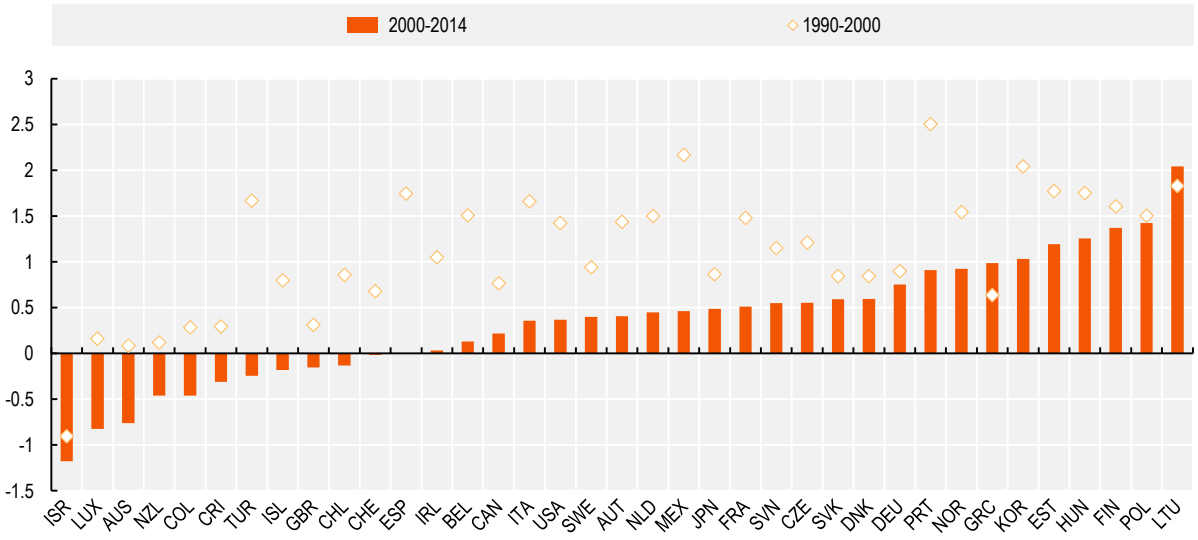
Overcrowded housing affects many people in OECD countries. Target 11.1 commits countries to "ensure access for all to adequate, safe and affordable housing and basic services, and upgrade slums" by 2030. Still, access to affordable housing has become increasingly challenging in many countries (OECD, 2021[79]). At global level, Target 11.1 is monitored in the global indicator framework by an indicator on the proportion of urban population living in slums, informal settlements or inadequate housing. Unfortunately, very few data on these aspects are available for OECD countries. To overcome this problem, this report measures the adequacy of housing through data on overcrowded housing. The overcrowding rate takes into account households' different personal space needs, depending on household members' age and gender and their relationships. As everyone needs sufficient space in their homes for privacy and health and to fulfil all the functions that a home should provide, such as space to study, spend time with family or entertain (OECD, 2011[80]), the aspirational target level for this indicator is zero. However, here it is set at 3% to allow for measurement errors. Based on data for the latest year available (around 2019), 15 OECD countries are close to the 2030 target (i.e. less than 8% households are considered overcrowded), among which three are already below 3% (Ireland, Japan and Canada). Distances are much larger in Mexico, Latvia, Poland, the Slovak Republic, Italy and Greece. Beyond the static snapshot, OECD countries' progress towards housing adequacy is mixed. While a few OECD countries (12) have made progress towards more adequate housing, most have made no progress in recent years or moved further away from the target (Figure 4.13, panel B).

Target 11.2 cannot be assessed due to lack of data. Target 11.2 commits countries to "provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons" by 2030 and, according to the global indicator framework, it is measured by the proportion of population with convenient access to public transport. Unfortunately, no internationally agreed methodology exists for measuring the convenience and service quality of public transport (UNSD, 2021[81]).[51]

Urban sprawl remains a threat to green space and biodiversity in many countries. Target 11.3 asks countries to "enhance inclusive and sustainable urbanization and capacities for participatory, integrated and sustainable human settlement planning and management in all countries". The global monitoring for

this target has two main components. First, the sustainability of urbanisation is assessed through the ratio of land consumption to population growth. Second, participation in urban planning is measured through an ad hoc index of the direct participation of civil society in urban planning. The *SDG Global Database* does not include data for either of these indicators yet. To overcome this limitation, this report relies on data on the average annual change in built area per capita.[52] Land use and land cover change, land degradation and infrastructure development are among the main drivers of the loss of green space and biodiversity (OECD, 2020[22]). Thus, decoupling the growth in land consumption from population growth is key. As no reference level for this indicator exists, the target (i.e. annual change of -0.46%) is based on the distribution of OECD outcomes in 2015, with the best-performing countries being Australia, Israel, New Zealand and Luxembourg. Based on this criterion, 10 countries are considered close to target (i.e. recent annual change was below -0.10% per year), while 11 are far from it (i.e. the annual change in built area exceeds 0.63% per year) – see Figure 4.12. Beyond this static snapshot, most (24 out of 27 countries for which dynamic analysis is available) OECD countries have recently achieved reductions in built area per capita and are thus getting closer to the target. Yet, the rate of reduction is expected to be insufficient to reach the target level in all of them except for Israel. As stressed in (OECD, 2020[22]), most newly built surfaces are on agricultural land, often cropland, while in some countries development takes place mostly on areas covered by trees, grass or shrub.

