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COVER NOTE

From:	Council General Secretariat
To:	Delegations
Subject:	The Economy of Well-being - OECD Background Paper

Delegations will find attached the Background Paper of OECD on the Economy of Well-being.

Organisation for Economic Co-operation and Development

For Official Use

The Economy of Well-being

Creating opportunities for people's well-being and economic growth

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1. Executive Summary

Well-being as a Compass for Policy

The case for measuring economic performance and societal progress "beyond GDP" is well-established. In this respect, it is increasingly acknowledged that taking GDP as a single compass does not provide policy-makers with a sufficiently rich and accurate picture of the way in which the economy performs for citizens or of the long-term impacts of growth on sustainability. The EU was among the first institutions to recognise the importance of this agenda.

The OECD has played a prominent role in developing the notion of "multi-dimensional well-being" as a research, measurement and policy tool, through instruments such as the *OECD Well-being Framework*, the *OECD Framework for Policy Action on Inclusive Growth*, the *Better Life Initiative* and the *New Approaches to Economic Challenges Initiative*. The potential for improving policy decisions and outcomes, based on a multi-dimensional notion of well-being, is significant. By focusing on outcomes across the many dimensions that matter to people, policy-makers can better identify the areas of good performance, detect challenges and areas of strain at an early stage and set priorities more effectively.

From a measurement agenda to an agenda for action: The Economy of Well-being

The "Economy of Well-being" can be defined as an economy that:

- (i) expands the opportunities available to people for upward social mobility and for improving their lives along the dimensions that matter most to them;
- (ii) ensures that these opportunities translate into well-being outcomes for all segments of the population, including those at the bottom of the distribution.
- (iii) reduces inequalities; and
- (iv) ensures environmental and social sustainability.

By providing people with opportunities for greater well-being and helping them realise those opportunities, policy-makers are not only promoting well-being as an intrinsic good, they are also investing in people's potential as a key driver for long-term economic growth, societal resilience and stability. Similarly, by paying attention to the sustainability of well-being over time, policy-makers can maximise the potential for long-term economic growth and better protect their economies from adverse shocks. In both cases, the "Economy of Well-being" seeks to establish and sustain a "virtuous circle" in which both elements – sustainable economic growth and well-being – work together to the benefit of people and society.

How to build economies of well-being?

This Paper seeks to show how countries can build economies of well-being and to specify the role that policies can play in achieving this objective. It provides analysis of several important channels through which economic growth and well-being support and reinforce one another, focusing on a number of policy areas that are essential both for well-being and

economic growth: (i) education and training; (ii) health care; (iii) social protection and redistribution; and (iv) gender equality.

The Paper argues first of all that investing in people's well-being sets the foundations for stronger and more sustainable long-term economic growth. In particular, expanding opportunities for access to high quality education and health care, and promoting inclusive social protection systems that foster resilience and social mobility, are shown to be powerful levers for activating the virtuous circle that characterises the "economy of well-being". Secondly, the paper argues that, in order to bear their full returns, these investments need to translate into improved well-being outcomes for all segments of the population. In doing so, it highlights the importance of eliminating gender gaps in access to quality jobs.

Education

The benefits of longer and better *education* go beyond their effects on GDP growth and cover many other dimensions of well-being. For instance, **in OECD countries, highly educated people live on average around 6 years longer than low-educated people**. They experience higher employment rates, lower labour market insecurity and job strain, though the impact of longer education on work-life balance may be negative. Attempts to quantify the total net impact of education on well-being show that **returns to education more than double once the benefits in terms of health and employment are accounted for**.

Policy can improve well-being and increase economic performance by expanding access to high quality education for all segments of the population. Significant levers for doing so include higher attendance at pre-primary level, greater autonomy for schools and universities, lower student-to-teacher ratios, smaller differences (and easier pathways) between academic and vocational education, and lower barriers for funding students at tertiary level. Reducing inequalities of access and opportunity at school is essential to promote better educational outcomes, as countries with high levels of inequality in education and skills also record lower average educational performance. Similarly, the scope, targeting and efficiency of training and lifelong learning could be significantly improved. **Only around 40% of adults in OECD countries engage in adult learning in a given year**, with some groups – notably the less educated – being much less likely to take part in adult learning activities.

Health care

Health is a fundamental human right and key contributing factor to well-being. On the positive side, improved health status contributes to increased economic growth through greater educational investment, improved labour market participation and higher savings. On the negative side, ill-health imposes a significant economic burden on society and public finances, in addition to its human toll. For instance, **the total costs of mental ill-health are estimated at more than 4% of GDP – or over EUR 600 billion** – across the 28 EU countries. Around **550 000 people of working-age die prematurely every year across the EU due to non-communicable diseases, amounting to 3.4 million life-years and EUR 115 billion in economic potential lost annually**. The impact of health status on other dimensions of well-being goes well beyond its effects on GDP growth. This starts with education, as higher longevity raises the lifetime return of investment in education, while poor health lowers children's cognitive development and educational outcomes. Health is also an important determinant of employment and subjective well-being.

Policy can improve well-being and increase economic performance by ensuring access to high quality health care for all segments of the population. Significant levers for doing so include policies designed to improve the effectiveness of health care systems, notably by extending the range of goods and services covered by basic health care. **Preventive measures and high levels of health protection represent an essential investment, as they are often more cost-effective** than treating the associated health problems *ex-post*. **Measures contributing to improve mental health should also constitute policy priorities**, such as developing more systematic diagnostic and support programmes (notably at school and during pregnancy and perinatal periods), promoting non-discrimination at work and reducing stress in the workplace. Similarly, a study of 36 OECD, EU28 and G20 countries finds that **population-wide communication strategies and policy interventions to improve diet and physical activity could help save up to EUR 58 Billion on total health budgets by 2050**. Reducing inequalities of access is also essential to promote better health outcomes, as the proportion of people in poor health weighs heavily on key health indicators. Moreover, health inequalities are often stratified along economic, educational or occupational lines. For instance, **unmet care needs are substantially higher for low-income groups**.

Social protection and redistribution

Social protection and redistribution impact on well-being and economic growth through two main mechanisms. First of all, social transfers protect people from economic volatility and help them recover more quickly from adverse shocks. Secondly, they can prevent inequality in present outcomes from translating into inequality of opportunities for the next generation, notably in health, education and on the labour market. In doing so, **social protection contributes to increase socio-economic resilience and promotes investment in physical and human capital, as well as higher economic growth**. Recent OECD research confirms that more inclusive social protection and redistribution systems may be associated with higher GDP growth, while higher income inequality puts a break on economic performance. The impact of social protection and redistribution on well-being is not limited to their effects on income. There is evidence that social protection and some redistribution of income are associated with higher subjective well-being.

Policy can improve well-being and increase economic performance by promoting more inclusive social protection systems and reducing inequality in opportunities and outcomes. The *new OECD Jobs Strategy* underlines the fact that **well-designed social insurance and assistance schemes, if combined with active labour market policies and with policies to foster labour demand, can be very effective in protecting individuals, while at the same time delivering better labour market outcomes**. Effects can be important, notably for middle-class families who face higher risks of downward mobility. **OECD countries that spend more on active labour market programmes (ALMP) tend to have a lower share of middle income households moving down the income distribution**. To support these objectives, there is scope in many countries to make the income tax system more progressive, in particular for top income earners, and fairer for the middle class.

Gender equality

Promoting *gender equality* benefits societies and economies in a number of different ways, in addition to its intrinsic value. **Raising women's employment and hours worked would deliver productivity gains and higher GDP growth**. It can also reduce income inequality,

support household incomes during economic downturns and consolidate the middle class. **For the EU, improving gender equality could lead to an increase in total GDP of up to 9.6% by 2050**. Current trends in life-expectancy and fertility rates strengthen the case for increasing the participation of women in the labour force. Furthermore, despite a rise in female labour participation rates, gender inequalities in terms of access to quality jobs remain substantial. Women with jobs are more likely to work part-time, for lower pay, and in less lucrative sectors.

Policy can improve well-being and increase economic performance by helping reduce the gender gap in access to quality jobs. Doing so requires addressing gender inequality on the labour market, but also in education and unpaid care work. **Gender issues are intrinsically linked with family-friendly policies – around paid leave, care support and flexible workplace arrangements** – that help both men and women achieve a better work-life balance and greater well-being. Policies that reconcile work and family life, notably through quality early education and care services, can level the playing field by compensating for disadvantages at home, allowing women to progress in their careers and avoiding the transmission of disadvantages to children. In particular, **improving access to good-quality care and preschool programmes for children is essential for gender equality and for providing children with the best possible start in life**. Further efforts also need to be made in combatting violence against women. EU-wide, **only 14% of women who report having been victim of violence by a partner say they have contacted the police** about the most serious incident.

A Well-being Strategy for the EU

Overall, the evidence presented in this Paper shows that well-being is no longer an interesting side-note. Rather, it deserves to take a more central place in economic decision-making. This has significant implications for policy:

- **Investment should be reprioritised to take account of the links between well-being outcomes and long-term economic growth**, so as to preserve the virtuous circle which characterises the "economy of well-being".
- **The effects of policies need to be properly assessed to minimise their detrimental impact on well-being and long-term growth**, notably in the context of fiscal adjustment.
- **Inequalities in well-being outcomes should be a key concern for policy. Addressing them will require a coherent and integrated approach mobilising the whole of government**, as inequalities tend to be correlated across different dimensions, and a range of policies contribute to them.
- **Creating an economy of well-being is not just a mission for governments. The private sector can also contribute to this objective in different ways**. Establishing effective public/private partnerships for promoting well-being and mobilising private finance for social impact investment can constitute an innovative way of meeting financing challenges.

As a next step, the policy recommendations presented in this Background Paper could be further developed with the aim of informing an action-oriented *Well-being and Sustainability Strategy for the EU*.

2. Defining the economy of well-being

2.1. The economic and social case for Going Beyond GDP

The notion of well-being has gained increasing traction over the last twenty years as an agenda for research, measurement and policy. The OECD has played a prominent role on all of these fronts. It has contributed to the development of better metrics, quality data and comparable indicators. It has actively supported the work of the *Stiglitz-Sen-Fitoussi Commission*, as well as the follow-up *High-Level Expert Group on the Measurement of Economic Performance and Social Progress*[1], and helped to implement their recommendations. Many National Statistics Offices (NSOs) have also taken up the notion of multi-dimensional well-being. At the European level, the *European Statistical System Committee* (ESSC) has developed a set of indicators on quality of life and well-being for the EU, as well as instruments such as the EU-SILC well-being module. There is now a solid and well-established case for looking "beyond GDP", using well-being metrics in the policy process and assessing economic growth in terms of its impact on people's well-being and on societies' standard of living (see Box 2.1 below).

Box 2.1. The economic and social case for *Going Beyond GDP* – Some background and evidence

Background

While Gross Domestic Product (GDP) is a critical indicator of economic performance, there is a growing awareness of its limits as a measure for assessing the progress made by societies or the long-term sustainability of economic growth. First, GDP does not capture the broad range of outcomes that matter to people and contribute to their well-being. These elements are material and non-material in nature: they include income and jobs, but also health, education, work-life balance and social connections. Secondly, GDP ignores the distribution of well-being outcomes across society, as statistical averages mask important disparities between different individuals, households or groups. Thirdly, GDP alone does not provide a sufficient understanding of the role played by different drivers of economic growth and the way in which they interact to sustain growth over the long-term.

The challenge of measuring economic performance and societal progress "beyond GDP" has several significant implications (Boarini and Mira d'Ercole, 2013[3]). Most importantly, it requires that we look:

- "*Beyond the market*" to consider the multi-dimensional nature of well-being;
- "*Beyond averages*" to take account of the distribution of income and other well-being outcomes throughout society; and
- "*Beyond the here and now*" to better understand the impact of economic growth on environmental sustainability, on the cohesion of society and the long-term potential and resilience of the economy.

[1] See (OECD, 2018[1]) and (OECD, 2018[2]).

This is by no means a new debate[2]. It has however acquired new resonance in the aftermath of the 2008-2009 Financial Crisis. In this respect, the vision inherited from (Kuznets, 1955[4]) of a mechanical relation between economic growth and societal progress, through which modernisation effects would at some point translate into lower income inequality and improved living standards for all, has not been borne out by the recent performance of industrialised countries.

Evidence

Numerous OECD publications have documented rising inequalities in income, wealth and opportunity[3].

- Across the OECD, the average disposable income of the richest 10% of the population has risen from 7 times that of the poorest decile 25 years ago to 9.7 times today. Disparities are even starker in terms of household wealth, with 10% of households holding more than half of all wealth, on average, in OECD countries while the bottom 40% barely own 3%.

- Disadvantages tend to compound across different dimensions of well-being (income, education, employment prospects, health, even longevity) and over time. Calculations based on 2012 and 2015 PIAAC data show that, across the OECD, children whose parents did not complete secondary school have only a 15% chance of making it to university, compared to a 60% chance for children whose family background includes at least one parent with tertiary education (OECD, 2018[5]). Health conditions are unevenly distributed across the population: for example, among the 10 OECD countries with comparable data surveyed in (OECD, 2017[6]), unmet care needs were substantially higher among low-income adults, with 25% of them reporting unmet care needs due to cost compared to 14% for other adults.

- Gender divides remain significant, with a substantial cost for the economy. Across OECD countries, the labour force participation rate stood at 69% for men against less than 52% for women in 2016 (OECD Gender Data Portal). The potential for economic growth is clear: even in the Nordic countries – which are among the best OECD performers, with female participation rates ranging from 68% to 83% – eliminating the gender gap in labour force participation and working hours by 2040 could help boost GDP per capita growth by between 15 and 30% (OECD, 2018[7]).

The OECD has also drawn attention to the downsides and risks that economic growth may carry for society when it does not translate into greater well-being for all. These downsides and risks can notably be measured in terms of reduced social mobility and cohesion, as well as lower trust in government and institutions. (See Section 3.3 on ***Social Protection and Redistributive Policies*** below for further detail)

- For instance, at current levels of income inequality and social mobility, it would take on average 4 to 5 generations (i.e. up to 150 years) for the offspring of a family from the poorest decile to reach the average level of income in OECD countries (OECD, 2018[5]).

- Large pressures have been building up on the middle class in OECD countries as the price of essential services such as quality education, housing and health care has risen well above general inflation. The cost of housing alone has grown 49% faster than median household

[2] See for instance (Nordhaus and Tobin, 1973[94]), (Sen, 1985[93]) and (Sen, 1998[11]).

[3] See most notably (OECD, 2008[91]), (OECD, 2011[71]), (OECD, 2015[17]), (OECD, 2015[92]), (OECD, 2018[15]), (OECD, 2018[5]), (OECD, 2019[9]).

income over the past 25 years, increasing the financial burden on middle-income households (OECD, 2019[9]). Furthermore, in many OECD countries, the risk of falling into poverty has increased for middle-income households over the past two decades: one in seven households in the middle 60% of the income distribution face the risk of sliding into the bottom 20% over a 4-year period (OECD, 2018[5]).

