Progress on pursuing economic growth that works for all

Background note on inequalities

Meeting of G7 Finance Ministers and Central Bank Governors
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OECD

The policy agenda set under the Italian and Canadian Presidencies called for joint efforts to strengthen the foundation of G7 economies by addressing some of the deeper causes of growing or entrenched inequalities, with a particular focus on improving equality of opportunities. As a follow-up to the discussions held in Bari in 2017 and Whistler in 2018, this background note provides a brief overview of economic performance and inequality in G7 countries along several dimensions. The variables are selected from the OECD Dashboard of indicators developed as part of the Framework for Policy Action on Inclusive Growth.[1] The note also takes stock of concrete measures that G7 governments have taken in the recent past to address the more specific challenges of their countries in the areas of tax and transfer policies, labour market inclusion and skills development. The data are drawn from various public sources (see Annex), and more recent data may be available in some cases for some of the countries.

1. Challenges faced by G7 countries in boosting growth that works for all

Promoting strong growth and reducing inequality is a challenge for all G7 countries, but the more specific nature of the challenge varies across them (Table 1, see variables definition in Annex).

- Canada is doing relatively well on various measures of labour market inclusion as well as skills and equality of educational opportunities, even though it faces a challenge of low skills among a significant share of the adult population. Income inequality and poverty rates are at about the G7 average.

- France and Germany are doing relatively well on various measures of income inequality (S80/S20 income ratio) and poverty after taxes and transfers. France is also doing well on measures of earnings inequality (*i.e.* before redistribution) but face significant challenges of labour market inclusion as well as of skills and equality of educational opportunities. Germany is doing well in terms of labour market inclusion but earnings inequality before redistribution through taxes and transfers is relatively high. Educational outcomes are generally favourable except for the relatively strong influence of the socio-economic background on students' performance.

- Italy and Japan are doing relatively well on measures of inequality before redistribution (in particular earnings), as well as in life expectancy, but much less so on measures of inequality after redistribution. They both face a relatively high incidence of poverty, including child poverty. Japan has generally good outcomes in areas that matter for equality of opportunities, while the gender labour income gap remains an issue, despite improvements in recent years. In the case of Italy, the labour market inclusion of youth is a major challenge, along with educational performance. This is one source of the very low labour force participation of the population overall.

- The United Kingdom and the United States are doing relatively well on measures of labour market inclusion, though with some specific challenges. They are also doing relatively well with respect to growth of real median incomes. The performance of both countries in terms of skills and educational opportunities is mixed with a high share of adults lacking basic skills in the United States and a high variance of school performance among students in the case of the United Kingdom. While income inequality is relatively high both before and after redistribution, poverty has been more of a challenge in the United States.

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[1]   See OECD (2018) *Opportunities for All: A Framework for Policy action on Inclusive Growth*, OECD Publishing.

**Table 1. Indicators of growth that works for all: the OECD dashboard**

	CAN	FRA	DEU	ITA	JPN	GBR	USA	EU	Benchmark
Growth and distribution of benefits									
GDP per capita growth (%, 2011-18)	**0.77%**	**0.76%**	**1.07%**	**-0.08%**	1.36%	1.26%	1.57%	1.80%	1.68%
Real median household income growth (%, 2011-16)	**0.99%**	**0.32%**	**1.41%**	**-0.22%**	**-1.26%**	**1.18%**	3.21%	1.90%	1.84%
S80/S20 income ratio (2016)	5.1	4.3	4.6	**5.9**	**6.2**	**6.0**	**8.5**	4.9	5.1
Life expectancy (years, 2016)	82	82.4	**81.1**	83.3	84.1	**81.2**	**78.6**	**81.0**	82
Mortality exposure to air pollution (PM2.5, 2017)	217	295.1	**512.2**	**501.1**	395.4	374.9	337.9	453.1	329
Relative poverty rate (%, 2016)	**12.5%**	8.26%	10.1%	**13.7%**	**15.7%**	**11.1%**	**17.8%**	10.5%	10.8 %
Markets that work for all									
Labour productivity growth (%, 2011-18)	**0.72%**	**0.78%**	**0.76%**	**0.14%**	**0.65%**	**0.34%**	**0.57%**	1.17%	1.13%
Employment to population ratio (%, 2018)	73.8%	**65.9%**	75.9%	**58.5%**	76.8%	75.0%	**70.7%**	**69.9%**	71.4 %
Earnings dispersion (D9/D1 ratio, 2016)	**3.6**	2.8	**3.3**	2.3	2.8	**3.4**	**5.1**	**3.3**	3.1
Involuntary part-time employment (%, 2017)	4.6%	**7.9%**	3.0%	**11.4%**	4.0%	3.5%	1.1%	4.0%	4.7 %
Equality of opportunities									
Variation in school outcomes by status (%, 2015)	8.8%	**20.3%**	**15.8%**	9.6%	10.1%	10.5%	11.4%	**14.0%**	12.9%
Student resilience (%, 2015)	38.7%	**27.7%**	33.5%	**28.6%**	48.8%	35.4%	**31.6%**	**27.0%**	32.3 %
Low performing adults in basic skills (%, 2015)	**25.1%**	**31.5%**	**22.6%**	**38.0%**	9.1%	n.a.	**30.0%**	**23.7%**	18.3%
Young people neither in school nor in work (%, 2016)	12.2%	**16.5%**	9.3%	**25.1%**	9.8%	12.2%	**13.3%**	**13.7%**	12.4 %
Regional life expectancy gap (years, 2016)	3.2	**4**	2.2	2.6	0.9	3.5	**6.3**	**8.6**	3.1

Note: Bolded entries correspond to areas where a G7 country shows a sub-par performance relative to the benchmark. These are areas of relative weaknesses. The benchmark corresponds to the average of 20 advanced countries in each indicator, including the G7 countries plus Australia, Austria, Belgium, Denmark, Finland, Ireland, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden and Switzerland.

## 2. Growth in household income across the distribution

Looking at the evolution of income, the average annual growth rate of the real disposable income of the median household has fallen everywhere since the crisis, except in the United States where it increased markedly (Figure 1). One factor contributing to weaker income growth in the post-crisis period has been the slowdown in productivity growth, which affected nearly every G7 economies (Figure 2). In Japan, a negative growth in real household median income has been attributable mainly to an increasing number of elderly households which tends to earn less. Declining productivity growth reduces the room for sustained real labour income growth. In the case of the United States, the substantial acceleration in real household disposable income in the recent past - despite slowing productivity - is to a large extent attributable to increases in employment and hours worked.