Figure 4.12. Average annual change in built area per capita (Target 11.3)



Source: (OECD, 2021[82]) "Built-up area" (indicator), https://doi.org/10.1787/7c06b772-en (accessed on 29 October 2021).

StatLink https://stat.link/ra2e6f

There is no data to assess performances on Target 11.4. Target 11.4 aims at "strengthening efforts to protect and safeguard the world's cultural and natural heritage". While the global indicator framework recommends measuring this through per capita expenditure on the preservation, protection and conservation of all cultural and natural heritage, no data have been produced so far.

Up to now, the impact of natural disasters has remained moderate in most OECD countries. Target 11.5 calls on countries to "significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations" by 2030. Three indicators are proposed by the global indicator framework to assess countries' current performance on Target 11.5: i) the number of deaths and missing persons due to disasters ; ii) the number of persons directly affected by natural disasters; and iii) the direct economic loss

attributed to disasters relative to GDP. Following the global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development, these indicators are repeated under Target 1.5 and 13.1. Disasters cost lives and disrupt socio-economic activities and livelihoods, causing important economic costs each time they occur. Yet, given the large disparities existing between OECD countries, on average across these three indicators, most OECD countries (14 of 23) were at a rather short distance to the target in 2019 (or latest year). Available data do not allow gauging progress over time, however. In terms of loss of life due to disasters, the OECD average is around 1 death per 100 000 inhabitants. In terms of economic losses attributed to disasters, so far the available data imply a limited impact of natural disasters in most OECD countries, with the average economic loss corresponding to 0.20% of GDP. Yet, given the nature and the volatility of the indicator, careful interpretation is needed, and in the last 30 years the number of disasters has significantly increased across OECD Member countries (OECD, 2017[83]). In addition, as acknowledged by the United Nations Office for Disaster Risk Reduction (UNDRR), some of the data feeding these indicators have not been officially validated and may be revised at a later date. Still, their full economic impact remains largely unknown, especially the cost of smaller disasters and indirect impacts such as those due to business disruptions (OECD, 2018[84]).

Target 11.6 calls on countries to "reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality, municipal and other waste management" by 2030. The residential sector accounts for 17% of energy and process-related emissions of greenhouse gases and 37% of emissions of fine particulate matter globally. Therefore, efforts to meet agreed emission targets require ambitious initiatives to reduce the carbon footprint of cities and building stock (OECD, 2021[79]). Yet, at global level, this target focuses only on wastes and air quality. The global indicator framework includes two distinct indicators: the proportion of municipal solid waste collected and managed in controlled facilities out of total municipal waste generated, and the annual mean levels of fine particulate matter in cities. While the report includes both indicators sourced from the *SDG Global Database*, it discusses the results based on OECD sources for both, since they provide more up-to-date data and longer time-series.

In OECD countries, more and more waste is being diverted from landfills and incinerators and fed back into the economy through recovery and recycling. The target for the material recovery rate of municipal waste (recycling and composting) used in this report to monitor this target has been set at 53% on the basis of the top performances observed among OECD countries (Austria, Belgium, Korea, Germany and Slovenia) in 2015. In 2019, 16 OECD countries were close to this target (with a material recovery rate above 42%), but six countries (Greece, Japan, Turkey, Mexico, Costa Rica and Chile) were still far away (i.e. below 22%). The recovery of waste through recycling and composting has been progressing in almost all OECD countries besides the Netherlands, Austria, Norway, Spain, Turkey and Costa Rica (where no specific trend could be identified), but only in one-third of them is the pace sufficient to reach the target value by 2030.[53]

Beyond recycling, Target 11.6 also aims at improving air quality in cities. As stressed by OECD (2020[22]), **levels of fine particulate matter ($PM_{2.5}$) have been falling in most OECD countries, but human exposure to them remains too high**. In 2019, in two out of three OECD countries, inhabitants are exposed to levels exceeding the World Health Organization (WHO) air quality guideline value of 10 µg of $PM_{2.5}$ per cubic metre, and in six of them the mean exposure is more than twice the WHO threshold (Mexico, Colombia, Poland, Chile, Turkey and Korea). Yet, in a vast majority of OECD countries $PM_{2.5}$ exposure is decreasing. If OECD countries keep progressing at the same pace, 20 of them should meet the WHO reference values. Conversely, four OECD countries (Japan, Chile, Turkey and Korea) do not show significant progress. Lower emissions led to improved air quality and reduced human exposure to air pollution in many cities. Yet, it should be noted that exposure indicators provide only a partial and aggregated view of the consequences of air pollution, and there is no "safe level" of exposure to many pollutants. Even when standards or guidelines are met, substantial public health and economic benefits can be achieved through further improvements in air quality (OECD, 2020[22]).

No data are available to assess countries' performance on Target 11.7. Target 11.7 aims to "provide universal access to safe, inclusive and accessible, green and public spaces, particularly for women and children, older persons and persons with disabilities". The global indicator framework proposes monitoring it through data on the share of the built-up area of cities that is open space for public use and on the proportion of persons who are victims of physical or sexual harassment in these places, stressing that access to green and public spaces should be safe for all. Unfortunately, no data capturing these aspects have been produced so far.

