Economic Policy Making to Pursue Economic Welfare

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BETTER POLICIES FOR BETTER LIVES

Economic Policy Making to Pursue Economic Welfare

OECD Report for the G7 Finance Ministers
and Central Bank Governors

May 2023

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Executive Summary

Gross Domestic Product (GDP) measures production in an economy and the associated income and expenditure. While broadly applied as a measure for economic performance, it has long been recognised that GDP has limitations for measuring people's welfare. For instance, it does not include certain types of activities where money does not change hands, such as unpaid household work and free digital services. Non-economic measures of welfare are also excluded. There are also some measurement issues that affect GDP, such as difficulties in calculating imputed rents of owner-occupiers, the value of financial services and informal and illegal activities. Other national accounts indicators relating specifically to the household sector provide better measures of people's economic welfare than GDP. For example, Gross Household Disposable Income (GHDI) measures all income available to households, while adjusted GHDI is a more comprehensive income measure (including social transfers in kind).

Nevertheless, more is needed. In response to the 2009 *Report by the Commission on the Measurement of Economic and Social Progress* (Stiglitz, Sen and Fitoussi, 2009[1]) and increasing demand from policy makers, the international community aims to fill the gaps in the next update of the System of National Accounts (SNA). The 2025 SNA will provide greater visibility for the digital economy and free digital services, as well as including data as a new and separate product category in the core accounts. It will encourage countries to produce complementary estimates of GDP and GHDI that include unpaid household activities, and to produce household sector distributions of income, consumption and wealth. Finally, in the 2025 SNA, depletion of natural capital will be included in net measures of production and income. This will provide an indication of whether current economic activity is occurring at the expense of natural capital stocks, which might affect future economic performance and welfare.

On the other hand, multidimensional indicator dashboards and indices offer a complement to SNA-based measures, spanning a broad range of outcomes and inequalities that matter to people's well-being and its sustainability over time. In addition to income, earnings, housing affordability and economic capital, these approaches usually feature physical (non-monetised) measures relating to levels, trends and inequalities in people's health, safety, housing quality, knowledge and skills, work and job quality, work-life balance, environmental conditions, social connectedness, civic engagement and subjective well-being. Natural capital, human capital and social capital-related indicators are often present, again usually captured through physical measures that complement monetised estimates.

More than two-thirds of OECD countries have developed national frameworks, development plans or surveys with a multidimensional well-being focus. There is a common core to most of these that is well reflected in the OECD Well-being Framework, developed in 2011. Considerable efforts have been made to improve international harmonisation of well-being indicators, as well as data timeliness and granularity, which are critical factors for policy uptake. International frameworks provide useful starting point for national well-being initiatives, though the latter can usually draw on richer data and almost always include some adaptation to the national context. For example, extensive stakeholder consultation has often been a core principle in the development of national initiatives, meaning that the final terminology and structure adopted reflects inputs from a wide variety of professional communities and broader civil society.

Multidimensional well-being frameworks and indicators are increasingly used by G7 and OECD governments to inform policy processes. There is no "one-size-fits-all" method for well-being policy

implementation, and countries are experimenting with a variety of approaches. These include the growing use of well-being evidence to inform budgeting, the development of new policy appraisal and evaluation tools (including cost-benefit analysis), and to inform government performance management frameworks and inclusive growth strategies. A ‘well-being lens’, can also be used to bring new insight to cross-sectoral policy challenges such as climate action or mental health, providing a structure with which to systematically address interlinkages and trade-offs across multiple economic, social and environmental policy objectives.

Multidimensional well-being evidence has been used to refocus policies towards the outcomes that matter to people now and for future generations, to redesign policy content from a more multidimensional perspective, to realign policy practice across government silos, and to reconnect with people through strengthened democratic dialogue, transparency and government accountability. In November 2023, the OECD launched a new Knowledge Exchange Platform on Well-being, to draw together international examples that bring well-being evidence into policy practice and assist in their further development through peer learning and technical support (OECD, 2023[2]).

Introduction

GDP is a core indicator of a country's economic performance and hence a key source of information for policy decisions. Its dominance as a key indicator stems notably from its relative simplicity and timeliness as well as its international comparability. However, many limitations of GDP as a measure of economic welfare have long been recognised. In particular, valuable activities, such as unpaid household work are still missing, while for others, such as financial services, a satisfying measurement of output in the national accounts remains elusive despite their growing importance over time.

GDP is therefore far from perfect as a measure of material living standards, but more importantly it misses out on important dimensions of welfare. One is the distribution of income and wealth across households and regions, meaning that the improvements in living standards suggested by rising GDP may not be felt as tangible for large swathes of population. Another one is the absence of measures of the depletion of the environmental capital stock, masking the extent to which strong GDP growth today is coming at the expense of future GDP growth potential.

Failure to take these dimensions into considerations means that a focus on GDP as the prime metric for economic performance runs the risk of blind-sided policy decisions and growing financial, social and environmental vulnerabilities. The implications from these limitations may have become more acute in recent years, notably with the increase of inequalities, the growing incidence of extreme weather events associated with human-induced climate change, but also with the on-going digital transformation of economies which raises new measurement issues and potentially further increases the wedge between actual welfare and what GDP reveals.

This paper takes stock of the limitations of GDP as an economic indicator and provides an overview of initiatives to overcome them, both within the system of national accounts and through the development of multidimensional dashboards capturing economic welfare dimensions beyond what is in the perimeter of national accounts. These various initiatives are complementary in nature and may support policy decisions in different ways.

Section 1 highlights the key limitations of GDP as a measure of economic welfare and statistical efforts to address these issues at national and international levels. Section 2 briefly illustrates economic welfare developments in G7 countries, with a focus on inclusiveness and environmental sustainability. Section 3 provides an overview of approaches adopted by a number of G7 and non-G7 countries to better integrate multidimensional well-being concepts in economic policy strategies.

1. The limitations of GDP for measuring economic welfare

1.1. GDP and its limitations

The national accounts measure a country's economic performance. They are compiled according to the System of National Accounts (SNA) and its regional equivalents. The SNA framework is an internationally agreed, internally coherent national accounting standard that captures all economic activity consistently. The framework has been developed over seven decades and the current version is known as the 2008 SNA. The headline indicator from the national accounts is the Gross Domestic Product (GDP), which measures production in an economy and the associated income and expenditure. GDP is the sum of the value added by all businesses and other organisations (plus the value of taxes less subsidies). When GDP is expressed in real terms, removing the effects of price changes over time using 'deflators', it provides the most widely used indicator for economic growth. It is used for short-term business cycle analysis and forecasts, longer-term structural analysis, and as the denominator in indicators such as debt ratios and greenhouse gas emission intensities. Furthermore, GDP is used to calculate productivity, which provides an indication of an economy's technological, institutional and innovative capacity.

While broadly applied as a measure for overall economic performance, it has long been recognized that GDP has some limitations in terms of measuring people's overall welfare. The **first limitation** is that the national accounts only provide information about 'the economy', which by convention is defined by the SNA boundaries as comprising all goods and services that are bought and sold through the market, and thus have a monetary value. For activities where there is no observed market value, a value may still be attributed (or imputed), if the activities are considered to play an important role in the production and exchange of value in the economy. For example, the SNA establishes that governmental 'non-market' services should be included within the boundaries that define the economy. Given the boundaries of the SNA, GDP does not include certain types of activities where money does not change hands, such as unpaid household work (cooking, cleaning, caring for other people) and free digital services (see Section 1.2). Also, non-economic measures of welfare such as health outcomes, personal security and people's social connections or networks (which are further discussed in Section 1.3), are outside the scope of the SNA, notwithstanding the fact that these non-economic aspects are highly valued by people because they improve quality of life.

A **second limitation** of the national accounts and core indicators such as GDP is that, despite strong cooperation between countries to improve methods for compiling the accounts over time and to align methods internationally, there are still some challenging measurement issues (see Box 1).

Box 1. Examples of measurement issues

Imputed rents of owner-occupiers. Owner-occupiers are people who live in their own homes. Although they do not pay rent for their accommodation, they are considered to be selling housing services to themselves. The amounts they pay for these services must be estimated (or imputed) based on information about the rents paid by tenants living in comparable housing. However, obtaining data on such rents may be difficult if the country does not have a well-organised market for rented housing or if the data sources on size, quality and location of rentals is poor. If this is the case, the models used for imputing rent for owner-occupiers will require many assumptions.

FISIM stands for Financial Intermediation Services Indirectly Measured. It is designed to measure what banks charge customers for their services when they charge for them via interest rates instead of by payment of fees. FISIM is calculated by taking the difference between deposit and loan rates and the reference rate, and the calculation is sensitive to the reference rate used. For example, spreads between the deposit or loan rate and the reference rate should always be positive, even if interest rates turn negative; but narrow spreads can be hard to measure, particularly in volatile markets. Occasionally, this may give (erroneous) negative values in national accountants' models.

Informal activities. These are economic activities that do not fall under any formal arrangement, such as the activities of street vendors, home-based workers, and domestic workers. Such activities may be an important part of the economy, particularly in developing countries, so it is important to have good quality estimates for them. However, given their informal nature, it may be difficult to obtain information on them. Assumptions may be needed to produce estimates covering all informal activity in a country.

Illegal activities. The SNA aims to describe all activity in an economy, including illegal activities such as the manufacturing and distribution of harmful drugs, smuggling of goods and of people, and services such as prostitution. It is important to account for such activities to produce a comprehensive and consistent description of the economy. As it is often difficult to obtain reliable data on them, estimates may need to rely on assumptions.

A **third limitation** of the national accounts is that headline indicators take the form of 'aggregates' (measures that summarise various pieces of underlying information). This makes them hard to interpret. For example, GDP shows the change in the whole economy over time. To understand what a GDP figure is telling us, it needs to be disaggregated to find out whether the change (growth or contraction of the economy) is coming from a particular industry or economic activity within the economy, and whether it is primarily driven by consumption, investment or trade data. This limitation can, however, be addressed by including analysis of the drivers of change when publishing GDP figures. One disaggregation that is not included in the 2008 SNA is breakdowns of household income, consumption and wealth by different household groups or type of household in order to show whether inequality is increasing or decreasing over time. The international statistical community is currently developing guidance on the compilation of distributional statistics, with results already available for some countries (see Section 2.3).

A **final limitation** of GDP is that it measures flows, not stocks. In other words, it measures changes in the economy and the economic welfare during the year (or the quarter), rather than measuring the economy's stocks of assets and liabilities at the end of the year (or quarter). Although the national accounts do contain a lot of information on financial and non-financial assets (stocks), at present they do not fully reflect one area that is particularly important for policy makers: natural capital. As discussed further in section 2.3, measuring natural capital is essential for monitoring environmental sustainability and future economic welfare.

1.1.1. Economic welfare indicators in the national accounts

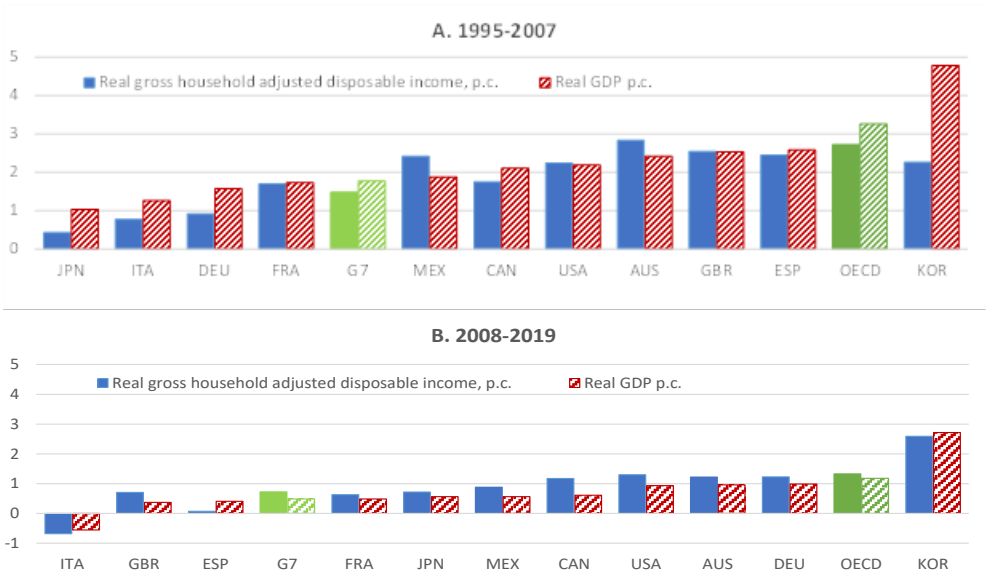
The many limitations of GDP as a measure of economic welfare have long been recognised (see for example Stiglitz, Sen and Fitoussi (2009[1]), Stiglitz, Fitoussi and Durand (2018[3]) and Schreyer (2022[4]). GDP measures growth in the economy as a whole: that of businesses, governments, non-profit institutions and households, as well as trade with the rest of the world. For measuring people's economic welfare, it is better to use indicators relating specifically to the household sector. For example, Gross Household Disposable Income (GHDI) measures all income available to households, such as wages and salaries, income from self-employment, pensions and other social benefits, after deductions such as taxes, pension contributions and interest payments. Adjusted GHDI also includes social transfers in kind such as free education and health services provided by governments. As in-kind provision is equivalent to cash in terms of accessing these goods and services, inclusion of such provision leads to a more comprehensive income measure and to more comparable results over time and across countries.

Ribarsky, Kang and Bolton (2016[5]) explored how GDP and adjusted GHDI are related and what drives any differences in their growth. For the period 1996-2013 they found that real GDP grew at a faster pace than real household income driven by different developments in prices faced by producers and consumers as well as a rising profit share of corporations. The evolution of the other components (such as government intervention) contributed to reducing the gap between the growth rates.

More recently, a study by Botev, Égert and Turner (2022[6]) focused on differences in real GDP growth and real adjusted GHDI growth before and after the great financial crisis of 2008-2009. Figure 1 shows that both real GDP per capita and real adjusted GHDI per capita were growing faster prior to the crisis than after; and for the OECD and G7 as a whole, GDP outpaced adjusted GHDI before the crisis, whereas the reverse was observed in the post-crisis decade.

Figure 1. Growth of GDP per capita and adjusted GHDI per capita before and after the great financial crisis

% growth during the period



Source: Botev, Égert and Turner (2022[6]), "The effect of structural reforms: Do they differ between GDP and adjusted household disposable income?", *OECD Economics Department Working Papers*, No. 1718, OECD Publishing, Paris, https://doi.org/10.1787/def775b1-en.

1.2. Including better measures of economic welfare and sustainability in the national accounts

One of the most influential contemporary initiatives to understand well-being (or welfare) is the *Report by the Commission on the Measurement of Economic and Social Progress* by Joseph Stiglitz, Amartya Sen and Jean-Paul Fitoussi (2009[1]). The Commission, which set out to examine how the wealth and social progress of a nation could be measured, formulated five recommendations that relate directly to macroeconomic statistics:

- Recommendation 1: when evaluating material well-being, look at income and consumption rather than production.
- Recommendation 2: emphasise the household perspective.
- Recommendation 3: consider income and consumption jointly with wealth.
- Recommendation 4: give more prominence to the distribution of income, consumption and wealth.
- Recommendation 5: broaden income measures to non-market activities.

The international community is currently working on an update of the 2008 SNA. In response to demand from economic policy makers, a key ambition for the 2025 SNA is to “enhance and broaden” the national accounts framework to provide better measures of economic well-being and sustainability (Van Rompaey and Zwijnenburg, 2023[7]).

The Inter-Secretariat Working Group on National Accounts (ISWGNA), the body[1] coordinating the update, has established a Digitalisation Task Team to make recommendations on the digital economy, and Well-being and Sustainability Task Team to provide better measures of current economic welfare and sustainability (affecting future economic welfare). These cover four specific areas of improvement:

- The digital economy
- Unpaid household activities
- Distribution of income, consumption and wealth between households
- Environmental sustainability

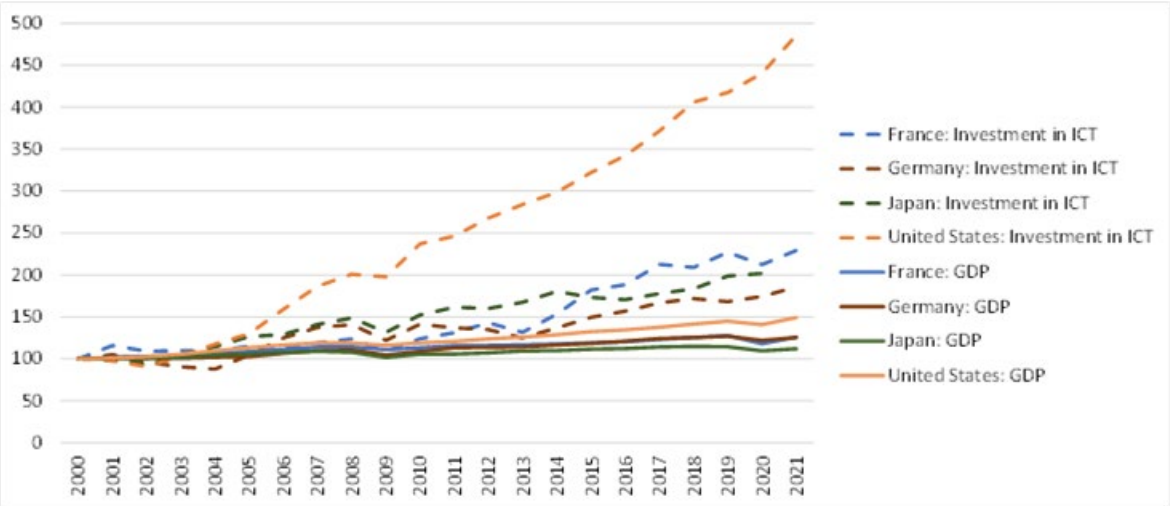
[1] The ISWGNA is made up of the OECD, United Nations, World Bank, IMF and the European Commission.

1.2.1. The digital economy

Digitalisation is transforming economies and societies and has the potential to improve economic growth and productivity through its impact on businesses and households' activities. The pace of digitalisation is illustrated by the growth in investment in Information and Communication Technology (ICT) equipment over the past two decades (see Figure 2).

Figure 2. Two decades of strong investment in ICT equipment compared with GDP growth

% growth year on year

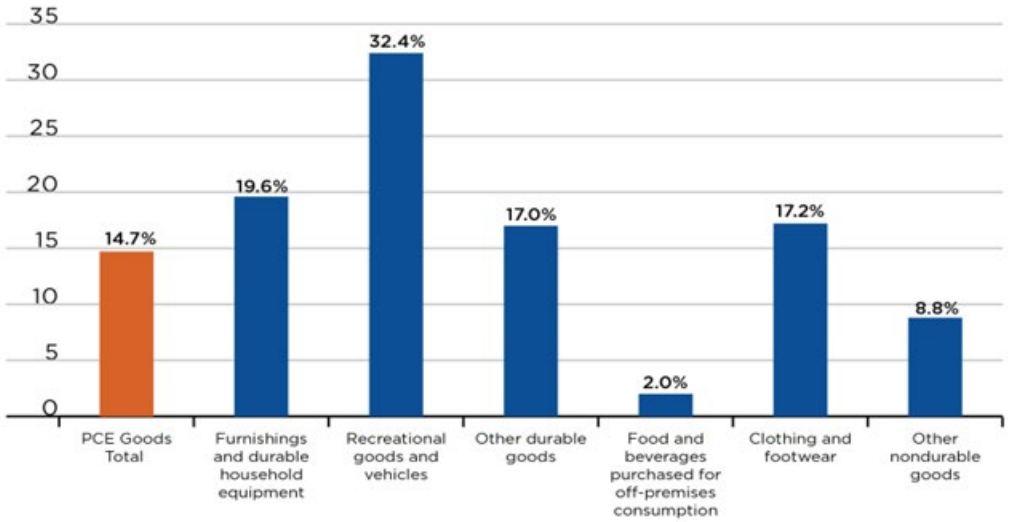


Note: ICT = Information and Communication Technology.
Source: OECD national accounts datasets: capital formation by activity and GDP.

Four issues are particularly important in accounting for the impact of digitalisation on the economy and on household economic well-being. The first issue is **visibility**. In the 2008 SNA, economic activity that is digital – such as cloud computing services, digital intermediary platforms, e-commerce and digital financial service providers – and has a monetary value is included in the national accounts (Ahmad and Schreyer, 2016[8]; Ahmad, Ribarsky and Reinsdorf, 2017[9]). However, this digital activity is not separately identifiable. This makes it difficult for policy makers to understand how digitalisation is affecting the economy (for instance how it is transforming production) and how it is affecting people's economic welfare (for example through its impact on the labour market). In the 2025 SNA, information on digital activities will be shown separate in Digital Supply and Use Tables (SUTs). The Digital SUTs will provide detailed information on digital industries and products, and on goods and services that are digitally ordered (see Figure 3) and digitally delivered. The tables are also likely to feed into improvements in the quality of existing estimates in the national accounts that include digital economic activity because the data used to compile estimates of digital transactions, products and industries will be scrutinised more closely.

Figure 3. Digitally ordered personal consumption expenditure goods in the United States, 2019

% of goods that is digitally ordered



Note: PCE = Personal Consumption Expenditure. PCE goods exclude motor vehicles and parts, gas and other energy goods, pharmaceutical and other medical products and tobacco.
Source: United States Bureau of Economic Analysis (2022).