Figure 1. Pre and post-crisis median household income growth
Average annual growth rate in real median household income
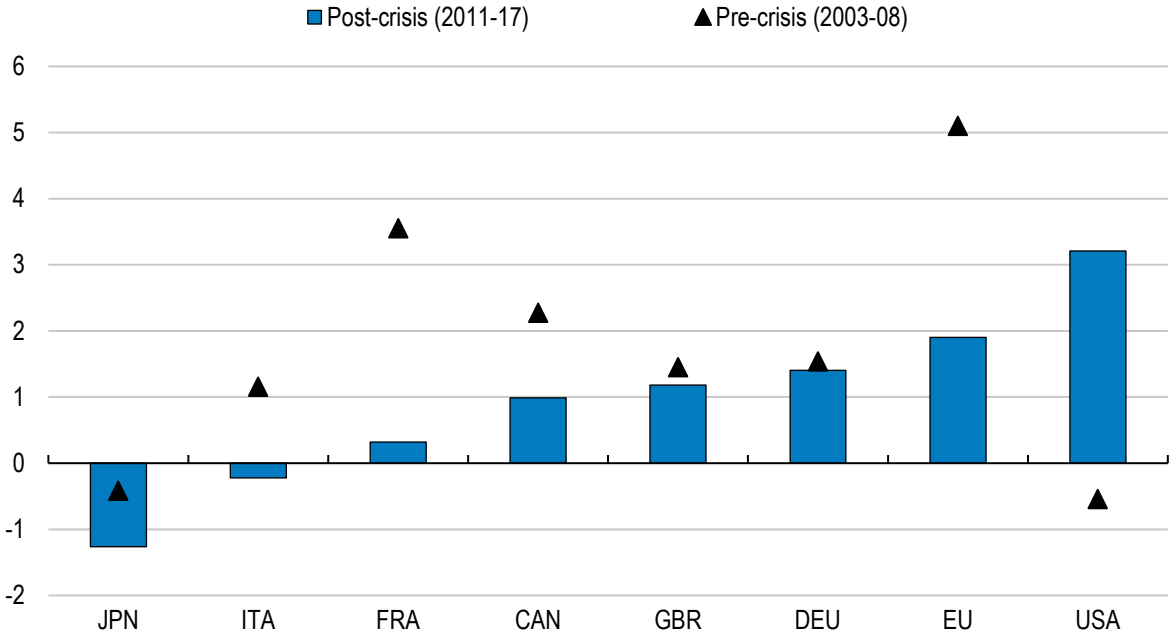
Source: OECD, Income Distribution Database for CAN, USA, GBR, JPN and Eurostat for FRA, DEU and ITA.

Figure 2. Pre and post-crisis labour productivity growth
Average percentage annual growth rate in GDP per hour work
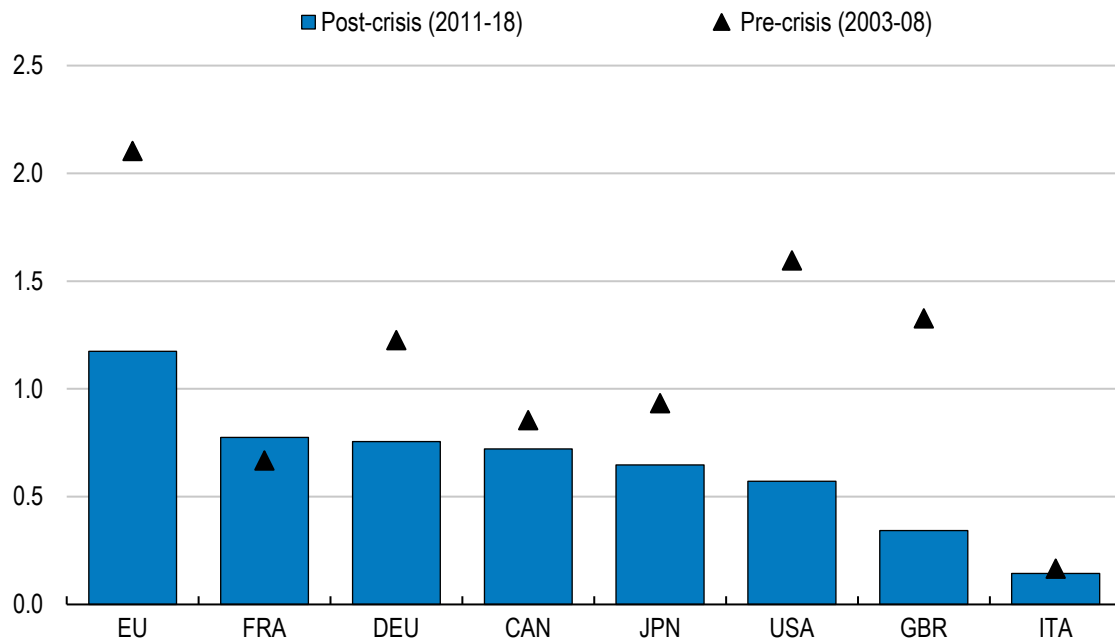
Source: OECD, National Accounts and Productivity Databases.

Amid these developments, large differences prevail in the degree of inequality, both before and after redistribution. Looking first at income before taxes and transfers (market income, including both salaries and revenues from capital), the ratio of income received by the 20% of the population with the highest income to that received by the 20% of the population with the lowest income varies from less than 10 in France and Italy to over 16 in the United States. For most G7 countries, this ratio is cut by around half through redistribution, with the exception of Italy where the reduction in inequality via taxes and transfers is more limited, and of the United Kingdom where the reduction is more than half (Figure 3). Redistribution contributes to reduce poverty overall, as countries with the biggest changes between pre- and post-redistribution income gaps are also the ones with the lowest levels of poverty (Figure 4).

Figure 3. Pre- and post-redistribution income gap[1]
Data as of 2016
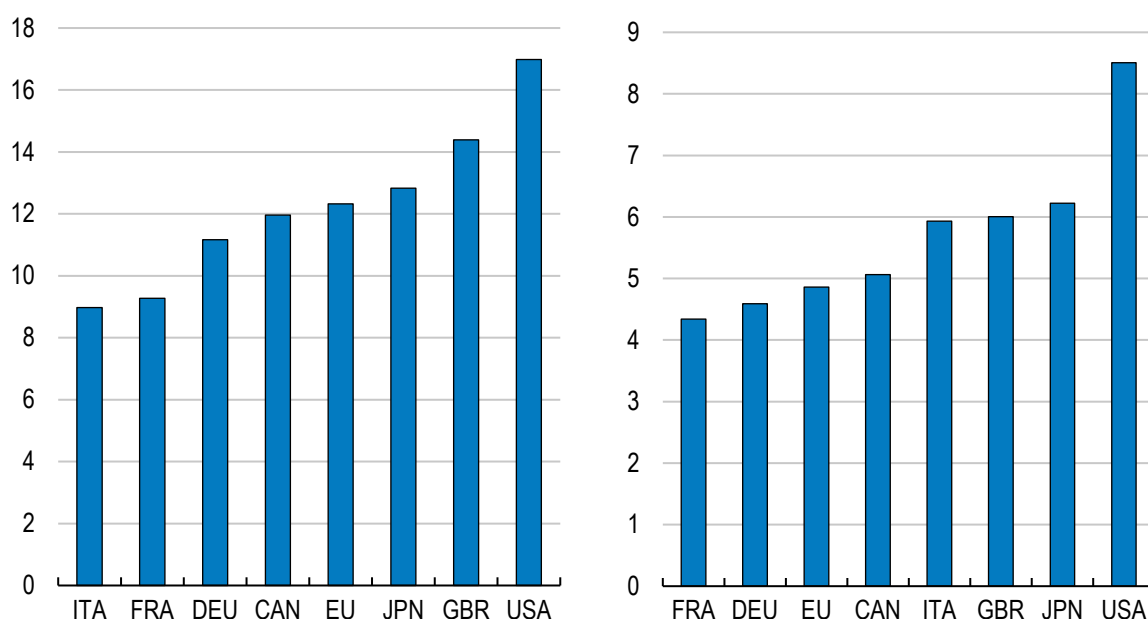
1. The income gap is measured as the ratio of income received by the 20% of the population with the highest income to that received by the 20% of the population with the lowest income. Market income is the household incomes before taxes and transfers. Data refer to 2015 for Japan.
Source: OECD, Income Distribution Database.