Almost all OECD countries have implemented national urban policies. Target 11.a focuses on the links between urban, peri-urban and rural areas ("support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning"). According to the global indicator framework, this is to be assessed through an indicator that measures the extent to which countries implemented "national urban policies or regional development plans that: respond to population dynamics; ensure balanced territorial development; and increase local fiscal space". According to data available on the *SDG Global Database*, all OECD countries with the exception of Canada and the United States had such policies in place in 2020.[54]

Half of OECD countries with available data have not properly implemented necessary disaster risk reduction strategies. Target 11.b is one of the few targets with a 2020 deadline. It calls on countries to "substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels". Two indicators put forward by the global indicator framework are available to assess OECD countries' current performance on Target 11.b: the adoption and implementation of disaster risk reduction strategies (DRR) in line with the Sendai Framework at i) the national and ii) local levels. Following the global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development, these indicators are repeated under Targets 1.5 and 13.1. Overall, as of 2019, around half of OECD countries had already adopted DRR strategies at both levels of government. However, at the national level, 10 OECD countries (Iceland, Canada, the Netherlands, Israel, Italy, Ireland, the Slovak Republic, Sweden, Denmark and Turkey) were at a large distance from the target, with a score for the adoption and implementation of DRR strategies below 0.5 (1 being full adoption and implementation).[55]

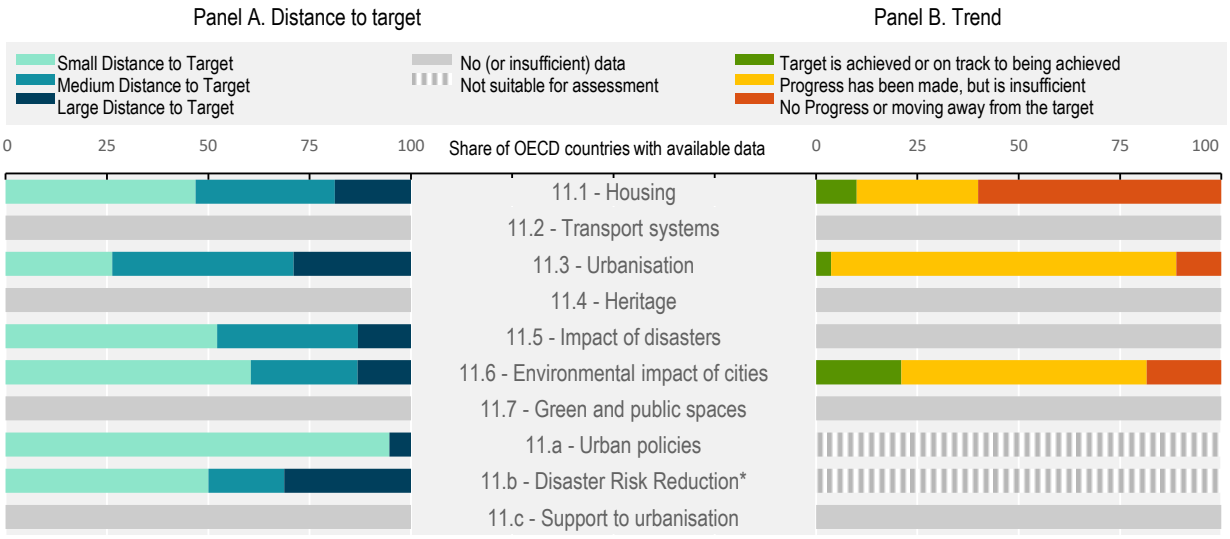
No indicator has been proposed to monitor Target 11.c, which aims at "supporting least developed countries, including through financial and technical assistance, for sustainable and resilient buildings utilizing local materials". Despite the 2020 comprehensive review of the global indicator framework, no suitable indicator has been proposed to track this target; the global statistical community has been encouraged to develop an indicator that could be proposed for the 2025 comprehensive review.

Summing up

While available data suggest that cities in OECD countries are getting cleaner, persistent issues keep affecting OECD residents as well as impacting biodiversity. Yet, given the limited available data, careful interpretation is needed. Growing urbanisation is a salient challenge for OECD countries (OECD, 2015[85]). While almost all OECD countries already implemented urban policies or regional development plans that: respond to population dynamics; ensure balanced territorial development; and increase local fiscal space (Target 11.a), data suggest that only a quarter of them are able to limit urban expansion (Target 11.3) – see Figure 4.13, panel A. Although built area per capita is decreasing in a vast majority of OECD countries (9 in 10), the progress is not expected to be enough for most of them to ensure a sustainable urbanisation process by 2030 (Figure 4.13, panel B). In addition, in a few cases, suburbanisation is hiding behind this apparent densification – while densification is observed in urban areas, low-density areas can be growing faster and cities thus becoming more fragmented (OECD,

2018[86]). In most countries, cities have been able to reduce their environmental impact: most OECD countries put significant efforts into reducing waste and increasing recycling, while they also have been able to limit levels of exposure to fine particulate matter in urban areas (Target 11.6). In terms of access to housing, too many OECD households appear to be overcrowded; and six out of 10 OECD countries are even moving away from the target (Target 11.1). As for resilience to disasters, some OECD countries still suffer from their impact, with around half being at medium to large distances from eliminating the loss of life and economic damage attributed to disasters (Target 11.5). On the policy side, while around half of OECD countries have implemented disaster risk reduction strategies at both local and national levels, about one-third of them are far from the target (Target 11.b).