The second digital economy issue relates to **price and volume measurement** in the national accounts. Price deflation and volume estimation are crucial for estimating economic output and GDP. However, for digital products undergoing rapid technological change, it is complex to adjust for any changes in quality. Standard price calculation methods may undervalue the quality improvements embodied in new models. This can lead to overestimation of the growth of quality-adjusted prices and underestimation of output volume growth (Ahmad, Ribarsky and Reinsdorf, 2017[9]). Reinsdorf and Schreyer (2019[10]) explored the impact of maximum possible overstatement of price change for digital products on the price index for household consumption and found an upper bound effect of somewhat less than 0.6 percentage points in 2015. This indicates that better measurement would improve GDP and productivity growth in advanced economies. However, the authors also found that it would not change the conclusion of substantial productivity slowdown over the past decades.

The third issue is the increasing **importance of data in the economy**. Data is becoming an important source of value for decision-making and production (OECD, 2019[11]). As explained by Mitchell, Ker and Lesher (2021[12]), the availability and prevalence of data has given rise to new or significantly improved products, services and business models. To reflect this, in the 2025 SNA data will be a new and separate product category in the core national accounts. The production and use of data will be shown and reflected in GDP, and data will also be included on the balance sheet as a new type of asset. Once countries have developed the estimates for data, it will be possible to analyse its impact on productivity. Several countries have already started to compile experimental estimates of the value of data assets in their country. Table 1 presents results for Australia, Canada, India, the Netherlands and the United States. For these countries, the value of the data varies between 0.8% and 3.0% as a share of GDP.

Table 1. The value of data assets

% of GDP

Country	Year	Value of data assets as % of GDP
Australia	2016	2.9%
Canada	2018	1.9%
India	2019	1.0%
Netherlands	2017	3.0%
United States	2020	0.8%

Note: Data for the Netherlands and the United States is only for the market sector.
Sources: (OECD, 2023[13]), Country results are from Smedes, Nguyen and Tenburren (2022[14]), Statistics Canada (2019[15]), Asian Development Bank (2021[16]), De Bondt and Mushkudiani (2021[17]) and Calderón and Rassier (2022[18]), respectively.

The final issue is how to account for **free digital services**, which are often provided in exchange for obtaining access to personal data. In the 2025 SNA, these will remain outside the boundaries of the economy (they will not be included in the core national accounts or the Digital SUTs). The main reason is that their value is already captured indirectly, as the costs for these free services are normally reflected in higher prices for the products that are advertised via the free services. In that way, consumers are already paying for these services and a separate accounting might lead to double counting. However, because of the increased importance of free digital services and the way in which they affect household consumption, it is deemed important to provide more information on their use. For this reason, information on free digital products will be covered in supplementary accounts, increasing the visibility of household consumption of free digital products. No official estimates are available for the value of these services. However, academics including Brynjolfsson, Collis and Eggers (2019[19]) and Nguyen and Coyle (2020[20]) have derived experimental estimates for free digital and non-digital products based on the minimum monetary amount that a person is willing to accept to sell a good or service (so called willingness-to-accept measures).

1.2.2. Unpaid household activities

People's welfare is affected by both paid and unpaid work, as both types of work feed into the goods and services consumed by households. The discussion on the inclusion of unpaid services in the national accounts is not new (see for example Stiglitz, Sen and Fitoussi, (2009[1]); Ahmad and Koh, (2011[21]); and van de Ven, Zwijnenburg and De Queljoe, (2018[22]); but has gained more attention recently with digitalisation and the possibilities for home production via digital services. Including unpaid services in national accounts would change the concept of GDP and reduce its usefulness for traditional purposes such as short-term economic forecasts or structural analysis. Therefore, the 2025 SNA will recommend the compilation of supplementary accounts for unpaid household services, at least every five years. These accounts should be used to produce complementary estimates of **GDP and GHDI including unpaid household activities** to accompany the standard measures of GDP and GHDI.

The following categories of unpaid work are to be included:

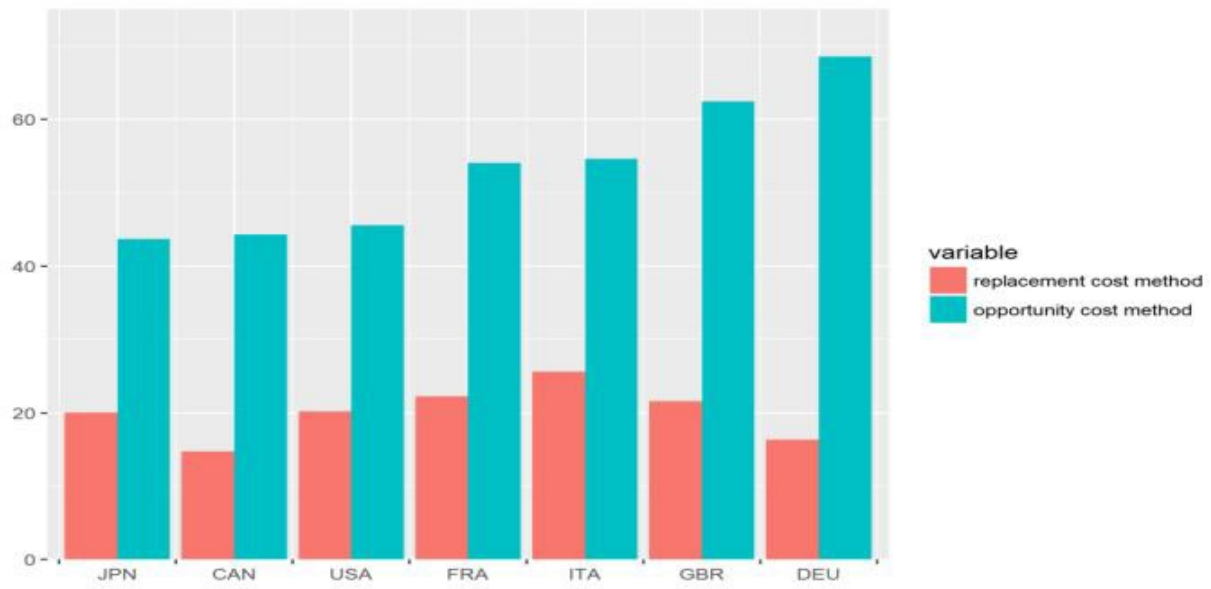
- Unpaid childcare (including passive supervisory care)
- Adult care (including passive supervisory care)
- Nutrition
- Transport
- Household management services
- Laundry and clothing services
- Informal volunteering
- Shopping

- Information services
- Other unpaid household production not elsewhere classified

There are two approaches to value unpaid household service work: the replacement cost approach (which uses a wage rate representative of the relevant activities to derive a market value of the work) and the opportunity costs approach (which focuses on the market income foregone as a result of spending time on unpaid household activities). van de Ven, Zwijnenburg and De Queljoe (2018[22]) estimated results for unpaid household service work for G7 economies for the year 2015 according to the two approaches Figure 4). Focusing on the replacement cost approach, the imputed monetary value ranges from 14.7% of GDP for Canada to 25.6% for Italy. The numbers for the opportunity costs method range from 43.7% for Japan to 68.6% for Germany.

Figure 4. Value of own-account production of unpaid household services, 2015

% of GDP



Source: van de Ven, P., J. Zwijnenburg and M. De Queljoe (2018[22]), "Including unpaid household activities: An estimate of its impact on macro-economic indicators in the G7 economies and the way forward", *OECD Statistics Working Papers*, No. 2018/04, OECD Publishing, Paris, https://doi.org/10.1787/bc9d30dc-en.

1.2.3. Distribution of income, consumption and wealth between households

Economic inequality continues to be high on the policy agenda in many countries, with events such as the great financial crisis and the COVID-19 pandemic further emphasising the need for detailed information on how specific household groups are faring. Distributional results on income, consumption and saving aligned to important macroeconomic aggregates such as GDP, GHDI and household consumption can provide insights into dimensions of material well-being across household groups.

The 2025 SNA will recommend that countries compile supplementary accounts showing distributional information for the household sector in line with national accounts totals. These should include estimates, broken down by decile group (and, if possible, the top 5% and 1%), of income, consumption and wealth. This will enable policy makers and analysts to monitor trends in the economic welfare of different groups of households to detect any increases in inequality, or to see if there is a positive impact on household

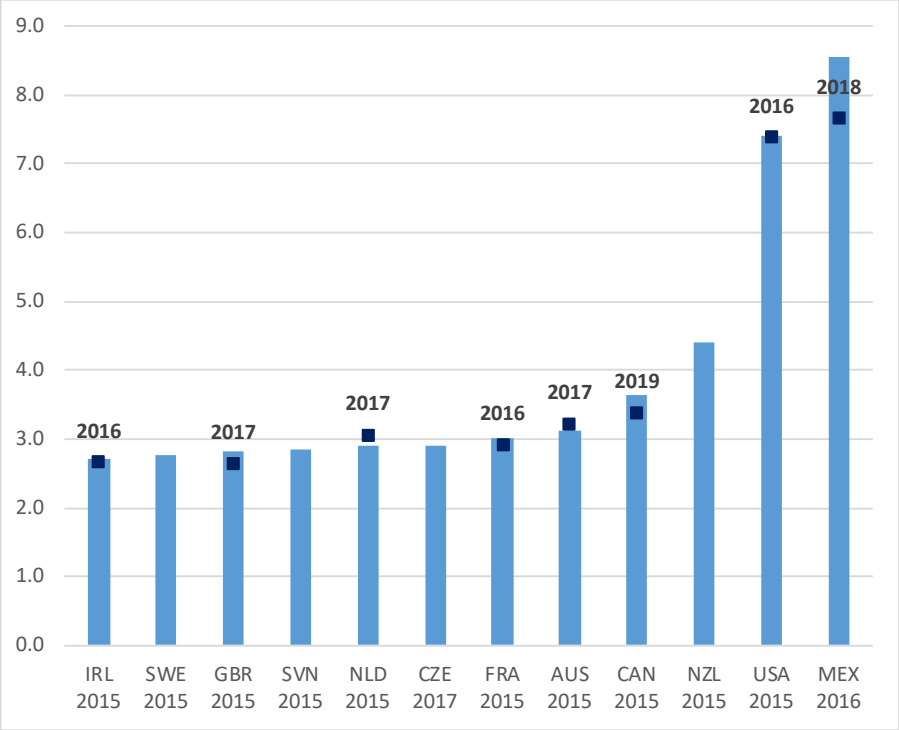
income when inclusive growth policies are pursued. Alternative breakdowns may be included, for instance by main source of income and by household type. Household distributional results may also be calculated for other topics, such unpaid household service work.

The OECD's Expert Group on Disparities in a National Accounts framework (EG DNA) has shown that it is possible to do this kind of calculation for household income, as well as for consumption and saving (Zwijnenburg et al., 2021). On household wealth distributions, work has been done by the European Central Bank's Expert Group on Distributional Financial Accounts (see Engel et al., 2022) and by countries such as Australia, Canada, the Netherlands and the United States.

Figure 5 shows some of the results, providing insights into how many times larger the disposable income of households in the highest income quintile (top 20% of the distribution) is compared with that of those in the lowest income quintile (bottom 20%). Mexico is the country recording the highest ratio (8.56), indicating the greatest income inequality, followed by the United States (7.41). The other countries are relatively close together, with Ireland recording the lowest ratio, followed by Sweden, the United Kingdom, Slovenia, the Netherlands and the Czech Republic, all recording ratios below 3.

Figure 5. Relative position of the 20% of households with the highest incomes to the 20% of households with the lowest incomes, by equivalised disposable income

Ratio of fifth quintile (top 20%) to first quintile (bottom 20%)



Note: Ratio of adjusted GHDI per consumption unit for the fifth quintile to the adjusted GHDI for the first quintile.
Source: Zwijnenburg, J., et al. (2021[23]), "Distribution of household income, consumption and saving in line with national accounts: Methodology and results from the 2020 collection round", *OECD Statistics Working Papers*, No. 2021/01, OECD Publishing, Paris, https://doi.org/10.1787/615c9eec-en.

The third G20 Data Gaps Initiative (IMF, 2023[24]) includes two specific recommendations on this topic, underlining its importance for analyses of economic welfare. The G20 and other participating economies are being encouraged to compile distributional results on an annual basis, broken down by income and

wealth decile, within 18 months of the reference period. The work on income, consumption and savings is coordinated by the EG DNA, while the work on the distribution of wealth is led by a new OECD Expert Group on Distribution of Household Wealth (EG DHW).

1.2.4. Environmental sustainability

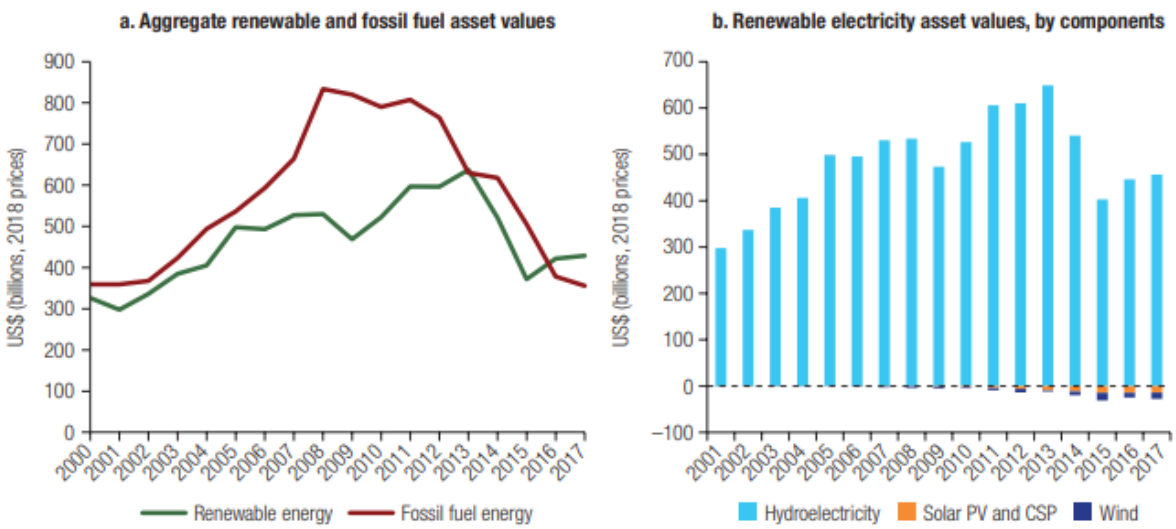
From an economic perspective, environmental sustainability is defined as a *situation where the overall value of natural capital (assets) is non-declining.* Another way of saying this is that **maintaining countries' natural capital** is key for environmental sustainability. A high priority in the 2025 SNA will be to introduce better measurement of natural assets, including land, non-renewable and renewable energy resources, biological resources and water resources.

Renewable energy resources will be included in the national accounts for the first time, with breakdowns for the different types of renewables such as wind, solar, water and geothermal energy resources. This will help countries to better measure their natural assets and how they are changing over time, answering questions like "are energy stocks mainly non-renewable and being exhausted rapidly, or are they renewable and increasing, for example due to strong investment in solar power?" This will help inform policies about environmental sustainability to underpin future economic welfare. The System of Environmental-Economic Accounting (SEEA) will be a key data source for the new estimates.

As part of their "Changing Wealth of Nations 2021", the World Bank created experimental estimates of hydroelectricity, solar electricity, and wind electricity assets for 15 countries. In the case of Canada, hydroelectricity assets (part of renewable energy resources) were the second-most valuable natural resource asset in 2017 (after land), with a value greater than that of the country's vast fossil fuel assets (Figure 6).

Figure 6. Evolution of renewable and non-renewable energy asset values in Canada, 2000–2017

US dollars (billions, 2018 prices)



Note: Panel a illustrates the evolution of aggregate renewable and nonrenewable (fossil fuel) energy asset values. Panel b breaks down the value of renewable electricity asset value into its components. Results are shown for short time series only since 2000 for clarity. Technically, an asset cannot have a negative value, but in panel b negative numbers show "how far" renewable energy assets are from making positive contributions to national wealth. CSP = concentrated solar power; PV = photovoltaic.
Source: Smith et al. (2021[25]), Figure 14.9.de

Although environmental sustainability is defined in terms of stocks, not flows, the information to be included in the national accounts from 2025 will also enable countries to improve net measures of production and income such as Net Domestic Product (NDP) and Net Disposable Household Income (NDHI). These already exist, with the 'net' element involving the subtraction of depreciation of fixed assets. In the future, they will include **depletion of natural capital**, giving an indication of the extent to which economic activity in each period (flows) is occurring at the expense of the erosion of natural capital stocks.

NDP and NDHI will be given increasing prominence in the 2025 SNA. When NDP figures are published under the 2025 SNA, national accountants will be encouraged not only to explain the traditional drivers of change in economic growth such as private consumption, investment and trade (as is the case for GDP), but also how much of the net figure comes from consumption of fixed capital (depreciation) and how much of it comes from the 'environmental sustainability' component: depletion of natural capital.

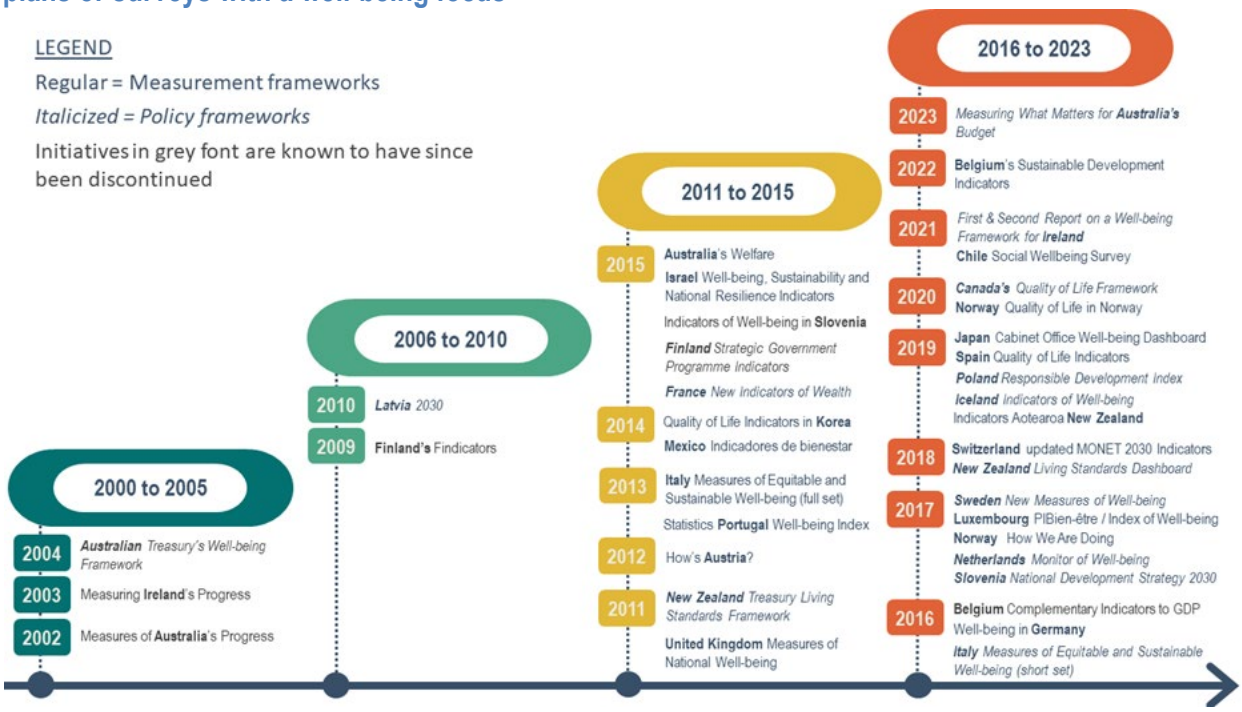
1.3. Multidimensional well-being indicator dashboards and indices

In addition to work within the System of National Accounts, many national governments have developed parallel initiatives to complement GDP with a broader range of indicators, aiming to capture the multidimensional nature of people's welfare (often referred to in this context as well-being or quality of life). This section discusses the main commonalities of these initiatives, showing that there is a strong convergence of multidimensional well-being dashboards at both national and international levels.

1.3.1. Mapping well-being indicator dashboards

More than two-thirds of OECD governments have developed national frameworks, development plans or surveys with a well-being focus, with this activity having accelerated in recent years (see Figure 7). These approaches seek to address some of the limitations of GDP as a measure of welfare by reflecting the wide range of both market and non-market outcomes targeted by government policy (e.g. health, personal safety); by introducing a greater focus on the distribution of these outcomes; and by encompassing environmental or wider sustainability concerns.

Figure 7. More than 70% of OECD countries have developed national frameworks, development plans or surveys with a well-being focus



Note: The year refers to the first published instance of the work.
Source: Adapted from OECD (2021[26]), *COVID-19 and Well-being: Life in the Pandemic*, OECD Publishing, Paris, https://doi.org/10.1787/1e1ecb53-en.