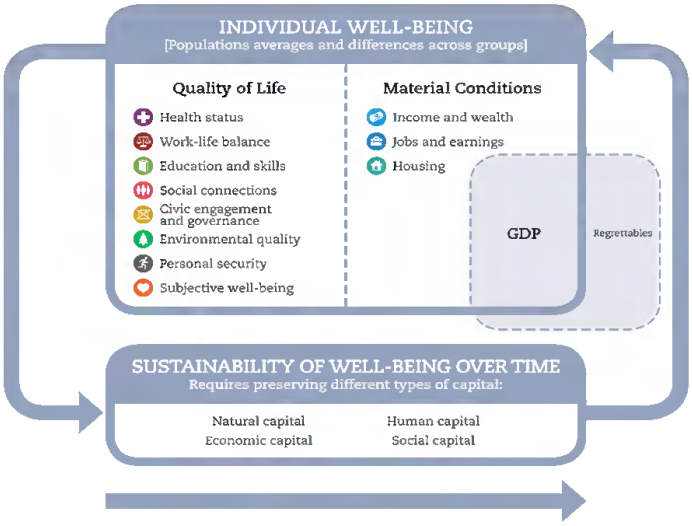
- Trust in government and voter turnout have both fallen across the OECD. On average only 38% of citizens in OECD countries expressed trust in their national government in 2016, a 4% decline from the level of trust measured in 2007 (OECD, 2017[10]).

The *OECD Well-Being Framework* (see Figure 2.1 below) provides a key framework for understanding and measuring well-being and societal progress "beyond GDP". Within this framework, well-being is defined in terms of:

- (i) *Material Living Conditions* and *Quality of Life,* captured through 11 different dimensions that shape people's lives. These dimensions are income and wealth, jobs and earnings, housing, health, work-life balance, skills, social connections, civic engagement and governance, environmental quality, personal security and subjective well-being;

- (ii) *Four types of assets (natural, economic, human and social)* that drive well-being over time.

Figure 2.1. The OECD framework for measuring Well-Being and Societal Progress



Source: OECD, 2013

The main characteristics of the *OECD Well-Being Framework* are: (i) its dimensions and indicators are people-focused rather than economy-focused; (ii) it captures outcomes (i.e. life conditions and experiences) as opposed to inputs (i.e. health status rather than health care spending) or outputs (i.e. number of patients treated); (iii) it pays attention not only to

averages but also to the distribution of outcomes; and (iv) it takes account of both the objective and subjective aspects (i.e. people's evaluations) of well-being. In doing so, the *OECD Well-Being Framework* offers a clearer picture of "what matters and for whom", building on some of the fundamental principles of the capabilities approach to welfare economics, i.e. focusing not just on people's outcomes but also on the factors that contribute to expand people's choices and opportunities to live the kind of life that they value (Sen, 1998[11]). These factors are captured notably through the dimensions of income, health, education and life satisfaction (Boarini, Kolev and McGregor, 2014[12])[4], which are the focus of this paper.

At national level, several countries have established well-being frameworks of their own, informed by the OECD framework and indicators. Well-being measures of this kind have been used to design, monitor and evaluate national development strategies (Slovenia 2030), as well as budgetary processes. France, Italy and Sweden have established sets of well-being indicators for monitoring and reporting that are used as part of the budget process. In the Netherlands, the Central Bureau of Statistics published its first annual Monitor of Well-Being in 2018, with the aim of informing public and political debate and facilitating accountability. Similarly, the United Kingdom set up a "What Works Centre for Well-Being" in 2014 to supply policy-makers with evidence on the impact of policies on well-being. At the European level, the EU's *Europe 2020 Strategy* has set multi-dimensional targets covering employment, education, energy and social inclusion. Similar initiatives have been undertaken outside the EU. For example, New Zealand has recently gone a step further than most countries active in this field by using the NZ Treasury's *Living Standards Framework* to implement the world's first Well-Being Budget[5] in 2019 (see Box 2.2 below).

Box 2.2. A significant example - Well-being policy in New Zealand and the Living Standards Framework

As explained in the *OECD Economic Survey of New-Zealand* (OECD, 2019[13]), the New Zealand Government has identified a broad range of changes to the public finance and public sector systems that are needed to support its vision for well-being. Many of these changes are being led by the Treasury, often with implications for other ministries and agencies (e.g. the 2019 Wellbeing Budget), but some have been initiated by different agencies (e.g. the Department for the Prime Minister and Cabinet's Child Well-Being initiative; Stats NZ's Indicators Aotearoa New Zealand). The Government's well-being approach includes:

[4] The OECD launched the *Better Life Initiative* in 2011, with the ambition to embed well-being into its policy analysis and tools. Prominent elements of the initiative include: the *How's Life?* biennial reports which analyse OECD countries' performance on the 11 dimensions of the Framework; the *Better Life Index* which allows citizens to assess their country's performance according to the weight they attribute to the Framework's 11 dimensions; and a range of Guidelines produced to improve the measures available in a range of life dimensions. The OECD is currently working to integrate the *Well-Being Framework* and insights from the *Better Life Initiative* into its policy recommendations and instruments – including economic surveys and multi-dimensional country reviews.

[5] https://www.budget.govt.nz/budget/2018/economic-fiscal-outlook/budget-2019-focus-on-wellbeing.htm

- *Embedding well-being in the Public Finance Act (1989)*. The current proposals will require the Government to set out each year how its well-being objectives will guide the budget, together with its fiscal objectives.
- *The 2019 Well-Being Budget*, in which evidence on well-being outcomes was used to identify Budget priorities (New Zealand Government, 2018[35]) and to assess bids from government departments (New Zealand Treasury, 2018[62]).
- *The Child Poverty Reduction Act*, passed in late 2018, requires the government of the day to set long-term (10-year) and intermediate (3-year) targets on a defined set of child poverty measures and to report annually on those measures.
- *Embedding well-being into agencies' performance reporting*. The Government expects agencies to describe their contribution to improving inter-generational well-being. The Treasury is currently working with agencies to understand how best to embed a focus on intergenerational well-being in accountability documents.

Moreover, the proposed *Local Government (Community and Well-Being) Amendment Bill* seeks to reinstate wording that was previously included (from 2002-2012) in the Local Government Act, stating that the purpose of local government is to "promote the social, economic, environmental and cultural well-being of communities, in the present and for the future". All these initiatives build on the Treasury's *Living Standards Framework* developed since 2011 as a tool to strengthen the quality of its policy advice to the Government of the day. The work has been stepped up since 2017 to support the Government's well-being approach:

- The *Living Standards Framework* was updated in 2018, and a new Dashboard of well-being indicators was released.
- Proposed amendments to the Public Finance Act will require the Treasury to produce a periodic report on current and future well-being every four years (Institute of Public Administration New Zealand, 2019[65]).
- The Treasury has also adopted a well-being approach in its longer-term statutory reporting. The *Living Standards Framework* provided the organising framework for the 2018 Investment Statement, which analyses the government balance sheet and its management. The Statement, required at least every four years, also includes a chapter on how to broaden it to include natural capital considerations.
- The Community for Policy Research was launched in November 2017 as a multi-disciplinary network of external researchers whose work could be used to improve the advice of the Treasury.

Adopting a well-being approach does not mean abandoning GDP as a relevant measure of economic performance and societal progress. What it does imply is that GDP metrics should be used when pertinent and as part of a broader dashboard of indicators. The danger in using GDP as the single compass to guide policy decisions is that policy-makers will miss key issues that have a major impact on well-being. (OECD, 2017[10]) provides a case in point by highlighting trends in various well-being outcomes over the period 2005-2015.

Its conclusion is that policy responses may have been different had a well-being approach been taken instead of a narrower focus on GDP and aggregate employment metrics.

A focus on well-being provides policy-makers with a broader picture of the state of their country and the way in which its economy is performing for citizens. The potential of this broader approach for improving policy decisions and outcomes is significant. Through a broader focus on multi-dimensional well-being, policy-makers can better identify the areas of good performance, detect challenges and areas of strain at an early stage and understand the way in which different components of well-being interact within their specific national contexts. This can allow them to set priorities more effectively, better assess the cost and benefits of different policy options and select levers for high-impact action.

More broadly, a focus on multi-dimensional well-being can provide policy-makers with valuable insight into two important questions:

- (i) How economic growth translates into improved living standards and societal progress along the dimensions that matter most to citizens; and
- (ii) How the fundamental drivers of well-being can act as drivers for stronger and more sustainable long-term economic growth.

2.2. From well-being to sustainable and inclusive growth

Measuring current well-being means capturing present outcomes: is life getting better, and for whom? However, the *OECD Well-Being Framework* goes beyond the "here and now" to consider the essential resources that are needed to sustain well-being in the medium and long-term. In order to do so, it follows a capital-based approach focusing on four different types of assets: economic, natural, human and social (see Figure 2.1 above)[6]. The notion of capital is useful for understanding the sustainability of well-being outcomes over time. It applies to resources that affect a broad range of well-being outcomes, that can generate a stream of future benefits to society and whose stocks can either be increased or depleted through current decisions. As such, the stocks of these four types of capital provide a link between current and future well-being.

Sustaining well-being over time means *at a minimum* maintaining the stocks of capital necessary to support current levels of well-being in the future. The OECD makes a further argument: these four types of capital are not only necessary to promote and sustain well-being over time, they also represent the fundamental assets that foster long-term economic growth. Building on this argument, the OECD recommends that governments should invest in the full spectrum of these assets and underlines the importance of accumulating them more evenly by reducing disparities in their access and use.

Disparities in access to and use of these resources remain substantial. For example, the share of young adults with at least an upper secondary education rose from 79% to 81% in OECD countries between 2013 and 2016, but there is a steep social gradient in educational outcomes and human capital accumulation (OECD, 2018[5]). Similarly, the volume of produced fixed assets, the value of intellectual property assets and the share of GDP

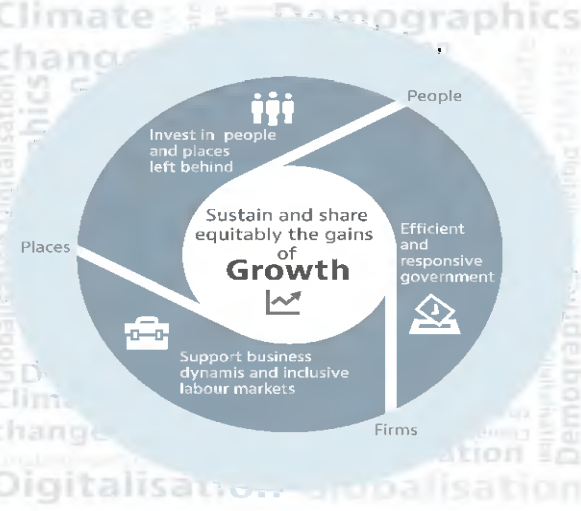
[6] The use of a capital-based approach to measure the long-term drivers of well-being and the focus on economic, natural, human and social capital as the essential types of resources are in line with the recommendations of the *UNECE/Eurostat/OECD Task Force on Measuring Sustainable Development*. It is important to note that all four types of capital (including natural, human and social capital) contribute to economic performance.

invested in R&D have all increased over the last decade, but these gains tend to be concentrated in large firms. Digital gender divides are also an issue: for example, in 2016, 5.5% of male workers in OECD countries were ICT specialists compared to only 1.4% of female workers (OECD, 2016[14]).

Reducing these disparities and investing more evenly across all forms of capital would result in more sustainable and inclusive economic growth (OECD, 2018[15]). This is tied in part to the significant positive spill-over effects that promoting greater well-being can have on human capital formation, innovation and productivity (through increased skills), on institutions (through demand for greater accountability and better governance) and on social and economic stability (through a broadening of the tax base and reduced social unrest).

To operationalise the notion of well-being, the OECD launched the Inclusive Growth Initiative in 2012. Among the Initiative's most notable outputs, the release of the *OECD Framework for Policy Action on Inclusive Growth* at the 2018 Ministerial Committee Meeting sums up several years of work on the policy drivers of well-being outcomes (OECD, 2018[15]). The *OECD Framework for Policy Action on Inclusive Growth* is designed to act as a "multi-dimensional GPS" for guiding policy. It provides governments with a thorough analysis of the policy and non-policy drivers of "quality growth", i.e. growth that realises the potential well-being of people in each country. The Framework puts emphasis on three sets of dynamics which policies can catalyse to shape an economy that builds on and promotes people's well-being (see Figure 2.2 below):

Figure 2.2. The OECD Framework for Policy Action on Inclusive Growth



Source: (OECD, 2018[15])

- (i) *Investing in people and places left behind*: by promoting quality childcare, early education programmes, life-long learning and acquisition of skills (in particular through vocational and tertiary education); ensuring access to quality health services, housing and infrastructure; promoting regional catch-up; and improving communities' well-being and social capital.

- (ii) *Supporting business dynamism and inclusive labour markets*: by boosting productivity and business dynamism, while ensuring the diffusion of technologies – particularly for small and young firms; stimulating labour mobility and opportunities (notably by empowering women and other under-represented groups); preparing labour markets and social protection systems for the Future of Work; and strengthening trade and investment.

- (iii) *Rebuilding trust in efficient and responsive governments*: by ensuring that citizens play a meaningful role in the design and evaluation of policies; aligning policy packages across levels of government; and integrating distributional aspects into the design of policy *ex-ante* rather than *ex-post*.

From a governance perspective, the *OECD Framework for Policy Action on Inclusive Growth* makes the argument that involving citizens, notably under-served or excluded populations, throughout the policy cycle and ensuring their voice is taken into account in the design of policy, regulation and the indicators used to measure well-being can contribute not only to improve the efficiency, transparency and responsiveness of government, but also to restore trust and strengthen democracy. It provides several key recommendations for doing so, highlighting the role that digital technology and open government initiatives can play in this context:

- *Embedding inclusiveness into policy-making*. Greater stakeholder engagement may contribute to improve the efficiency of policies, standards and projects in areas of broad public interest, in line with the *OECD Recommendation on Open Government*. Coordinated action may be needed to strengthen institutional frameworks, notably for the mainstreaming and budgeting of gender and diversity.

- *Using smart data technologies to design more people-centred policies*. Providing citizens with the appropriate data, resources and information can allow them to make better decisions about their own lives, personal and professional development. Taking a people-centred approach to policy and a multidimensional approach to well-being can therefore be key drivers for public sector innovation. In a context marked by increasingly personalised services and the use of social media, it will also be important to ensure that impacts and transaction costs are properly assessed and that public administrations are held accountable for their interactions with citizens.

- *Screening policies for inclusiveness and accountability*. Open, transparent and horizontal decision-making processes can help achieve the objective of designing more people-centred policies. This may require efforts to improve budget transparency, ensure sound public financial management and properly assess regulatory policies, as well as the reliability of government and its capacity to react to adverse shocks. Further action may also be needed to better understand the behaviour, demands and well-being of citizens and integrate them into the design and implementation of public service strategies, taking account of the opportunities provided by digital technology and open government initiatives.

This Paper will focus on a selected number of policy areas that previous OECD research has shown to be essential for well-being and economic growth: education and training; health care; social protection; and gender equality. In doing so, it leaves aside several issues and policy areas covered by the *OECD Framework for Policy Action on Inclusive Growth* such as business dynamism, inclusive policy-making, structural and regulatory policy, competition, taxation and territorial policy.