Figure 4.13. Distance to targets and trends over time in OECD countries, by SDG target, Goal 11



Note: * refers to targets with a 2020 deadline. Panel A shows the distribution of OECD countries in terms of the distance that they need to travel to reach each SDG target. Distances are measured in standardised units (s.u.) – see the methodological annex for details. Countries' distances, based on the level of the indicators in the most recent available observation, have been grouped into three clusters: small distances (i.e. less than 0.5 s.u.), shown in light blue; medium distances (from more than 0.5 s.u. to 1.5 s.u.), shown in medium blue; and large distances (i.e. more than 1.5 s.u.), shown in dark blue. Panel B shows the distribution of OECD countries in terms of recent changes in their indicators for each target. Countries' progress, based on changes in the indicators over recent years, are grouped into three clusters: those whose recent pace of progress should be sufficient to meet the target by 2030, shown in green; those whose recent progress should be insufficient to meet the target by 2030, shown in orange; and those whose recent performance has been stagnating or moving further away from the 2030 target, shown in red – see the methodological annex for details. The figure also highlights targets with no data to assess either their current distance or their pace of progress (shown in grey). Time series are considered as missing when there are two or fewer data points for each country; indicators are considered as missing when they are unavailable for 20 OECD countries or more, or for less than three world regions – see the methodological annex for details.

Source: All data is taken and adapted from (UNDESA, 2021[3]), *SDG Global Database*, https://unstats.un.org/sdgs/unsdg and (OECD, 2021[4]), *OECD.Stat,* https://stats.oecd.org/ (accessed on 29 October 2021).

StatLink https://stat.link/igeyo7

Impact of the COVID-19 pandemic on Goal 11

While overcrowding was not directly impacted by the pandemic, it is important to stress that housing conditions are a crucial determinant of people's experience of the COVID-19 pandemic. Government lockdown measures implemented to manage the health crisis have created greater challenges for those living in crowded conditions. For example, it has been harder for people to social distance and to isolate symptomatic individuals from other household members. Overcrowding can also threaten the mental health of household members, intensifying existing problems during periods of lockdown (OECD, 2021[30]). Yet, while the COVID-19 pandemic has a strong negative impact for

individuals, its impact on Target 11.1 is less straightforward ("ensure access for all to adequate, safe and affordable housing and basic services, and upgrade slums"). Still, as highlighted by the OECD (2021[6]), housing, together with food and energy, have been major sources of upward pressure on consumer prices over the past year, and these comprise a larger share of expenditures for lower-income households. Therefore, inflationary pressure on these components is likely to be keenly felt by many households.

COVID-19 has had an unprecedented impact on urban transport (Target 11.2 – see Table 4.10). The global response to the COVID-19 pandemic has involved measures ranging from limits on gatherings to strict stay-at-home orders. As a result, passenger transport activity in cities almost came to a halt. Use of public transport, road traffic and everyday mobility in cities collapsed to record low levels due to containment measures, with overall urban transport activity in 2020 at 19% of previously anticipated levels (ITF, 2021[40]). As the pandemic lingers, many uncertainties about its impact on urban mobility remain. Public transport has become a major casualty of COVID-19, while walking, cycling and micro-mobility have surged, supported by the authorities in many cities. However, the suppression of demand will probably not last in the long term. Travel by private vehicles recovered considerably in many cities worldwide between containment efforts, while public transport did not, and it may suffer longer-term losses without policy intervention. According to the ITF (2021[40]), despite the challenges of the pandemic, recovery does present potential opportunities to reshape our future trajectory.

Land consumption for built-up development (Target 11.3) halted during the first months of the pandemic but is likely to quickly revert to pre-crisis levels. During the first months of the pandemic, construction activities were among the most severely affected (OECD, 2021[87]). Yet, containment measures and the associated declines in mobility slowly appeared to have a smaller adverse impact on those activities. More recent restrictions have focused largely on service sectors with high levels of direct contact between consumers and producers, with manufacturing and construction activities generally affected only mildly (OECD, 2021[88]). Land use changes related to agriculture have been less affected by the pandemic, both in the short and long run. In the short run, the area devoted to cropland (harvested area) is more or less fixed, and the rapid rebound of food demand ensures that land use change remains very close to baseline levels (OECD, 2021[87]).

While in most cases heritage conservation activities continued during the crisis, UNESCO warns about the short to medium-term impact of the pandemic (Target 11.4). In particular, UNESCO (2021[89]) has stressed that, after the wave of massive emergency and recovery funding, subsidies to heritage conversation activities are likely to be reduced. Furthermore, over the medium-term, the anticipated lower levels of international and domestic tourism in general, together with reductions of private funding, could amplify this negative trend even further.

Target 11.5 focuses on resilience to economic, social and environmental shocks. Obviously, the excess mortality induced by the COVID-19 pandemic will dramatically impact measures such as the "number of deaths, missing persons and directly affected persons attributed to disasters". In addition, as stressed in many sections of this report, the economic consequences of the aftermath of the crisis have contributed to large GDP losses.

Waste management challenges (Target 11.6) **have increased significantly** as a result of the pandemic, as governments have had to cope with major increases in medical waste (due mostly to disposable personal protective equipment), increased demand for single-use plastics (for groceries, food delivery, health care and e-commerce packaging), reduced recycling capacity and a collapse of the market price for recycled plastics. With many governments mandating masks for large segments of the general population, the use of disposable medical masks has skyrocketed, creating significant waste management and environmental challenges (OECD, 2020[90]). In addition, in the short term, the pandemic has resulted in cutbacks in waste management programmes in some OECD countries (Zambrano-Monserrate, Ruano and Sanchez-Alcalde, 2020[91]).