Among G7 countries, multidimensional approaches to measuring well-being or welfare include Canada's *Quality of Life Framework*, a cross-government initiative coordinated by the Department of Finance (Department of Finance Canada, 2021[27]); France's *New Wealth Indicators*, first published by the Prime Minister's Office in 2015 (Office of the French Prime Minister, 2015[28]); Germany's *Well-being in Germany*, first published by the Chancellery in 2016 (German Federal Government, 2016[29]); Italy's *Measures of Equitable and Sustainable Well-being*, first published by the Italian National Statistical Office (ISTAT) in 2013 (Italian National Statistical Office (ISTAT), 2023[30]) – with a short indicator set used by the Ministry of Economy and Finance from 2016 onwards (Italian Ministry of Economy and Finance, 2023[31]); Japan's *Well-being Dashboard*, developed by the Cabinet Office in 2019 (Japan Cabinet Office, 2023[32]); and the United Kingdom's *Measures of National Wellbeing*, first published by the Office of National Statistics in 2011 (United Kingdom Office for National Statistics, 2023[33]).

The indicator dashboards associated with national multidimensional welfare or well-being initiatives take different shapes and sizes, **yet there are several common ingredients among them**. In many cases, these national approaches often draw from well-established international models, including the OECD Framework for Measuring Well-being (Box 2), the United Nations Sustainable Development Goals, targets and indicators (United Nations Department of Economic and Social Affairs Statistics Division, 2019[34]), and Eurostat's Quality of Life framework (Eurostat, 2015[35]). Indeed, most national initiatives share a common conceptual core that is well-captured by the OECD Well-being Framework (Figure 8), with the coverage of different dimensions of well-being, inclusion and sustainability showing a high level of agreement.[2]

[2] Coverage of the OECD's well-being domains across national initiatives is strong. Canada's *Quality of Life* framework, Italy's *Measures of Equitable and Sustainable Well-being*, Ireland's *Well-being Framework*, Israel's *Well-being,*

Box 2. The OECD Well-being Framework

The OECD Well-being Framework (Figure 8), first launched in 2011, is an outcome-focused tool to measure human and societal conditions and assess whether life as a whole is getting better for people. It includes current well-being outcomes, their distribution across the population, and the systemic resources that help to sustain outcomes over time and for future generations.

The OECD Framework was developed under the guidance of the OECD Committee on Statistics and Statistical Policy, on which the national statisticians of all OECD countries are represented. As well as a rich academic literature on welfare measurement, the OECD Framework reflects emerging consensus from existing country practices on multidimensional *GDP and beyond* approaches (as illustrated in Figure 7, above). It was comprehensively reviewed and adapted in 2019 to ensure its alignment with developments since it was first launched in 2011 (OECD, 2020[36]).

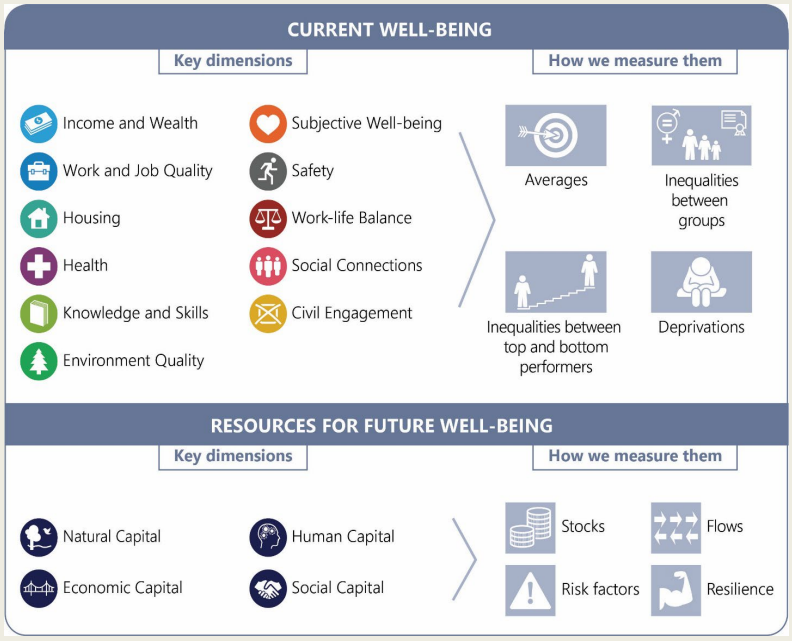
Current well-being is comprised of 11 dimensions: these relate to material conditions that shape people's economic options as well as quality-of-life factors that encompass how well people are (and how well they feel they are), what they know and can do, and how healthy and safe their places of living are. In addition, dimensions addressing community relations encompass how connected and engaged people are, and how and with whom they spend their time.

As national averages often mask large inequalities in how different parts of the population are doing, **three types of inequalities** are systematically considered: gaps between population groups (e.g. between men and women, old and young people, etc.); gaps between those at the top and those at the bottom of the achievement scale in each dimension (e.g. the income of the richest 20% of individuals compared to that of the poorest 20%); and deprivations (the share of the population falling below a given threshold of achievement, e.g. a minimum level of skills or health).

Resources for future well-being are expressed in terms of country's investment in (or depletion of) different types of capital resources that last over time but that are also affected by decisions taken (or not taken) today. They include natural capital (stocks of natural resources, land cover, species biodiversity, as well as ecosystems and their services), economic capital (man-made or produced capital and financial assets), human capital (skills and the future health of the population) and social capital (social norms, shared values and institutional arrangements that foster cooperation).

Sustainability and National Resilience Indicators, and New Zealand's *Living Standards Framework* all include indicators that address every dimension of the OECD Well-being Framework (Figure 9). Well-being domains such as income and wealth, work and job quality, health, and human capital, are addressed across all twelve national initiatives shown in the figure. Housing, environmental quality, safety, work-life balance, civic engagement, and social capital are addressed in eleven of the twelve initiatives – the exception in all cases being France's *New Wealth Indicators*, which is partly a function of its size, since it includes only 10 indicators in total. Natural capital is absent only from the Korean *Quality of Life Indictors*, subjective well-being absent only from the *Well-being in Germany* initiative, and economic capital is absent only in the Japanese *Well-being Dashboard*. Several of the apparent gaps connected to the OECD's knowledge and skills domain relate to the fact that education data (very frequently appearing in well-being frameworks) are included under human capital in the OECD approach (for which all national initiatives include at least one relevant measure).

Figure 8. The OECD Well-being Framework



Source: OECD (2020[36]), *How's Life? 2020: Measuring Well-being*, OECD Publishing, Paris, https://doi.org/10.1787/9870c393-en.

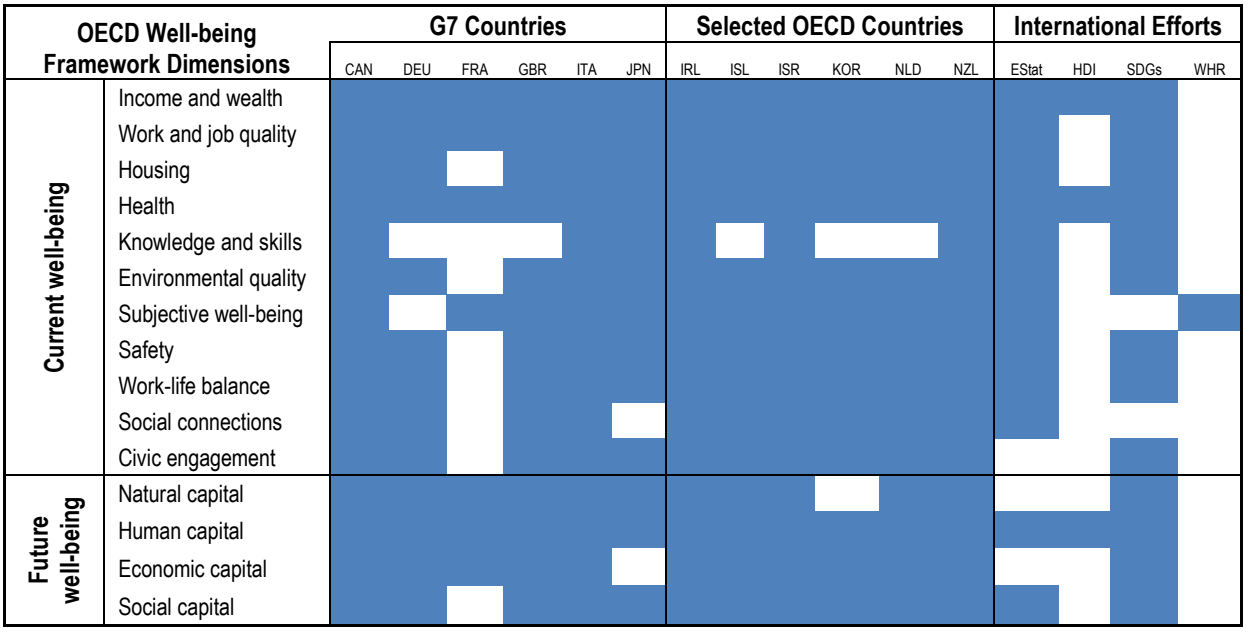
The regular OECD *How's Life*? report (OECD, 2011[37]; 2013[38]; 2015[39]; 2017[40]; 2020[36]) draws together the available internationally harmonised data across the OECD Well-being Framework. While there remain some important measurement gaps, every domain of the framework has some international data that can be brought to bear. The OECD also maintains an annually updated dataset of over 80 well-being indicators, together with disaggregated data (by age, gender and education), deprivations and dispersion measures, covering 41 countries and with a time series dating back to 2005 where possible (OECD, 2023[41]). The OECD Well-being Framework has been used to assess topical issues such as the impact of the COVID-19 pandemic on well-being (OECD, 2019[42]), digitalisation and well-being (OECD, 2019[42]) and a range of other pressing policy challenges. Well-being data disaggregated by subnational regions within OECD countries are also available for a more limited set of indicators, through the OECD Regional Well-being webtool (OECD, 2023[43]).

Source: OECD (2020[36]), *How's Life? 2020: Measuring Well-being*, OECD Publishing, Paris, https://doi.org/10.1787/9870c393-en.

International 'beyond GDP' initiatives also share several features in common with the OECD approach, though not all international initiatives are as comprehensive in their coverage of well-being domains. For example, the official Inter-Agency and Expert Group indicator set connected to the United Nations *Sustainable Development Goals* (SDGs) (United Nations Department of Economic and Social Affairs Statistics Division, 2019[34]) includes overlaps with almost all dimensions of the OECD Well-being Framework, with only two exceptions: subjective well-being and social connections. Eurostat (EStat)'s *Quality of Life* initiative (Eurostat, 2015[35]) similarly has strong coverage, with gaps only on civic engagement, natural capital and economic capital. By contrast, the simplest form of the *Human Development Index* (HDI) (United Nations Development Programme, 2023[44]), which includes measures of gross national income per capita, life expectancy at birth, expected years of schooling and mean years of schooling, evidently has fewer overlaps with both the OECD and national initiatives. That said, the United Nations Development Programme has developed additional measurement tools to examine, for example, gender gaps, environmental sustainability and multidimensional poverty, among others. The annual *World*

Happiness Report (WHR) (Helliwell, Layard and Sachs, 2023[45]) meanwhile focuses on subjective well-being as the primary outcome of interest, though analysis within the report considers several other well-being domains as drivers of this final outcome. Other significant international initiatives not shown on Figure 9 for brevity include the *Inclusive Wealth Report* (United Nations Environment Programme, 2018[46]), which focuses on the four capital stocks that underpin well-being: natural, economic, human and social capital, and the Social Progress Imperative's *Social Progress Index and Scorecard*, (Social Progress Imperative, 2023[47])which also includes many overlaps with the OECD Well-being Framework.

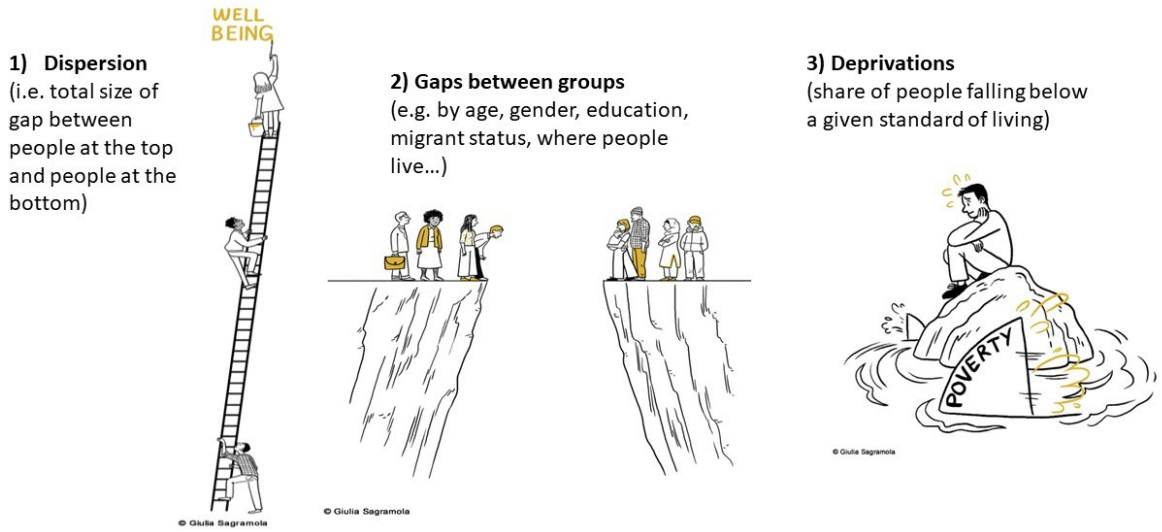
Figure 9. Many national initiatives share a common conceptual core that is well captured by the OECD Well-being Framework



Note: This figure shows overlaps in concepts included in the OECD's Well-being Framework and national programs for all G7 countries with well-being initiatives, as well as select other OECD countries, and international initiatives. Shaded cells indicate the initiative contains indicators that overlap with indicators contained in the relevant OECD Well-being Framework dimension. National initiatives are structured in a variety of different ways, therefore their own domain or dimension names -- or organisational framework -- may not follow the same naming convention or structure as that of the OECD. Initiatives considered include: Canada (CAN), Quality of Life Framework, 2022; Germany (DEU), Wellbeing in Germany – What matters to us, 2020; France, New Indicators of Wealth, 2022; the United Kingdom (GBR), Measures of National Well-being, 2022; Italy (ITA), Measures of Equitable and Sustainable Well-being, 2022; Japan (JPN), Well-being dashboard, 2022; Ireland (IRL), Understanding life in Ireland: A well-being framework, 2022; Iceland, Indicators for Measuring Well-being, 2023; Israel (ISR), Well-being, Sustainability and National Resilience Indicators, 2023; Korea (KOR), National Quality of Life Indicators, 2023; the Netherlands (NLD), Monitor of Well-being and the SDG's, 2022; New Zealand (NZL), Living Standards Framework Dashboard, 2022; Eurostat (EStat), Quality of Life, 2023; HDI, Human Development Index, 2023; SDGs, Sustainable Development Goals, 2023; WHR, World Happiness Report, 2022.

Most 'beyond GDP' initiatives place a particular emphasis on the need for more granular data, to understand the distribution of outcomes across the population. Inequalities are typically captured in a transversal way across national frameworks, rather than as a separate dimension. The OECD approach (OECD, 2017[40]) systematically considers, wherever data allows three types of inequalities (Figure 10. , and Box 2) – and measures covering all three types are present, in some form, across the twelve national initiatives detailed in Figure 9. All of the international initiatives shown in Figure 9 have also, in one way or another, featured inequalities data. This ranges from a special inequality-adjusted edition of the Human Development Index, the IHDI (United Nations Development Programme, 2021[48]), to Goals 5 (*Achieve gender equality and empower all women and girls*) and 10 (*Reduce inequality within and among countries*) of the United Nations Sustainable Development Goals.

Figure 10. Several forms of inequalities in well-being outcomes are considered in OECD work



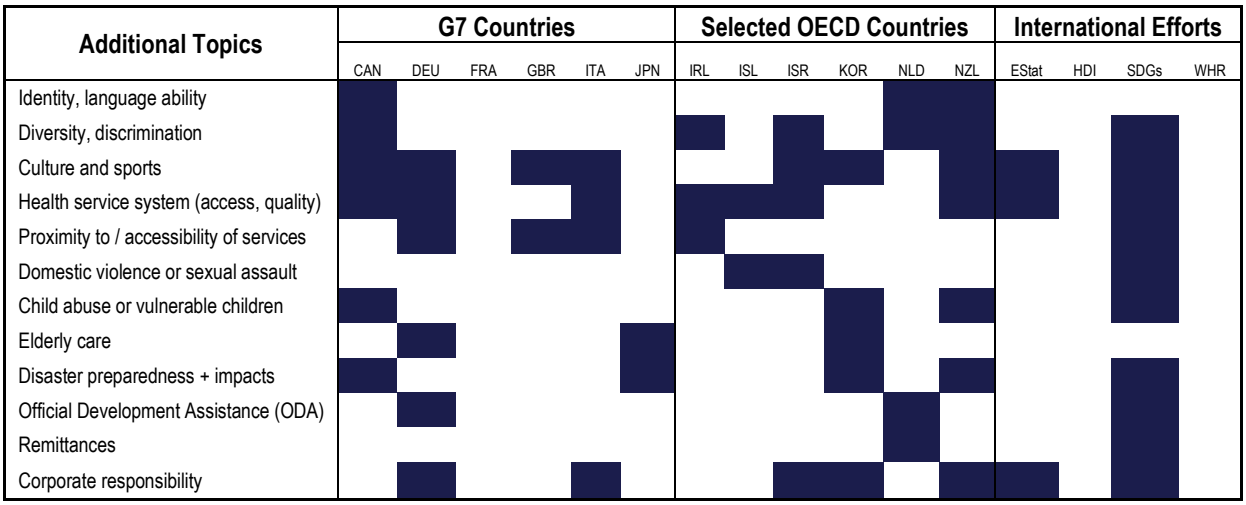
Source: Illustrations © Giulia Sagramola. Image adapted from OECD (2017) OECD's "How's Life?" exposes deep divisions in well-being https://www.youtube.com/watch?v=WjOMHaNp5GY.

Beyond the conceptual commonalities across the various well-being measurement initiatives, **most initiatives also include indicators that are internationally harmonised**. Standardisation is already possible through common international definitions of, for example, life expectancy, household income and debt, and a wide variety of labour market outcomes. In areas where there have traditionally been fewer international standards, considerable effort has been made to develop good practice measurement guidelines, including the *OECD Framework for Statistics on the Distribution of Household Income, Consumption and Wealth* (OECD, 2013[49]); *OECD Guidelines on Measuring Subjective Well-being* (OECD, 2013[50]); *Trust* (OECD, 2017[51]), and the *Quality of the Working Environment* (OECD, 2017[52]); the joint OECD/ILO/European Union *Handbook on Measuring Digital Platform Employment and Work* (OECD/ILO/European Union, 2023[53]) and most recently *Measuring Population Mental Health* (OECD, 2023[54]). Forthcoming OECD work will address additional gaps, such as the measurement of social connections, loneliness and sense of belonging. These activities are complementary to parallel efforts within the United Nations (described above) such as the System of Environmental Economic Accounting that will eventually help fill important international gaps, and the Office on Drugs and Crime's work to harmonise national data on personal safety. These combined efforts mean that overall, even at the level of individual indicators, there are considerable similarities in the data that countries use to measure well-being (see (OECD, 2019[55]) for a detailed description of indicator-level overlaps).

Despite the convergence across national and international approaches, coupled with efforts to harmonise the measurement of individual indicators, there is no complete standardisation of the underlying *measurement framework* used at the national level, akin to the System of National Accounts. The very large majority of national initiatives follow the recommendations of the *Commission on the Measurement of Economic Performance and Social Progress* (Stiglitz, Sen and Fitoussi, 2009[1]; Stiglitz, Fitoussi and Durand, 2018[3]) in **opting for a dashboard approach, rather than aggregating across dimensions to create a single indicator** (see Box 3). However, greater international harmonisation could serve to reinforce the rigour and consistency of multidimensional 'beyond GDP' measurement approaches, enabling them to better emulate the highly trusted status of statistics drawn from the System of National Accounts (Hoekstra, 2019[56]).

There are often good reasons underlying the variations observed in national-level frameworks - which can still be usefully complemented with more internationally harmonised approaches (such as those of the OECD or the United Nations). These include the need to take into account country-specific and contextual factors, and the importance of involving stakeholders in the definition and operationalisation of well-being frameworks. On the former, while international frameworks have often provided a useful starting point for the development of national well-being initiatives, the latter can usually draw on richer data, and almost always include some adaptation to local contextual factors (Figure 11).[3] On the latter, one very significant driver of national variations has been the need for strong stakeholder buy-in and ownership, which means that many national well-being initiatives have been co-designed with inputs from a large variety of sources.[4]

Figure 11. Additional well-being or 'beyond GDP' topics covered in several frameworks



Note: Shaded cells indicate the initiative contains one or more indicators that capture aspects of the additional topic listed in the first column. Initiatives considered include: Canada (CAN), Quality of Life Framework, 2022; Germany (DEU), Wellbeing in Germany – What matters to us, 2020; France, New Indicators of Wealth, 2022; the United Kingdom (GBR), Measures of National Well-being, 2022; Italy (ITA), Measures of Equitable and Sustainable Well-being, 2022; Japan (JPN), Well-being dashboard, 2022; Ireland (IRL), Understanding life in Ireland: A well-being framework, 2022; Iceland, Indicators for Measuring Well-being, 2023; Israel (ISR), Well-being, Sustainability and National Resilience Indicators, 2023; Korea (KOR), National Quality of Life Indicators, 2023; the Netherlands (NLD), Monitor of Well-being and the SDG's, 2022; New Zealand (NZL), Living Standards Framework Dashboard, 2022; Eurostat (EStat), Quality of Life, 2023; HDI, Human Development Index, 2023; SDGs, Sustainable Development Goals, 2023; WHR, World Happiness Report, 2022.