Figure 4. Poverty rates[1]
After taxes and transfers, poverty line at 50% of the median household disposable income
Working-age population (18-65 years old), 2016
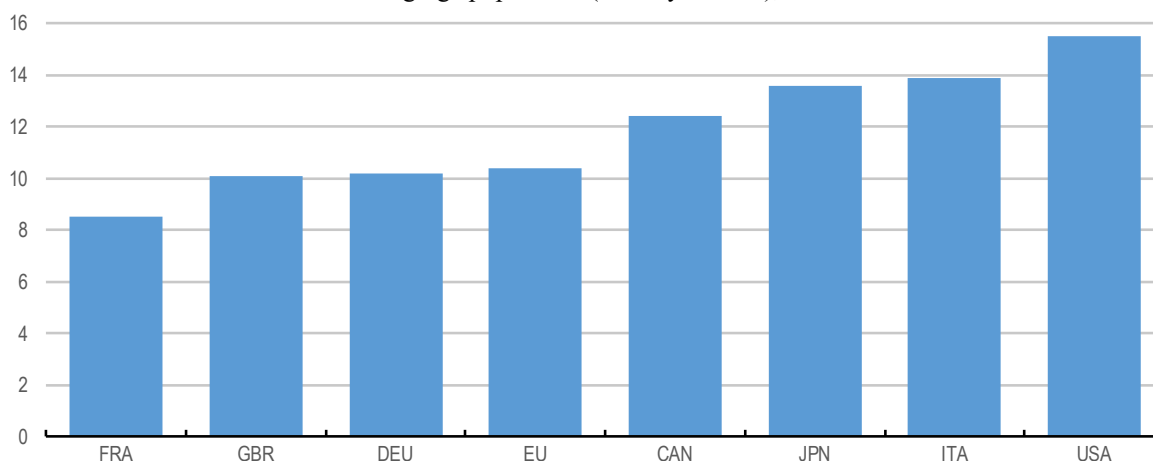
1. Data refer to 2015 for Japan.
Source: OECD, Income Distribution Database.

The comparison of the ratios provide an indication of the impact of redistribution through taxes and cash transfers in narrowing the dispersion of income between the two ends of the distribution. An alternative indicator that measures income inequality closer to the middle of the distribution is the Gini coefficient. Differences in Gini coefficients for market and disposable incomes also give an idea of the reduction of inequality brought about by redistribution (Figure 5). For instance, it shows that inequality in disposable income is smallest in France and Germany also based on the Gini. However, this is due to a large extent to sizeable redistribution through taxes and transfers, especially in the case of France where redistribution reduces inequality by one-third as opposed to between 15 and 20% in Japan, the United

States and Canada. In fact, income inequality in France, as measured by the pre-redistribution Gini coefficient, is the third highest among G7 countries, after the United States and the United Kingdom.

Figure 5. Pre and post-redistribution Gini coefficients,[1] 2016
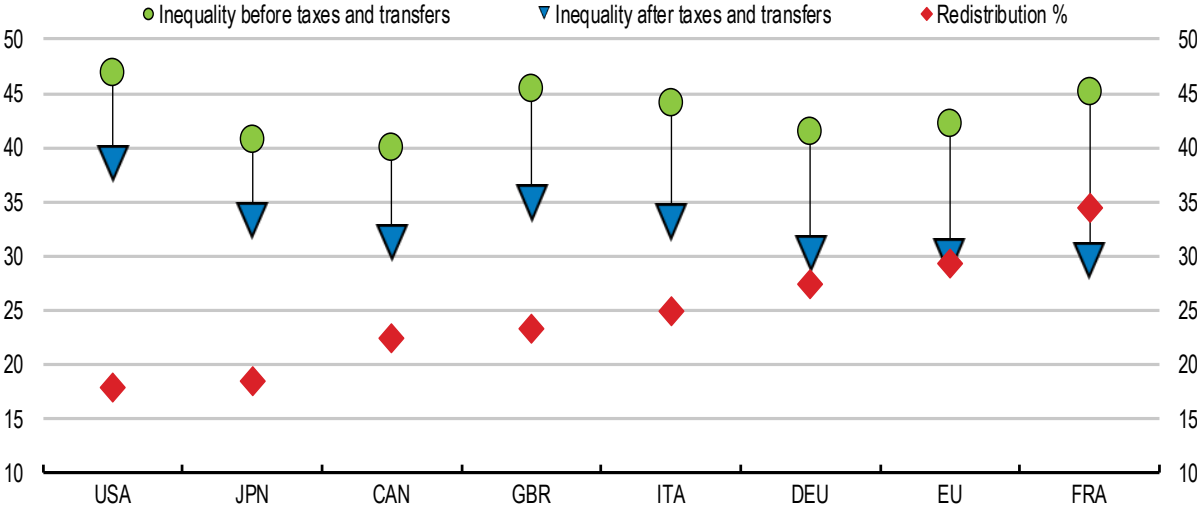
1. Data refer to 2015 for Japan.
Source: OECD, Income Distribution Database.

A common policy challenge for designing tax and transfer systems is to achieve some level of income redistribution and to strengthen the incentives for e.g. labour market participation and up-skilling. Reforms of taxes and transfers should be designed within an array of complementary policy instruments to address equity and efficiency objectives by taking into account country specific context, constraints and social preferences. In the recent years, several countries undertook major steps to achieve a more efficient and fairer tax and transfers systems:

- In Canada, the government released the First Poverty Reduction Strategy in August 2018, which provides long-term commitments to guide government actions and investments. The Strategy brings together new investments that the government has made since 2015 in the areas of child care, pension income and housing. The strategy also establishes Canada's first-ever Official Poverty Line and concrete poverty reduction targets. Based on more recent data, the interim target of reducing poverty by 20 per cent by 2020 has already been reached, giving Canada its lowest poverty rate in history.

- In France, the government substantially increased in 2019 the in-work benefit targeted at low-income workers, in order to strengthen work incentives and reduce the poverty rate.

- Italy implemented a conditional guaranteed minimum income targeted at households in poverty, especially those with children. Moreover, a permanent cut in employer social security contribution covering new permanent contracts for the young was introduced in 2018.

- The United States cut its corporate income tax rate in late 2017, along with several simplifications that will reduce distortions embedded in the tax system. The personal income tax standard deduction has been increased and the Child Tax Credit expanded, which will provide a boost to low-income households. Moreover, the reduction of some regressive tax expenditures, such as mortgage interest deduction, will tend to have a larger impact on higher-income households, amplifying the progressivity of the personal income tax.

- The EU budget will support social cohesion both within and between countries and regions, specifically through the new Multiannual Financial Framework (MFF).

3. From inequality of outcomes to equality of opportunities

A more complete and dynamic picture of inequality and inclusiveness requires looking also at factors which have an influence on equality of opportunities and social mobility, which are crucial for inclusiveness, fairness and the full utilisation of labour resource and human capital across society.