The confinement measures put in place to reduce the spread of the virus led to a temporary reduction of air pollution in the early periods of the pandemic (Target 11.6), largely due to reduced traffic and other economic activities. Reviewing 11 studies from EU and non-EU countries, Brunekreef et al. (2021[92]) concluded that reductions in air pollution related to COVID-19 lockdowns were most pronounced for traffic-related pollutants. The concentration of nitrogen dioxide (NO_2) resulting from road transport fell by 30% to 50% during lockdown periods in Europe, while the reduction of concentrations of particulate matter ($PM_{2.5}$ and PM_{10}), mostly affected by residential heating, agriculture and industry, was much less pronounced.[56] Although air quality has now returned to pre-lockdown levels in many parts of the world, this period revealed some of the beneficial health impacts that could be achieved from a lasting reduction in air pollution (Giani et al., 2020[93]; Venter et al., 2020[94]).

While unequal access to green space pre-dates the pandemic (Target 11.7), the pandemic and the ensuing lockdowns have made inequalities in access to private green space even more visible, especially for those living in urban areas, the poor, the elderly and ethnic minorities (OECD, 2021[30]).

While the pandemic is not deemed to have a direct impact on urban policies and regional development plans (Target 11.a), it may be a catalyser for new urban development paradigms.

When it comes to resilience to economic, social and environmental shocks (the subject of Target 11.b), it is key to underline that preventing a crisis such as the one associated with the ongoing pandemic lies at the heart of the 2030 Agenda. In particular, this target includes an indicator on risk reduction (a score for adoption and implementation of "national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030"), which covers the risk of epidemics and pandemics.[57]

Table 4.10. Summary impact of the COVID-19 pandemic on Goal 11 in OECD countries

	Short-term impact of the pandemic	Long-term impact of the pandemic
11.1 – Housing	none	
11.2 – Transport systems	negative	
11.3 – Urbanisation	positive	none
11.4 – Heritage	negative	negative
11.5 – Impact of disasters	negative	
11.6 – Environmental impact of cities	mixed	none
11.7 – Green and public spaces	none	
11.a – Urban policies	none	none
11.b – Disaster Risk Reduction*	none	none
11.c – Support to urbanisation		

Note: * refers to targets with a 2020 deadline. The table summarises the likely impact of the pandemic in the short-run (i.e. one to two years after the pandemic hit) and in the long-run (i.e. by 2030) on SDG targets The overall impact is characterised through five distinct categories: "positive" if the COVID-19 pandemic has a favourable impact on the target, "negative" if the COVID-19 pandemic has a deleterious impact on the target, "mixed" if the impact on the target is different among countries or among the different dimensions of the target, "none" when it is not expected that the COVID-19 pandemic will have an impact, and the cell is left blank when data are not available or when available studies do not allow firm conclusions. These findings reflect OECD work on the impact of the pandemic (see https://www.oecd.org/coronavirus) as well as work conducted by other international organisations and academia.

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Notes

[1]The aggregation at goal level assumes equal weights among the data series measuring the same SDG indicator and equal weights among the indicators measuring the same target. OECD average refers to the unweighted average.

[2] The underlying data on renewable electricity and total electricity generation are obtained from the World - Renewable and Waste Energy Statistics Dataset in the *IEA Renewables Information Statistics Database* (2022[105]).

[3] Methodological challenges associated with defining and measuring renewable energy (supply and consumption) are described in the Global Tracking Framework (World Bank and IEA, 2014[95]), Chapter 4 (available at: http://hdl.handle.net/10986/16537).

[4] The proportion of population primarily relying on clean fuels and technology is calculated as the number of people using clean fuels and technologies for cooking, heating and lighting divided by total population. "Clean" is defined by the emission rate targets and specific fuel recommendations (i.e. against unprocessed coal and kerosene) included in the WHO normative guidance for indoor air quality and household fuel combustion.

[5] This statement should be understood carefully. The normalisation procedure largely relies on the standard deviation observed among OECD countries in the most recent available year. When countries' outcomes are very similar among OECD countries, the standard deviation is small, and a small variation in the outcome variable translates into a significant increase in distance. For instance, while Colombia is only 1 percentage point away from the target, it is 0.5 standards units away from it.

[6] Energy intensity can be used as a proxy of energy efficiency (with higher energy intensity implying lower energy efficiency). However, this use should be considered carefully, as energy intensity depends on numerous elements beyond energy efficiency per se, such as climatic conditions, output composition, outsourcing of goods produced by energy-intensive industries, etc.

[7] The indicator is defined as the installed capacity of power plants that generate electricity from renewable energy sources divided by the total population of a country. Capacity is defined as the net maximum electrical capacity installed at the year-end, and renewable energy sources are as defined by the International Renewable Energy Agency (IRENA).

[8] For example, the unprecedented drop in aviation transport demand could change the energy intensity of international travel and freight forever, depending on how the aviation industry recovers after the pandemic. Meanwhile, increased rates of teleworking are changing the way people move around cities.

[9] Countries' distances to target are benchmarked against the growth rates achieved in 2015 (i.e. average growth between 2000 and 2015) by the four OECD countries (Lithuania, the Slovak Republic, Estonia and Latvia) with the highest performance (i.e. 3.8% annual growth). While having a common target for all OECD country may not reflect "national circumstances" such as ageing populations (e.g. Japan and Italy where the potential is much lower), it allows to preserve a strict comparability.

[10] To foster international co-operation between public bodies with responsibility for promoting productivity-enhancing policies, the OECD hosts the Global Forum on Productivity (GFP). The GFP provides a platform on which participants convene to exchange information and discuss best practices as well as a framework within which to undertake productivity analysis that is complementary to the OECD's regular work programme.