[3] Beyond the core OECD well-being domains, additional topics covered by at least two or more national/international well-being initiatives are shown in Figure 11. Several include indicators that address cultural amenities (such as cultural participation and sports), while a smaller number consider cultural identity or language ability. Services, such as health care system access or quality, as well as proximity or access to services, also feature in several frameworks. Other themes include domestic violence or sexual assault, child abuse or vulnerable children, and elderly care.

[4] Public consultation has been a key component of framework development in almost all OECD countries, as has expert consultation, the involvement of multiple government ministries, and cross-party political engagement. indeed, one of the success factors often cited for ensuring an enduring approach is this broad-based consultative activity from the outset (Wellbeing Economy Alliance, 2021[168]). so even if many national initiatives share a common core, the terminology and overall structure of the framework needs to reflect the issues, language and framing that emerge through these bottom-up and consultative processes, to ensure it has legitimacy with the communities of people who will later use or be impacted by it.

Box 3. Recommendations by the Chairs of the High-Level Expert Group on the Measurement of Economic Performance and Social Progress (2018)

The field of multidimensional welfare or well-being measurement has advanced very significantly in the years since the publication of the 2009 *Commission on the Measurement of Economic Performance and Social Progress* report (Stiglitz, Sen and Fitoussi, 2009[1]), which had an important impact on practices within OECD national statistical offices and beyond. In 2018, the OECD-hosted High Level Expert Group on the Measurement of Economic Performance and Social Progress, set out future steps for this work. Several of these recommendations - listed below - are being carried forward in the ongoing work programme of the OECD, including through a new *Observatory on Social Mobility and Equal Opportunity* (OECD, 2022[57]) and a forthcoming *Knowledge Exchange Platform* on well-being metrics and policy practices.

Recommendations from the High-Level Expert Group (Stiglitz, Fitoussi and Durand, 2018)

1. **No single metric will ever provide a good measure of the health of a country, even when the focus is limited to the functioning of the economic system**. Policies need to be guided by a dashboard of indicators informing about people's material conditions and the quality of their lives, inequalities thereof, and sustainability. This dashboard should include indicators that allow us to assess people's conditions over the economic cycle. Arguably, policy responses to the Great Recession might have been different had such a dashboard been used.
2. **Developing better metrics of people's well-being is important for all countries, whatever their level of development**. National Statistical Offices should be given the resources and independence needed to pursue this task in effective ways, including through harnessing the potential of big data. The international community should invest more in upgrading the statistical capacities of poorer countries.
3. **The quality and comparability of existing metrics of economic inequality related to income and, particularly, wealth should be further improved,** including by allowing Statistical Offices to use tax records to capture developments at the top end of the distribution, and by developing measures of the joint distribution of household income, consumption and wealth.
4. **Data should be disaggregated by age, gender, disability status, sexual orientation, education and other markers of social status** in order to describe group differences in well-being outcomes; and metrics to describe within-household inequalities, such as those related to asset ownership and the sharing of resources and financial decisions within the household, should be developed.
5. **Efforts to integrate information on economic inequalities within the System of National Accounts should be pursued**, in the perspective of achieving convergence between micro- and macro-approaches, and of understanding how the benefits of GDP growth are shared in society.
6. **Assessing equality of opportunity is important.** Measures of a broad range of people's circumstances should be developed, including by linking administrative records across generations and by including retrospective questions on parental conditions in household surveys, so as to allow comparison of measures of inequality of opportunity across countries and over time.
7. **Regular, frequent and standardised collection of both evaluative and experiential**

measures of subjective well-being should be pursued, based on large representative samples with a view to shedding light on their drivers and on the directions of causality.

8. **Policies should be routinely assessed for their effects on people's economic insecurity,** measured through a dashboard of indicators that inform about people's experiences in the face of economic shocks, the buffers that are available to them, the adequacy of social insurance against key risks, and subjective evaluations of insecurity.
9. **Better measures of sustainability are needed.** This requires developing full balance sheets for various institutional sectors, covering all their assets and liabilities, measuring the rents implicit in asset valuations, as well as improved metrics of human and environmental capital and of the vulnerability and resilience of systems.
10. **The measurement of trust and other social norms should be improved,** through both general and specialised household surveys as well as more experimental tools administered to representative samples of respondents that rely on insights from psychology and behavioural economics.
11. **Access to statistical data and administrative records by academics and policy analysists should be facilitated,** in ways that preserve the confidentiality of the information disseminated and that ensure a level playing field across different research teams and theoretical perspectives.
12. **To deliver "better policies for better lives", well-being metrics should be used to inform decisions at all stages of the policy process,** from identifying priorities for action and aligning programme objectives to investigating the benefits and costs of different policy options; from making budgeting and financing decisions to monitoring policies, programme implementation and evaluation.

Source: Stiglitz, Fitoussi and Durand (2018[3]) *Beyond GDP: Measuring What Counts for Economic and Social Performance*, OECD Publishing, Paris, https://doi.org/10.1787/9789264307292-en.

2. Recent developments in selected dimensions of economic welfare

This section takes stock of G7 countries' performance *beyond GDP* (strengths and weaknesses) based on a set of indicators covering various well-being and inclusion aspects such as household disposable income, earnings inequality, skills development and equity in access to education and health outcomes. In addition, this section presents selected measures of environmental outcomes, with a focus on greenhouse gases and air pollution. These various well-being, inclusion and sustainability dimensions cannot adequately be captured by a single measure that can then be broken into sub-components. Hence, a dashboard is used instead to illustrate the relative performance of G7 economies. The main part of the section provides an overview of countries' stance and development in the above-mentioned areas, considering levels and changes over time.

2.1. Recent development in inclusiveness dimensions

Measures of economic performances typically refer to aggregates of average conditions in each country for each of the specific domains considered. What these average measures miss are the inequalities in people's experiences. Accounting for these inequalities is necessary to fill the gap between country-wide estimates of performances and people's feelings about their own conditions. This can be done by building a dashboard of distributional indicators encompassing various income and non-income dimensions of inequality, an approach that has been used systematically in the OECD *Going for Growth* exercise since its introduction in 2017 (OECD, 2017[58]).[5]

Figure 12 presents the dashboard and associated indicators, while Table 2 provides the data on a country-by-country basis for the G7 countries. The dashboard covers standard measures of household disposable income inequality along with some of its components (e.g., disposable income inequality at different points of the distribution; wage inequality among workers); as well as poverty measures (e.g., relative poverty for total population and for different demographic groups, absolute poverty being used mostly for emerging economies).

Labour market indicators also feature prominently in the dashboard, reflecting the importance of labour market status and labour income as a major driver of inequality and inclusion in society, in addition to being a driver of growth; this also reflects that evidence on the link between policies and outcomes is relatively more abundant in this area. Overall, labour market indicators cover job quantity and job quality. Job quality draws on the OECD Job Quality measurement framework, encompassing earnings quality and labour market insecurity, with a complementary focus on informality and risk of extreme low pay in emerging economies.

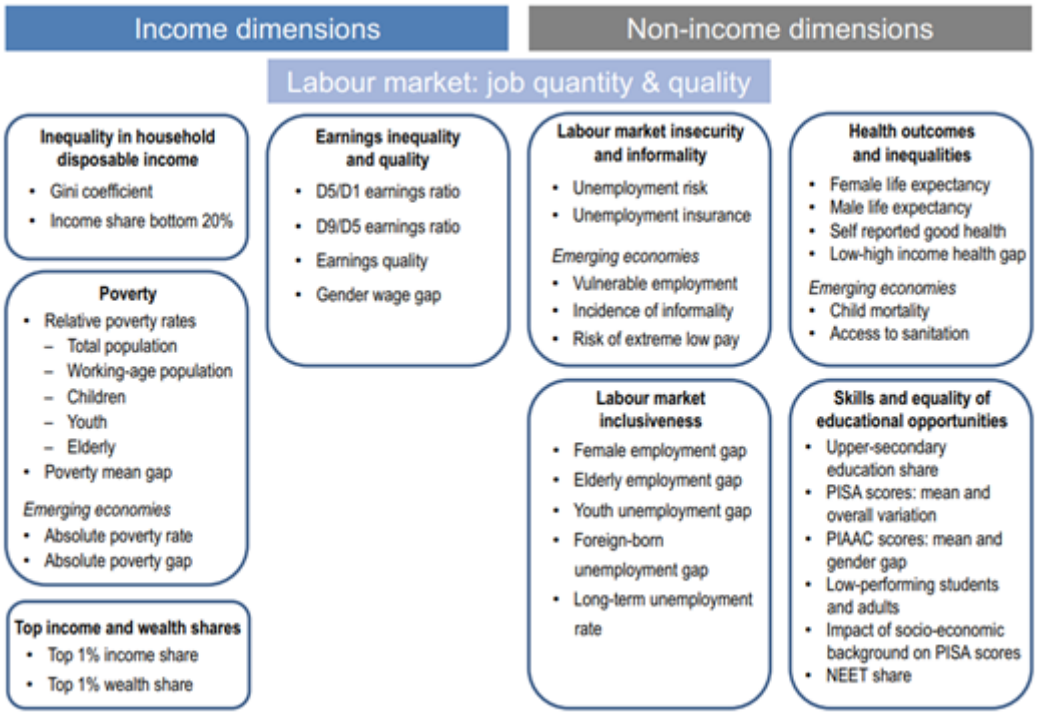
[5] The approach has also served as input to past G7 discussions, notably in Bari in 2017, Whistler in 2018, and Chantilly in 2019.

The dashboard also emphasises labour market integration, i.e., for women, youth, elderly, and migrants in the labour market. It includes selected non-income dimensions, first and foremost in the area of skills and equity in education, as this in turn increasingly determines peoples' ability to earn a decent living and participate in society, on top of being a major driver of productivity growth. Associated outcomes are measured based on OECD PISA and PIAAC programs data, thus covering both youth and adults.

Finally, the dashboard covers available measures of health outcomes and health inequalities. The specific indicators have been chosen to cover both the overall degree of inequality in each income and non-income dimension, as well as the degree of horizontal inequalities; that is, within each of those dimensions, inequalities across socio-demographic groups based on e.g., gender, age, migration status and education.

Since the various dimensions of inclusiveness cannot be adequately captured by a single measure that can then be broken into sub-components, there is no clear analytical framework for linking together the various indicators, as can be done for GDP per capita, productivity and employment. These indicators can be used to assess countries' relative outcomes in several relevant areas, considering levels and changes over time. The data are drawn from various public sources, and more recent data may be available in some cases for some of the countries.

Figure 12. Dashboard of distributional indicators



Inequality is mainly assessed from a static rather than from a dynamic perspective, which would imply covering inequality throughout the lifecycle and across generations. In the same vein, more emphasis is put on inequality in terms of outcomes rather than opportunities, reflecting mainly the lack of data on a cross-country comparable basis. Nevertheless, given the importance of access to the labour market and adequate health services for professional development prospects, elements of the dashboard covered under the categories "labour market inclusiveness" and "health outcomes and inequalities" could be taken as indications of equality of opportunities, alongside the "skills and equality of opportunities" category.

Promoting strong growth and reducing inequality remains a challenge for all G7 countries, but the more specific nature of the challenge varies across countries. Updated indicators from the dashboard and reported in Table 2 provide the following insights:[6]

- **France and Germany** perform well on overall inequality and poverty measures, hence inequality of outcomes, but face more challenges in delivering equality of opportunities relative to other G7 countries.
  - In both countries, overall poverty is generally low, although Germany faces distinct challenges in terms of youth poverty (18-25 years). They are also doing well on measures of income inequality, both before redistribution (earnings inequality) and after taxes and transfers (Panels A and B).
  - Both countries face significant challenges in terms of skills and equality of opportunity, with socioeconomic backgrounds having a relatively strong influence on students' performance (Panel D). The labour market integration is also lagging for certain groups, particularly for elderly and younger workers in France, and to a certain degree also foreign-born. For both countries self-reported good health remains below the G7 average (Panel C).
- **Italy and Japan** perform well on several health metrics, and Japan scores well also on educational outcomes and equality of educational opportunity. However, income inequality and poverty remain relatively high in both countries, and the labour market integration lags for certain groups.
  - In both countries overall income inequality figures are generally higher than the G7 average, both before and after redistribution. Both countries also face a relatively high incidence of poverty, including child poverty (Panels A and B).
  - Italy and Japan are doing relatively well in terms of life expectancy for men and women, and the health gap between low and high incomes is less pronounced than for most other G7 countries. Overall, Japan has good outcomes in areas that matter for equality of opportunities, notwithstanding that the gender literacy score gap is above the G7 average. In the case of Italy, the labour market inclusion of youth is a major challenge, along with educational performances (Panels C and D).
- **The United** Kingdom **and the United States** perform relatively well on measures of labour market inclusion, though with some specific challenges. Income inequality is relatively high in both countries, but poverty is a more pronounced challenge in the United States.
  - Income inequality remains relatively high in both countries, both measured before and after redistribution (panels A and B). In the case of the United States, progress has been made in reducing child and youth poverty in recent years, which remains above G7 average.
  - Both are doing relatively well on measures of labour market inclusion, though some specific challenges prevail, pertaining particularly to the inclusion of elderly and young people in the United Kingdom, and to a certain degree the inclusion women in the United States. The performance of both countries in the area of skills and educational opportunities is mixed, with a high share of adults lacking basic skills in the United States and a high variation in school performance in the case of the United Kingdom. The influence of students' socioeconomic background student performance is relatively pronounced in the United States (panels C and D). Finally, life expectancy for both men and women is significantly lower in the United States.
- **Canada** performs well on several inequality metrics, and child and youth poverty has been reduced in recent years. Challenges do remain with regards to the gender wage gap and the elderly employment gap.

[6] Bolded figures in Table 2 indicates an outcome where the countries' performance is below G7 average.

- Income inequality after taxes and transfers, as well as outcomes on various poverty measures are well below the G7 average. While overall scores on earnings inequality are relatively good, there is a pronounced gender wage gap (Panels A and B).
- Labour markets are generally inclusive, but the inclusion of older workers is lagging. Canada also performs relatively well on various measures of health outcomes and inequalities, as well as in terms of skills and equality of educational opportunities, even though the variation in PISA math scores and the gender literacy score gap is above the G7 average (Panels C and D).

Table 2. Inequality and inclusiveness indicators: G7 countries

Latest available year and average annual change since mid-2010s (Δ)

Panel A				Canada	France	Germany	Italy	Japan	United Kingdom	United States	G7
INCOME DIMENSIONS	Inequality in household disposable income	Gini coefficient (2020)	%	28	29.2	29.6	**33**	**33.4**	**35.5**	**37.5**	32.3
			Δ	-0.8	-0.1	0.1	-0.1	.	-0.1	-0.3	
		Income share Bottom 20% (2020)	%	8.8	8.7	8.2	**6.6**	**6.4**	**7**	**6.1**	7.4
			Δ	0.3	0	0.0	0.1	.	0	0.1	
	Relative poverty (based on 50% of median household disposable income)	Poverty rate total population (2020)	%	11.5	8.4	9.8	**14.2**	**15.7**	12.4	**18**	12.9
			Δ	-0.7	0.1	-0.1	-0.1	.	0.4	0.3	
		Poverty rate working age population (2020)	%	8	7.1	4.3	**11.7**	**11.7**	7.4	**12.8**	9
			Δ	-0.8	0	0.1	0	.	0.4	0.5	
		Poverty rate children (<18) (2020)	%	7.3	11.7	11.7	**18**	**14**	11.9	**13.7**	12.6
			Δ	-2.4	0.1	0.1	-0.1	.	0.2	-1.6	
		Poverty rate youth (18-25) (2020)	%	8.5	13.2	**18.6**	**15.6**	**17.3**	8.6	**16.1**	14
			Δ	-2.2	-0.2	0.5	-0.5	.	-0.5	-0.6	
		Poverty rate elderly (>65) (2020)	%	12.1	4.4	10.9	11.3	**20**	13.2	**22.8**	13.5
			Δ	0.3	0.3	0.4	0.3	.	-0.2	0.5	
		Poverty mean gap (2020)	%	25.9	26.1	25.3	**39.6**	**36.4**	**36.3**	**34.1**	32
			Δ	-1.1	0.6	-0.1	-1.4	.	1	-1.5	

Note: Year in parenthesis indicates the latest year available for the indicator. Δ represents the variation between the latest year available and the data available in mid2010s or nearest. Bolded entries correspond to areas where a G7 country shows a sub-par performance relative to the benchmark. The benchmark corresponds to the average of the G7 countries.
Source: OECD, Income Distribution Database and World Bank, World Development Indicators Database.

Table 2. Inequality and inclusiveness indicators: G7 countries (Continued)

Latest available year and average annual change since mid-2010s (Δ)

Panel B				Canada	France	Germany	Italy	Japan	United Kingdom	United States	G7
INCOME DIMENSIONS	Top income and wealth shares	Top 1% income share (2021)	%	**13.9**	9	13.3	12.2	12.9	12.7	**19**	13.3
			Δ	-0.3	-0.2	0	0.3	0	0.1	0	
		Top 1% wealth share (2019)	%	17.5	17.1	18.6	12	13.2	**22.6**	**40.5**	20.2
	Earnings inequality and quality	D5/D1 earnings ratio (2020)		1.9	1.9	2.1	**2.4**	**2.6**	2.1	**2.4**	2.2
			Δ	0	0	0	0	0	0	0	
		D9/D5 earnings ratio (2020)		1.8	1.8	1.8	**2**	**2**	**2**	**2.2**	1.9
			Δ	0	0	0	0	0	0	0	
		Earnings quality (2016)	USD	**20.1**	21.9	26.5	**18.9**	**17.5**	**19**	**18.5**	20.3
			Δ	0.2	0.1	0.5	-0.1	0	0	0	
		Gender wage gap (2021)	%	**16.7**	11.8	14.2	7.6	**22.1**	14.3	**16.9**	14.8
			Δ	-0.3	0.3	-0.3	0.1	-0.6	-0.5	-0.3	
NON-INCOME DIMENSIONS	Labour market insecurity	Labour market insecurity (2016)	%	3.8	3.1	1.4	**8.6**	2.7	3.3	**4.2**	3.9
			Δ	-0.1	0	-0.1	0.4	-0.3	-0.4	-0.4	
		Unemployment risk (2015)	%	**7.5**	**11.4**	4.6	**12.4**	3.4	5.4	5.5	7.2
			Δ	-0.3	0.3	-0.4	0.7	-0.4	-0.6	-1	
		Unemployment insurance (2015)	%	48.4	60.1	50.7	**20.5**	**40.1**	44.8	**25.6**	41.5
			Δ	-0.7	-0.1	-1.8	-1.8	1.1	-0.1	-3	

Note: Year in parenthesis indicates the latest year available for the indicator. Δ represents the variation between the latest year available and the data available in mid2010s or nearest. Bolded entries correspond to areas where a G7 country shows a sub-par performance relative to the benchmark. The benchmark corresponds to the average of the G7 countries.
Source: OECD, Income Distribution, Job Quality and Wealth Databases; World Wealth and Income Database.

Table 2. Inequality and inclusiveness indicators: G7 countries (Continued)

Latest available year and average annual change since mid-2010s (Δ)

Panel C				Canada	France	Germany	Italy	Japan	United Kingdom	United States	G7
NON-INCOME DIMENSIONS	Labour market inclusiveness	Female employment gap (2021)	pp	-6.1	-5.5	-7.2	**-17.7**	**-12.6**	-6.5	**-9.6**	-9.3
			Δ	0	0.2	0.1	0.1	0.8	0.6	0.2	
		Elderly employment gap (2021)	pp	**-19.6**	**-26.1**	-12.6	-16.7	-8.9	**-19.6**	-15.7	-17
			Δ	0.2	0.7	0.8	0.5	0.6	0.1	0	
		Youth unemployment gap (2021)	pp	7.3	**12.1**	3.6	**20.4**	1.8	**9.3**	4.9	8.5
			Δ	0.1	-0.5	0.1	-1.5	0	-0.2	-0.4	
		Foreign-born unemployment gap (2021)	pp	1.5	**5**	**3.5**	**4**	.	1.1	0.1	2.5
			Δ	0.2	-0.5	0	0	.	0	0.1	
		Long-term unemployment rate (2021)	%	16.3	29.6	**32.6**	**58**	**35.8**	28.4	23.1	32
			Δ	0.8	-2.2	-1.9	-0.2	0.1	-0.4	0.7	
	Health outcomes and inequalities	Female life expectancy (2020)	Years	84	85.5	**83.5**	85.1	87.7	**82.4**	**79.9**	84
			Δ	0	0	0.1	0	0.1	-0.1	-0.2	
		Male life expectancy (2020)	Years	79.5	79.3	**78.7**	80.6	81.6	**78.4**	**74.2**	78.9
			Δ	-0.1	0	0.1	0	0.2	-0.2	-0.4	
		Self-reported good health (2020)	%	89	**68.5**	**63.8**	72.8	**36.6**	72.9	86.1	70
			Δ	0	0.1	-0.1	1.8	0.2	0.8	-0.2	
		Health gap between low-high incomes (2020)	pp	-11.8	-17.1	**-29.6**	-9.3	-12.3	**-20.4**	**-21.9**	-17.5
			Δ	0.6	-0.9	-0.3	-0.1	-0.2	0.4	0.1	

Note: Year in parenthesis indicates the latest year available for the indicator. Δ represents the variation between the latest year available and the data available in mid2010s or nearest. Bolded entries correspond to areas where a G7 country shows a sub-par performance relative to the benchmark. The benchmark corresponds to the average of the G7 countries.
Source: OECD, Labour Force Statistics and Health Databases.