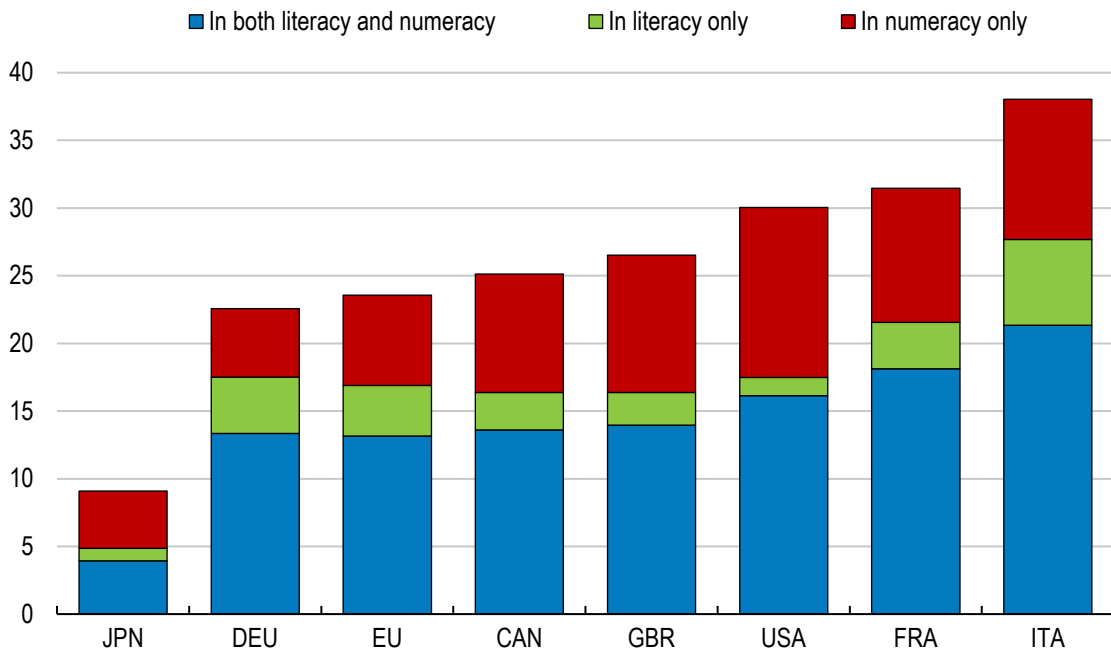### *Equality of opportunities through labour market inclusion*

One driver of inclusion and equality of opportunities is the participation to the labour market. A look at overall employment rates shows that they are significantly lower in Italy and, to a lesser extent, France (Figure 6). Both countries are still confronted to high unemployment rates, especially among youth and low-skilled workers, which in some countries like Italy and France amount to more than 30% of the population (Figure 7). Territorial disparities are also widening, with the unemployment rates within regions of the same country now larger in some countries, as in Italy, than the disparities across all G7 countries (Figure 8).

Figure 6. Employment to working-age population ratios
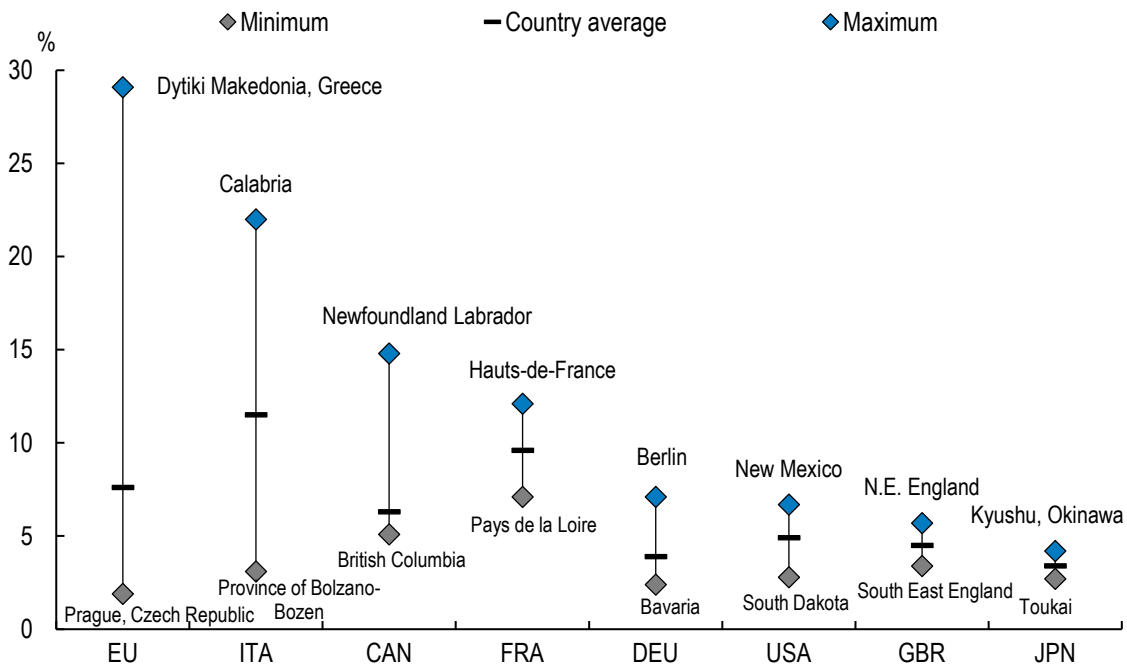Employment rate (15-64 years-old), average over period
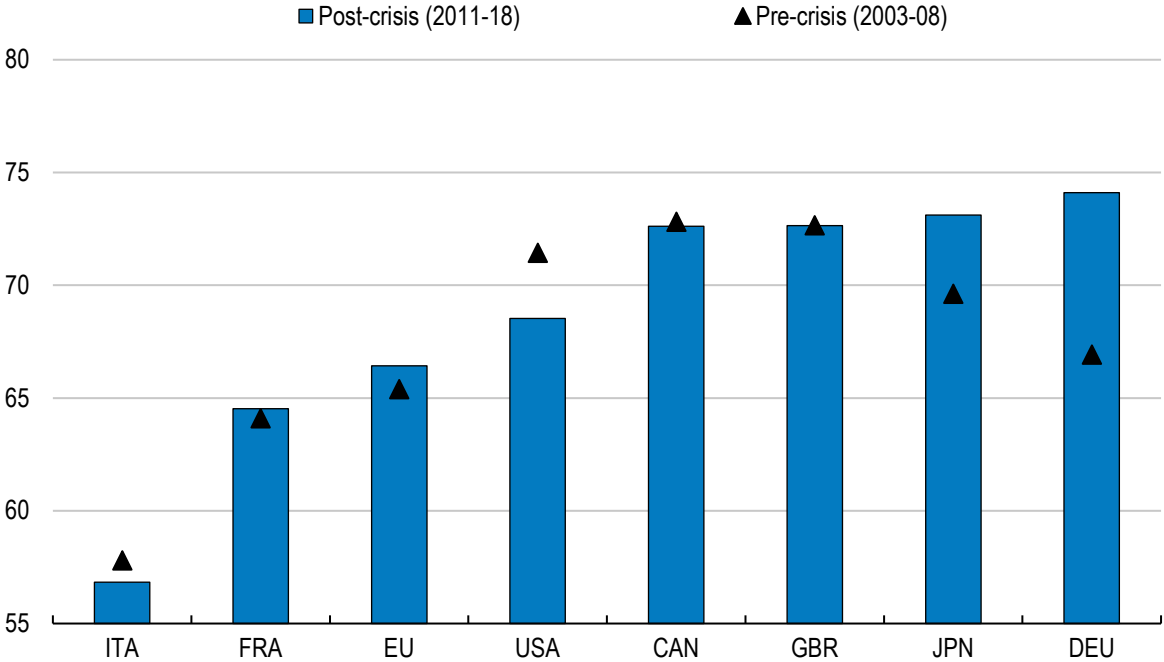
Source: OECD, Labour Force Statistics Database.