2.3. The concept of an economy of well-being

The OECD's *Well-Being Framework* and *Framework for Policy Action on Inclusive Growth* share a common objective: to put people and their well-being at the centre of policy. Both start from the evidence that the relation between economic growth and societal progress is neither mechanical, nor unidirectional. On this basis, they argue that policy has a key role to play in connecting the two terms. More specifically, it can help ensure that economic growth translates into greater well-being and improved living standards for all of society and, in turn, that greater well-being and improved living standards act as foundations for stable and sustainable long-term economic growth. To achieve this objective, policy needs to be guided by a broader metric that can capture the complexity of the relation between economic growth and societal progress, as well as the different channels through which they are connected. This metric should include GDP, but also extend beyond it to cover the range of outcomes that matter to people.

OECD research and evidence confirm that there is a two-way relation between economic growth and well-being. At the most general level, this is reflected in the fact that good performance along the material and subjective dimensions of well-being tend to go hand-in-hand. (OECD, 2017[10]) points out in this respect that no OECD country does well on quality of life without achieving at least a moderate level of performance on material conditions, and vice versa. The aim of this paper is to provide more detailed analysis of several important channels through which economic growth and well-being support and reinforce one another.

OECD research and evidence also suggest that there is a two-way relation between productivity and inclusion [(OECD, 2015[17]), (OECD, 2016[18]), (OECD, 2018[15])]. In this respect, economic growth is strengthened when everyone has the opportunity to contribute to and share in the benefits it generates. This is what the OECD means by "inclusive growth". It highlights an important reason why policy-makers should pay attention to the distribution of well-being outcomes, not just to their overall levels.

Building on these arguments and the underlying evidence, the concept of an *economy of well-being* consists in leveraging the two-way relation between key well-being outcomes and economic growth. The *economy of well-being* can therefore be defined as an economy:

- (i) That expands the *opportunities* available to people to improve their lives along the dimensions that matter to them; and
- (ii) That ensures these opportunities translate into *well-being outcomes* for all segments of society, including those at the bottom of the distribution.

By providing people with opportunities for well-being and helping them realise those opportunities, policy-makers would not only be acting to promote well-being as an intrinsic good, they would also be investing in people's potential and in key drivers for long-term economic growth. Similarly, by paying attention to the sustainability of well-being over time and the four types of capital that contribute to it, policy-makers would be investing in a balanced portfolio that can maximise the potential for long-term economic growth and better protect the economy and society from adverse shocks. In both cases, the "economy of well-being" seeks to establish and sustain a "virtuous circle" in which both elements – economic growth and well-being – work together to the benefit of people and society.

The OECD's *Well-Being Framework* and *Framework for Policy Action on Inclusive Growth* can give substance to the concept of an "economy of well-being" in several ways.

They show how well-being can be used to deliver greater economic prosperity, social cohesion and political stability by helping:

- (i) Guide the effective allocation of resources;
- (ii) Identify areas where action will have high returns; and
- (iii) Measure the impact of policies on people's lives across the range of outcomes that matter to them.

Through the mapping of policies to outcomes, these OECD instruments can support governments in their efforts to capitalise on this mutually reinforcing relation by highlighting the drivers which contribute both to individual well-being and economic growth. The present Paper contributes to this objective by providing a multi-dimensional analysis of the impact of policies in four areas that have been shown to be important for well-being: education and skills (Section 3.1); Health (Section 3.2); Social Protection and Redistribution (Section 3.3); and Gender Equality (Section 3.4).

3. Multi-dimensional review of key policy impacts

This section presents empirical evidence in four key policy areas for well-being: education and training; health; social protection and redistribution; and gender equality.

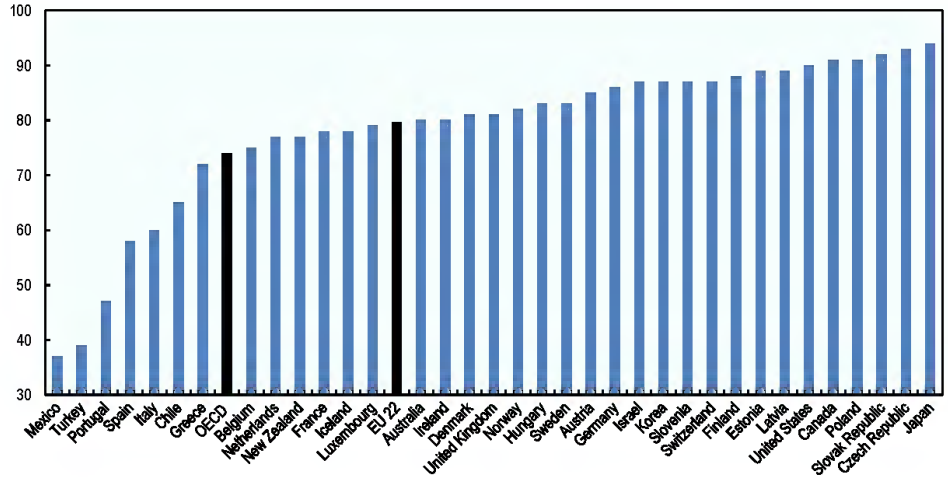
3.1. Education and skills

3.1.1. Education, skills and their determinants

Education quantity and quality are key outcomes for well-being. Traditionally these outcomes are measured through educational attainment, adult skills (as derived from the PIAAC survey) and cognitive skills of students at age 15 (as measured by the PISA survey). Figure 3.1 describes education quantity among the adult population (Panel A) and education quality among pupils (Panel B). The share of adults with at least upper secondary education ranges from over 90% in Japan, Czech Republic, Slovak Republic, Poland, Canada and the United States to less than 60% in Mexico, Turkey, Portugal, Spain and Italy. In turn, education quality is highest in Japan, Estonia, Finland, Canada and Korea, and lowest in Mexico, Turkey, Chile, Greece and the Slovak Republic. The cross-country correlation between education quantity and quality is around 0.65. The group of EU countries belonging to the OECD (EU 22)[7] scores above the OECD average on both outcomes.

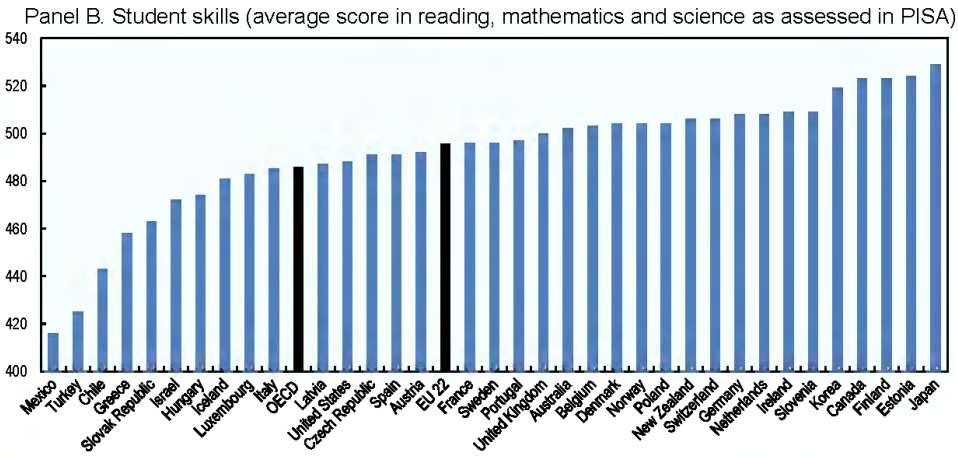
Figure 3.1. Education and skills among OECD countries and EU 22

Panel A. Educational attainment (share of adult population with at least upper secondary education)



Note: Countries are ranked in ascending order of educational achievement. The EU-22 average refers to the 22 European Union members of the OECD.

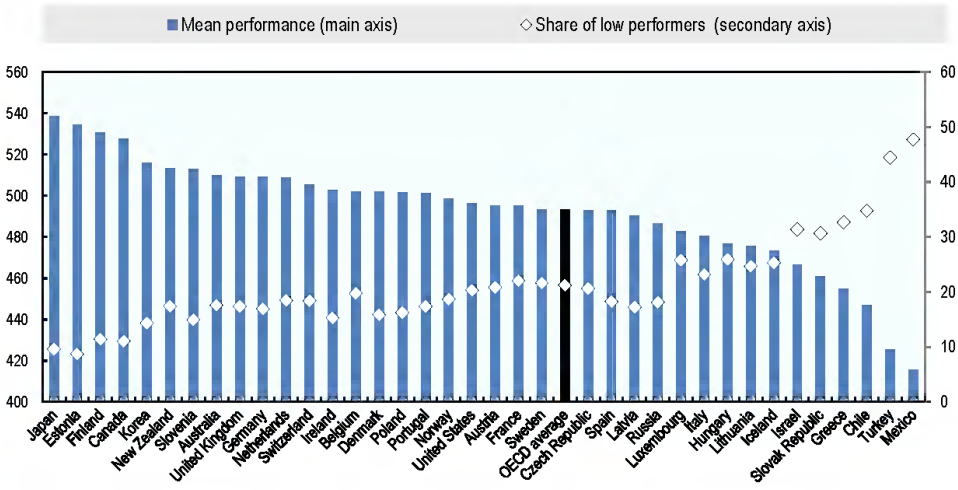
[7] Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Luxembourg, the Netherlands, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, and the United Kingdom.



Note: Countries are ranked in ascending order of average score of student skills. The EU-22 average refers to the 22 European Union members of the OECD.
Source: OECD PISA data

Countries with high levels of inequality in education and skills also record lower average performance. As shown in Figure 3.2, having a large share of low-performing students in PISA science test has a disproportionate downward effect on countries' mean performance, as their test scores are generally far below average. In turn, low-performers at school are often disadvantaged on economic, social and cultural grounds (OECD, 2015[19]). Hence, reducing inequality of opportunity at school would lead both to lower inequality in educational outcomes and higher average performance in education and skills.

Figure 3.2. Performance in science test – PISA 2015



Note: Countries are ranked in descending order of mean performance.
Source: OECD PISA 2015 database

The main drivers of human capital [(OECD, 2015[19]), (Egert, 2019[20])] include public spending on education per capita, as well as organisational features such as attendance rates for pre-primary education, the autonomy of schools and universities, or the student-to-teacher ratio. Spending more on education does boost human capital, but educational policies and institutions explain much of the cross-country differences in human capital, as they drive the performance of education systems in terms of value-for-money. For example, higher attendance at pre-primary level, greater autonomy for schools and universities, lower student-to-teacher ratios, smaller differences and easier pathways between academic and vocational branches of education, and lower barriers for funding students at tertiary level all boost human capital. The benefits of pre-primary education are particularly high for countries with an above-average share of disadvantaged students. School autonomy yields especially high benefits in countries where schools are subject to accountability. Beyond their impact on human capital, aligning any of these educational policies to best practice would generate an increase of more than 1% in GDP per capita over the medium-term, on top of the positive effects of an increase in spending on education.

Likewise, training and lifelong learning play a crucial role in developing adult skills. As described in (OECD, 2019[21]), public expenditure on training per person unemployed amounts to 3.8% of GDP on average, ranging from 18.9% in Denmark to less than 1% in Australia, the Czech Republic, Greece, Japan, Poland and Slovenia. Training is also provided by the private sector, but overall the scope, targeting and efficiency of training and lifelong learning could be significantly improved. Today, only around 40% of adults in OECD countries take part in adult learning in a given year. In some cases, training consists only in a few hours of instruction and is not well aligned with changing skill demands. Moreover, some groups of adults are much less likely to participate in adult learning activities than others. For example, across the OECD, participation in adult learning is 23 percentage points lower for adults with low educational qualification than for those with medium and higher education.

3.1.2. Why education and skills matter for well-being and growth

Education boosts economic growth. Over the very long-term, the diffusion of education explains half the rate of economic growth in Great Britain, both before and after the First Industrial Revolution (Madsen and Murtin, 2017[22]). Many studies covering OECD countries over the last 50 years have found a strong and significant impact of educational attainment on economic growth (see (Hanushek and Wößmann, 2010[23]) for a review). According to (Cohen and Soto, 2007[24]), an additional year of schooling increases GDP per capita by around 12%. Similarly, (Hanushek and Wößmann, 2007[25]) report that a "moderately strong improvement in knowledge" of 0.5 cross-country standard deviation in student outcomes at the end of upper secondary schooling would yield a 10% increase in GDP per capita after 25 years.

The benefits of longer and better education affect other aspects of well-being. Highly educated people live around 6 years longer than low-educated people (Murtin et al., 2017[26]). Highly educated people also experience higher *employment* rates, lower labour market insecurity and job strain (OECD, 2017[10]). Similarly, they enjoy better *social connectedness* and *personal security*, higher *subjective well-being*, stronger *civic engagement* and wider awareness and concern for *environmental quality* [(OECD, 2015[19]), (OECD, 2018[27])]. On the downside, highly educated people have longer working hours and less time off than their low-skilled counterparts, which negatively affects their *work-life balance*. The positive impact of longer and better education on the

non-monetary dimensions of well-being is not simply the result of higher income levels; even after income effects are taken into account, highly educated people are healthier, more connected and more trusting than their less educated peers[8]. In other words, education matters for these well-being outcomes for reasons that go beyond higher income.

Several attempts have been made to quantify the total net impact of education on well-being, considering both monetary and non-monetary returns. For instance, (Diaz and Murtin, 2019[31]) show that the returns to education more than double once the benefits in terms of health and employment are accounted for.

Finally, the digital revolution that has transformed the world over the last two decades has reinforced the importance of skills as a determinant of both well-being and economic growth. As described in (OECD, 2019[32]), digital technologies improve the life of those who have the skills to use them. For instance, they simplify access to education, to health information, to consumption goods via online shopping, they cut transportation time via teleworking and improve the efficiency of energy use at home and at the city level. However, only 30% of people have a sufficiently high level of digital skills to evolve in technology-rich environments. While younger generations ("digital natives") are increasingly fluent in the use of digital technologies, older people are often left behind. This has severe consequences in all dimensions of well-being, since digital skills are necessary to benefit from many of the opportunities of the digital transformation. In particular, the elderly population are at risk of being excluded from key services in the areas of health care and e-government, which are increasingly reliant on digitalised systems.

3.2. Health

Health is one of the main ingredients of a good life, but being in good health can also improve people's economic standing. Good health can lead to higher GDP per capita in the long-run due to its impact on labour force participation and productivity.