[11] Government responses to the COVID-19 pandemic even accentuated the need to focus on hours worked rather than employed persons. Indeed, the widespread implementation of job retention schemes in most countries led to a disconnection during the COVID-19 crisis between the number of persons employed and the number of hours worked. For the purpose of economic analysis and to maximise the comparability of statistical series across countries, it is better to focus on labour productivity per hour worked (OECD, 2021[32]).

[12] Prior to the COVID-19 crisis, considerable attention focused on the slowdown in long-term productivity observed across countries. This was referred to as the productivity paradox, as the productivity slowdown occurred at a time of significant technological change. The increasing diffusion of digital technologies in the 2000s was expected to spark a new wave of productivity growth, similar to those seen in the past, e.g. as a result of electrification (from the mid-1880s) and, to a lesser extent, ICT investments (in the 1990s). However, this has not, yet, materialised, raising a number of still largely open questions, ranging from the potential lagged effects of these new technologies, to structural factors, right through to measurement – see (OECD, 2021[32]) for a discussion of a number of views put forward to address the paradox.

[13] Domestic material consumption (DMC) refers to the amount of materials (in terms of weight) used in an economy, i.e. materials extracted or harvested in the country, plus materials and products imported, minus materials and products exported. The data refer to metals, non-metallic minerals (construction minerals, industrial minerals), biomass (wood, food) and fossil energy carriers.

[14] Domestic material consumption per unit of GDP is available in OECD and UN databases. While both measures should, in theory, be identical, some discrepancies exist (e.g. UN and OECD data may be rounded differently and may have a one-year lag).

[15] In particular, earnings of part-time workers have worsened relative to those of full-time workers, which is largely reflected in the rise of involuntary part-time employment in a number of countries. Moreover, comparatively poor working conditions among those who have regained employment after a spell of joblessness, combined with still high unemployment in some countries, has pushed up the number of lower-paid workers, thereby lowering average wage growth. This pattern is probably linked to the fact that, as a result of the protracted economic crisis, many workers were forced to accept low-paying jobs.

[16] Several OECD countries not only have been grappling with slow productivity growth but also have experienced a slowdown in real average wage growth relative to productivity growth, which has been reflected in a falling share of wages in GDP. At the same time, growth in low and median wages has been

lagging behind average wage growth, contributing to rising wage inequality. Together, these developments have resulted in the decoupling of growth in low and median wages from growth in productivity (OECD, 2018[106]).

[17] Some care is needed in interpreting the fall in the OECD area unemployment rate compared to the April 2020 peak, as this largely reflects the return of temporary laid-off workers in the United States and Canada, where they are recorded as unemployed. For Canada and the United States, the statistical treatment of people on temporary layoff is different from other countries, where these people are typically recorded as employed (Arnaud, 2020[96]).

[18] Over the period 2000-2020, the unemployment series for several countries are showing breaks. For this reason, changes should be interpreted with caution.

[19] This report includes two measures of NEET: one from the OECD and one from the *Global SDG Database*. Differences in the collection process and definitions may then result in differences in final measures of distance. Both measures are however highly correlated (0.93).

[20] While 13 OECD countries appear to be far for both measures, 11 additional countries appear to be far when using OECD data.

[21] While 2015 is the most frequent year, the latest year refers to 2013 in Iceland; 2016 in Lithuania, Estonia, Slovak Republic, Greece, Costa Rica, Turkey, Spain, Sweden, Austria, the Czech Republic and Hungary; 2017 in Australia, Mexico and Colombia; 2018 in Chile and the United States; and 2019 in Korea, Japan and Israel.

[22] The level of compliance is based on an analysis of textual sources and national legislation conducted by the International Labour Organization (ILO).

[23] Tourism Direct GDP is defined as the sum of the part of gross value added generated by all industries in response to internal tourism consumption plus the amount of net taxes on products and imports included within the value of this expenditure at purchasers' prices.

[24] The OECD/INFE developed a scoring methodology to measure overall financial literacy (OECD, 2018[97]). It measures a set of basic financial skills, behaviours and attitudes. While a top score means that an individual has acquired a basic level of understanding of financial concepts and applies some prudent principles in their financial dealings. On average, across 12 OECD countries, individuals who took the test score only 62% of the maximum financial literacy (OECD, 2020[43]).

[25] According to projections from the OECD, the global real output will be 3% lower than projected prior to the pandemic after five years, and about 5.5% lower after a decade (OECD, 2021[5]).

[26] Differences in the unemployment rate largely reflect differences in policy responses and firms' practices, but also statistical conventions (Arnaud, 2020[96]).

[27] For indicator 9.4.1, in the *UN Global database,* data on the carbon dioxide emissions from fuel combustion represent the total amount of emissions from fuel combustion, reported in millions of tonnes. By benchmarking the total amount against GDP, OECD data ensure comparability among countries.

[28] Some care is needed in interpreting manufacturing and service statistics, though. The information is based on industries, not tasks. In the compilation of national statistics, firms are usually allocated to an industry according to their primary activity. Many manufacturing firms, however, produce significant in-house services which will not be captured under services industry categories in the data used to construct

estimates. They will be classified as output of the manufacturing sector. Thus, although already significant, estimates for the services content of manufactured goods (based on industries) may underestimate the true underlying value added from services-based tasks. In addition, in many developed economies significant outsourcing of non-core (service) activities has occurred in recent decades, which may overstate growth in the real contribution of services. Therefore, countries that have outsourced ancillary services to manufacturing are recorded as services value-added in countries that outsource them (but manufacturing value-added in those that does not).