Table 2 Inequality and inclusiveness indicators: G7 countries (Continued)

Latest available year and average annual change since mid-2010s (Δ)

Panel D				Canada	France	Germany	Italy	Japan	United Kingdom	United States	G7
NON-INCOME DIMENSIONS	Skills and equality of educational opportunities	Upper secondary education share (2021)	%	93.1	**82.2**	85.3	**62.7**	.	**81.7**	91.7	82.8
			Δ	0.4	0.8	-0.2	0.5	.	0.3	0.4	
		Mean PISA score in mathematics (2018)	score point	512	**495.4**	**500**	**486.6**	527	501.8	**478.2**	500.1
			Δ	-1.2	0.8	-2	-1	-1.8	3.1	2.9	
		Variation in PISA math scores (2018)	%	**102.8**	**103.4**	**109.8**	**106.1**	90.2	**104.4**	102.5	102.7
			Δ	2.3	-3.1	3.7	-1	-2.2	-0.7	1.7	
		Low-performing students in literacy (2018)	%	13.7	**20.9**	**20.7**	**23.3**	16.8	17.3	**19.3**	18.9
			Δ	0.9	-0.2	1	0.7	1.3	-0.1	0.2	
		Impact of socioeconomic background in PISA: slope (2018)	score point	31.7	**47.2**	**38.9**	33.8	35.5	34.6	36	36.8
			Δ	0.1	-1.7	-0.6	0.6	-0.9	-1.1	0.1	
		Impact of socioeconomic background in PISA: strength (2018)	%	7.8	**21.1**	**18**	10.9	9	11.6	**16.1**	13.5
			Δ	-0.3	-0.2	0.2	0.1	-0.1	-0.2	0.2	
		NEET share (age 15-29) (2021)	%	13.7	**15.1**	10.2	**26**	9.8	11.8	**16.3**	14.7
			Δ	0.1	-0.4	0.3	-0.2	.	-0.3	0.1	
		Mean PIAAC score in literacy (2018)	score point	273.5	**262.1**	**269.8**	**250.5**	296.2	272.6	270.9	270.8
		Gender literacy score gap (PIAAC) (2018)	score point	**2.3**	-0.2	**5.1**	-0.3	**3.1**	**2.8**	-1.1	1.7
		Low-performing adults in literacy (2018)	%	16.4	**21.6**	**17.5**	**27.7**	4.9	16.4	**17.6**	17.4

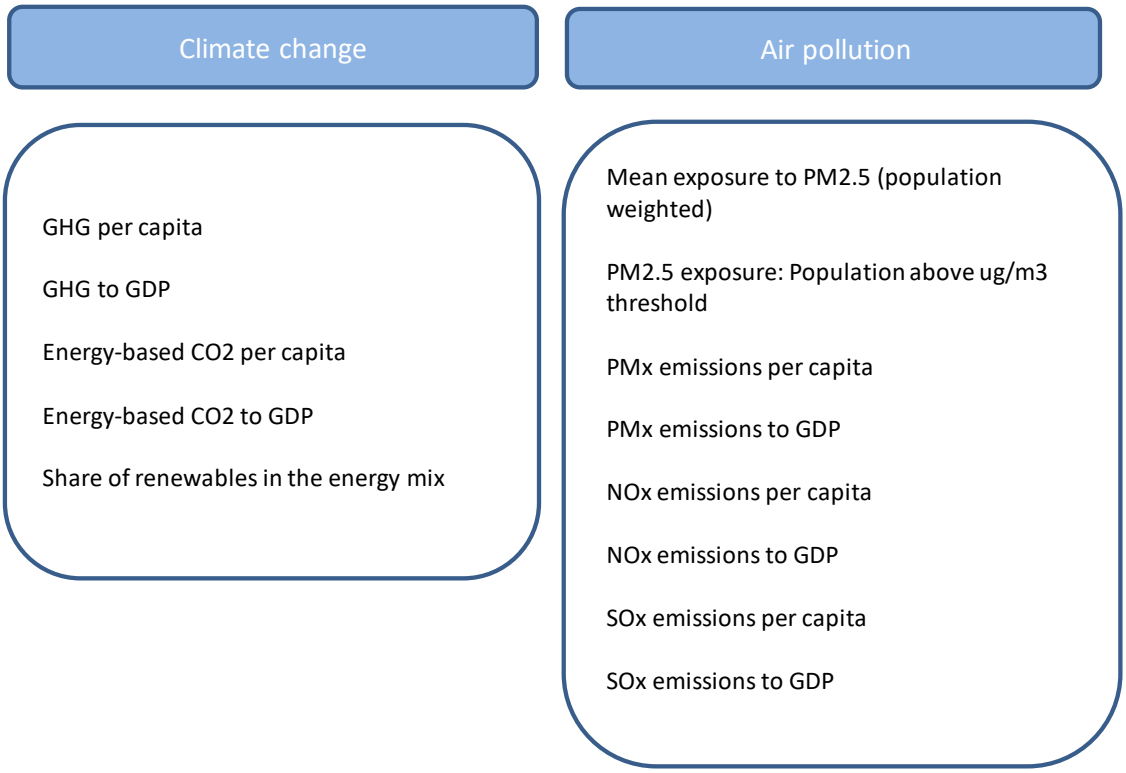
Note: Year in parenthesis indicates the latest year available for the indicator. Δ represents the variation between the latest year available and the data available in mid2010s or nearest. Bolded entries correspond to areas where a G7 country shows a sub-par performance relative to the benchmark. The benchmark corresponds to the average of the G7 countries.
Source: OECD, PISA, PIAAC and Education Databases.

2.2. Recent developments in environmental indicators

While progress is being achieved towards better taking into account in the National Accounts the impact of natural resource exploitation and degradation of the environmental capital, a dashboard of indicators is needed to monitor the extent to which trends in output growth, as measured by GDP, are unsustainable. As in the case of inclusiveness, the diverse set of indicators aims to capture the multiple factors that contribute to the maintenance of the stock of environmental capital. The focus in this section is on climate change and local air pollution, leaving aside other important dimensions such as land and water pollution.

The set of indicators appears in Figure 13, while Table 3 provides the data on a country-by-country basis for the G7 countries. In the case of climate mitigation, indicators used are greenhouse gas emissions relative to GDP and per capita (excluding emissions from land use, land use change and deforestation where measurement issues are more problematic), CO_2 emissions per capita and relative to GDP (both based on emissions from energy) and the share of renewable energy sources in the energy mix. For air pollution, indicators used are emissions of SO_X, NO_X and particulate matter (relative to GDP and per capita) as well as population exposure to harmful air pollution (average and share of population exposed to fine particle levels above certain limits deemed as harmful).

Figure 13. Dashboard of environmental indicators



Updated indicators from the dashboard and reported in Table 3 provide the following insights, which do not reflect the potential impact of the recent energy crisis:

- **Germany** and **Italy** perform relatively well on all climate indicators. GHG-emissions are low compared to other G7 countries, and there has been a steady reduction in emissions per capita over the past years, especially in Germany. Both countries have among the highest renewables shares in the G7, and both perform well on almost all air pollution indicators, with the exception of

mean population exposure to fine particulate matter, which remains particularly high in Italy, but also in Germany relative to other G7 countries.

- **Japan** fares relatively well on most air pollution indicators, except exposure to fine particulate matter, which remains high compared to the G7 average. Performance on most climate indicators is also good, although the share of renewables in the energy mix is lagging, and the production-based CO_2 productivity remains low compared to other G7 countries.
- In France and the United Kingdom emissions are well below the G7 average, both when measured relative to population size, and when measured relative to GDP. Like Japan and the United States, the share of renewables in the energy mix lags in both France and the United Kingdom. Both countries do however perform quite well on indicators measuring air pollution with mean exposure to fine particulate matter in France being the only indicator where performance is sub-par relative to the G7 benchmark.
- Canada has the highest renewables share of the G7 countries. Large GHG-emission does however remain a challenge in Canada, which is also the case for the United States. While emissions are somewhat reduced since the mid-2010s, production remains relatively emissions intensive in both countries. Performance with respect to air pollution is mixed for the two countries, with both countries facing their particular challenges.

Table 3. Environmental indicators: G7 countries

Latest available year and average annual change since mid-2010s (Δ)

				Canada	France	Germany	Italy	Japan	United Kingdom	United States	G7
ENVIRONMENTAL DIMENSIONS	Climate	Greenhouse gas emissions per capita (2020)	Tonnes	**17.7**	5.9	8.8	6.4	9.1	6	**18.2**	10.3
			Δ	-0.6	-0.2	-0.4	-0.2	-0.2	-0.4	-0.5	
		Greenhouse gas emissions to GDP (2020)	Kilograms per 1 000 USD	**0.4**	0.1	0.2	0.2	0.2	0.1	**0.3**	0.2
			Δ	0	0	0	0	0	0	0	
		Production-based CO_2 intensity, energy-related CO_2 per capita (2021)	Tonnes	**13.8**	4.2	7.5	5	8	5	**13.5**	8.1
			Δ	-0.3	-0.1	-0.2	-0.1	-0.2	-0.2	-0.3	
		Production-based CO_2 productivity, GDP per unit of energy-related CO_2 emissions (2021)	USD per kilogram	**3.3**	10	6.6	7.7	**5.2**	8.6	**4.6**	6.6
			Δ	0.1	0.2	0.2	0.1	0.1	0.3	0.1	
		Share of renewables in the energy mix (2021)	%	16.1	**11.6**	15.6	18.5	**7.1**	**12.6**	**8**	12.8
			Δ	-0.2	0.5	0.5	0.2	0.3	0.8	0.2	
	Air pollution	Mean population exposure to fine particulate	Micrograms per cubic metre	7.1	**11.4**	**11.9**	**15.9**	**13.7**	10	7.7	11.1
			Δ	0	-0.2	-0.2	-0.5	0	-0.1	-0.1	

				Canada	France	Germany	Italy	Japan	United Kingdom	United States	G7
		matter ($PM_{2.5}$) (2019)									
		Share of population exposed to more than 35 micrograms of $PM_{2.5}$ /m^3 (2019)	%	0	0	0	0	0	0	0	0
			Δ	.	.	.	.	.	.	.	
		$PM_{2.5}$ emissions per capita (2020)	Kilograms	**37.7**	1.7	1	2.2	.	1.2	**10.9**	9.1
			Δ	-0.9	-0.1	-0.1	-0.1	.	0	-0.3	
		$PM_{2.5}$ emissions per unit of GDP (2020)	Kilograms per 1000 USD	0.9	0	0	0.1	.	0	0.2	0.2
			Δ	0	0	0	0	.	0	0	
		Nitrogen oxides (NO_X) emissions per capita (2020)	Kilograms	**38.5**	9.9	11.8	9.6	9.1	10.3	**22**	15.9
			Δ	-1.5	-0.9	-0.9	-0.5	-0.2	-1.1	-2.1	
		Nitrogen oxides (NO_X) emissions per unit of GDP (2020)	Kilograms per 1000 USD	**0.9**	0.2	0.2	0.3	0.2	0.3	0.4	0.4
			Δ	0	0	0	0	0	0	0	
		Sulphur oxides (SO_X) emissions per capita (2020)	Kilograms	**17.2**	1.4	2.8	1.4	4.5	2	4.8	4.9
			Δ	-2.6	-0.2	-0.3	-0.1	-0.1	-0.4	-1.2	
		Sulphur oxides (SO_X) emissions per unit of GDP (2020)	Kilograms per 1000 USD	**0.4**	0	0.1	0	0.1	0.1	0.1	0.1
			Δ	-0.1	0	0	0	0	0	0	

Note: Year in parenthesis indicates the latest year available for the indicator. Δ represents the variation between the latest year available and the data available in mid2010s or nearest. Bolded entries correspond to areas where a G7 country shows a sub-par performance relative to the benchmark. The benchmark corresponds to the average of the G7 countries.
Source: OECD, Environment Database.

3. Integrating well-being dimensions in policy strategies

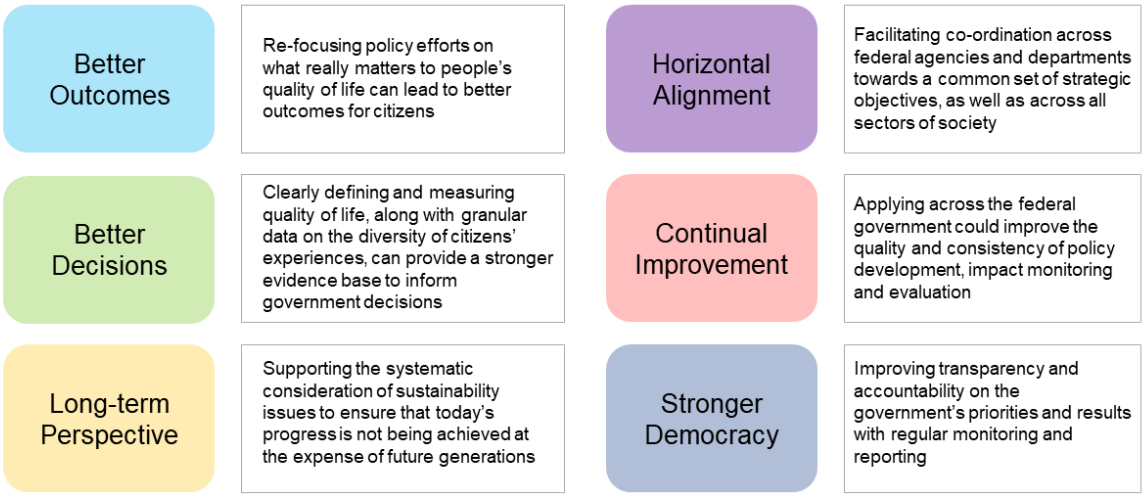
Multidimensional well-being frameworks and concepts are increasingly being employed by G7 and non-G7 countries in national policy processes, including budgeting, policy appraisal and evaluation, strategic coordination, and performance management. In addition to being informed by broader and more granular data on people's well-being beyond GDP (as set out in Section 2), well-being approaches to policy have been used support more integrated, coordinated, and forward-thinking solutions that can better address the interdependency between economic, social, and environmental policy objectives (see Box 4).

This section provides examples of efforts to better integrate multidimensional well-being concepts in policy strategy, design and implementation. It begins by discussing the motivations for doing so, and the common principles that often underlie such well-being policy approaches. It then describes embedding mechanisms, such as legislation, civil service capacity-building, cross-agency coordination and collaboration, and democratic engagement. Next, it provides examples of emerging policy practices to better integrate well-being evidence into budgeting, policy appraisal and evaluation, and strategic priority setting. Finally, the application of a 'well-being lens' to policy issues such as climate action and mental health is discussed, as a way to systematically address interlinkages and trade-offs across multiple economic, social and environmental policy objectives. Next steps for the OECD include the creation of a Well-being Knowledge Exchange Platform (Box 7), to catalyse experience sharing around the types of initiatives described in this section (including what works, and what does not), and to foster the further development of effective tools and policy practices.

3.1. The value-added and common principles of well-being approaches to policy

Rather than being a simple add-on to existing economic policy practice, the implementation of well-being frameworks typically aims to overcome traditional policy silos and encourage more collaborative and effective ways of working across government. For example, Canada's Department of Finance summarises the potential policy benefits of their (2021) Quality of Life Strategy in terms of better outcomes in the areas that matter most to people; stronger evidence-based decision-making; more systematic consideration of long-term impact; facilitating coordination and horizontal alignment across government and society; continual improvement from mainstreaming well-being considerations into policy development, monitoring and evaluation; and stronger democracy by improving government transparency and accountability (Figure 14).

Figure 14. Summary of the potential benefits of a well-being approach to policy



Source: Based on "Potential Benefits of a Quality of Life Strategy" in (Department of Finance Canada, 2021[27]), *Towards a Quality of Life Strategy for Canada.*

Other related motivating factors cited by leaders and institutions in countries employing 'beyond GDP' well-being metrics in a policy context include:

- Supporting governments' progress on both long-term and short-term priorities simultaneously, promoting preventative strategies alongside more reactive policy making (Ardern, 2022[59]).
- Providing objective simultaneous evaluation of competing priorities such as the climate, housing, education, and health, in a way that makes trade-offs and synergies across different policy goals more apparent (Irish Department of the Taoiseach, 2021[60]).
- Supporting more efficient and effective use of limited public resources by enhancing strategic alignment, coordination and cooperation in policy implementation across departments and agencies (Kennedy, 2022[61]).
- Putting a greater focus on sustainability and inequalities by providing insights into intergenerational considerations and how people's lived experiences differ across societies, places and population groups (Irish Department of the Taoiseach, 2021[60]).
- More effectively connecting government action with public values through public debate and stakeholder engagement on what matters the most to people (Government of Australia, 2022[62]; Australian Treasury, 2023[63]).
- Providing a foundation structure for the development of more tailored sectoral well-being approaches for selected policy issues and population sub-groups (e.g. children, elderly) (Kennedy, 2022[61]). Applying well-being concepts and principles to specific policy issues is sometimes referred to as applying a 'well-being lens' (OECD, 2019[64])), and will be addressed in more detail at the end of this section.

The OECD has also summarised the implementation of well-being approaches in terms of four 'R's: *refocusing* policies towards the outcomes that matter most to people, *redesigning* policy content from a more multidimensional perspective, *realigning* policy practice across government silos, and *reconnecting* people with the public institutions that serve them (OECD, 2021[26]).

Box 4. Well-being and policy interlinkages

Centering government action on current and future well-being provides a more integrated view of policy objectives that makes explicit the inherent interlinkages between economic, social, environmental, and distributional policy objectives. A well-being perspective brings a more holistic, or systemic, approach to understanding policy success, with policies to promote economic welfare viewed from the perspective of their impacts on social, environmental and distributional outcomes, and vice versa.

Identifying trade-offs and synergies across policy objectives

From a high-level viewpoint, well-being frameworks can provide a structured approach to systematically assessing the trade-offs between a specific policy goal and the other well-being objectives that it may impact. This can provide more transparency to prioritisation and decision-making processes and support reorienting strategies towards better balancing economic objectives, environmental sustainability and social cohesion, for example. Just as importantly, the multidimensional, integrated and inter-generational view of societal outcomes provided by well-being frameworks can help identify the most impactful areas of potential positive synergy across multiple policy areas. Thus, rather than considering economic policy as competing with social and environmental policy domains, well-being approaches look for 'win-win' solutions that can benefit the system as a whole, or even 'triple wins' that boost current well-being outcomes, safeguard the drivers of long-term sustainability, and strengthen equity simultaneously. The value of a well-being lens for identifying positive policy synergies, or triple wins, is addressed in more detail at the end of this section.

Help design integrated policy packages cutting across interlinked well-being domains

Practically speaking, well-being approaches highlight that individual outcomes, or policy goals, are difficult to tackle effectively in isolation, or within narrowly defined policy silos. Well-being is extremely complex, and a change in one well-being outcome can yield a large number of direct and indirect impacts on virtually other well-being outcomes, sometimes leading to feedback loops with both positive and negative consequences. For example, the two-way positive impact between education and longevity is a powerful engine of economic and social progress over the long run (Murtin, 2016[65]), which is also reflected in the loop transiting from higher education to higher income, then to better health and higher education. On the other hand, there can also be a negative loop across well-being dimensions, such as the potential trajectory from low income to greater incidence of mental ill-health, to lower labour market participation and finally lower income (see Figure 17 and related OECD work on mental health described later in this section). These negative well-being outcomes are traditionally addressed through sectoral remediation policies: low income is generally addressed through labour and social policy, mental health by public health and healthcare policies, while labour market participation is driven by skills and labour market policy. However, remediation policies taken in isolation are inefficient in breaking a vicious circle because they do not treat the underlying drivers of poor well-being outcomes. Hence, an immediate policy implication of systemic well-being analysis is to identify policy packages cutting across interlinked well-being domains to build synergies and draw from natural complementarities.

3.2. Well-being policy embedding mechanisms

The simple existence of a well-being framework or indicator set, is likely not enough on its own to foster change in government processes and policy outcomes. Embedding well-being concepts and principles across government may require investment in training, research on what works, and other mechanisms to support and incentivise people to work differently, including legislation.

3.2.1. Legislation

Italy, New Zealand, and France have enacted legislation to help ensure the systematic reporting of well-being evidence, particularly in the context of budgetary decision-making.