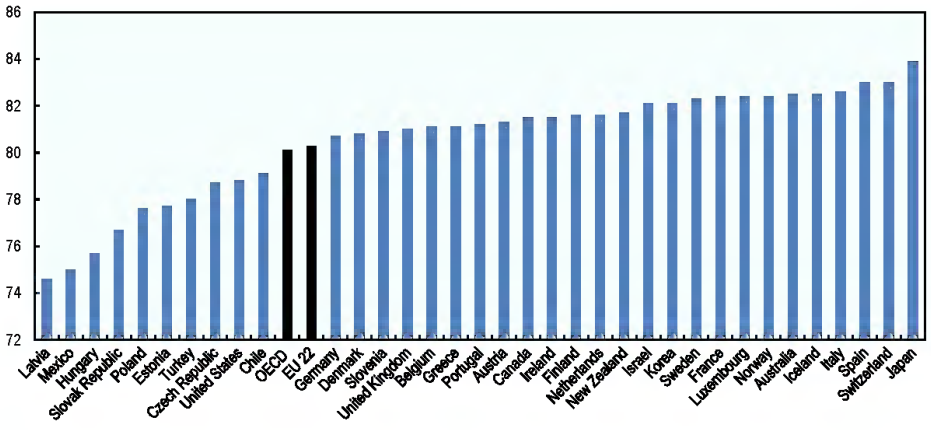
3.2.1. Health and its determinants

Life quantity (i.e. longevity) and quality (i.e. absence of physical and mental health problems) are the two key aspects of health. Conventional measures of health include life expectancy at birth (Figure 3.3 Panel A) and perceived health status (Panel B). Life expectancy at birth is highest in Japan, Switzerland, Spain and Italy, and lowest in Latvia, Mexico, Hungary and the Slovak Republic. More than 80% of people report being in good health in the United States, New Zealand, Canada and Australia, while less than 50% report good health in Korea, Japan, Latvia and Portugal. The relationship between longevity and self-reported health is weak.

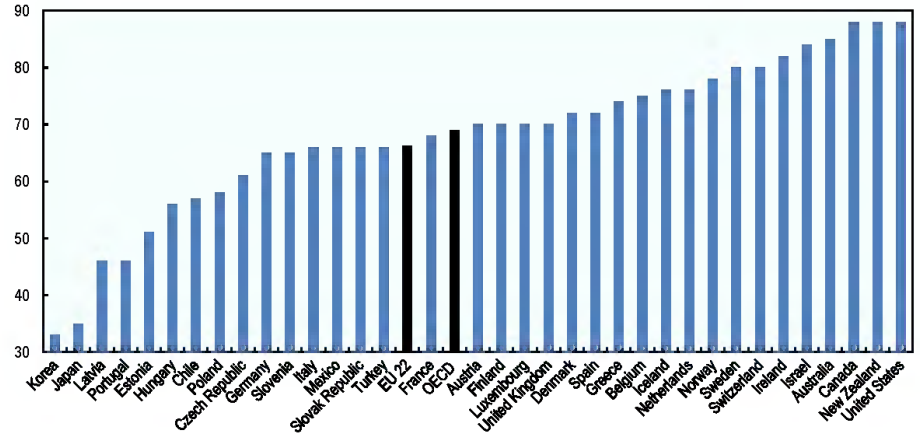
[8] On the links between educational attainment and subjective well-being see (Boarini et al., 2012[28]), civic engagement as measured by trust in institutions see (Murtin, Fleischer and Siegerink, 2018[29]), and social connectedness see (Helliwell and Putnam, 2007[30]).

Figure 3.3. Health among OECD and EU 22 countries

Panel A. Life expectancy at birth (in years)



Panel B. Self-reported health (percentage reporting good health)



Note: Countries are ranked in ascending order of life expectancy at birth (Panel A) and self-reported health (Panel B). The EU-22 average refers to the 22 European Union members of the OECD.
Source:: OECD Better Life database (OECD 2017) and OECD Health Database

The proportion of people in poor health weighs heavily on country-level measures for key health outcomes. Premature mortality in particular decreases life expectancy, while at the same time increasing inequalities in terms of age at death. Moreover, health inequalities are often stratified along economic, educational or occupational lines. For instance, around 2012 the gap in life expectancy between low and highly educated people was of approximately 8 years for men and 4 years for women (Murtin et al., 2017[26]).

Greater spending on health care has made a major contribution to improving health outcomes, but the wider determinants of health are also important. The determinants of

longevity have been described recently in (James, Devaux and Sassi, 2017[33]) and (Lorenzoni et al., 2018[34]). At the macro-economic level, increased longevity has been linked to higher health expenditure per capita (an additional 3.5 years of life for a 10% rise in spending), education (+ 3.2 years for a 10% rise), GDP per capita (+2.2 years), smoking and alcohol consumption (+1.6 and +1.0 years respectively for a 10% fall). Micro-economic studies have identified other risk factors – such as obesity, air pollution, unemployment and opioid consumption (Case and Deaton, 2017[35]) – whose relative impact will vary depending on national context.

The characteristics of health systems also influence health outcomes, as well as the level of health expenditure. For instance, having a larger range of goods and services covered by basic (primary) health care helps improve value for money by increasing life expectancy and moderating health spending growth at the same time [(Lorenzoni et al., 2018[34]), (Dougherty et al., 2019[36])]. On the other hand, Health Technology Assessment (HTA) and greater user choice for basic coverage may yield life expectancy gains, but are also likely to increase health care expenditure.

Novel medicines are important for a well-functioning health system. They have contributed to improved survival rates and quality of life for many patients around the world. At the same time, there have been recent concerns about the output of the pharmaceutical innovation system and ensuring that novel drugs are affordable for both payers and patients. The innovation model needs to be realigned to ensure that it delivers the right innovations, at the right prices and defines appropriate rewards. There are important unmet medical needs not adequately addressed by current investments in R&D, such as antimicrobial resistance (AMR) and dementia. Prices of new drugs have been soaring, which compromises patient access and puts a strain on health care budgets (OECD, 2018[37]).

Tackling specific behavioural risk factors – such as tobacco smoking, harmful alcohol use, physical inactivity and unhealthy diets – represents a worthwhile investment, as these forms of prevention are often more cost-effective than treating the health problems associated with these behaviour patterns. It is estimated that 790 000 people in EU countries died prematurely in 2016 due to these risks factors (OECD, 2018[38]). At the same time, countries do not sufficiently prioritise prevention: on average only 3% of EU Member States' health budgets is spent on prevention, with the rest being spent on treatment (European Commission, 2017[39]). The cost to the EU health care systems from cardiovascular disease amounted to just under EUR 111 billion in 2015 (European Heart Network, 2017[40]) and EUR 51 billion for cancer in 2009 (Luengo-Fernandez et al., 2013[41]). Similarly, there is a strong economic case for investing in mental health (OECD, 2018[38]), improving the environment and road safety (McDaid, Merkur and Sassi, 2015[42]).

Overweight and obesity have serious public health implications. They impact significantly on health care budgets due to the high cost of treating patients with chronic diseases that are associated with high body-mass index (BMI), such as diabetes, cardiovascular diseases and certain cancers. In 34 out of 36 OECD member countries, more than half of the population is now overweight. In the last few years, there has also been a significant growth in morbid obesity. Diseases related to obesity reduce life expectancy by 0.9 to 4.2 years depending on the country. Around 92 million people may die in OECD, EU28 and G20 countries before 2050 as a result of an obesity-related disease (OECD, 2019 forthcoming[36]). Implementing a population-wide communication strategy (food-labelling schemes, mass media campaigns and regulation of advertising of unhealthy food to children) and policy interventions to improve diet and physical activity (menu-labelling schemes, prescription of physical activity by primary care physicians, and workplace

wellness programmes) could help save up to EUR 58 Billion in total by 2050 on the health budgets of 36 OECD, EU28 and G20 countries studied.

Mental health is an important aspect of quality of life, but it involves a complex set of factors at play over the entire life cycle. Mental illness starts early: the median age of onset for any mental illness is 14 and 11 for anxiety disorders. Most OECD countries lack effective programmes to support parents' mental health during the perinatal, infancy and pre-school periods, which impacts negatively on the child's mental health (Stewart-Brown and Schrader-McMillan, 2011[43]). Similarly, the lack of systematic interventions at school and absence of diagnosis and treatment of mental disorders contribute to their high prevalence. Across the EU, measures are now being adopted to promote mental health and well-being in schools and nurseries (OECD, 2014[44]), as well as in workplaces (EU-OSHA, 2018[45]). In this regard, promoting non-discrimination at work and reducing stress in the workplace improve workers' mental well-being and should constitute policy priorities.

Overall, mental health problems such as depression, anxiety disorders and alcohol and drug abuse disorders affect more than one person in six across EU countries (i.e. 17% of the population or nearly 84 million people in total). The most common mental disorder across EU countries is anxiety disorder, with an estimated 25 million people (or 5.4% of the population) living with anxiety disorders, followed by depressive disorders, which affect over 21 million people (or 4.5% of the population) (OECD, 2018[38]). Mortality related to mental health problems and suicide is substantial: over 84 000 people died of mental health problems and suicide across EU countries in 2015 (OECD, 2018[38]). Because workers with mental health problems tend to be less attached to the labour market than their mentally healthy peers, many will leave the labour market and rely on disability benefits. In all OECD countries, people diagnosed with a mental disorder account for 30-40% of disability benefit caseloads (OECD, 2015[46]).

Anti-microbial resistance (AMR) – the ability of micro-organisms to resist antimicrobials – is the leading infectious health issue across EU countries and one of the major causes of concern for public health. Each year, AMR is responsible for around 33 000 deaths in the EU; close to one in five infections in the EU/EEA is due to antibiotic-resistant bacteria. Longer hospital stay, caused by slower recovery from infection and a higher risk of complications, will be one of the key drivers of higher health care expenditure in the future. Addressing AMR will therefore deliver gains both in economic terms and in terms of well-being. This will require concerted efforts not only within health systems, but also in relation to the use of antibiotics in animal husbandry and farming.

Finally, the digital transformation entails both opportunities and risks for people's health (OECD, 2019[32]). On the one hand, health care delivery can be facilitated by new digital technologies, such as electronic records, new treatment options, tele-care and tele-consultation. In this regard, an important aspect of digitalisation concerns the production and use of medical data to improve the effectiveness and efficiency of health systems, provided that the exchange and use of medical and health data meet high standards for data protection and security. On the other hand, digitalisation can also lead to mental health risks associated with the extreme use of digital technologies, especially among children and teenagers, the crowding out of other activities such as physical exercise, and the increased pace of work and cognitive burden put on workers. (EXPH, 2019[47]) provides recommendations on the preparation of health care systems for digital transformation, covering these issues.

3.2.2. Why health matters for well-being and economic growth

Along with education and skills, health is a fundamental component of human capital that impacts on economic prosperity and social progress in numerous ways. Many studies have assessed the relation between longevity and economic growth [e.g. (Zhang, Zhang and Lee, 2003[48]); (Bloom, Canning and Sevilla, 2004[49]); (Aghion, Howitt and Murtin, 2011[50]); (Cervellati and Sunde, 2009[51]); (Murtin, 2016[52]); (Cylus, Normand and Figueras, 2018[53])]. The mechanisms through which increased longevity raises economic growth include greater educational investment, improved labour market participation and higher savings.

Ill-health imposes a significant economic burden on society and public finances. For instance, the total costs of mental ill-health are estimated at more than 4% of GDP – or over EUR 600 billion – across the 28 EU countries for 2015. These costs include direct health care spending (1.3% of GDP), higher spending on social security programmes such as sick leave, disability benefits and unemployment insurance (1.2% of GDP); and costs linked to lower employment and productivity at work (1.6% of GDP) (OECD, 2018[38]). The cost imposed by non-communicable diseases (NCD) is substantial and expected to increase further over the next two decades. Already, around 550 000 people of working-age die prematurely every year across the EU due to NCDs. This amounts to 3.4 million life-years and EUR 115 billion in economic potential lost annually (OECD, 2016[54]).

Productivity losses from absenteeism and presenteeism amount to a significant share of a country's GDP (US Chamber of Commerce, 2016[55]): between 3.5% in Mexico and 5% in the United States, and 5.2% in Turkey. In addition, productivity losses arising from early retirement due to health problems are estimated at almost 2% of GDP in Mexico and Turkey, and around 3% in Australia, Japan and the United States. In total, the reduction in productive capacities due to health problems could be about 5-8% of GDP depending on the country. In the EU28, the cost of work-related injuries and illnesses is estimated to be around 3.3% of GDP or EUR 476 billion (Elsler, Takala and Remes, 2017[56]). When adding forgone taxes from people not in employment and higher spending on social welfare, health care and rehabilitation, the total cost of workers' health problems are enormous (Saint-Martin, Inanc and Prinz, 2018[57]).

As a fundamental component of human capital, the impact of health status on other dimensions of well-being goes well beyond income. This starts with *education*, as higher longevity raises the lifetime return of investment in education [(Ben-Porath, 1967[58]); (Cohen and Leker, 2016[59])], while poor health lowers children's cognitive development and educational outcomes (Deaton, 2013[60]). Health is also an important determinant of *employment*. For instance, people reporting chronic depression have much lower employment rates than the rest of the population in all countries. Only about half of the population aged 25-64 reporting chronic depression is in employment across EU countries, compared with over three-quarters for those who do not report chronic depression (OECD, 2015[46]). Mental ill-health can push individuals into poverty and poor quality jobs. Furthermore, poor quality jobs may contribute to poor physical and mental health, which in turn tends to increase absenteeism, presenteeism and early retirement, hence reducing the productive capacity of the workforce.

Quality of the working environment represents a key dimension through which work affects well-being (OECD, 2014[61]). Based on data from the *European Working Conditions Survey* for 2015, (OECD, 2018[62]) finds a strong correlation between the quality of the working environment and well-being outcomes, including self-reported health. For

instance, work-related sickness is more than three times as frequent for workers reporting a poor work environment as for those reporting a good one. Quality of the working environment also impacts positively on job satisfaction and work engagement, meaning that good working conditions may matter both for the individual well-being of workers and for the performance of firms measured in terms of the level and growth rate of productivity (Arendts, Prinz and Abma, 2017[63]). Furthermore, (Arendts, Prinz and Abma, 2017[63]) underlines the role that quality working environments play not only in preventing work-related health problems with long-term consequences for workers' careers, but also in allowing people with health problems to return more quickly after an illness and remain economically active for longer. Quality of the working environment is therefore essential for sustaining an effective labour supply over the life course, notably in the context of ageing populations.

Occupational safety and health (OSH) policies and agreements constitute an important lever for improving the quality of the working environment. Musculoskeletal and mental disorders remain the leading causes of sickness absence, work disability and early retirements. Effective prevention is possible and saves money. It requires labour inspectorates, occupational health services and general practitioners to work closely with employers and workers' representatives, to create a culture of health in the world of work.

In order to set priorities effectively, it is crucial that policy-makers have access to reliable and comprehensive estimates of the economic and social cost of occupational injury and disease. Projects initiated at the European level can contribute to this objective [(EU-OSHA, 2017[64]), (Tompa et al., 2019 (forthcoming)[65])]. This challenge is particularly relevant in the context of an increase in non-standard forms of work. Many new forms of work transfer responsibilities for occupational safety and health from the employer to individual workers, who often lack the training or resources to take appropriate measures to ensure that working conditions and the working environment are safe. Regulations may therefore need to be adapted and clarified, while monitoring and control mechanisms may need to be strengthened and improved (OECD, 2018[62]).