[29] The best performances are observed in Denmark, Switzerland and Ireland for the measure on CO_2 per unit of manufacturing value added. For the measure on CO_2 emissions from fuel combustion per unit of GDP, the target level is benchmarked against the figures observed in Costa Rica, Switzerland and Sweden in the OECD data sources, while France joins the list in the *UN Global database* in the measure on CO_2 per unit of GDP.

[30] The *UN database* report data up to 2018, while OECD data allow tracking CO_2 estimates up to 2020. Results are, however, very correlated (0.97).

[31] For the indicator on the amount of R&D expenditure, the best performances are observed in Israel, Korea and Switzerland for both UN and OECD data sources. Yet, for the indicator on the density of researchers, the list of countries changes slightly depending on the data source. While Denmark, Finland, Sweden and Korea are included in the list in both sources, there are two additional countries (Norway and Iceland) in the data series sourced from the OECD.

[32] R&D expenditures as a share of GDP is not available for Israel.

[33] While data for both indicators are available only in the *UN Global database* for Costa Rica, the same is true for Colombia for the indicator on the density of researchers.

[34] The first generation of mobile networks (1G, which has already been phased out) was intended to offer analogue voice services which were previously offered by landlines, while the second generation (2G) represented a jump from analogue to digital technology, with the main usage scenario being voice and simple data transmission, such as SMS. The third generation of wireless networks (3G) offered faster data transfers intended for multimedia use and, for the first time, users were introduced to mobile broadband. After 2010, the fourth generation of broadband wireless networks emerged (4G), offering greater data transmission capacity and faster mobile broadband. This was intended mostly to be an improvement to support video streaming, which had been growing rapidly in terms of data per user. 5G networks are being deployed in a majority of OECD countries (32 out of 38 OECD countries as of July 2021).

[35] While the target level had been set using the OECD distribution of outcomes, it may be noted that it is probably close to universal access as fixed subscriptions are usually shared among household members. According to the *OECD Family Database* (2021[100]), in 2015 the average number of people per household was around 2.5 among OECD countries. This means that if all households had a single subscription, universal access would be reached at this rate. More generally, it may be noted that the average household composition may have a marginal impact on the actual subscription rates.

[36] Simulations from the OECD (2021[42]) showed that the majority of countries are better off in an interconnected regime, both in terms of the levels and stability of economic activity. Thus, the modelling results suggest that the economic case for reshoring global value chains is weak, while pointing to the benefits of using a range of government policies to make supply chains more resilient.

[37] The available data come from the *UN Global Database* and the *OECD Income Distribution database* (2021[56]). While both data series are quite correlated (coefficient correlation is at 0.66), OECD sources are more up-to-date (most data are from 2019, while UN data mainly refer to 2017) and are based on more comparable definitions and income sources.

[38] Using the *OECD Income Distribution Database* (2021[56]), the target level was set at 0.9 percentage point, a level that only Estonia, Lithuania and Luxembourg exceeded in 2015. While the *UN Global Database* uses a slightly different definition, the target level is very close, set at 1 percentage point.

[39] Data on inequality of opportunity comes from the Gallup World Poll (2021[99]). The Gallup World Poll is conducted in more than 150 countries around the world based on a common questionnaire, translated into the predominant languages of each country. With few exceptions, all samples are probability based and nationally representative of the resident population aged 15 years and over in the entire country, including rural areas. While this ensures a high degree of comparability across countries, results may be affected by sampling and non-sampling error, and variation in response rates. Sample sizes vary between around 1 000 and 4 000, depending on the country and data should be interpreted carefully. These probability surveys are valid within a statistical margin of error, also called a 95% confidence interval. Results are based on binary questions created by Gallup: "Is the city or area where you live a good place or not a good place to live for racial and ethnic minorities?".

[40] Two distinct data series are used for the monitoring of labour shares. The first comes from the *UN Global SDG Indicators Database* and is sourced from the ILO. The second data series is derived from the *OECD Annual National Accounts database* (2021[103]). Although both sources based their data on a country's national account data (and overall, both data series are highly correlated, 0.83), some significant differences between the two estimates exist. On average, across OECD countries, the difference between the two estimates is 10 percentage points, with the gap exceeding 15 points in the Netherlands, Spain, Greece, Colombia, Italy and Chile. Given the greater timeliness of OECD data, UN data are not discussed in this section.

[41] Two distinct data series underpin the monitoring of redistribution. The first comes from the *UN Global SDG Indicators Database* and is based on estimates from the World Bank and the CEQ institute. The second data series is derived from the *OECD Income Distribution Database*. However, for most OECD countries, the World Bank uses OECD estimates. The two series are thus almost identical, and the only (minor) differences may come from differences in rounding and in timeliness.

[42] The target level for the data series sourced from the *UN Global database* is set at 62%, benchmarked against the performances of Belgium, the Netherlands and Switzerland.

[43] The assessment of indicator 10.4.2 also includes a data series from the *UN Global database,* for which the target level is set at 37%, which is benchmarked against the performances of Ireland, Slovenia and Finland.

[44] The redistributive effects of taxes and transfers is, however, likely to be underestimated for most OECD countries due to the absence of equalising in-kind transfers such as health, education, sanitation and housing services from micro-based sources. The distributional effects of in-kind transfers relative to consumption taxes are likely to vary between countries, depending on the specific design of each instrument and on structural features such as the socio-demographic composition of households across the distribution. To complement the estimates of redistribution, the OECD and Eurostat have developed methodology to measure disparities in line with national accounts (Zwijnenburg et al., 2021[104]).