- In Italy, a 2016 reform to government accounting required the Ministry of Economy and Finance to report to Parliament twice a year on the evolution of headline Equitable and Sustainable Well-being (ESW) indicators and the actual or projected impact of different budget scenarios (through a monitoring report every February, as well as an Annex to the Economic and Financial Planning document - the Italian government's main financial and economic planning instrument – every April) (OECD, 2022[66]).
- In New Zealand, a 2020 amendment to the Public Finance Act 1989 introduced new requirements for the Government to include explanations of how well-being objectives have guided its Budget decisions in its Fiscal Strategy reports, and for the Treasury to report every four years on the state of well-being in New Zealand (New Zealand Parliament, 2020[67]). The Treasury published the first of these well-being reports in 2022 (New Zealand Treasury, 2022[68]). New Zealand has also implemented a law to help ensure enduring commitment to reducing child poverty and improving child well-being. The Child Poverty Reduction Act 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; report annually on the set of child poverty measures; report each Budget day on how the Budget will reduce child poverty and how the government is progressing towards its targets; and report on child poverty related indicators (New Zealand Government, 2022[69]).
- The French government approved law 411 (known also as the 'loi Sas' after Eva Sas, the Member of Parliament who proposed the law) in April 2015, requiring the Government to submit an annual report to Parliament on progress on 10 new indicators reflecting the country's economic, social and environmental situation. However, the reporting has not been implemented consistently (Sas, 2022[70]; Thiry, 2017[71]).

In the United Kingdom, both Scotland and Wales have put in place legislation to embed well-being approaches in public governance processes.

- In 2007, the Scottish Government introduced the outcomes-based National Performance Framework (NPF) to underpin the delivery of its policies and to set out "our ambitions, providing a vision for national well-being across a range of economic, social and environmental factors." It also sets out the "strategic outcomes which collectively describe the kind of Scotland in which people would like to live and guides the decisions and actions of national and local government". To achieve those outcomes, the NPF aims to get everyone in Scotland to work together, including national and local government, businesses, voluntary organisations, and people living in Scotland. There are 11 National Outcomes, which are measured for progress against 81 National Indicators. In 2015 the concept of the National Outcomes was enshrined in law as part of the Community Empowerment (Scotland) Act 2015 ("the Act") which requires the Scottish Government to review its National Outcomes every five years and to regularly report progress towards them. It also sets out consultation requirements, including with the Scottish Parliament. The Act requires that public bodies, or those that carry out public functions must "have regard to" the National Outcomes in

carrying out their devolved functions. The Act requires Scottish Ministers to consult the people of Scotland on the outcomes and report on how it is meeting these outcomes (Scottish Parliament, 2022[72]).

- Wales' 2015 Well-being of Future Generations Act (Future Generations Commissioner for Wales, 2023[73]) is wide-ranging legislation setting out a number of principles and actions for mainstreaming the consideration of current and future well-being across policy decision-making and action in Welsh public bodies. See Box 5 for more detail.

3.2.2. Other embedding mechanism examples

Legislation is not the only tool for embedding well-being approaches in policy. Other (non-exhaustive) examples include:

- **Capacity building and evidence gathering on 'what works'**
  - The United Kingdom's What Works Centre for Well-being is an independent body, formed by the government, and part of a network of seven What Works Centres that are supported through research grants and contributions from government departments and provide a mechanism for bringing research and expertise into decision-making. The Centre independently assesses evidence on the effectiveness of policy programmes and practices when it comes to well-being, produces synthesis reports and systematic reviews, and shares these findings through regular newsletters, training courses and learning events for civil servants (What Works Centre for Wellbeing, 2023[74]).
- **Cross-agency coordination and collaboration mechanisms:**
  - In 2018, the New Zealand Government created a Social Well-being Board made up of chief executives of relevant governmental ministries and agencies, including the chief executives of the ministries of education, health, justice, and social development. The Board advises the government on matters that require an integrated approach across ministries and agencies in the social sector, including advice on any barriers within the public service that the chief executives encounter in their collaborative work (Social Wellbeing Board, 2020[75]). In addition, New Zealand's Well-being Budget process includes built-in requirements to encourage inter-ministry collaboration on budget proposals, and greater weight is given to well-being spending proposals that are submitted jointly by multiple ministries (New Zealand Treasury, 2018[76]). Since 2022, New Zealand is also piloting the use of two policy 'Clusters', in the Justice and Natural Resources sectors (see below). These bring Ministers and agencies together to pursue shared goals, and they will receive multi-year funding to achieve them (New Zealand Government, 2022[77]).
  - In 2021, the Government of Japan established a Liaison Conference of Relevant Ministries and Agencies on Well-being to share information, strengthen cooperation and develop good practices in order to promote initiatives related to well-being. It compiles Key Performance Indicators, initiatives and budgets for well-being-related basic plans of the relevant ministries and agencies (Government of Japan, 2021[78]).
- **Democratic engagement**
  - Many countries have undertaken public consultations as part of the process of developing well-being frameworks, including Australia, France, Germany, Ireland, Israel, Italy, and the United Kingdom (Australian Treasury, 2023[63]; Department of Taoiseach, 2022[79]; New Zealand Treasury, 2021[80]; Exton and Shinwell, 2018[81]).
  - In addition, parliamentary debate and other forms of stakeholder engagement help to mainstream discussion of well-being priorities in political and public spaces. For example, every year since 2018, on the third Wednesday of May (known as Accountability Day), the Dutch

Government presents an annual report on well-being based on the well-being framework developed by Statistics Netherlands, which is then followed by parliamentary debates (Statistics Netherlands, 2017[82]). In Ireland, the Well-being Framework and analysis of the accompanying dashboard were included as a theme at the 2022 National Economic Dialogue (an annual stakeholder engagement event for public consultation and discussion on the Budget) (Government of Ireland, 2022[83]).

Box 5. Embedding well-being frameworks and concepts in policy: Wales' Well-being of Future Generations Act (2015) and Future Generations Commissioner

Wales' 2015 Well-being of Future Generations Act (Future Generations Commissioner for Wales, 2023[73]) is legislation requiring public bodies in Wales to think about the long-term impact of their decisions, to work more closely with the public, communities and each other, and to prevent persistent problems such as poverty, health inequalities and climate change. It sets out seven national well-being goals (encompassing prosperity, resilience, health, equality, cohesion, culture/language and global responsibility) and five 'ways of working' to ensure that the needs of future generations are taken into account in decision making alongside current well-being, comprising:

- **Collaboration:** Acting in collaboration with any other person (or different parts of the body itself) that could help the body to meet its well-being objectives.
- **Integration:** Considering how the public body's well-being objectives may impact upon each of the well-being goals, on their other objectives, or on the objectives of other public bodies.
- **Involvement:** The importance of involving people with an interest in achieving the well-being goals and ensuring that those people reflect the diversity of the area which the body serves.
- **Long-term:** The importance of balancing short-term needs with the need to safeguard the long-term needs.
- **Prevention:** How acting to prevent problems occurring or getting worse may help public bodies meet their objectives.

It also includes a 'well-being duty', enshrining in law the requirement for all public bodies to work to improve sustainable development, by setting and publishing objectives ("well-being objectives") that are designed to maximise their contribution to achieving each of the well-being goals, and taking all reasonable steps (in exercising its functions) to meet those objectives. Finally, the Act created the role of the Welsh Future Generations Commissioner who is tasked with advocating for the needs of future generations in Welsh policy and ensuring that government takes a long-term view of policy impact. The Commissioner has a wide-ranging mandate to advise, review and assess the work of public bodies from a well-being and sustainable development perspective. When the Commissioner makes recommendations to a public body, they must publish their response, and if the public body does not follow a recommendation they must say why, and what alternative action they will take.

The Act has been used to reshape decision-making and working methods to promote more sustainable policy making across the Welsh government, leading to sometimes strikingly different outcomes to traditional economic prioritisation processes. For example, a proposed 1.4 billion GBP motorway expansion was challenged by the Future Generations Commissioner on the basis that it would exacerbate many of the societal and environmental challenges facing Wales. The Commissioner proposed an alternative, and more socially and environmentally stable package of transport solutions which led to a pause on new road building, a 63% increase in active travel investment in the 2022 budget, and a plan to increase public transport, walking, and cycling to 45% by 2045 (Future Generations Commissioner for Wales, 2022[84]). The total cost of the package was less than half of the

original expansion cost and, in addition to alleviating traffic congestion, the alternative proposal aimed to help local authorities better meet their decarbonisation targets, reduce inequalities and transport poverty, improve physical and mental health, and help reduce noise and air pollution (Future Generations Commissioner for Wales, 2018[85])

3.3. Examples of emerging practice in applying well-being approaches to policy: budgeting, policy appraisal and evaluation, and strategic priority setting

Mainstreaming well-being approaches into policy is a relatively new area of government practice, and countries are employing different methods and processes depending on their specific context. However, some common themes and applications are emerging across countries. Multidimensional well-being frameworks are often used in the context of decision-making at the whole-of-government level (e.g. strategic priority-setting) or in aspects of policy design and analysis where multiple government objectives are simultaneously being balanced. Budgeting, policy appraisal and evaluation, and strategic coordination and performance management are three of the key emerging areas for the application of well-being approaches in this respect.

3.3.1. Budgeting

Budgetary priority-setting and implementation is a key example of a cross-government activity where synergies and trade-offs among different government objectives are particularly important to assess and manage, and thus where well-being approaches can be of great value (see Box 4 above). A range of countries are now using (or are in the process of establishing) well-being indicator frameworks to identify societal priorities and integrate relevant evidence at different points of the budgeting process, including Italy, New Zealand, Canada, Ireland, France, Sweden, Iceland, the Netherlands and Australia. Most of these efforts focus principally on the development, reporting and integration of well-being indicators and other evidence in the budgetary process, although some countries (New Zealand most notably) are also enacting deeper organisational changes to foster more integrated and longer-term budgetary responses for well-being priorities.

Italy was one of the first countries in the OECD to link well-being indicators to economic and budgetary planning, drawing from its Equitable and Sustainable Well-being (in Italian, Benessere Equo e Sostenibile, or BES) indicator set. The original BES framework, consisting of 134 indicators across 12 domains, was published in 2013, building on many years of previous work by the Italian national statistical office Istat, as well as widespread stakeholder consultation (OECD, 2022[66]). In 2016, a reform to the government accounting law required the Ministry of Economy and Finance to report to parliament twice a year on the evolution of headline BES indicators and the actual or projected impact of different budget scenarios (OECD, 2022[66]).[1] Since then, cross-departmental efforts (led by the Ministry of Economy and Finance) have refined the budgetary reporting on the 12 indicators selected by an expert committee in 2017. The 2017 Economic and Finance Document (DEF) included four of these indicators, and all 12 were included in the 2018 DEF for the first time[2], and then in subsequent annual reports (Italian Ministry of Economy and Finance, 2023[31]; 2023[86]). This regular reporting on the selected indicators has made them a point of reference for measuring progress and informing debate in a budgetary context (OECD, 2022[66]).

France and Sweden have also adopted similar approaches. The French government approved law 411 in April 2015, which requires the Government to submit an annual report to Parliament on progress on 10 new indicators reflecting the country's economic, social and environmental situation, although since 2019 reporting has not been consistent (Sas, 2022[70]; Thiry, 2017[71]). In Sweden, the Government introduced New Measures of Well-being in 2017 (Sweden Ministry of Finance, 2017[87]), which are monitored and

coordinated by the Ministry of Finance and reported annually in the Spring Economic Bill, which contains the Swedish Government's proposals for guidelines for economic and budgetary policy (Sweden Ministry of Finance, 2022[88]). Iceland's national performance indicators on well-being (described later in this section) have also been used to shape budgetary prioritisation processes.

Canada launched a Quality of Life Framework as part of its 2021 Budget process, including a Gender, Diversity and Quality of Life Statement (Department of Finance Canada, 2021[89]), an in-depth consultation document (Department of Finance Canada, 2021[27]), and federal budget investments aimed at strengthening national datasets and better incorporating quality of life measurements into decision making and budgeting (Statistics Canada, 2022[90]; Government of Canada, 2021[91]). Canada had already developed innovative methods to assess how the impact of government policies and programmes may differ for people based on gender, age, ethnicity, indigenous heritage, geographic location, socio-economic status, family status and disability status through its Gender-based Analysis Plus (GBA Plus) process (Women and Gender Equality Canada, 2022[92]). GBA Plus results are published for all budget measures, and the Quality of Life Framework has provided a way to broaden this analysis (Department of Finance Canada, 2021[27]). In the 2021 and 2022 budget processes, impact assessments were produced to assess both who is most affected and the nature of the impacts at a high level through the combined use of the GBA Plus tool and the Quality of Life Framework (Department of Finance Canada, 2021[93]; Department of Finance Canada, 2022[94]) . In December 2021, the Treasury Board Secretariat (TBS) assumed leadership for refining and strengthening the Framework and advancing its implementation across government, and from March 2022, Statistics Canada launched a first version of Canada's Quality of Life Hub, which it continues to develop (Statistics Canada, 2022[90]).

Ireland is well advanced in its consideration of the value of a well-being perspective to inform the budgetary process (Kennedy, 2022[95]). In February 2021, the Irish Government launched a cross-government effort to work on a well-being framework (Department of the Taoiseach, 2021[96]). An initial framework was published in July 2021 (Department of the Taoiseach, 2021[97]), which was then revised through an extensive public consultation and published in a second report in June 2022 (Department of Taoiseach, 2022[79]). In 2022, the Framework and analysis of the accompanying dashboard were included in the Budgetary process through various means, including as a theme at the National Economic Dialogue (an annual stakeholder engagement event for public consultation and discussion on the Budget), featuring in the Summer Economic Statement (Government of Ireland, 2022[83]) as well as a new publication entitled 'Budget 2023: Beyond GDP – Quality of Life Assessment' (Government of Ireland, 2022[98]). The Irish government intends for this to be an ongoing and evolving annual contribution to the Budget process, which will support a broader discussion of the impacts of Budgetary decisions (Government of Ireland, 2023[99]). For example in 2022, a pilot "budget tagging" exercise was undertaken in Ireland as part of a project funded by the European Union's Structural Reform Support Programme (SRSP) and supported by experts from the OECD. The exercise required participating Departments (including the Departments of Transport, Housing, Local Government & Heritage, and Tourism) to map their expenditure with reference to the Irish Well-being Framework, alongside existing Equality Budgeting and Green Budgeting methods. The participating Departments reported that they found the tagging exercise to be a useful tool to better consider outcomes of their policies with respect to well-being, and highlighted areas for development, such as the need to link cross-cutting priorities more closely with budget expenditure, and the need to reduce reporting burden, which will be addressed in future rounds of the exercise (Kennedy, 2022[95]).

Australia and the Netherlands have initiated efforts towards integrating well-being evidence in their budgeting processes. The 2022 Australian Budget committed the Treasury to developing a national well-being framework incorporating input from public consultation (Government of Australia, 2022[62]). The Netherlands Parliament has requested the Dutch Planning bureaus (the Netherlands Bureau for Economic Policy Analysis (CPB), the Netherlands Environmental Assessment Agency (PBL), and the Netherlands Institute for Social Research (SCP)) to further integrate well-being with the budget cycle of the Government and develop a key set of indicators (CPB, PBL and SCP, 2022[100]). The bureaus plan to develop an

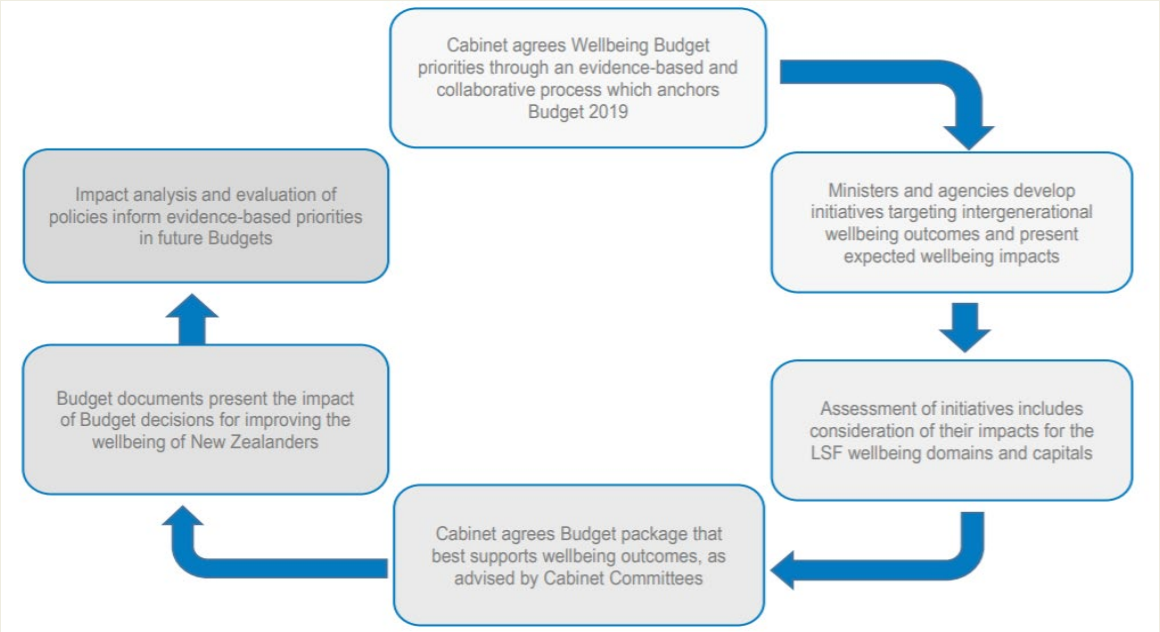
instrument that can be used to analyse the medium-term effects of policies on different aspects of well-being over the following five years. Motions from Dutch Parliament have also indicated interest to integrate well-being into the budget preparation process (The House of Representatives of The Netherlands, 2022[101]).

Finally, New Zealand has published a Well-being Budget every year since 2019, when the Treasury's Living Standards Framework and accompanying dashboard was used alongside expert consultation and cross-Ministry deliberation to inform the selection of five well-being policy areas for budgetary prioritisation and cross-cutting investment. Since 2019, the New Zealand Treasury has continued to develop its methods for applying well-being evidence in the budgetary process, accompanied by institutional reforms to encourage more coordinated, long-term funding for priority issues (see Box 6 for more detail).

Box 6. New Zealand's Well-being Budget methodology

New Zealand's Well-being Budget methodology, first adopted in 2019, aims to integrate well-being evidence and considerations throughout each stage of the budgeting process (see Figure 15). To support strategic reflections on Budget priorities, the New Zealand Treasury developed a Living Standards Framework dashboard, which was adapted from the OECD Well-being Framework (OECD, 2019[55]) – and covers indicators across 12 domains of current well-being as well as human, social, natural, and financial and physical capital. The dashboard was released towards the end of 2018, and used to inform analysis to identify a longlist of 12 well-being priorities for the 2019 Budget. The Government Cabinet then selected a final list of 5 well-being budget priority areas after an extensive process of expert consultation and cross-Ministry deliberation: transitioning to a sustainable and low-emissions economy; harnessing the social and economic opportunities of digital technology; lifting Māori and Pacific incomes, skills, and opportunities; reducing child poverty and improving child well-being; and supporting mental well-being for all New Zealanders (New Zealand Government, 2018[102]).

Figure 15. New Zealand's Well-being Budget process



Source: New Zealand Government (2018[102]), New Zealand Budget Policy Statement 2019.

Accompanying Treasury guidance explained the implications for agency budget proposals, including criteria for justifying spending initiatives in terms of their contribution to the five policy priorities or another aspect of well-being (with reference to Living Standards Framework measures) as far as possible.[3] In addition, ministers were asked to identify 1 percent of the spending in their portfolio that was not aligned with well-being for potential reallocation to priority areas, and agencies preparing budget proposals were instructed to show "evidence of cross-agency and/or cross-portfolio collaboration" for new initiatives (New Zealand Treasury, 2018[76]).

The final 2019 Well-being Budget directed all new annual spending towards the five priority areas, representing about 4 per cent of total government expenditure[4] (New Zealand Treasury, 2019[103]; OECD, 2019[55]). In addition, it included a Well-being Outlook document, summarising performance on LSF measures, as well as a special budget report on child poverty with accompanying targets for child poverty reduction. This marked the first time that target-setting on an aspect of well-being outside of fiscal and economic targets had been integrated into New Zealand's budget process (Huang, de Renzio and McCullough, 2020[104]). Since then, New Zealand has continued to release annual Well-being Budgets on this model (New Zealand Government, 2020[105]; 2021[106]; 2022[77]).

The New Zealand Government approaches its well-being budgeting practice as an ongoing learning process, with the understanding that embedding new concepts and approaches will take time and investment. Accordingly, from 2019, it accorded a portion of the well-being budget to refining the LSF and reviewing the dashboard; to building the data, evidence, and research base; and embedding well-being in the public service through capacity-building, analytical development, and legal reform (Huang, de Renzio and McCullough, 2020[104]). For example, in 2020 an amendment to the Public Finance Act 1989 introduced new requirements for the Government to report annually on its well-being objectives in the Budget, and for the Treasury to report every four years on the state of well-being in New Zealand (New Zealand Parliament, 2020[67]). The Treasury published the first of these well-being reports in 2022 (New Zealand Treasury, 2022[68]). Other examples of the evolution of well-being budgeting and policy practice in New Zealand since 2019 include:

- *The development of the He Ara Waiora framework* (New Zealand Treasury, 2021[107]) as a complementary approach to the Living Standards framework, reflecting Māori cultural values and priorities for well-being. He Ara Waiora and the Living Standards Framework are increasingly being used side-by-side in policy advice, analysis and budgetary priority-setting in New Zealand (New Zealand Treasury, 2023[108]).
- *A new approach to evaluating the value for money of proposed Budget investments, including their effects on well-being* (New Zealand Government, 2022[77]). This approach, developed for the 2022 Well-being Budget, helps to identify the highest-value investments required to both meet immediate needs and tackle long-term challenges to well-being, and incorporates information in three areas:
    - Value: The well-being impacts and outcomes of proposed initiatives, drawing on relevant evidence. Agencies provide information on the rationale, intervention logic, inputs, outputs, and goals of their proposed initiatives, as well as a consideration of the distributional impacts for Māori, Pacific peoples and children. The Living Standards Framework and He Ara Waiora both support this analysis.
    - Alignment: The extent to which proposals support the Government's well-being objectives, goals, and cross-government strategies.
    - Delivery: Information that can provide confidence that initiatives will meet their objectives, such as well-defined outputs, costings, assurances of effective delivery and monitoring and evaluation.