Figure 7. Share of low-skilled adults
Percentage of population aged 16-65, 2012-15

■ In both literacy and numeracy   ■ In literacy only   ■ In numeracy only

[Figure 7: Stacked bar chart showing share of low-skilled adults by country: JPN, DEU, EU, CAN, GBR, USA, FRA, ITA, with values on the y-axis from 0 to 40.]

Source: OECD, PIAAC.

Figure 8. Regional differences in the unemployment rate, 2017

◆ Minimum   — Country average   ◆ Maximum

[Figure 8: Range plot showing regional unemployment differences by country (EU, ITA, CAN, FRA, DEU, USA, GBR, JPN), y-axis in % from 0 to 30. Labels: Dytiki Makedonia, Greece; Calabria; Newfoundland Labrador; Hauts-de-France; Berlin; New Mexico; N.E. England; Kyushu, Okinawa; Prague, Czech Republic; Province of Bolzano-Bozen; British Columbia; Pays de la Loire; Bavaria; South Dakota; South East England; Toukai.]

Source: OECD (2018), OECD Regional Statistics (database) and Eurostat.

Among other countries, employment rates have improved markedly in Germany over the past decade while they remain somewhat below pre-crisis level in the United States, despite faster improvement in recent years. Of particular concern for Italy and France from a perspective of social mobility is the high share of young people who are neither in employment, nor in education or training (Figure 9). While the

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situation is less severe in other G7 countries – with improvement in the last decade in Germany, Japan and the United Kingdom – this is a concern for all at a time of potentially rapid change in the skills set needed to cope with digitalisation.

Figure 9. Percentage of population aged 15-29 years-old that is unemployed or inactive (NEET)
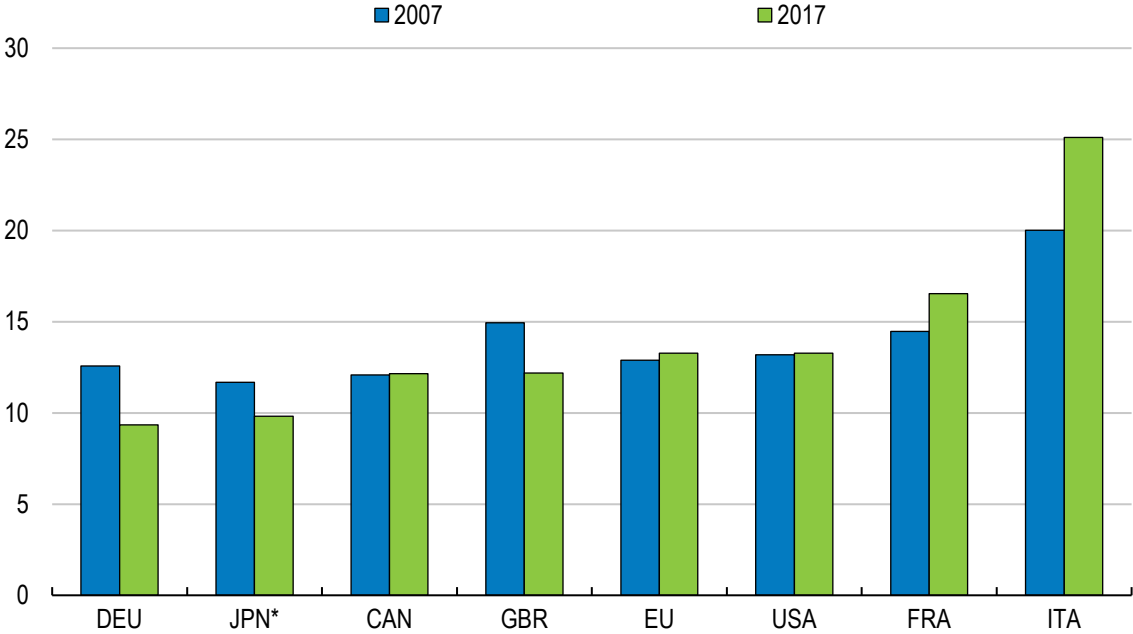

Source: OECD, Education at a Glance Database.

One trend that is common across G7 countries (Italy being an exception) has been the reduction since the mid-1990s of the proportion of working households receiving a middle-income level (OECD Report, Under Pressure: The Squeezed Middle Class, 2019). In all cases, this has resulted in household income polarisation as the decline in the share of the middle-income working households has come together with an increase in the shares of lower-income households in France and the United Kingdom, in the share of upper-income households in Germany and the United States and in the share of both upper- and lower-income classes in Canada. The decline in the proportion of middle-income households is consistent with the reduction in the proportion of medium-skill jobs in total employment.

Another indicator of labour market inclusiveness is the labour income gap between men and women, taking into account both the gap in employment and wages. It shows that the gaps remain generally large, varying from 35 per cent to 45 per cent for most G7 countries, with the exception of Japan where it is close to 60 per cent (Figure 10).

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Figure 10. Difference between average annual earnings of men and women
Gender labour income gap, percentage, 2014
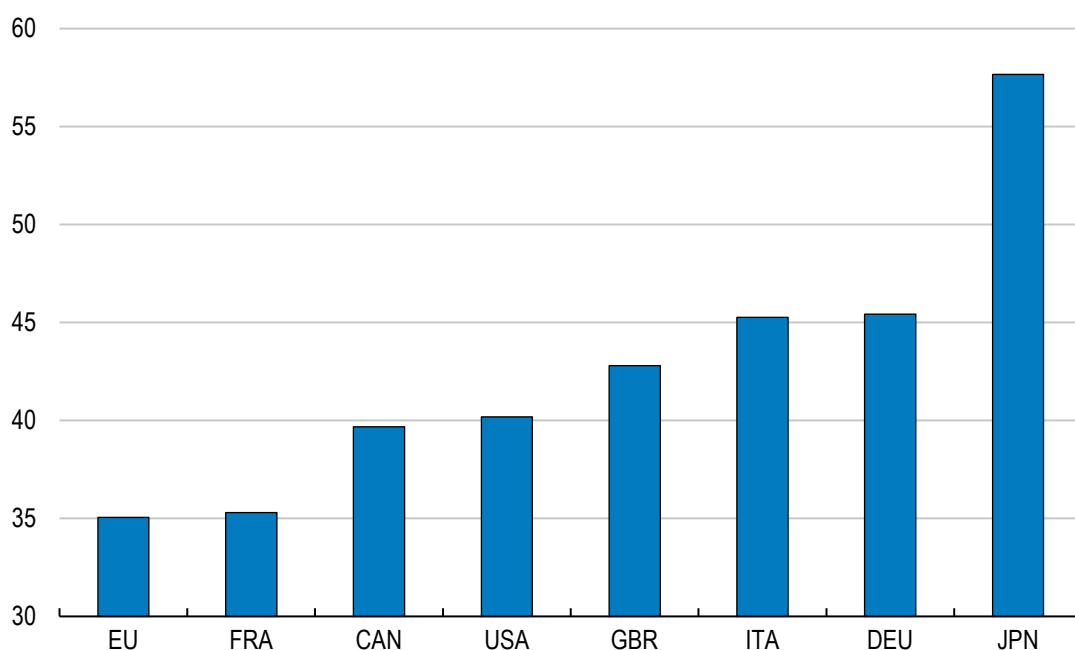

Source: OECD, Labour Force Statistics Database.