[45] The seven indicators focusing on the regulation of financial markets have different "normative directions". This means that, for some of them, it is desirable to minimise the value of the indicator (i.e. the less, the better). This is the case for indicators focusing on non-performing loans and net position in foreign exchange to capital. In this case, the target levels are operationalised at 1% based on the values observed in Canada, Switzerland, Australia and Korea for non-performing loans to total gross loans; 2% based on Colombia, Mexico and Chile for non-performing loans net of provisions to capital; and -24% based on Israel, Norway and Switzerland for net open position in foreign exchange to capital. For the remaining indicators, it is desirable to maximise the value of the indicator (the more, the better). Then, target levels are operationalised at 2% based on Iceland, Colombia, Mexico and Estonia for return on assets; 12% based on the values observed in the United States, Colombia, Iceland and Ireland for regulatory capital to assets; 22% based on Estonia, Iceland and Lithuania for regulatory Tier 1 capital to risk-weighted assets; and 130% based on the Netherlands, Sweden, Germany and Switzerland for liquid assets to short-term liabilities.

[46] This assessment is conducted through a composite measure based on 30 sub-categories, grouped under six questions/domains. Most sub-categories have dichotomous "Yes/No" answers, coded "1" for "Yes" and "0" for "No". The composite index is defined as the unweighted average of the values across sub-categories. Yet, for ease of interpretation, the resulting country-level averages are categorised as follows: values of less than 0.40 are coded as "Requires further progress"; values of 0.40 to less than 0.80 are coded as "Partially meets"; values of 0.80 to less than 1.00 are coded as "Meets"; and values of 1.00 are coded as "Fully meets". The target level is deemed to be reached if a country is classified as "Meets". Data are source from the *UN Inquiry among Governments on Population and Development* (2021[101]), a questionnaire conducted on behalf of the UN Secretary-General and sent to all UN Permanent Missions in New York. The International Office for Migration (IOM) assisted in garnering country responses, and OECD, as partner agency for this indicator, supported the efforts for its member countries.

[47] The calculation of this indicator allows observing how many products developing countries and LDCs will have free access to on developed country markets. However, while duty-free treatment is an indicator of market access, it is not always synonymous with preferential treatment for beneficiary countries.

[48] A "remittance corridor" can be defined as the outflow of funds from one country to another. The World Bank in the *Remittance Prices Worldwide database* (2021[102]) covers 365 country corridors, from 48 sending to 105 receiving countries.

[49] In 2016, the World Bank introduced the Smart Remitter Target system (SmarRT) to monitor remittance transactions at a more granular level. SmarRT aims to reflect the cost that a "savvy consumer" with access to sufficiently complete information would pay to transfer remittances in each corridor. SmaRT is calculated as the simple average as the three cheapest services for sending the equivalent of USD 200 in each corridor and is expressed in terms of the percentage of the total amount sent. In addition to transparency, services must meet additional criteria to be included in SmaRT, including transaction speed (five days or less) and accessibility (determined by geographic proximity of branches for services that require a physical presence, or access to any technology or device necessary to use the service, such as a bank account, mobile phone or the Internet).

[50] While possible trajectories vary a lot between countries, depending on the existing economic stabilisers and extraordinary policy packages put in place, all studies show that safety nets prevented or at least limited the expected rise in poverty, and thus inequality. However, for poverty, results also depend on whether the poverty line is anchored to pre-crisis level. When not doing so, most studies suggest that the impact of the crisis could be negligible in most countries.

[51] The OECD and ITF have developed an urban accessibility framework covering EU countries only. It identifies which destinations can be reached on foot or by bicycle, public transport or car within a certain time (accessibility). It then measures how many destinations are close by (proximity). The comparison between accessible destinations and nearby destinations shows how well each transport mode performs (transport performance). These three indicators are calculated for destinations such as schools, hospitals, food shops, restaurants, people, recreational opportunities and green spaces in 121 cities in 30 European countries.

[52] "Built-up area" is defined as the presence of buildings (roofed structures). This definition excludes other parts of urban environments or human footprints such as paved surfaces (roads, parking lots), commercial and industrial sites (ports, landfills, quarries, runways) and urban green spaces (parks, gardens).

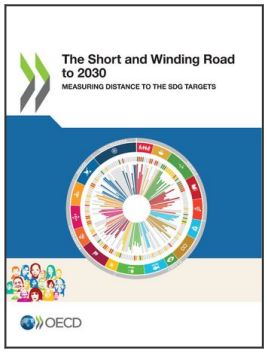
[53] Although trends could not be identified in Austria and the Netherlands, they have already reached the target level (with material recovery rates of municipal waste of 59% and 57% in 2019, respectively).

[54] Canada and the United States are both federal states. Therefore, urban development planning is often conducted at local level (provinces in Canada and states in the United States).

[55] Some of these data has not followed an official validation process and may be subject to revision at a later date, for instance, according to the Canada SDG hub, this score is 100% in Canada.

[56] The different studies included in the meta-analysis showed that $PM_{2.5}$ concentrations decreased by 5% to 20% while PM_{10} concentrations only marginally decreased.

[57] “Enhanced work to reduce exposure and vulnerability, thus preventing the creation of new disaster risks, and accountability for disaster risk creation are needed at all levels. More dedicated action needs to be focused on tackling underlying disaster risk drivers, such as the consequences of […] pandemics and epidemics.” (UNISDR, 2015[98]).



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