People who report good health also report (much) higher *subjective well-being* than others (Boarini et al., 2012[28]). Numerous studies have focused on quantifying the Value of a Statistical Life (VSL), i.e. people's willingness-to-pay for an additional year of life expectancy (Viscusi and Aldy, 2003[66]). As a benchmark, the monetary equivalent of one year of statistical life paid collectively by society was valued at USD 6.3 million in the United States in 2005. (Murtin et al., 2017[67]) concludes that various valuation techniques converged towards a value of one year of life expectancy of about 5% of income, i.e. a gain of one year of longevity is equivalent in welfare terms to 5 percentage points of income growth. Life expectancy in OECD countries is currently increasing by around 1 year every 4 years, so that its annual contribution to welfare (as measured by the "multi-dimensional living standards" metric) is as large as (5/4 =) 1.25 percentage points of economic growth. Historically, longevity and income growth have had similar contributions to growth in welfare (Murtin, 2016[52]).

In the policy arena, valuation of longevity through the VSL helps health authorities to analyse the cost and benefits of a new treatment, to decide on its degree of reimbursement (see (Richardson and Schlander, 2018[68]) for a discussion of Health Technology Assessment) and to estimate the social cost of air pollution (De Serres and Murtin, 2016[69]) and other risk factors. In cost-benefit analyses of policy reforms, social returns on investment for health are generally large due to the high value of VSL or quality-adjusted life years (QALYS).

3.3. Social protection and redistributive policies

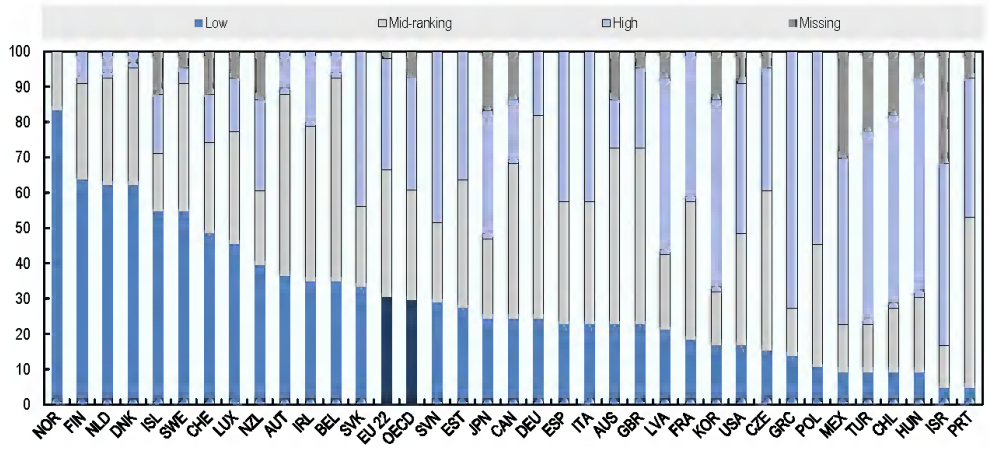
3.3.1. Poverty and inequality across OECD countries

Social protection is concerned with preventing, managing, and overcoming situations that adversely affect people's well-being (UNRISD, 2010[70]). It involves policies and programmes designed to reduce poverty and vulnerability by promoting efficient labour markets, diminishing people's exposure to risks, and enhancing their capacity to manage economic and social risks such as unemployment, exclusion, sickness, disability and old age. Social protection includes Active Labour Market Programmes (ALMPs), forms of social insurance such as unemployment insurance or basic health insurance, as well as social assistance to deprived households.

To analyse the role of social protection, it is important first of all to be able to assess the extent of deprivation among OECD countries along the different dimensions of well-being. Figure 3.4 presents the share of well-being deprivation indicators, as used in (OECD, 2017[10]), for which a country ranks in the bottom, middle or top third groups, with deprivation indicators considering the share of people at the bottom of the distribution for a range of well-being outcomes. Norway, Finland, Netherlands and Denmark are among the countries recording the lowest levels of multi-dimensional deprivation, while Portugal, Israel, Hungary and Chile stand at the other side of the spectrum.

Figure 3.4. Prevalence of well-being deprivations in OECD countries

Percentage of weighted indicators in which a country shows low, mid-ranking and high deprivations, latest available year



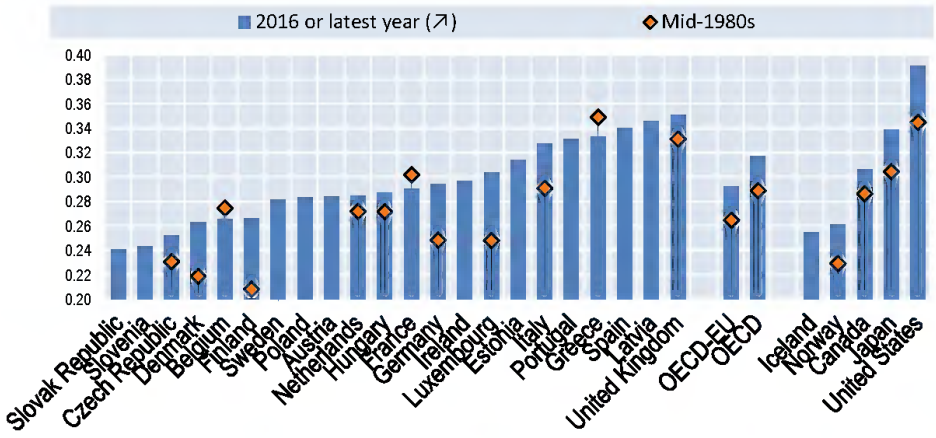
Note: Indicators within each dimension are given equal weights that sum up to 1. Countries are ranked in ascending order according to the share of weighted indicators in which a country shows relatively low levels of deprivation. This refers to deprivation levels ranked among the lowest third of OECD countries; "high deprivations" refers to deprivation levels ranked among the highest third of OECD countries. Only indicators for which available data cover at least two-thirds of OECD countries are considered. In particular, 11 dimensions are assessed through the following 20 weighted indicators: relative income poverty and asset-based poverty in the case of "income and wealth"; unemployment rate and risk of low pay in the case of "jobs and earnings"; housing cost overburden and overcrowding in the case of "housing conditions"; incidence of fair, bad or very bad health in the case of "health status"; incidence of very long working hours in the case of "work-life balance"; share of adults aged 25-64 with below upper secondary education, share of 15-year-old students who score at or below Level 2 in science, reading and mathematics and share of adults who score at or below

Level 1 in both literacy and numeracy in PIAAC tests in the case of "education and skills"; lack of support network in the case of "social connections"; share of people who did not cast a vote in the most recent national elections and share of people who report that they have no influence on what the government does in the case of "civic engagement and government"; share of the population exposed to more than 15 micrograms/m3 of PM2.5 and dissatisfaction with water quality in the case of "environmental quality"; fear of crime and homicide rate in the case of "personal security"; and the share of people with very low life satisfaction and with negative affect balance in the case of "subjective well-being".
Source: OECD Better Life database (OECD 2017)

Alongside poverty, inequalities in well-being outcomes are an enduring concern for policy. The Gini coefficient of income inequality (which ranges from 0 when everyone has identical incomes to 1 when all the income goes to only one person) stands at 0.31 across OECD countries – an all-time high (Figure 3.5). Income inequality has been growing as rich households have been doing much better than both low- and middle-income families. In the 1980s, the average disposable income of the richest 10% was around seven times higher than that of the poorest 10%; today, it is 9.7 times higher. This mainly reflects higher inequality in the distribution of gross wages and salaries. People with skills in high-demand sectors such as IT or finance have seen their earnings rise significantly, especially at the very top-end of the scale. Meanwhile, the wages of workers with low skills have not kept up.

Figure 3.5. Rising income inequality levels across countries

Gini coefficient of disposable income inequality in 2014 (or latest year) and mid-1980s when available, total population



Source: *OECD Income Distribution Database* (http://oe.cd/idd)

A number of longstanding transformations of OECD economies have impacted on labour market inequalities, such as technological change, economic globalisation, structural changes in the labour market and changes in family patterns. Changes in domestic policy settings have also contributed to the rise in market income inequality through regulatory reforms in product and labour markets (OECD, 2011[71]).

Beyond these structural drivers, fiscal redistribution through taxes and transfers plays a crucial role in reducing income inequality, but this effect has weakened over time. Many tax and benefit systems became less redistributive between the mid-1990s and mid-2000s (Causa and Hermansen, 2017[72]), mainly reflecting lower benefit levels, tighter eligibility

rules, the failure of transfers to the lowest income groups to keep pace with earnings growth and, most importantly, the decline in the number of people entitled to transfers.

Finally, a digital divide persists in the use of digital technologies (OECD, 2019[32]). Inequalities in the use of digital technologies along age, gender, and socio-economic lines mean that certain groups are better able to use the potential of digital technologies for achieving higher well-being outcomes in many dimensions, such as jobs and income, health, work-life balance and social connections. In additions, the risks associated with the digital transformation may also fall more heavily on people with lower levels of education and skills. Therefore, the digital transformation may increase inequalities in well-being outcomes.

3.3.2. Why social protection and redistribution matter for well-being and economic growth

There are two mechanisms through which social protection and redistribution impact on well-being and economic growth. First, transfers protect people from risks (in particular economic volatility), helping them recover more quickly from economic hardship. Secondly, they help prevent inequality in present outcomes from translating into inequality of opportunities for the next generation, which would result in a sub-optimal investment in physical and human capital, as well as lower economic growth. In a nutshell, social protection and redistribution aim to foster resilience and social mobility.

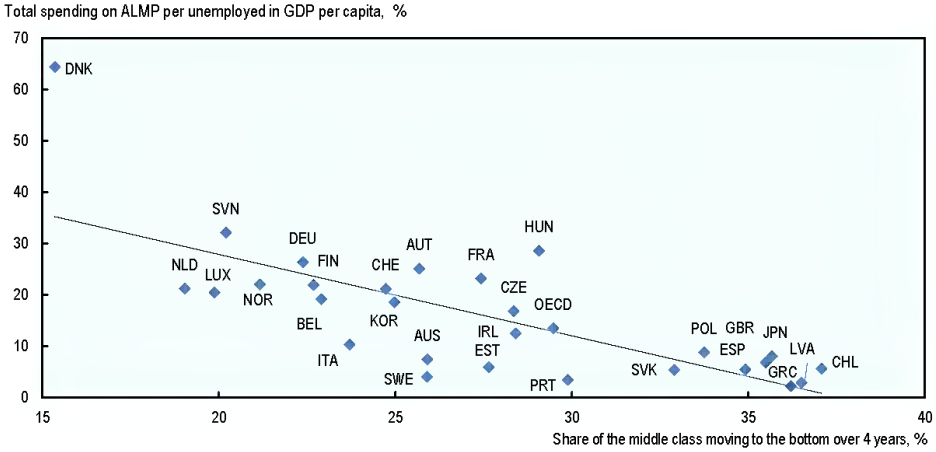
Transfers can significantly mitigate the negative effects of income volatility. The design of unemployment insurance, in-work benefits or family benefits can shape the persistence of income shocks and thereby impact on income mobility. In this respect, combining last-resort income-support schemes with well-designed in-work benefits is likely to support faster return to employment and avoid long-term benefit dependency. Unemployment insurance reduces earnings volatility mainly at the bottom of the earnings distribution and feeds longer-term mobility by preventing social exclusion (OECD, 2015[73]). The re-distributional impact of unemployment insurance is particularly important when measured in terms of life-time earnings. However, unemployment-benefit coverage has been decreasing since the recent economic crisis (OECD, 2018[74]). This is a matter of concern, as unemployment benefit coverage is especially important for non-standard workers and those durably excluded from employment.

Similarly, well-designed in-work benefits or earned income tax credits can be effective in making work pay and creating financial incentives for low-pay workers to climb up the earnings ladder, while supporting living standards for low-income families. However, these schemes can also exert downward pressure on wages. Binding wage floors can increase the effectiveness of these schemes by providing a minimum level below which wages cannot fall. In the United States, the *Earned Income Tax Credit* (EITC) has contributed to reduce in-work poverty and improve the health of children in recipient families through three channels: family income, maternal employment, and health insurance coverage (Cooper and Stewart, 2013[75]). In the Netherlands, taxpayers with earned incomes and children below 12 are entitled to an income-dependent rebate. In France, the Activity Premium (*Prime d'Activité*) has had a positive impact on poverty reduction (OECD, 2018[5]).

As a result, redistribution and social protection increase socio-economic resilience by smoothing the consequences of adverse personal shocks and reducing inequalities in earnings over the life-cycle. In particular, they can protect against the effects of unforeseen

personal events or temporary shocks that may trigger downward mobility (such as job loss, divorce or child birth). In doing so, they can also foster resilience, notably for middle-class families who face higher risks of downward mobility. As underlined in the new *OECD Jobs Strategy*, well-designed social insurance and assistance schemes, if combined with active labour market policies and policies to foster labour demand, can be very effective in protecting against these shocks while at the same delivering better labour market outcomes. OECD countries that spend more on active labour market programmes (ALMPs) tend to have a lower share of middle income households moving down to the bottom of the income distribution over a four year period (Figure 3.6).

Figure 3.6. The share of middle-income households moving down to the bottom is lower in countries spending more on active labour market programmes

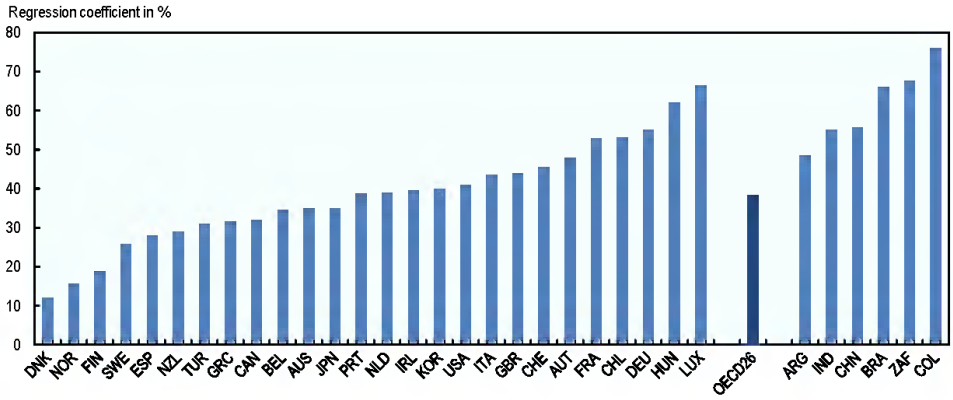


Note: Data on ALMP spending refers to spending per unemployed in GDP per capita in 2015. Total spending on ALMP for Greece does not include public employment services. Data for shares of middle-income households moving down refer to early 2010s.

Source: (OECD, 2018[5])

Secondly, unequal outcomes in one generation tend to translate into unequal opportunities for the next generation. One channel of transmission is through the impact that one generation's earnings have on the pay of their immediate descendants. Earnings' persistence from one generation to the next can be measured by looking at the relation between the earnings of fathers and those of their sons at the same age. When this elasticity is zero, children's adult earnings are unrelated to those of their father, meaning earnings mobility is high. When this elasticity is 100, sons' earnings are fully determined by fathers' earnings, meaning earnings mobility is low. Based on this measure, the elasticity between the earnings of fathers and sons ranges from 12% to over 60% in OECD countries, with even higher values observed in some emerging economies (Figure 3.7).