Policies can equalise access to the labour market by raising opportunities, employment and hours worked across different areas and sub-groups. In recent years, a large number of reforms have been implemented. For example:

- Canada has made broad investments in social infrastructure, including $7.5 billion over 11 years in early learning and child care, which will give parents more choices to participate in work, education and training. This will provide more flexibility – particularly for mothers – to return to work sooner.

- Germany boosted funding for child day care services by approximately EUR 1.1 billion, from 2017 to 2020. Moreover, to foster the integration of migrants, since 2016 refugees with good prospects of staying can participate in a job opportunity programme financed by the Federal Government. They also obtained access to integration courses, vocational language courses, and can also benefit from job support measures.

- In France, companies with more than 50 employees are required to publish from 2020 onward their "wage equality index" on an annual basis and those failing to achieve a certain threshold will risk a penalty of 1 percent of the payroll.

- To promote the engagement of all available talents to the labour market amid rapid population ageing, a plan to expand childcare capacity by 320 000 children by 2020 was launched in Japan in 2017. Also, guidelines for equal or balanced treatment between regular and non-regular workers were announced in 2018.

- To reduce barriers to labour mobility, in 2017 the United Kingdom introduced the Housing Infrastructure Fund to deliver 100,000 new homes in areas of high demand, and an additional 40,000 affordable homes.

Equality of opportunities through access to education and skills development

One important factor having an influence on equality of opportunities and social mobility is an access to education for all children and a chance to learn in adequate conditions. For instance, it may be more difficult for children raised in poverty to achieve their full educational potential. An indicator of child poverty shows that it is significantly lower in France, Germany and the United Kingdom than in other G7 countries (Figure 11). On the other hand, France and Germany are the two countries where the school performance of 15-years old students is the most sensitive to their socio-economic background, suggesting that their basic education system is doing less to compensate for the differences in the socio-economic status than in other countries (Figure 12, panel A). France also has the highest share of students with low basic skills among G7 countries (Figure 12, panel B), closely followed by the United States and Italy.
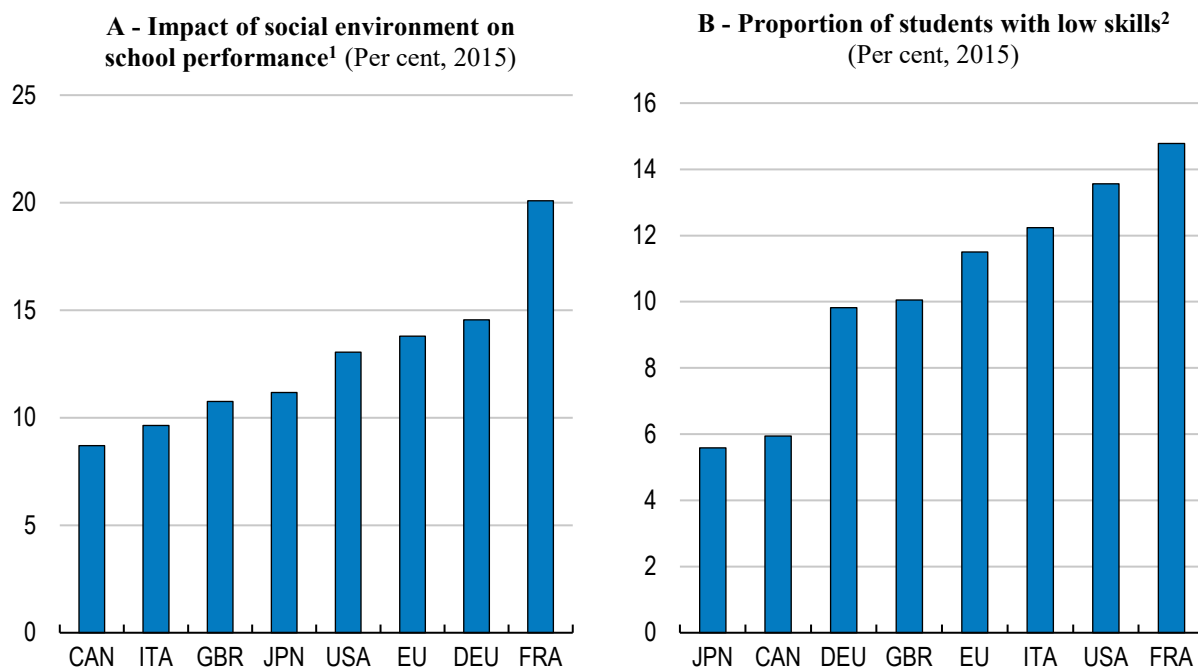
Figure 11. Child poverty rate after taxes and transfers[1]
(0-17 years old)
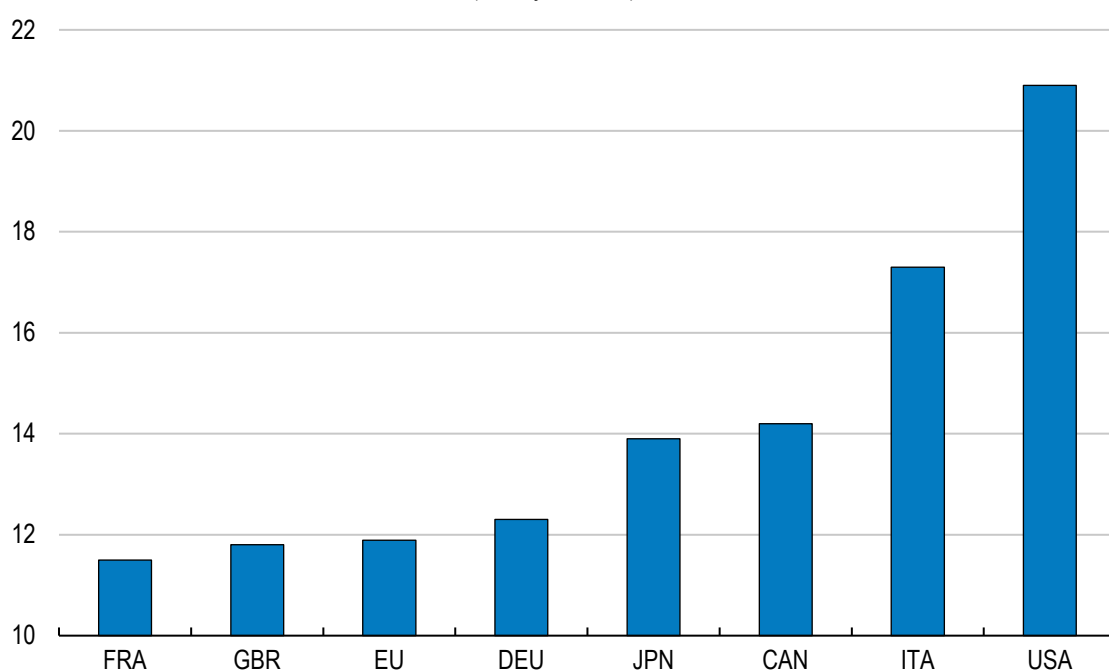
1. Data refer to 2015 for Japan.
Source: OECD, Income Distribution Database.