- Institutional reform of the public finance system to better address complex, multi-generational challenges and facilitate longer-term investment. The 2019 Well-being Budget marked the introduction of a rolling multi-year capital allowance, using a four-year funding envelope, rather than a single-year allowance. This approach aimed to strengthen government flexibility to meet medium-term investment objectives while ensuring the achievement of the near-term fiscal strategy (New Zealand Treasury, 2022[109]). The 2022 Budget added to this approach with a focus on long-term funding for well-being priorities including adopting a multi-year funding cycle for health services, establishing the enduring, multi-year Climate Emergency Response Fund, and continuing to undertake spending reviews to examine key areas of spending (New Zealand Government, 2022[77]).
- *The piloting of a clustered approach to facilitate joint agency action for key well-being policy areas*, with an initial focus on the Justice and Natural Resources sectors in the 2022 Well-being Budget. The Clusters are intended to support inter-agency collaboration, help Ministers to collectively direct spending and make trade-offs across related areas, support medium-term planning, and put a greater focus on value for money. As part of Budget 2022, agencies and Ministers in each cluster were required to:
  - Identify priorities to inform where they should focus their collective effort over the following three years, and to support investment decisions
  - Participate in a review of the efficiency, effectiveness, sustainability and resilience of current spending, and determined future funding requirements
  - Develop joint spending proposals covering Budgets 2022-2024 to provide greater funding certainty in the medium term (New Zealand Government, 2022[77]).

3.3.2. Policy appraisal and evaluation

Implementing broader strategic processes of well-being planning and priority setting, including the budgeting practices outlined above, requires adapted tools and methods for appraising, analysing and evaluating different policy options and programme outcomes. For example, some agencies have made advances in adapting cost-benefit analysis (CBA) and well-being valuation methods to integrate well-being considerations into the analysis of trade-offs between different policy and programme options, others are strengthening modelling and forecasting techniques to more accurately predict the potential impact of government policies and decisions on societal outcomes, and others are developing new well-being impact assessment and evaluation methods.

- **Well-being valuation methods and cost-benefit analysis**
  - The United Kingdom has been developing well-being valuation methodology for policy use for many years, and in 2020 the Treasury updated its core reference guide for policy appraisal and evaluation (the Green Book) to enhance the pre-existing guidance on well-being (HM Treasury, 2020[110]), followed by the release of supplementary guidelines on well-being analysis in 2021 (HM Treasury, 2021[111]). Broadly speaking, the guidance presents a two-step method for monetising well-being impacts in policy appraisal, where sufficient supporting evidence is available (HM Treasury, 2021[111]). First, reasonably robust estimates of the causal impact of a given outcome on subjective well-being levels (typically measured as a change in life satisfaction scores on a 0 to 10 scale) need to be obtained and translated into WELLBYs (well-being adjusted life years). The WELLBY is defined as a one-point change in life satisfaction on a 0 to 10 scale, for an individual for one year. In a second step, the resulting change in life satisfaction (expressed in WELLBYs) can be converted to a monetary value by multiplying by 13 000 GBP. This is the recommended standard value of one WELLBY in 2019 prices and values, based on a widespread and robust evidence base, and representing the midpoint

between low estimates (10 000 GBP) and high estimates (16 000 GBP) (HM Treasury, 2021[111]). This method has been widely applied across the United Kingdom government. For example, the Levelling Up White Paper described later in this section, uses the WELLBYs approach to estimate that raising the bottom 25% of places to the United Kingdom average life satisfaction score would be worth between 57 billion and 92 billion GBP (UK Department for Levelling Up, Housing and Communities, 2022[112]).

- Slovenia has also been making efforts to strengthen its analytical capacities for multi-dimensional policy evaluation based on a well-being framework. This work has been led by the Slovenian Ministry of Labour, Family, Social Affairs, and Equal Opportunities (MOLFSAEO) with technical support from the OECD (Murtin et al., 2022[113]). Part of this collaboration focused on developing more nuanced policy impact analyses to better integrate well-being considerations into political decision-making. The resulting methodology uses the equivalent income approach[5] to assess the impact of policy reforms on a welfare index that aggregates two key dimensions of well-being: employment and household income. This methodology allows the calculation of the net impact of policy trade-offs when a structural reform raises employment but lowers household income, or vice-versa. It also highlights the channels through which policy reforms have the largest impact on people's well-being in these two areas and can be used by the Ministry's analytical unit to inform relevant and ongoing policy discussions.
- The New Zealand Treasury has developed an adapted cost-benefit analysis tool, CBAx, in 2015 in order to help agencies take a consistent approach across government to cost-benefit analysis, including common values and assumptions; take a long-term and broad view of societal impacts, costs and benefits; rigorously assess these by monetising and discounting impacts, where possible, and; be transparent about the assumptions and evidence base (New Zealand Treasury, 2023[114]). The CBAx spreadsheet currently includes over 270 values for different social impacts, derived from market valuations, revealed preferences, discrete choice experiments, contingent valuation and values inputted by departments themselves. A sub-set of values (around 60) come from the Australian Social Value Bank, which estimates the impact of different social outcomes and the impact of income on people's subjective well-being (via life satisfaction measures), and then uses these estimates to calculate the exact amount of money that would produce the equivalent impact on subjective well-being as the outcome in question (Australian Social Value Bank, 2023[115]). The New Zealand Treasury recognises that well-being informed cost-benefit analysis can only be one of many inputs into the decision-making process. Where possible, CBAx results are used together with non-monetised impact assessments and broader evidence and assumptions to inform value for money (see above) advice, which is then considered alongside wider issues such as strategic alignment with political priorities (New Zealand Treasury, 2022[116]). An independent evaluation concluded that the existence of CBAx improved the quality of Treasury advice, leading to improvements in problem definition and identification of impacts, boosting the proportion of initiatives that used quantitative analysis, and increasing the transparency of explanations of assumptions made (New Zealand Institute of Economic Research, 2018[117]).

- **New modelling and forecasting techniques**
  - In Italy, to strengthen the use of the 12 headline Equitable and Sustainable Well-being (ESW) indicators in budgetary reporting, the Italian Ministry of Economy and Finance has sought to develop appropriate modelling techniques, including with the technical support of the OECD (Murtin et al., 2022[118]). This work focused on 3 of the 12 ESW indicators: healthy life expectancy, overweight and obesity, and early school leaving. For each indicator, a model was developed to help make projections on future trends as well as build policy scenarios that compute the impact of policies on the three well-being indicators. The project resulted in macro-

economic models of life expectancy at birth and of the rate of early school leavers with a very high explanatory power, and micro-economic models for being in good health or being overweight with a moderate explanatory power. To develop the models for each ESW outcome, the list of input determinants was established via a thorough literature review. Input determinants were then organised in a coherent way and mapped with policy areas. Overall, the results of the analytical work highlight the large scope for policy intervention to improve ESW outcomes, as well as the multiplicity of policy levers across different sectors.

- **Well-being impact assessments and evaluation**
  - In Canada, the Gender-based Analysis Plus (GBA Plus) method has been used for over two decades, although efforts to mainstream its use – particularly in the budgeting process - have intensified since 2016 when the government committed to gender-based analysis of budgetary measures in Budget 2017 and all future (Department of Finance Canada, 2021[27]). GBA Plus is an analytical process through which systemic inequalities by gender and other intersecting characteristics such as race, ethnicity, religion, age, and mental or physical disability are systematically considered through all stages of policy and programme development, implementation, monitoring and evaluation (Government of Canada, 2023[119]). Canada's recently developed Quality of Life Framework has provided a way to broaden this analysis and in the 2021 and 2022 budget processes, impact assessments were produced to assess both who is most affected and the nature of the impacts at a high level through the combined use of the GBA Plus tool and the Quality of Life Framework (Department of Finance Canada, 2021[89]).
  - In the Australia Capital Territory (ACT), the state government has developed a well-being impact assessment template to help plan for and make decisions based on a fuller understanding of the impacts of proposals (including both co-benefits and trade-offs) on well-being in the region. The well-being impact assessments were used in Cabinet and Budget processes for the first time in 2021-2022, with concerted efforts to inform and train civil servants on their use (ACT Government, 2023[120]).
  - The Magenta book, the United Kingdom Treasury's core reference on policy evaluation, emphasises that evaluation should be considered early and embedded in the design of interventions to maximise opportunities to collect good evidence on well-being (HM Treasury, 2020[121]). To this end, the United Kingdom What Works Centre for Well-being provides resources and support for both governmental and non-governmental agencies to increase the use of well-being metrics and frameworks in programme evaluations. Four measures of subjective-well-being from the Office of National Statistics - life satisfaction, happiness, anxiety and feeling that life is worthwhile - (known as the ONS4) are being widely used across government departments as well as the private sector and third sector organisations to evaluate effectiveness across a variety of intervention types, including community-centred approaches, skills training, volunteering, physical activity, social care, advice and support, and arts and culture (Musella, 2020[122]). For example, the National Citizen Service is a government-backed programme open to 15- to 17-year-olds across England, Wales and Northern Ireland intended to encourage the development of personal skills and cooperative action with a view to promote a more cohesive, responsible and engaged society. Well-being evaluation shows that participation in the programme led to statistically significant positive impacts against all four of the ONS subjective well-being measures, including an 11% reduction in anxiety levels 12 months after completing the programme (What Works for Well-being Centre, 2014[123]).

3.3.3. Strategic coordination and performance management

Numerous countries are also employing a well-being approach to underpin high-level strategic coordination and priority-setting exercises, such as through performance frameworks (including key performance indicators), inclusive growth strategies, and national development plans. In this context, well-being

frameworks set out a clear, shared, and measurable vision of the goals a country wants to achieve, thus supporting coordinated action across different departments and levels of government, and to structure engagement across different sectors and groups of society. Examples include:

- **Performance frameworks and priority-setting**
  - Iceland established a set of 39 well-being indicators in 2019 in order to provide a more complete view of prosperity in the country beyond GDP (Government of Iceland, 2019[124]). At the end of 2019, the Ministerial Council on Fiscal Affairs conducted a prioritisation exercise on the basis of the well-being indicator framework to inform the government's five-year fiscal strategy and annual budget. It ranked the 39 indicators by taking into account a number of considerations including the results of a survey on Icelandic people's priorities, the extent to which government policy could influence outcomes within the timeframe, and the impact on established government goals such as gender equity and rural development. As a result, it identified six well-being priorities for the 2021–2025 Fiscal Strategy: mental health, secure housing, better work-life balance, zero carbon emissions, innovation growth, and better communication with the public. This shifted national money allocation towards the achievement of these goals, and by 2021 these priorities steered 30 of the government's 35 policy areas (Birkjær, Gamerdinger and El-Abd, 2021[125]).
  - The Scottish government's National Performance Framework is another long-standing example focused on well-being, first published as part of the 2007 Spending Review. It has impacted structure and working methods of the Scottish public sector by providing a set of objectives, and accompanying indicators, around which departments and agencies, at central government and local level, aim to be aligned (Scottish Parliament, 2022[72]). Scottish Ministers are required to consult on, develop and publish a new set of National Outcomes for Scotland, and to review them at least every five years, and the outcomes approach is enshrined in law regardless of the political party in power (see above). The current version is based on 11 outcomes that reflect the values and aspirations of the people of Scotland, which are underpinned by 81 well-being indicators (Scottish Goverment, 2023[126]).
  - In Japan, the Basic Policies for Economic and Fiscal Management and Reform document, released in June 2021, stated that "Key performance indicators (KPIs) related to well-being should be established for various government basic plans" (Japan Cabinet Office, 2021[127]). Since then, the concept of well-being has become established in the public policy agendas of central ministries and agencies, and efforts are being devoted to understanding how well-being KPIs could be best employed in the Japanese national and local context. In July 2021, a Liaison Conference of Relevant Ministries and Agencies on Well-being was established to share information, strengthen cooperation and horizontally deploy good practices in order to promote initiatives on well-being (Government of Japan, 2021[78]). The 11 Ministries participating in the Liaison Conference have drafted plans, including Key Performance Indicators for achieving well-being (Government of Japan, 2021[78]). In addition, the Japanese Cabinet Office has conducted an annual Survey on Satisfaction and Quality of Life since 2019, with the aim of gaining a multifaceted understanding of the structure of Japan's economy and society and to make use of this understanding in policy management (including through the use of the data to inform the Cabinet Office's KPIs). The survey measures 'overall life satisfaction' as a summary indicator of subjective well-being, and also incorporates sector-specific levels of satisfaction that are complemented with objective indicators and presented in a Cabinet Office Well-being Dashboard spanning 11 well-being dimensions (chosen with reference to the OECD Well-being Framework) (Japan Cabinet Office, 2022[128]). In addition to national levels and trends, the data also allow for inter-regional comparisons, and are thus also intended for use by policy planners in local authorities (Japan Cabinet Office, 2022[128]).
- **Inclusive growth and cross-cutting government strategies**

- The 2022 flagship White Paper "Levelling Up the United Kingdom" set out a comprehensive and whole-of-government vision for reducing geographic disparities across a range of policy areas (UK Department for Levelling Up, Housing and Communities, 2022[112]). The Levelling Up White Paper is underpinned by a capitals framework encompassing six dimensions - physical, intangible, human, financial, social and institutional capital - intended to capture the main drivers of key economic and social outcomes, including subjective well-being. It uses this framework to set out 12 missions and accompanying policy targets and metrics, all focused on the ultimate twin aims of boosting productivity and well-being across all national regions. The indicators employed to measure progress in the Levelling Up strategy draw in part on the Measures of National Well-being dashboard of the UK Office of National Statistics (ONS) (UK Office for National Statistics, 2019[129]). Mission 8 focuses explicitly on the goal of improving well-being in every area of the UK, with the gap between top performing and other areas closing, by 2030 (UK Department for Levelling Up, Housing and Communities, 2022[130]). However, core well-being principles such as employing multidimensional and people-focused outcome measures (including measures of subjective well-being), supporting cross-sectoral collaboration, and reducing inequality are present across the entire strategy. Additionally, the Levelling Up White Paper makes clear statements on resource allocation implications, stating the necessary funding for achieving its missions, and explaining how the strategy will be monitored and aligned with existing expenditure monitoring procedures. In particular, it addresses how sub-national data will be embedded in a more consistent and regular way when tracking United Kingdom Government spending and impact.

- **National development plans**
  - National development planning has seen a resurgence in recent decades, in part in response to the United Nations 2030 Agenda and countries' need to align national development aims with the achievement of the 17 Sustainable Development Goals (Chimhowu, Hulme and Munro, 2019[131]). The Sustainable Development Goal framework itself embodies many aspects of a well-being approach, with a vision of progress that is multidimensional and centered on inclusive and sustainable outcomes for people and the planet. In addition, key performance indicators on well-being are often integrated with the plans to monitor progress in a transparent and quantifiable manner. Recent examples of national development plans that have taken this approach to state medium- or long-term national well-being objectives and indicators in the context of the 2030 Agenda include Colombia (2018-2022 and 2022-2026) (Government of Colombia, 2019[132]; 2023[133]), Ecuador (2017-2021) (Senplades, 2017[134]), Paraguay (2014-2030) (National Government of Paraguay, 2014[135]), and Slovenia (2017-2030) (Slovenian Government Office for Development and European Cohesion Policy, 2017[136]). Latvia 2030 is also a pioneering example that predates the 2030 Agenda, launched in 2010 and forming the basis of subsequent national plans (Republic of Latvia, 2020[137]).

3.4. Applying a systemic 'well-being lens' to specific sectoral issues to achieve "triple wins" or positive synergies across multiple policy objectives

As described earlier in this section, implementing well-being frameworks in policy making often includes taking a broader but also more granular view of what matters for people's lives and patterns of inequality; employing more collaborative working methods across government departments and sectors of society; and applying a longer-term view that considers the needs of future generations alongside current priorities. In addition to whole-of-government strategic processes, these approaches can also be used to address specific policy issues or sectoral challenges, which the OECD refers to as applying a 'well-being lens' (OECD, 2019[64]). Applying a well-being lens to policy challenges can facilitate new ways of understanding, analysing, and tackling problems that help overcome policy silos and support more effective and integrated

solutions. In particular, a well-being lens can be used to address an issue in a more systemic manner that encourages the identification of positive synergies across multiple policy areas.

For example, *COVID-19 and Well-being: Life in the Pandemic* (OECD, 2021[26]) explored the well-being impact of the pandemic and identified priorities to place the well-being of current and future generations front and centre in COVID-19 recovery strategies. It provided a series of examples, based on existing policy approaches in OECD countries, of how a well-being lens could be used to shape a more comprehensive and balanced approach, by helping governments to:

- **Refocus** – focusing government action on what matters most to the well-being of people and society, building on evidence about both current and future well-being outcomes, as well as inequality of opportunity across all dimensions of people's lives.
- **Redesign** – designing the content of individual policies in a more coherent and integrated way that recognises interlinkages between well-being domains. This includes systematically considering potential impacts across multiple well-being objectives, inclusion, and sustainability, rather than focusing on a single (or very narrow range of) objective(s) "here and now" independently of others.
- **Realign** – aligning the system of government such that it is better able to collaboratively work towards societal priorities, by shifting the focus from narrower outputs of individual departments towards shared outcome-based objectives.
- **Reconnect** – strengthening the connections between government, the private sector and civil society based on a joint understanding of what well-being means and how it can be improved.

Concretely, it introduced the concept of "triple wins", referring to synergistic policy solutions that simultaneously aim to improve *current*, *distributional* and *future* well-being outcomes. While recognising that every country context is different, and no one-size-fits-all policy solutions to improve societal well-being exist, it provided illustrative examples of recovery channels that can simultaneously contribute to addressing current well-being concerns, promoting equal opportunities, and improving future well-being outcomes in the wake of the pandemic ("triple win channels"). Examples of such channels are:

- Supporting the creation of sustainable, inclusive and high-quality jobs
- Using lifelong learning to reduce inequalities of opportunity
- Strengthening mental and physical health promotion and prevention
- Using a whole-of-government approach to raise the well-being of disadvantaged children and young people
- Reinforcing trust by strengthening public sector competencies and values, and by encouraging meaningful citizen participation.

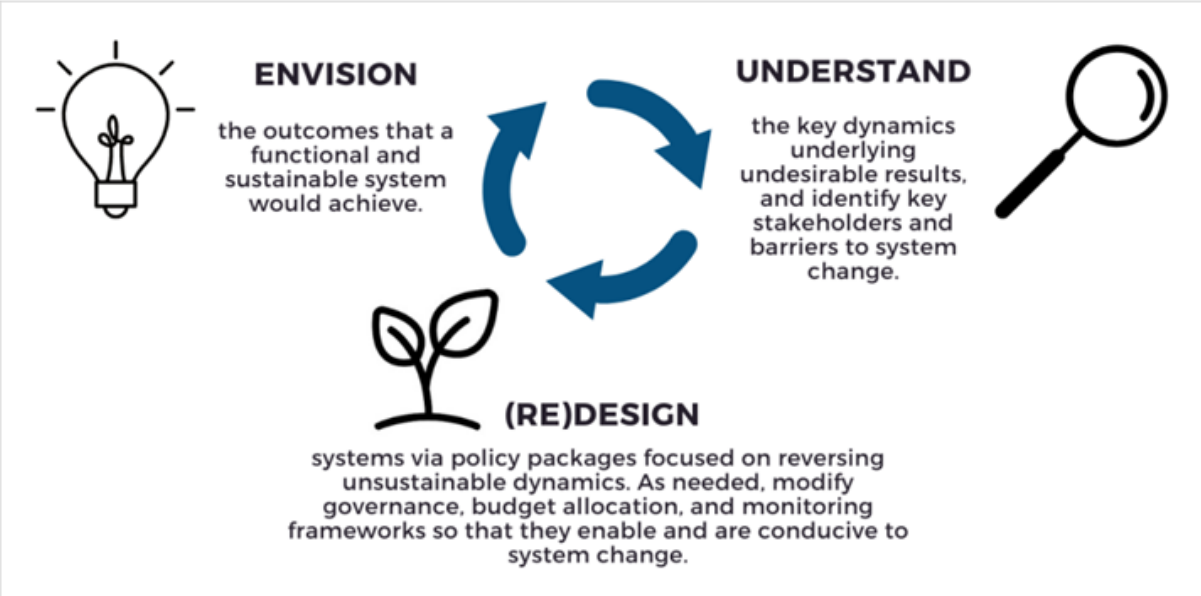
These "triple win" channels point to the value of embedding broader outcome-based frameworks across government that encourage more systematic consideration of the range of outcomes that shape societal well-being throughout policy development and implementation. The examples further illustrate how a well-being lens can help draw policy attention to important determinants of societal well-being that often remain unaddressed (e.g. the importance of social connectedness for mental and physical health outcomes). Applying a well-being lens also encourages broadening other policy tools and frameworks that determine what has value for public investment (e.g. cost-benefit analysis, the system of national accounts). Lastly, the examples illustrate how taking a wider well-being lens can support a more preventative approach to public policy by systematically considering well-being both today and tomorrow.