Figure 3.7. Earnings elasticities from father to son, early 2000s



Note: The height of each bar represents the best point estimate of the inter-generational earnings elasticity. The higher the parameter, the higher the persistence of earnings across generations, and thus the lower the level of inter-generational earnings mobility. All estimates except for Canada, Denmark, Finland, Germany, Norway, Sweden and the US are based on two-sample two-stage least squares estimator.
Source: (OECD, 2018[5])

Today's inequalities in economic and social outcomes shape opportunities in education, health and on the labour market, thereby affecting the potential for social mobility. Children from disadvantaged backgrounds struggle to move up the ladder. This is true for many important aspects of life, not only earnings. Inequalities in *health* status persist in most OECD countries from one generation to the next, in part because health endowments and behaviours are transmitted from parents to children. Growing up in families with little or no wealth and having parents with poor health are the main predictors of own poor health. Access to quality health care services is also lower for low-income groups. Similarly, four in ten people with low-educated parents have lower secondary *education* themselves; only twelve in a hundred obtain a tertiary degree, and only two in a hundred reach a Master's level or higher (OECD, 2018[5]).

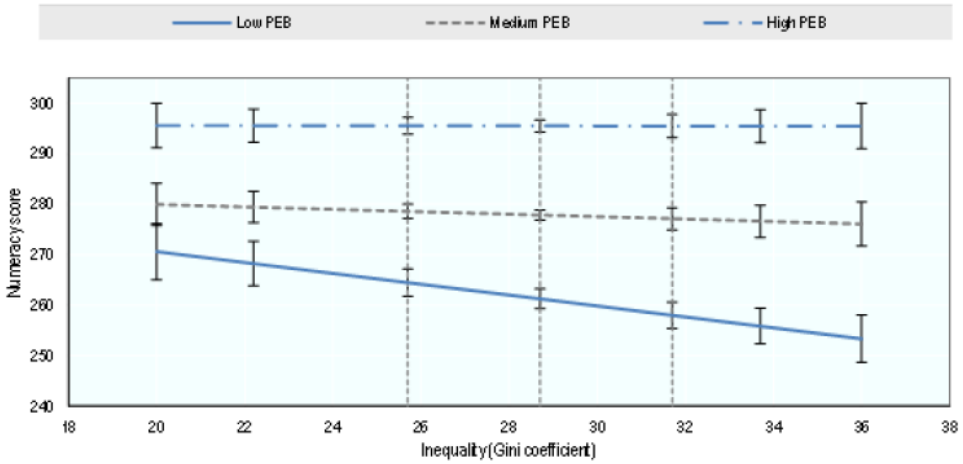
Inequality of opportunities leads to sub-optimal investment in human capital and lower economic growth. Recent OECD work shows that higher income inequality puts a break on economic growth (OECD, 2015[17]). This research, based on data for 31 OECD countries over the period 1970-2010, finds that the long-term rise in income inequality observed in most OECD countries is associated with slower long-term GDP per capita growth, with the key channel being the lower opportunities for the poor and lower-middle classes to invest in the education of their children (OECD, 2015[17]). Increasing inequality by 3 Gini points, the average increase recorded in the OECD over the past two decades, would lower economic growth by 0.35 percentage point per year for 25 years, a cumulated loss in GDP at the end of the period of 8.5 per cent[9]. The negative impact of inequality on growth is driven by the income gaps between lower income households and the rest of the population. This is true not just for the lowest earners – the bottom 10% less affluent households, but for a much broader swathe of low earners – the bottom 40%.

[9] Over the last decades, a large body of theoretical and empirical research has attempted to determine whether inequality is good or bad for growth and has provided evidence supporting both hypotheses.

Higher inequality means that richer families are better able to take advantage of economic opportunities than the lower income groups. Families in low-income groups may be unable to keep their children in education for long or to afford high-quality education, thereby harming their future earnings. They may also find it difficult to borrow to invest. As a result, economic growth is slower than it could otherwise be and disproportionately benefits the better-off[10]. Figure 3.8 shows that an increase in income inequality of around 6 Gini points (corresponding to the income inequality differential between the United States and Japan) lowers the probability of graduating from tertiary education by around 4 percentage points for individuals with a low parental educational background (PEB), while the effect is negligible for those with medium and high PEB.

Figure 3.8. Higher inequality constrains the ability of low-income groups to contribute to economic growth, hindering their accumulation of human capital

Average numeracy score by parent educational background (PEB) and inequality



Note: Average predicted numeracy score for individuals by parental educational background, as a function of the degree of inequality (Gini points) in the country at the time they were around 14 years old.
Low PEB: neither parent has attained upper secondary education; *Medium PEB*: at least one parent has attained secondary and post-secondary, non-tertiary education; *High PEB*: at least one parent has attained tertiary education. The bars indicate 95% confidence intervals. The vertical dashed lines indicate the 25th, the median and the 75th percentiles of the underlying distribution of inequality.

Source: (OECD, 2015[17]), Secretariat calculations based on OECD IDD and OECD PIAAC data

Conversely, more inclusive social protection and redistribution may be associated with greater growth prospects. There are several transmission channels through which social protection may affect inclusive growth (OECD, 2019[76]). It can help households cope with risks and protect their consumption and assets against adverse shocks, limit the need for coping strategies, and affect the allocation of resources and time use in the household. In

[10] For a discussion of these mechanisms, see (Cingano, 2014[95]); (OECD, 2015[92]); (Becker and Tomes, 1986[96]); (Hassler, Rodriguez-Mora and Zeira, 2002[97]), (Sullivan, 2008[98]), (Bradbury and Triest, 2016[99]).

many countries, the income tax system could be made more progressive, in particular for top income earners, and fairer for the middle class (OECD, 2019[9]).

Social protection is associated with higher individual well-being as it reduces income volatility and poverty, which are the strongest determinant of subjective well-being (Boarini et al., 2012[28]). There is substantial evidence showing that security programmes and some redistribution of income are associated with higher subjective well-being [e.g., (Davidson, Pacek and Radcliff, 2013[77]); (Radcliff, 2013[78])].

3.4. Gender equality

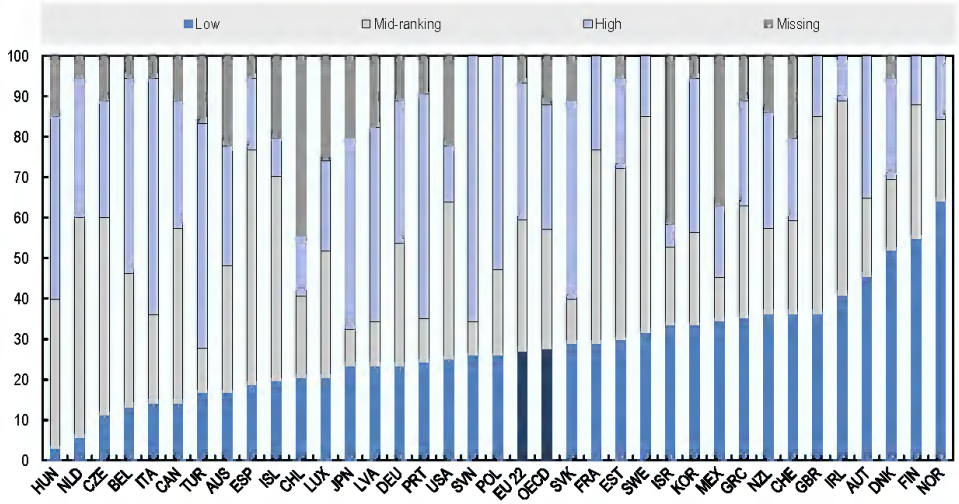
3.4.1. Gender inequalities across OECD countries

Gender equality is key to achieving a prosperous and modern economy that can deliver sustainable and inclusive growth. Gender equality is essential for ensuring that men and women can contribute fully at home, at work and in public life, for the betterment of societies and economies at large. Gender gaps persist in all areas of social and economic life, and the size of these gaps has often remained persistent. This Section considers gender inequality in education, the labour market and unpaid care work.

Figure 3.9 provides an overview of gender inequalities across all dimensions of well-being. Countries such as Norway, Finland, Denmark, Austria and Ireland display relatively small gender gaps, while inequalities are much starker in Hungary, the Netherlands, Czech Republic and Belgium.

Figure 3.9. Gender inequalities by country

Percentage of weighted indicators in which a country shows low, mid-ranking and high inequalities, average performance of women compared to men, latest available year.



Note: Indicators within each dimension are given equal weights that sum up to 1. Countries are ranked in ascending order according to the share of weighted indicators in which a country shows relatively low

inequalities. For each country, this refers to horizontal inequalities ranked among the lowest third of OECD countries; "high inequalities" refers to horizontal inequalities ranked among the highest third of OECD countries. Only indicators for which available data cover at least two-thirds of OECD countries are considered. In particular, 9 dimensions are covered by 18 weighted indicators, which assess the average performance of women compared to men in: hourly earnings, employment and unemployment rates, and incidence of low pay in the case of "jobs and earnings"; incidence of good or very good health in the case of "health status"; time devoted to leisure and personal care and incidence of very long working hours in the case of "work-life balance"; incidence of upper secondary and tertiary education, PISA and PIAAC scores in the case of "education and skills"; quality of support network and time spent socialising in the case of "social connections"; political efficacy and self-reported voter turnout in the case of "civic engagement and governance"; satisfaction with water quality in the case of "environmental quality", feelings of security and homicide rate in the case of "personal security"; and life satisfaction in the case of "subjective well-being". For a given indicator, the higher (lower) the outcome of women compared to men, the stronger (weaker) is the country's performance in that area.

Source: OECD Better Life Index database (OECD, 2017).

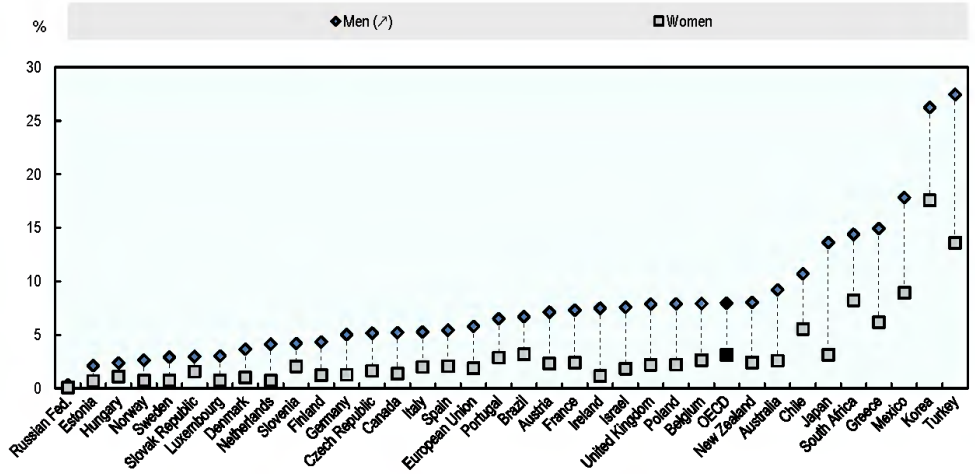
In education, the fields of study chosen by boys and girls differ significantly, with large consequences for future employment. While young women in OECD countries now average more years of schooling than young men, girls are much less likely to study in the science, technology, engineering and mathematics (STEM) fields. Gender stereotyping and perceptions of ability, rather than actual ability, contribute to gender gaps in proficiency and participation in STEM fields (OECD, 2017[79]). The fields of study (and subsequent career paths) of boys and girls start to diverge by the age of 15. OECD-wide, 15-year-old boys are, on average, more than twice as likely as girls to expect to work as engineers, scientists or architects.

The digital transformation can have adverse consequences for gender equality, especially along the well-being dimension of personal (digital) security as women are more exposed than men to cyberbullying. The link between cyberbullying and mental health problems has been extensively documented. On average, across OECD countries with available data, about 12% of girls aged 15 report having been bullied online, compared to 8% for boys (OECD, 2019[32]). Girls report being targeted through digital media more often than boys in all OECD countries, except Denmark and Spain. Cyberbullying is particularly prevalent in a number of Eastern European countries, as well as in Ireland and the United Kingdom.

While the labour force participation rates of women have moved closer to those of men over the past few decades, women are still less likely to be in the workforce and often experience lower job quality across OECD countries. Women with jobs are more likely to work part-time, for lower pay, and in less lucrative sectors such as public administration, health and education, while men are more likely to work in finance, banking and insurance. Women are also less likely to advance to management positions, and more likely to face discrimination in the workplace. Far more men than women work long hours in paid work. When men's long working hours are viewed as a sign of career commitment, and as long as women are more likely to take leave to care for children or relatives, some employers will remain less inclined to invest in female employees.

Figure 3.10. Men are much more likely than women to spend long hours at the workplace

Percentage of employed with usual weekly working hours equal to or greater than 60 hours per week, by gender, 2014 or latest available year

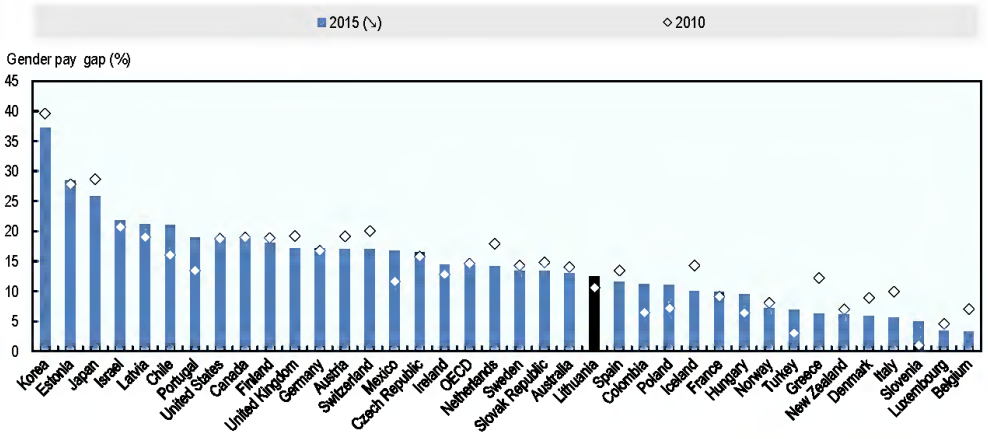


Source: (OECD, 2017[80])

All of these factors contribute to substantial gender pay gaps, with median full-time female workers earning almost 15% less, on average, than their male peers OECD-wide (Figure 3.11). Although overall pay inequality has improved little in recent years, the good news is that gaps in participation and pay are narrowest among young men and women. But gender-related labour market gaps widen when children enter the household, as couples then often take on more "traditional" gender roles. Gaps emerge earlier in countries where the average age at which women bear their first child is lower than the OECD average of 29 years (OECD Family Database) and where traditional attitudes to women's role in the home are more prevalent (OECD, 2017[79]).