Figure 12. Influence of the socio-economic background on educational achievements

A - Impact of social environment on school performance[1] (Per cent, 2015)

**B - Proportion of students with low skills[2]** (Per cent, 2015)

1. Change in students' performance in mathematics explained by the socio-economic context as measured by the PISA index of economic, social and cultural status.
2. Percentage of students with poor results in the three PISA fields (science, reading and mathematics).
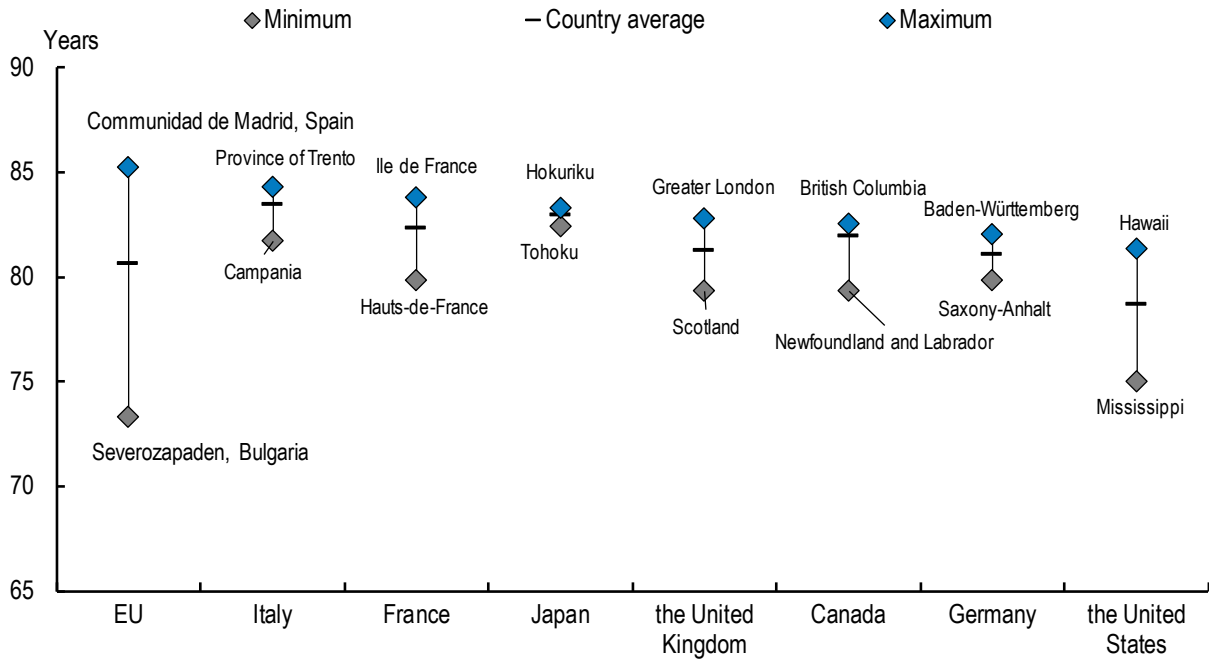
Source: OECD, PISA Database.

Maintaining good health outcomes is also an important aspect of the quality of human capital, as it is a condition for reaping the benefits of education and enhancing productivity throughout the working life. Life expectancy at birth can provide some rough indications of overall health outcomes (Figure 13). Within countries, differences in these outcomes are particularly acute, with differences within the United States larger than the differences in life expectancy between G7 countries (Figure 14).

Figure 13. Life expectancy at birth, total population,[1] 2016

Life expectancy at birth, total population,[1] 2016
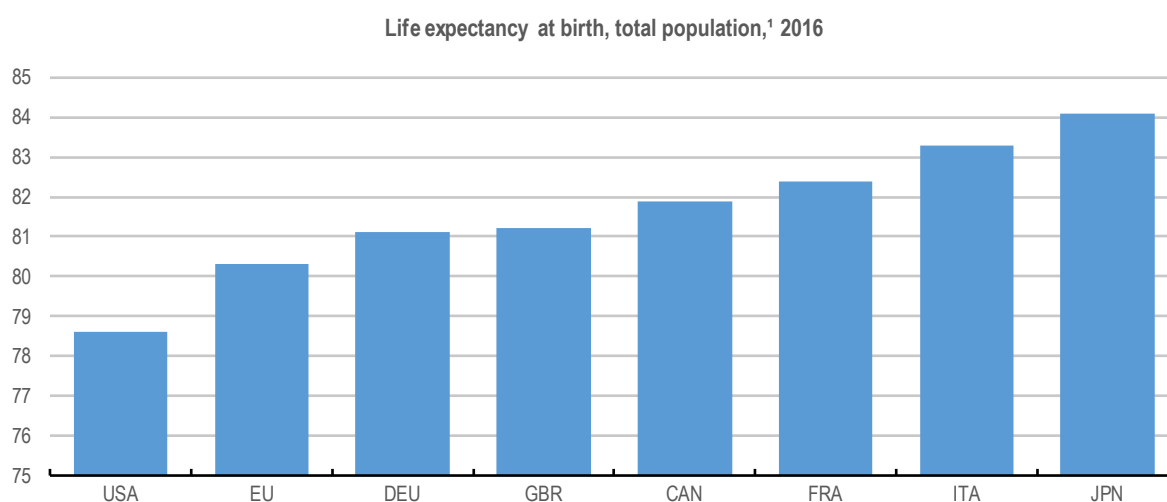
1. Data refer to 2015 for Canada and France.
Source: OECD, Health Database.

**Figure 14. Life expectancy at birth between regions, 2016**

◆ Minimum   — Country average   ◆ Maximum

Source: OECD, Health Database.

Wealth inequality is another driver that can slow down social mobility and hamper equality of opportunity. When looking at the ratio between average and median wealth, wealth concentration is the highest in the United States, with a ratio in excess of 8, and to a lesser extent in Germany, with a ratio of 3.5 (Figure 15). Other countries exhibit relatively less inequality in their wealth distribution.