Figure 3.11. Gender pay gaps have changed little across OECD and remain substantial

Gender gap in median monthly earnings, (a) full-time employees, 2010 & 2015 or latest available year (b)



Note: The gender gap in median monthly earnings is defined as the difference between male and female median monthly earnings divided by male median monthly earnings, for full-time employees. Full-time employees are defined as those individuals with usual weekly working hours equal to or greater than 30 hours per week.

(a) Data refer to weekly earnings for Australia, Canada, India, Ireland, the United Kingdom and the United States, and to hourly wages for Denmark, Greece, Iceland, New Zealand, Portugal and Spain.

(b) Data refer to 2014, not 2015, for Belgium, Brazil, Estonia, France, Germany, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, New Zealand, Poland, Slovenia, Spain, Switzerland and Turkey. They refer to 2013 for Sweden and 2011 for Israel. Data refer to 2011, not 2010, for Brazil, and Chile.

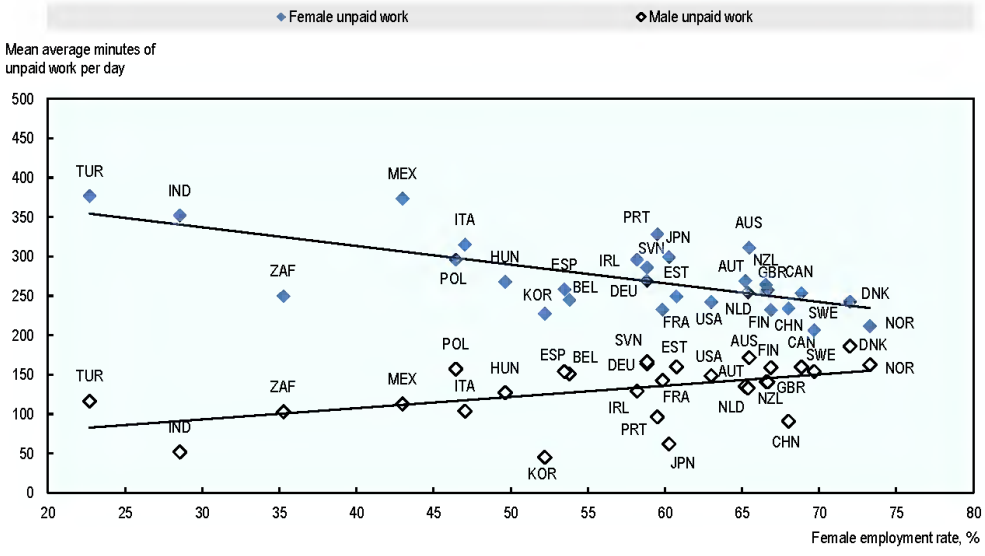
Source: (OECD, 2017[79])

These trends in the labour market are reflected in a thick glass ceiling, both in public life and in the private sector. In 2016, women held only 29% of seats in lower houses of Parliament on average across the OECD. While women make up 55% of all judges (according to available national data), their share decreases when moving up the judicial hierarchy. In 2016, women accounted for 33% of senior management positions in central government, even though they made up 52% of all central government employees. In the private sector, women occupied only one in five seats on the boards of publicly listed companies in 2016, up slightly from 17% in 2013. Women held only 5% of Chief Executive Officer positions in 2016, twice their share in 2013 (OECD, 2017[79]).

Unpaid care work is at the heart of the gender gap. Every day individuals spend time doing care work such as cooking, cleaning and caring for children, the ill and the elderly. Women spend two to ten times more time on unpaid care work than men. Both paid and unpaid care and domestic work are critical for the well-being of individuals and society as a whole. Gender inequality in unpaid work generates unequal labour market outcomes in terms of participation, wages and eventually old-age pensions. By ignoring the gender division of unpaid care task, societies contribute to perpetuate gender inequalities.

Figure 3.12. Better gender balance in unpaid work correlates with greater equality in labour markets

Mean average minutes per day in unpaid work, by gender, and female employment rates, 15-64 year-olds



Note: Data on unpaid work are for 15+ year olds for Australia, 15-74 year olds for Hungary, and 25-64 year olds for Sweden. Reference years vary across countries: Australia: 2006; Austria: 2008-09; Belgium: 2005; Canada: 2010; China: 2008 for unpaid work and 2010 for the female employment rate; Denmark: 2001; Estonia: 2009-10; Finland: 2009-10; France: 2009; Germany: 2001-02; Hungary: 1999-2000; India: 1999 for unpaid work and 2010 for the female employment rate; Italy: 2008-09; Ireland: 2005; Japan: 2011; Korea: 2009; Mexico: 2009; the Netherlands: 2005-06; New Zealand: 2009-10; Norway: 2010; Poland: 2003-04; Portugal: 1999; Slovenia: 2000-01; South Africa: 2010; Spain: 2009-10; Sweden: 2010; Turkey: 2006; the United Kingdom: 2005; and the United States: 2014.

Source: OECD Gender Data Portal

Finally, violence against women (VAW) is listed by many countries as one of the three most urgent issues they face and OECD countries are increasingly prioritising violence against women. In the EU, one-third of women have experienced physical and/or sexual violence since the age of 15. Male intimate partners account for most of this violence. Workplace sexual harassment presents both a human rights challenge and an economic cost. Access to justice remains problematic in OECD countries, as many victims of VAW fail to report violence. Only 14% of women EU-wide who report having been the victim of at least one serious incident of violence by a partner since the age of 15 say that they contacted the police about the most serious such incident (OECD, 2017[79]).

3.4.2. Why gender equality matters for well-being and economic growth

Promoting gender equality would deliver a number of benefits for societies and economies. Providing equal opportunities has an intrinsic value for women. Likewise, societies that treat women fairly are also healthier, happier, more trusting, more equal and inclusive (OECD, 2018[7]). Having more women at work tends to reduce income inequality (OECD, 2015[17]), support household incomes during economic downturns and consolidate the middle class (Vaughan-Whitehead, 2016[81]). Current trends in life-expectancy and fertility rates in G20 countries, which are contributing to higher dependency ratios (the share of dependents aged below 15 and above 65 over the total population aged 15 to 64 year olds), further strengthen the case for increasing the participation of women in the labour force.

There are strong economic reasons to strive for greater gender equality. Promoting women's employment and hours worked would deliver productivity gains and increased growth. Boosting female labour market participation and reducing the gender gap in labour force participation by 25% by 2025 could add 1 percentage point to GDP growth across the OECD over the period 2013-25, and almost 2.5 percentage points if gender participation gaps were halved by 2025 (OECD, 2017[79]). For the EU, the cost of reduced female labour participation is estimated to be around 2.8 % of total GDP (Eurofound, 2016[82]). Similarly, improving gender equality could lead to an increase in the EU's GDP of between 6.1% and 9.6% by 2050 (European Institute for Gender Equality, 2017[83]). In the face of sluggish growth, ageing societies and increasing educational attainment of young women, the economic case for gender equality is clear. Family-friendly policies introduced by Nordic countries increased women's employment and GDP per capita by about 10-20% over the past 40-50 years (OECD, 2018[7]).

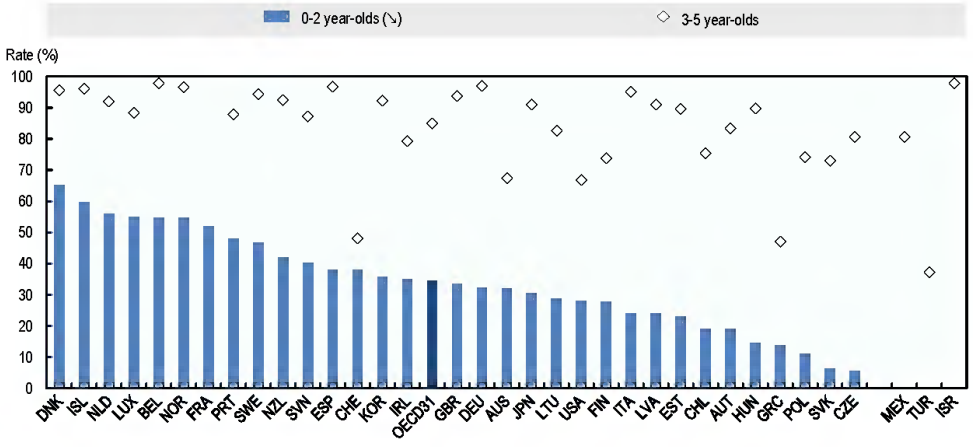
Policies that reconcile work and family life, notably through early education and care services, can help level the playing field by compensating for disadvantages at home, allowing women to progress in their careers and avoiding the transmission of disadvantages to children. They can also support parents' participation in the labour market and mitigate the detrimental impacts of financial hardship on the future outcomes of children. France and the Nordic countries, for example, provide a continuum of publicly-provided support

for parents during the early years of their child's life, and they have been able to combine high female employment with high fertility rates, carrying a demographic dividend with them into the future. Norway and the United Kingdom have expanded or introduced free childcare hours.

Women often miss out on crucial labour-market opportunities during the early stages of their careers, which coincide with the arrival of children in the household, and rarely fully catch up afterwards (OECD, 2018[7]). Improving access to good-quality care and preschool programmes for children is essential for gender equality and for providing children with the best possible start in life. On average across OECD countries, just over a third of children under the age of 3 participate in formal ECEC, with this share varying from around 6% in the Czech and Slovak Republics to 65% in Denmark (Figure 3.13). Pre-primary education is offered to all children as a statutory right from the age of 3 in many OECD countries, and services are frequently subsidised or provided for free. As a result, in most OECD countries, more than 80% of 3-5 years old are enrolled in pre-primary education or primary schools, with much less country variation.

Figure 3.13. Participation in ECEC varies across OECD countries, particularly among very young children

Participation rates for 0-2 year-olds in formal childcare and pre-school services, and enrolment rates for 3-5 year-olds in pre-primary education or primary school, 2014 or latest available year



Note: Participation rates for 0-2 year-olds concern children up to and including 2 years of age and generally refer to children in centre-based services (e.g. nurseries or day care centres and pre-schools, both public and private), organised family day care, and care services provided by (paid) professional childminders. Enrolment rates for 3-5 year-olds include children enrolled in pre-primary education (International Standard Classification of Education [ISCED] 2011 Level 2) and primary education (ISCED 2011 Level 1).

Source: OECD Family Database Indicator PF3.2, http://www.oecd.org/els/family/database.htm.

Getting fathers to take leave from work when children are young is important for gender equality, as fathers' unpaid caregiving can allow mothers to fully participate in the labour market, in society and the economy. Over half of OECD countries now offer paid paternity leave for at least a few days around childbirth, and more and more are reserving a parental leave period that only fathers can use (OECD, 2017[79]). Gender issues are intrinsically linked with family-friendly policies – around paid leave, care support and flexible

workplace arrangements – that help both men and women achieve a better work-life balance and greater well-being.

Care for the elderly is also important for gender inequality. Rapidly ageing societies are driving an increase in the demand for long-term care work (LTC) and women provide most of the care to the elderly. Across Europe, Australia and the US, on average, at least 13% of people aged 50 and over report providing informal care at least once a week (OECD, 2017[6]). In many cases, care work for older persons is provided by wives, daughters and daughters-in-law. The share of the population aged 80 years is expected to double by 2050 across OECD countries. Expanding LTC services has the potential to deliver multiple benefits, including lowering the obstacles to increasing women's labour force participation. Low coverage in LTC services indicates a need for significant investment in these sectors. Expanding decent work in the care economy will require a comprehensive policy package to expand the number of care jobs, improve recruitment efforts, increase the attractiveness of the sector as a source of decent employment and improve the quality of LTC services. At the same time, productivity must improve to address rising costs.

If gender equality is to be fully realised, a whole-of-government approach must be adopted. This approach must include the tools to deliver outcomes and mechanisms that ensure accountability, as emphasised in the 2015 *Gender Recommendation in Public Life*. To that end, gender equality should be embedded into all ministries and all levels of government. In 2015, 25 OECD countries reported having introduced obligatory gender impact assessments when developing new legislation. Gender budgeting is an increasingly used tool for bringing women's and girls' concerns into mainstream policy and public administration. Almost half of all OECD countries report that they have introduced, plan to introduce or are actively considering introducing gender budgeting.

BIBLIOGRAPHY:

Aghion, P., P. Howitt and F. Murtin (2011), "The relationship between health and growth: When Lucas meets Nelson-Phelps", *Review of Economics and Institutions*, Vol. 2/1, pp. 1-24, https://www.brown.edu/Departments/Economics/Faculty/Peter_Howitt/publication/22-101-1-PB.pdf. [50]

Arendts, I., C. Prinz and F. Abma (2017), "Job Quality, Health and at-work Productivity", *OECD Social, Employment and Migration Working Papers No.195*, http://dx.doi.org/10.1787/43ff6bdc-en. [63]

Becker, G. and N. Tomes (1986), "Human Capital and the Rise and Fall of Families", *Journal of Labor Economics*, Vol. 4/3, pp. 1-47. [96]

Ben-Porath, Y. (1967), "The Production of Human Capital and the Life Cycle of Earnings", *Journal of Political Economy*, Vol. 75/4, pp. 352-365, https://www.ntaccounts.org/doc/repository/Ben-Porath_paper.pdf. [58]

Bloom, D., D. Canning and J. Sevilla (2004), "The Effect of Health on Economic Growth: A Production Function Approach", *World Development*, Vol. 32/1, pp. 1-13, http://dx.doi.org/doi.org/10.1016/j.worlddev.2003.07.002. [49]

Boarini, R. et al. (2012), "What Makes for a Better Life?: The Determinants of Subjective Well-Being in OECD Countries – Evidence from the Gallup World Poll", *OECD Statistics Working Papers*, Vol. 03, http://dx.doi.org/doi.org/10.1787/5k. [28]

Boarini, R., A. Kolev and A. McGregor (2014), "Measuring Well-Being in Countries at Different Stages of Development: Towards a more universal conceptual framework", *OECD Development Centre Working Papers* No.325, http://dx.doi.org/doi.org/10.1787/5jxss4hv2d8n-en. [12]

Boarini, R. and M. Mira d'Ercole (2013), "Going Beyond GDP: An OECD Perspective", *Fiscal Studies*, Vol. 34/3, pp. 289-314, https://doi.org/10.1111/j.1475-5890.2013.12007.x. [3]

Bradbury, K. and R. Triest (2016), "Inequality of Opportunity and Aggregate Economic Performance", *The Russell Sage Foundation Journal of the Social Sciences*, Vol. 2/2, pp. 178-201, http://dx.doi.org/doi.org/10.7758/rsf.2016.2.2.08. [99]

Brockman, H. (ed.) (2013), *Public policy and human happiness: The welfare state and the market as agents of well-being*, Springer. [77]

Case, A. and A. Deaton (2017), *Mortality and Morbidity in the United States*, Brookings Institute Report. [35]

Causa, O. and M. Hermansen (2017), "Income Redistribution through Taxes and Transfers across OECD Countries", *OECD Economics Department Working Papers* No.1453, http://dx.doi.org/doi.org/10.1787/bc7569c6-en. [72]

Cervellati, M. and U. Sunde (2009), "Life Expectancy and Economic Growth: The Role of the Demographic Transition", *Journal of Economic Growth*, Vol. 16/2, pp. 99-133, http://ftp.iza.org/dp4160.pdf. [51]