Figure 15. Wealth disparities
Mean to median, net wealth, total population, 2016
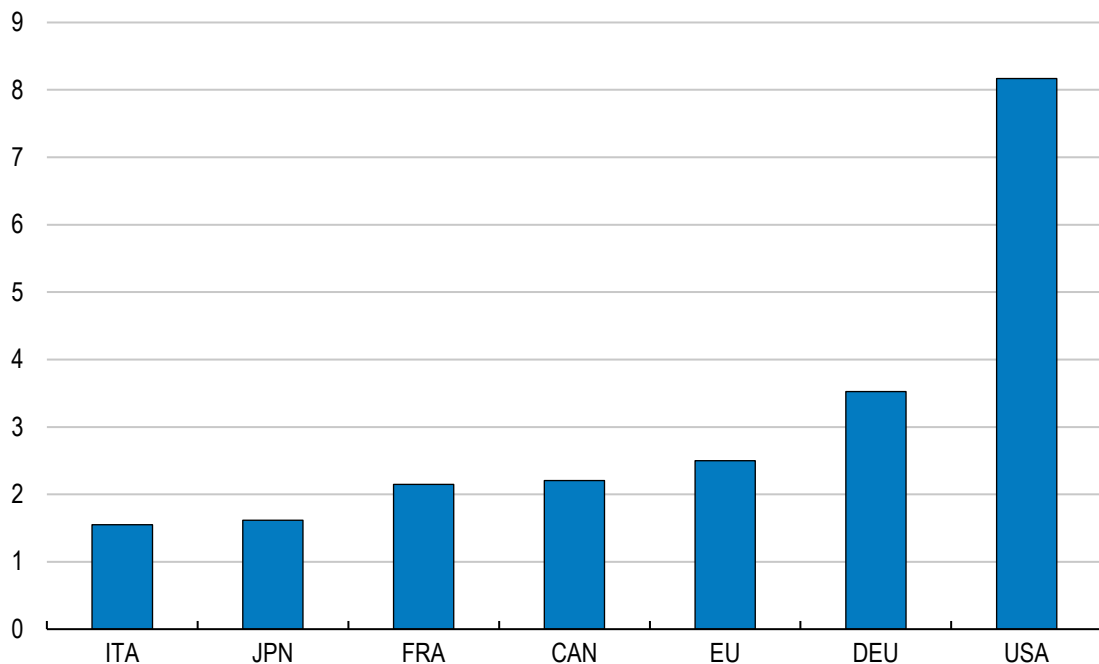
Source: OECD, Wealth Distribution Database.

Education shapes individuals' life chances, facilitates the acquisition of job-market relevant skills and the development and efficient allocation of talents. Significant recent reforms have been taken to enhance equality of opportunities by promoting education for all:

- Canada recently committed $2.3 billion over 5 years to make post-secondary education more affordable and accessible, through a modernised student loans programme, and through targeted supports for Indigenous students. The Federal government also announced an investment of $1.7 billion over 5 years to facilitate lifelong training and skills development.

- In France, the class size has been halved to 12 pupils for grade 1 and grade 2 in poor neighbourhoods, with implementation starting in the 2017-18 school year. Other recent policies include developing nurseries in poor neighbourhoods, promoting fair housing for low-income families with children, and the extension of the education imperative from 16 to 18 years old for youth who are neither in employment nor in education or training.

- In Japan, free early childhood education and care for children aged three to five will be introduced in October 2019. All children at the age of three to five as well as newborns up to 2 years-old living in the households with exemption from municipal residence tax are targeted by the measures. The support for vocational training for non-regular workers has also been enlarged.

- In 2017, Germany improved financial support for individuals pursuing life-long learning and vocational education graduates. Universities also received additional funding to support studies, in particular for students from vocational education pathways. Regarding access to primary education, the constitution allowed the federal government to provide funding to financially weak municipalities for important investment in local education infrastructure.

- The United Kingdom has increased in 2017 its spending on lifelong learning pilots to test different approaches to help workers retrain and upskill throughout their adult lives.

- At the EU level, the New Skills Agenda, Upskilling Pathways, and InvestEU are initiatives zooming in on removing obstacles to investment in human capital (initial education and training, lifelong learning, forward-looking approach to skills) and supporting firm entry and firm growth, in particular through improved access to finance.

OECD (2018), *Opportunities for All: A Framework for Policy Action on Inclusive Growth*, OECD Publishing, Paris. http://dx.doi.org/10.1787/9789264301665-en

Growth and ensuring equitable sharing of benefits from growth

Data sources used are: Income Distribution and Poverty Database; OECD Wealth Distribution Database; OECD Regional Well-Being Database; OECD Health Status Database; OECD Productivity Database; OECD Green Growth Indicators. The analysis is informed by the following but non-exhaustive OECD policy work: policy recommendations from the OECD Jobs Strategy; OECD Job Quality; OECD Skills; OECD Regional Development Policy. The indicators are:

- GDP per capita growth is a measure of a country's economic output that accounts for its number of people. It divides the country's gross domestic product by its total population, available for all OECD countries until 2017.

- Median income refers to the real median household disposable income in dollars PPP, available until 2016 for a majority of OECD countries.

- Income gap refers to the ratio of the top and bottom quintile household income share, available until 2016 for 17 OECD countries.

- Life expectancy at birth captures the overall health outcomes and represents one of the core indicators of the human capital and citizens preferences. Life expectancy refers to the life expectancy at birth, available until 2016 for most OECD countries.

- The mortality from outdoor air pollution measures the number of deaths per million inhabitants associated with people's exposure to air pollution (i.e. $PM_{2.5}$), available until 2017 for all OECD countries.

- Poverty rate corresponds to the share of households with equivalised disposable income after taxes and transfers below 50% of the median disposable income. Available until 2016 for most OECD countries.

Inclusive and well-functioning markets

Data sources used are: OECD Productivity Statistics; OECD Labour Force Statistics database; OECD Employment Database (with EU-SILC and national statistical sources); OECD Education at a Glance; OECD Financing Entrepreneurs and SMEs 2018. The analysis is informed by the following but non-exhaustive OECD standards and policy work: OECD Productivity-Inclusiveness Nexus; OECD Innovation Strategy; OECD Going for Growth; OECD Going Digital; OECD Tax Policies for Inclusive Growth; BEPS; OECD Guidelines for MNEs, including Responsible Business Conduct; OECD Policy Framework for Investment; OECD Base Erosion and Profit Shifting; OECD Policy Guidance on Circular Economy; OECD Green Growth Strategy. The indicators are:

- Labour productivity refers to the level of GDP per hour worked at USD constant PPP 2010, available until 2018 for all OECD countries;

- Employment-to-population ratio provides information on the ability of an economy to create jobs, available until 2017 for all OECD countries.

- Earnings dispersion refers to the ratio of the earnings top and bottom deciles, available until 2016 or 2017 for a majority of OECD countries.

- Gender pay gap refers to the difference between male and female median wages, available until 2016 or 2017 for a majority of OECD countries.

- Involuntary part-time employment refers to part-time workers who could not find full-time work, for persons aged 15 and over in percentage of total employment, available until 2017 for 31 OECD countries.

Opportunities and foundations of future prosperity

Data sources used are: OECD PISA; GSOEP (complemented by national statistical sources); OECD Dataset on Transition from School to Work; OECD PIAAC; OECD Regional Well-Being. The analysis is informed by the following but non-exhaustive OECD standards and policy work: OECD Skills Strategy; OECD Education; OECD Health. The indicators are:

- Student performance and status refers to the percentage of variation in science performance explained by students' socio-economic status, available until 2015 for 28 OECD countries.

- Inactive young refers to the share of young (NEET) aged 18 to 24 years old neither in employment nor in education and training, available until 2017 for most OECD countries.

- The share of adults who score below Level 1 in both literacy and numeracy, available until 2015 for 28 OECD countries.

- Regional life expectancy gap refers to the regional life expectancy gap between the top and bottom 10% regions by population, available until 2014 for a majority of European OECD countries, but 2010 or 2011 for other countries.

- Resilient students refers to the share of student in the bottom quarter of the PISA index of economic, social and cultural status (ESCS) in the country/economy of assessment that performs in the top quarter of students among all countries/economies, after accounting for socio-economic status. Available in 2006 and 2015.