Cingano, F. (2014), "Trends in Income Inequality and itsImpact on Economic Growth", *OECD Social, Employment andMigration Working Papers* No.163, http://dx.doi.org/dx.doi.org/10.1787/5jxrjncwxv6j-en. [95]

Cohen, D. and L. Leker (2016), "Testing the Ben-Porath effect through the educational patterns of young cohorts", *Journal of Macroeconomics*, Vol. 48/C, pp. 252-262. [59]

Cohen, D. and M. Soto (2007), "Growth and Human Capital: Good Data, Good results", *Journal of Economic Growth*, Vol. 12, pp. 51-76, http://dx.doi.org/doi.org/10.1007/s10887-007-9011-5. [24]

Cooper, K. and K. Stewart (2013), *Does money affect children's outcomes?*. [75]

Cylus, J., C. Normand and J. Figueras (2018), *Will Population Ageing Spell the End of the Welfare State? A review of evidence and policy options*, WHO Regional Office for Europe, http://www.euro.who.int/__data/assets/pdf_file/0006/384054/economics-ageing-eng.pdf?ua=1. [53]

De Serres, A. and F. Murtin (2016), "Your Money or Your Life : Green Growth Policies and Welfare in 2050", *Environmental and Resource Economics*, Vol. 63/3, pp. 571-590, https://link.springer.com/article/10.1007%2Fs10640-014-9849-x. [69]

Deaton, A. (2013), *The Great Escape*, Princeton University Press. [60]

Diaz, M. and F. Murtin (2019), "Socio-economic inequality in Multidimensional Living Standards", *OECD Statistics and Data Directorate working paper (forthcoming.* [31]

Dougherty, S. et al. (2019), "The Impact of Decentralisation on the p\Performance of Health Care Systems: A non-linear relationship", *OECD Working Papers on Fiscal Federalism* No.27, http://dx.doi.org/doi.org/10.1787/04208b83-en. [36]

Egert, B. (2019), "Policy Drivers of Human Capital in the OECD's Quantification of Structural Reforms", *OECD Economics Department Working Papers*, Vol. (forthcoming). [20]

Elsler, D., J. Takala and J. Remes (2017), *An International Comparison of the Cost of Work-Related Accidents and Illnesses*, https://osha.europa.eu/sites/default/files/publications/documents/international_comparison-of_costs_work_related_accidents.pdf. [56]

EU-OSHA (2018), *Management of Psychosocial Risks in European Workplaces: Evidence from the Second European Survey of Enterprises on New and Emerging Risks (ESENER-2)*, http://dx.doi.org/dx.doi.org/10.2802/5030. [45]

EU-OSHA (2017), *Estimating the costs of work-related accidents and ill-health: An analysis of European data sources*, Publications Office of the European Union. [64]

Eurofound (2016), *The Gender Employment Gap: Challenges and Solutions*, https://www.eurofound.europa.eu/publications/report/2016/labour-market/the-gender-employment-gap-challenges-and-solutions. [82]

European Commission (2017), *State of Health in the EU - Companion Report 2017*, https://ec.europa.eu/health/sites/health/files/state/docs/2017_companion_en.pdf. [39]

European Heart Network (2017), *European Cardiovascular Disease Statistics - 2017 Edition*, http://www.ehnheart.org/cvd-statistics.html. [40]

European Institute for Gender Equality (2017), *Economic Benefits of Gender Equality in the EU: EU and EU Member States overviews*, https://eige.europa.eu/sites/default/files/documents/ti_pubpdf_mh0116183enn_pdfweb_20170518162039.pdf. [83]

EXPH (2019), *Assessing the Impact of Digital Transformation of Health Services: Report of the Expert Panel on effective ways of investing in Health*, https://ec.europa.eu/health/expert_panel/sites/expertpanel/files/docsdir/022_digitaltransformation_en.pdf. [47]

Hanushek, E. and L. Wößmann (2007), *Education Quality and Economic Growth*, World Bank. [25]

Hassler, J., J. Rodriguez-Mora and J. Zeira (2002), "Inequality and Mobility", *KSG Working Papers* No. RWP02-009. [97]

Helliwell, J. and R. Putnam (2007), "Education and Social Capital", *Eastern Economics Journal*, Vol. 33/1, pp. 1-19, http://web.holycross.edu/RePEc/eej/Archive/Volume33/V33N1P1_19.pdf. [30]

James, C., M. Devaux and F. Sassi (2017), "Inclusive Growth and Health", *OECD Health Division Working Papers* No.103, http://dx.doi.org/dx.doi.org/10.1787/93d52bcd-en. [33]

Kuznets, S. (1955), "Economic Growth and Income Inequality", *American Economic Review*, Vol. 45/1, pp. 1-28, http://links.jstor.org/sici?sici=0002-8282%28195503%2945%3A1%3C1%3AEGAII%3E2.0.CO%3B2-Y. [4]

Lorenzoni, L. et al. (2018), "Which Policies Increase Value for Money in Health Care?", *OECD Health Working Papers* No.104, https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DELSA/HEA/WD/HWP(2018)1&docLanguage=En. [34]

Luengo-Fernandez, R. et al. (2013), "Economic burden of cancer across the European Union: A population-based cost analysis", *Lancet Oncology*, Vol. 14/12, pp. 1165-74, https://www.thelancet.com/journals/lanonc/article/PIIS1470-2045(13)70442-X/fulltext. [41]

Madsen, J. and F. Murtin (2017), "British Economic Growth since 1270: The role of education", *Journal of Economic Growth*, pp. 229-272, http://dx.doi.org/dx.doi.org/10.1007/s10887-017-9145-z. [22]

McDaid, D., S. Merkur and F. Sassi (2015), *Promoting Health, Preventing Disease: The economic case*, McGraw-Hill Education, [42]

http://www.euro.who.int/__data/assets/pdf_file/0006/283695/Promoting-Health-Preventing-Disease-Economic-Case.pdf?ua=1.

Moss, M. (ed.) (1973), "Is growth obsolete?", *Studies in Income and Wealth*, Vol. 38, https://www.nber.org/chapters/c3621.pdf. [94]

Murtin, F. (2016), *Health and Prosperity: Efficient Health Systems for Thriving Nations in the 21st Century*, Palgrave-McMillan. [52]

Murtin, F. et al. (2017), "Beyond GDP: Is there a law of one shadow price?", *European Economic Review*, Vol. 100/C, pp. 390-411, http://dx.doi.org/doi.org/10.1016/j.euroecorev.2017.09.001. [67]

Murtin, F., L. Fleischer and V. Siegerink (2018), "Trust and its determinants: Evidence from the Trustlab experiment", *OECD Statistics Working Papers*, http://dx.doi.org/doi.org/10.1787/869ef2ec-en. [29]

Murtin, F. et al. (2017), "Inequalities in Longevity by Education in OECD Countries: Insights from new OECD estimates", *OECD Statistics Working Paper*, Vol. 02/No.78, http://dx.doi.org/doi.org/10.1787/6b6. [26]

OECD (2019), *Can Social Protection be an Engine for Inclusive Growth?*, OECD Publishing, http://dx.doi.org/doi.org/10.1787/9d95b5d0-en. [76]

OECD (2019), *Getting Skills Right: Future-ready adult learning systems*, OECD Publishing, http://dx.doi.org/doi.org/10.1787/9789264311756-en. [21]

OECD (2019), *How's Life in the Digital Age? Opportunities and risks of the digital transformation*, OECD Publishing, https://doi.org/10.1787/9789264311800-en. [32]

OECD (2019), *OECD Economic Surveys: New Zealand (forthcoming)*. [13]

OECD (2019), *The Growing Burden of Obesity (forthcoming)*. [36]

OECD (2019), *Under Pressure: The squeezed middle class*, OECD Publishing, http://dx.doi.org/doi.org/10.1787/689afed1-en.

OECD (2018), *A Broken Social Elevator? How to promote social mobility*, OECD Publishing, http://dx.doi.org/doi.org/10.1787/9789264301085-en. [5]

OECD (2018), *Beyond GDP: Measuring what counts for economic and social performance*, OECD Publishing, http://dx.doi.org/doi.org/10.1787/9789264307292-en. [1]

OECD (2018), *Education at a Glance 2018: OECD indicators*, OECD Publishing, http://dx.doi.org/doi.org/10.1787/eag-2018-en. [27]

OECD (2018), *For Good Measure: Advancing research on well-being metrics beyond GDP*, OECD Publishing, http://dx.doi.org/doi.org/10.1787/9789264307278-en. [2]

OECD (2018), *Good Jobs for All in a Changing World of Work: The OECD Jobs Strategy*, OECD Publishing, http://dx.doi.org/doi.org/10.1787/9789264308817-en. [62]

OECD (2018), *Health at a Glance: Europe 2018 - State of Health in the EU Cycle*, OECD Publishing, http://dx.doi.org/doi.org/10.1787/health_glance_eur-2018-en. [38]

OECD (2018), *Is the Last Mile the Longest? Economic gains from gender equality in Nordic countries*, OECD Publishing, http://dx.doi.org/doi.org/10.1787/9789264300040-en. [7]

OECD (2018), *OECD Employment Outlook 2018*, OECD Publishing, http://dx.doi.org/doi.org/10.1787/empl_outlook-2018-en. [74]

OECD (2018), *Opportunities for All: A framework for policy action on inclusive growth*, OECD Publishing, http://dx.doi.org/doi.org/10.1787/9789264301665-en. [15]

OECD (2018), *Pharmaceutical Innovation and Access to Medicines*, OECD Publishing, http://dx.doi.org/doi.org/10.1787/9789264307391-en. [37]

OECD (2017), *Health at a Glance 2017*, OECD Publishing, http://dx.doi.org/doi.org/10.1787/health_glance-2017-en. [6]

OECD (2017), *How's Life? 2017: Measuring Well-Being*, OECD Publishing, http://dx.doi.org/dx.doi.org/10.1787/how_life-2017-en. [10]

OECD (2017), *The Pursuit of Gender Equality: An Uphill Battle*, OECD Publishing, http://dx.doi.org/dx.doi.org/10.1787/9789264281318-en. [79]

OECD (2016), *Health at a Glance: Europe 2016 - State of Health in the EU Cycle*, OECD Publishing, http://dx.doi.org/doi.org/10.1787/9789264265592-en. [54]

OECD (2016), *Skills for a Digital World: 2016 Ministerial Meeting on the Digital Economy Background Report*, OECD Digital Economy Papers No.250, http://dx.doi.org/dx.doi.org/10.1787/5jlwz83z3wnw-en. [14]

OECD (2016), *The Productivity-Inclusiveness Nexus*, OECD Publishing, http://dx.doi.org/doi.org/10.1787/9789264292932-en. [18]

OECD (2015), *All on Board: Making inclusive growth happen*, OECD Publishing, http://dx.doi.org/dx.doi.org/10.1787/9789264218512-en. [92]

OECD (2015), *Fit Mind, Fit Job: From Evidence to Practice in Mental Health and Work*, OECD Publishing, http://dx.doi.org/dx.doi.org/10.1787/9789264228283-en. [46]

OECD (2015), *In It Together: Why less inequality benefits all*, OECD Publishing, http://dx.doi.org/dx.doi.org/10.1787/9789264235120-en. [17]

OECD (2015), *OECD Employment Outlook 2015*, OECD Publishing, http://dx.doi.org/dx.doi.org/10.1787/empl_outlook-2015-en. [73]

OECD (2015), *OECD PISA 2015 Results (Volume II): Policies and Practices for Successful Schools*, OECD Publishing, http://dx.doi.org/dx.doi.org/10.1787/9789264267510-en. [19]

OECD (2014), *How good is your job? Measuring and assessing job quality*, OECD Publishing, http://dx.doi.org/dx.doi.org/10.1787/empl_outlook-2014-6-en. [61]

OECD (2014), *Making Mental Health Count: The Social and Economic costs of Neglecting Mental Health Care*, OECD Publishing, http://dx.doi.org/dx.doi.org/10.1787/9789264124523-en. [44]

OECD (2011), *Divide we Stand: Why Inequality Keeps Rising*. [85]

OECD (2011), *Divided We Stand: Why inequality keeps rising*, OECD Publishing, http://dx.doi.org/doi.org/10.1787/9789264119536-en. [71]

OECD (2008), *Growing Unequal? Income distribution and poverty in OECD countries*, OECD Publishing, http://dx.doi.org/doi.org/10.1787/9789264044197-en. [91]

Penelope Peterson, E. (ed.) (2010), *Education and Economic Growth*, Elsevier. [23]

Radcliff, B. (2013), *The political economy of human happiness: How voters' choices determine the quality of life*, Cambridge University Press. [78]

Richardson, J. and M. Schlander (2018), "Health technology assessment (HTA) and economic evaluation: efficiency or fairness first", *Journal of Market Access & Health Policy*, Vol. 7/1, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6327925/. [68]

Saint-Martin, A., H. Inanc and C. Prinz (2018), "Job Quality, Health and Productivity: An evidence-based framework for analysis", *OECD Social, Employment and Migration Working Papers* No.221, http://dx.doi.org/doi.org/10.1787/a8c84d91-en. [57]

Sen, A. (1998), *Development as Freedom*, Oxford University Press. [11]

Sen, A. (1985), *Commodities and Capabilities*, North-Holland. [93]

Stewart-Brown, S. and A. Schrader-McMillan (2011), "Parenting for mental health: what does the evidence say we need to do? Report of Workpackage 2 of the DataPrev project", *Health* [43]

Promotion International, Vol. 26/S1, pp. i10-i28, http://dx.doi.org/dx.doi.org/10.1093/heapro/dar056.

Sullivan, J. (2008), "Borrowing during Unemployment: Unsecured debt as a safety net", *Journal of Human Resources*, Vol. 43/2, pp. 383-412, http://dx.doi.org/doi.org/10.3368/jhr.43.2.383. [98]

Tompa, E. et al. (2019 (forthcoming)), *The value of OSH: Estimating the societal costs of work-related injuries and diseases*. [65]

UNRISD (2010), *United Nations Research Institute for Social Development Flagship Report - Combating Poverty and Inequality: Structural Change, Social Policy and Politics*. [70]

US Chamber of Commerce (2016), *Winning With Wellness*, https://www.uschamber.com/sites/default/files/022436_labr_wellness_report_opt.pdf. [55]

Vaughan-Whitehead, D. (2016), *Europe's Disappearing Middle Class? Evidence from the world of work*, ILO/Edward Elgar, http://www.ilo.org/global/publications/books/WCMS_503735/lang--de/index.htm. [81]

Viscusi, W. and J. Aldy (2003), "The Value of a Statistical Life: A Critical Review of Market Estimates Throughout the World", *Journal of Risk and Uncertainty*, Vol. 27, pp. 5-76. [66]

Zhang, J., J. Zhang and R. Lee (2003), "Rising Longevity, Education, Savings, and Growth", *Journal of Development Economics*, Vol. 70/1, pp. 83-101, http://dx.doi.org/doi.org/10.1016/S0304-3878(02)00088-3. [48]