Other OECD work has applied a well-being lens to identify integrated and synergistic solutions for climate change and sustainability policy, and for mental health. *Accelerating Climate Action: Refocusing Policies through a Well-being Lens* (OECD, 2019[64]) argued that climate mitigation policies are likely to be easier to implement politically, economically and socially – and in a more cost-effective manner – when there is two-way alignment between climate action and the broader goals of human well-being and sustainable

development, such as reduced air pollution and improved health. At the same time, the impact of climate policies on issues such as the affordability of energy and jobs need to be taken into account to counter growing economic and social inequalities within and between countries. The report uses a well-being lens to rethink policy goals across five sectors - electricity, heavy industry, housing, surface transport, and agriculture – to maximise positive synergies and anticipate, manage and minimise negative trade-offs between climate action and broader well-being objectives.

Subsequent work built on the well-being approach to emphasise systems thinking for more sustainable transport. *Redesigning Ireland's Transport for Net Zero: Towards Systems that Work for People and the Planet* (OECD, 2022[138]) presented a 'systems innovation for net zero process' consisting of three steps: i) *envisioning* the outcomes that a well-functioning systems would achieve; ii) *understanding* why the current systems do not achieve such outcomes; and iii) *redesigning* the system via policy packages focused on reversing unsustainable dynamics (Figure 16). In the context of the Irish Transport sector, this process implies prioritising policies that address the root of people's preference for driving, and transitioning to car independent systems by ensuring that more sustainable modes of transport (walking, cycling, micro-mobility and public transport) become the most convenient option for most people. In this way, such systems could not only drastically reduce emissions but also improve equity (e.g. by increasing accessibility for women, who rely more on public transport and walking than men do), health (e.g. reducing pollution and increasing physical activity), creating job opportunities, and quality of life more broadly (OECD, 2019[64]).

Figure 16. The OECD Systems innovation for net zero process



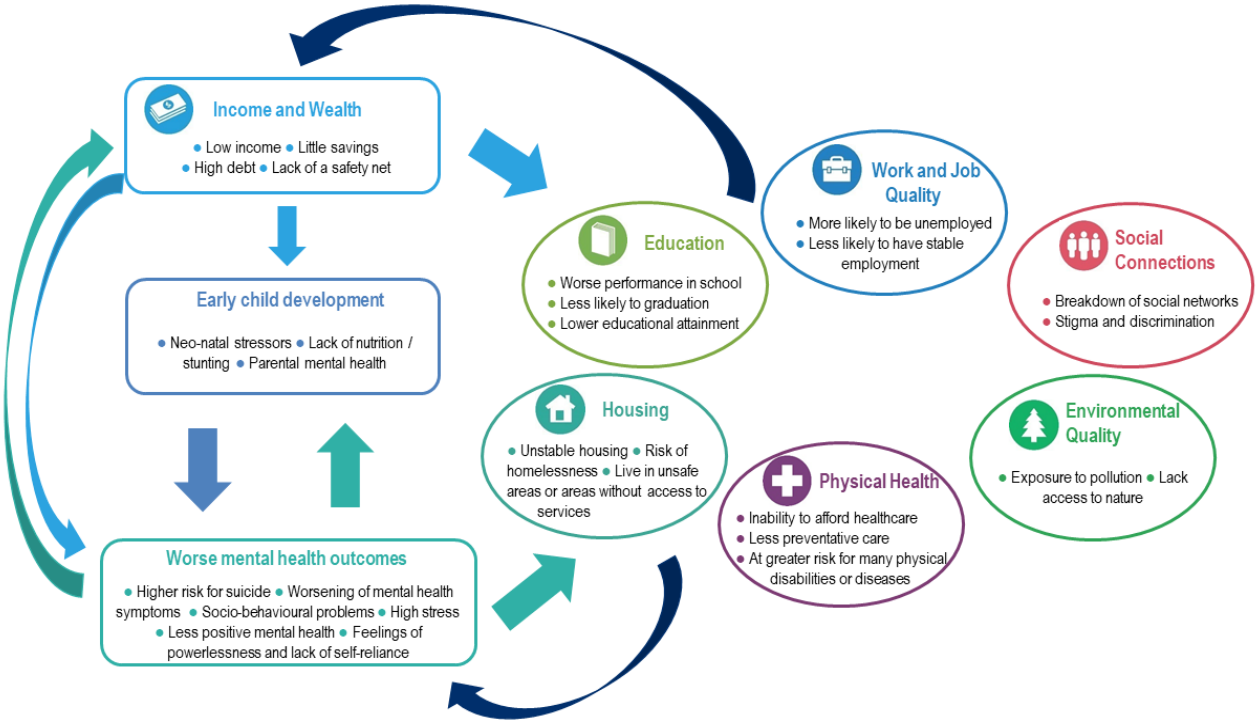
Source: OECD (2022[138]), *Redesigning Ireland's Transport for Net Zero: Towards Systems that Work for People and the Planet*, https://doi.org/10.1787/b798a4c1-en.

Finally, the OECD's current project on *Mental health and Well-being* (OECD, 2023[139]) recognises that mental health is intrinsically tied to many other aspects of people's wider well-being beyond the reach of the healthcare system, and is a policy issue that particularly benefits from a whole-of-government or integrated approach. This was underscored during the COVID-19 pandemic, when direct health impacts and loss of lives combined with social isolation, loss of work and financial insecurity all contributed to a significant worsening of people's mental health. Already, well before the pandemic hit, it was estimated that half of the population would experience a mental health condition at least once in their lifetime and the

economic costs of mental ill-health amounted to more than 4% of GDP annually (OECD, 2021[140]). Positive mental health, or having high levels of emotional and psychological well-being, is also increasingly being recognised as policy target in its own right by health and other government agencies across the OECD (OECD, 2023[54]).

Drawing on the OECD Well-being Framework, the OECD project on *Mental health and Well-being* is systematically reviewing how people's economic, social, relational, civic and environmental experiences (and inequalities in these) shape and are, in turn, shaped by their mental health. For example, Figure 17 shows the mapping of the complex well-being and mental health interlinkages in the context of income and wealth. In European OECD countries, almost 70% of people with mental distress say they have some difficulty, difficulty or great difficulty making ends meet, more than 20 percentage points more than those without mental distress (OECD, 2023[54]). Indeed, analysis of data for European OECD countries, shows that people with mental distress, and those with poor psychological well-being, fare far worse in every single dimension of the well-being, ranging from material deprivation, lower quality of life and worse relational outcomes. In addition, multiple regression analysis suggests deprivations in each well-being area remain a significant independent predictor for mental distress even when controlling for other well-being deprivations and a range of demographic factors (OECD, 2023[54]).

Figure 17. Mapping the interlinkages between income and wealth and mental health through a well-being lens.



Source:OECD (2023[54]), *Measuring Population Mental Health*, OECD Publishing, Paris, https://doi.org/10.1787/5171eef8-en.

Taking a holistic view of an issue with such wide-ranging drivers, impacts and outcomes as mental health may initially seem overwhelming, but a well-being lens, underpinned by a clear conceptual framework, can help to clarify the relationships, trade-offs and synergies between different areas in a structured way. This evidence in turn can help identify policy interventions that can jointly improve both mental health and other

well-being outcomes, to make the case that integrating mental health considerations can also benefit the goals of other sectors. Examples include:

- *Education:* Recognising that about half of all mental disorders are estimated to start in adolescence, and that young people emerged as a new risk group for mental distress during the COVID-19 pandemic, education systems can incorporate social and emotional learning (SEL) directly into national school curricula. SEL enables young people to recognise and manage emotions, build and maintain positive relationships, and deal with conflict. SEL programmes also improve mental health and confidence, reduce bullying and interpersonal conflict, improve academic performance, and in the long term are associated with lowered crime and higher lifetime earnings (OECD, 2021[141]).
- *Housing and homelessness*: A history of depressive episodes, psychiatric problems, substance use, and suicide attempts increases the risk of homelessness, while homelessness itself can heighten the risk for developing a mental health condition or worsen an existing one. 'Housing First' models, which have so far been implemented in 21 OECD countries through either national or regional programmes, aim to provide tailored, intensive support for homeless people with high and complex needs (including mental illness) by placing them in permanent, immediate housing and enabling them to exercise control over their support services, including access to mental health support (Pleace, Baptista and Knutagård, 2021[142]). Housing First provides an alternative approach from models that make access to accommodation contingent on the completion of counselling or treatment programmes. Housing First has been shown to promote greater housing retention among the chronically homeless, and there is promising evidence on improvements around mental health, addiction, social integration and with respect to cost effectiveness although better data are needed in these areas (OECD, 2021[143]; Pleace, Baptista and Knutagård, 2021[142])..
- *Debt management:* Debt is a particularly strong predictor for poor mental health outcomes (ESRC Centre for Society and Mental Health, 2022[144]).The Treasury in England and Wales has launched 'Breathing Space', a debt management initiative whereby debtors who are also receiving mental health crisis treatment can request respite from creditor action for the duration of the crisis treatment plus an additional 30 days (UK Government Insolvency Service, 2022[145]).

Next steps for OECD work in this area include the development of a Well-being Knowledge Exchange Platform (Box 7). This aims to catalyse experience sharing around the types of initiatives described throughout this section (including what works, and what does not) and to foster the further development of effective tools and policy practices to better integrate well-being evidence throughout the policy cycle.

Box 7. The OECD Well-being Knowledge Exchange Platform: to catalyse peer learning and further develop well-being policy practices

The systematic integration of evidence from multidimensional well-being dashboards is a rapidly developing but still relatively new area of public policy practice. It is clear from existing initiatives that the establishment of a framework (and accompanying indicators) is just the starting point. In November 2023, the OECD launched a new **Knowledge Exchange Platform on Well-being Metrics and Policy Practice (KEP)** (OECD, 2023[2]), to draw together international examples that bring well-being evidence into policy practice and assist in their further development through peer learning and technical support.

The Platform creates a space for sharing good practice and addressing common challenges on well-being measurement and policy between governments. It provides a way to scale up and open up national and bilateral discussions to all interested OECD members, and addresses questions from three angles:

- **Measurement**: recognising that measurement is the bedrock for integrating well-being evidence into policy, it will bring together both statistical and policy perspectives on strategic issues (such as effective reporting of complex multidimensional datasets) and emerging topics related to well-being metrics.
- **Policy ecosystem**: addressing the range of supportive tools, methods and knowledge for developing and embedding the strategic policy use of well-being frameworks.
- **Well-being lens:** Understanding how a well-being lens can give a more integrated and systemic view of solutions for specific policy challenges (e.g. climate change, mental health) or sectoral issues (e.g. transport).

The Platform features a range of activities, including the development of an online resource repository, providing an inventory of country experiences and relevant OECD work; a series of structured knowledge exchange webinars and workshops, to address specific topics identified by members; and substantive research to produce case studies, methodological development and policy advice on priority topics.

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Annex A. Evidence of policy trade-offs between GDP growth and income inequality

A focus on near-term GDP growth as a guide for economic performance may lead to policy decisions that, in the medium term, contribute to growing inequalities and erosion of the social capital, as well as an accelerated depreciation of the environmental capital, in both cases, mitigating welfare gains and undermining growth sustainability. Many structural policies that lead to stronger GDP growth, do not necessarily result in higher inequality, and in several cases go even hand in hand with better overall inclusiveness. However, the benefits from stronger GDP growth can at times be concentrated among income groups or regions, leaving large constituencies behind, and leading to the erosion of social cohesion and trust vis-à-vis public institutions and policies among swathes of population.

Potential impact of inequality on the growth process

Inequality development since the mid-2010s shows the risk of falling below the relative poverty threshold of 50% of median disposable income has increased in 3 out of the 6 G7 countries for which data are available (Table 2). Increased economic hardship may also signal some weakening of the welfare state, i.e., that public redistribution through taxes and cash transfers did less to counteract the rise in market-driven economic vulnerability (Causa and Hermanson, 2017). This is likely to reflect the lower effectiveness of tax and transfers in reducing income inequality which has been observed over the last decade (see below).

Rising inequalities is not only a matter of concern from an inclusiveness perspective, but also from a growth perspective. Indeed, theory and empirical evidence suggest that inequality and poverty have a detrimental impact on economic growth. From a theoretical perspective, under-investment in human capital by the poorest of society in the presence of financial market imperfections results in low intergenerational social mobility due to talent misallocation, hence ultimately lower efficiency and aggregate output. From an empirical perspective, evidence shows that the profile of income inequality matters for economic growth. Empirical evidence finds that while income inequality in the bottom of the distribution harms growth, income inequality in the top of the income distribution could have the opposite effect.

In fact, recent work provides some support to the Schumpeterian view whereby the rise in top income shares is partly related to innovation-led growth, where innovation itself fosters social mobility at the top through creative destruction. This does not imply that the surge in top incomes documented over the last decades shouldn't be a case for policy concern. The point is that high inequality in the top of the income distribution may be less of a concern if it is a reflection of social mobility across generations, whereas it should be both an equity and an efficiency concern if it is a reflection of rent-seeking behaviour. From a policy perspective, when rents reflect policy distortions that allow high-performing incumbent firms to erect artificial barriers to competition, reforms aimed at reassessing competition at the top of the productivity distribution may be desirable on both growth and equity grounds.

Making growth more inclusive may in principle involve policy trade-offs, which may not be systematically avoided in practice. Direct trade-offs may arise in the area of fiscal policy, such as shifting from direct to indirect taxes or reducing marginal income tax rates. Structural policies may also present trade-offs, albeit

more ambiguous than in the case of tax and benefits reforms, such as reforms aimed at stimulating innovation and technological progress, including measures to reduce barriers to competition, firm entry, and entrepreneurship. Progress along these lines is fundamental to spur productivity growth but may put further pressure on the relative demand for skilled workers through skill-biased technical change, and hence contribute to rising wage inequality among workers. At the same time, insofar as such reforms also contribute to job creation, they are likely to counteract reform-driven increases in wage dispersion, with an overall ambiguous effect on disposable income inequality. Furthermore, and in a longer-term perspective, competition and innovation policies may also contribute to enhance equity, for instance if they lead to a reduction in firms' rents and undermine the market dominance of incumbents, while promoting social mobility.

Other structural policies are well-known to offer clear synergies. Such is the case for:

- Education policies: focusing on the early years, on the needs of families with school children, and on providing youth with the skills they need to get a good start in the labour market
- Skills and training: encouraging a continuous up-grading of skills during the working life in order to adapt to a rapidly evolving economy
- Labour market policies: promoting access to jobs as well as labour market integration of under-represented groups to raise job quantity and quality
- Tax and transfer systems: to achieve growth-friendly and cost-effective redistribution, that is to contain or reduce inequality without undermining incentives to work and invest, including through in-kind public transfers (e.g. public provision of health and education services)

Fiscal policy and inequality

Fiscal policy can deploy an array of instruments that can heavily affect inequality. An indication of the traction of fiscal policy in shaping the income distribution is the difference between pre- and post-tax and transfer income inequality. In all G7 countries, the post-tax and transfer Gini coefficient for inequality is significantly lower than the pre-tax and transfer Gini coefficient (Table 2). It must be noted that income redistribution is clearly not the only objective of fiscal policy in general: supporting growth by providing incentives to e.g., education, innovation and risk-taking, for instance through the provision of education and public investment, as well as ensuring macroeconomic stabilisation, are also primary objectives of fiscal instruments. Such multiple objectives need not be conflicting, as redistributive taxes and transfers is a prerequisite for automatic stabilisers to effectively work out over the economic cycle, while tax-financed public education may be viewed as a form of "active" redistribution since it is likely to reduce income inequality before taxes and transfers.

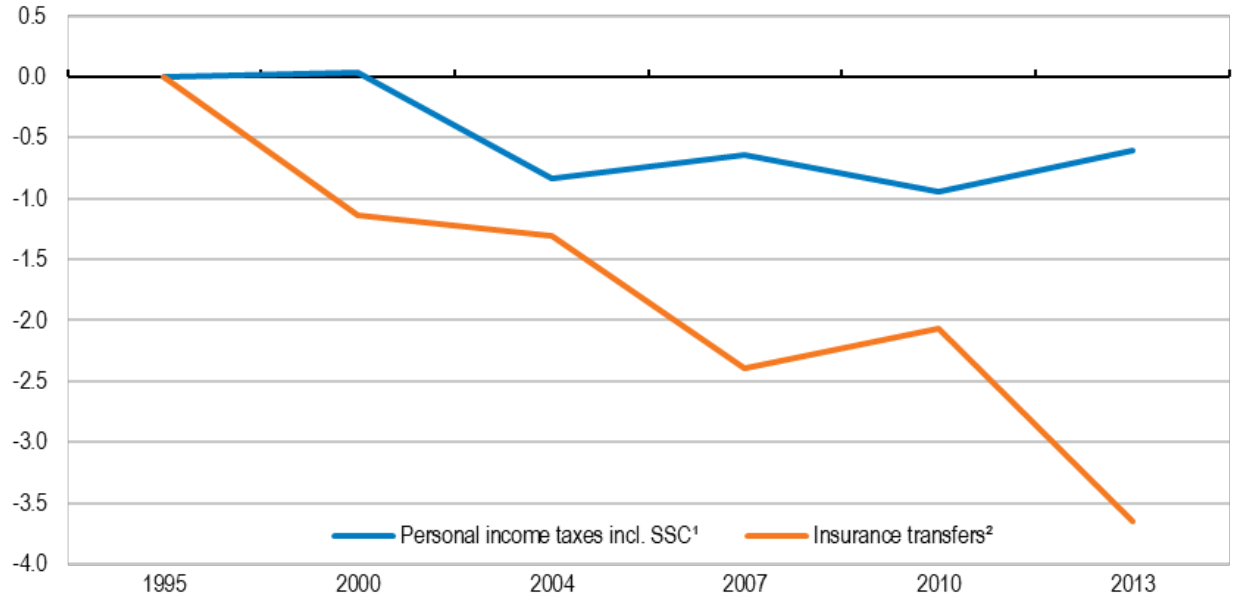
Changing settings in fiscal policy have, however, eroded gradually redistribution, with possibly adverse consequences for inequality. Two important blocks of fiscal policy illustrate this trend: changes in personal income taxation and unemployment insurance. The driving forces behind these changes have been several, but a key factor is the evidence that high progressivity and broad unemployment insurance can erode work incentives, thereby harming growth. For instance, in the case of unemployment insurance, there is a widely held view that high replacement ratios, particularly for longer unemployment durations, discourage the unemployed from taking jobs, thereby reducing the labour supply, and possibly leading to adverse effects through unemployment hysteresis.

On personal income tax, governments have generally reduced tax burdens. Both high and low-income households now face lower tax rates than 30 years ago. In the meantime, governments have also made personal income taxation less progressive, meaning that taxes on high-income households have fallen more quickly than taxes on low-income households, reducing the redistributive strength of personal income taxation (Figure A.1). Turning to unemployment insurance, replacement ratios have been reduced over

the last 20 years, particularly for longer unemployment durations, here again reducing its redistributive impact (Figure A.1). Periods of unemployment therefore imply larger revenue losses, especially when unemployment spells tend to last longer. In some countries, this has been mitigated by more redistributive assistance transfers, but this has not been sufficient to prevent insurance transfer redistribution from declining.

Figure A 1. Redistributive effects of personal income tax and unemployment benefits

Change in redistribution for the working-age population, from mid1990s, unbalanced average across selected OECD countries



Notes:
[1] Unbalanced average across 17 OECD countries.
[2] Unbalanced average across 10 OECD countries.
Source: Causa and Hermansen (2017[146]), "Income redistribution through taxes and transfers across OECD countries", *OECD Economics Department Working Papers*, No. 1453, OECD Publishing, Paris, https://doi.org/10.1787/bc7569c6-en.

While reduced redistribution has undoubtedly had a direct impact on income inequality, the consequences can also be wider, notably for the macroeconomic stabilisation properties of fiscal policy. When taxes are progressive, marginal tax rates increase with income so that higher income households face higher average tax rates than lower-income households. Applying this logic to the business cycle, where household income is relatively high in expansions but relatively low in recessions, means that the government is imposing higher tax rates in expansions than in recessions, and the more so, the higher the progressivity of taxes. In other words, government taxation revenues tend to increase faster with the pace of growth when taxes are more progressive. Everything else constant, fiscal policy is therefore more countercyclical when taxes are more progressive, because the fiscal surplus is larger in expansions and the fiscal deficit is larger in recessions.

The same applies to unemployment insurance. Unemployment insurance consists of providing an income to those who have lost their jobs, funded by contributions raised on the income of those holding a job. This type of insurance has two features. One is cross-sectional: at any given point in time, contributions from the employed fund the benefits for the unemployed. Another is intertemporal: in expansions, unemployment insurance tends to run surpluses as many people hold a job and therefore pay contributions

while the pool of unemployed who receive benefits is limited. By contrast, in recessions unemployment insurance tends to run deficits as contributions from the pool of people on the job tend to shrink while the number of people unemployed who are eligible for unemployment benefits tends to expand. The intertemporal dimension embedded in unemployment insurance schemes suggests that, wherever unemployment insurance coverage is broader, fiscal policy should be more countercyclical in the sense that the fiscal balance should move more closely with the cycle, with larger surpluses in expansions, and larger deficits in recessions.

Overall, fiscal policy with weaker redistributive traction has a direct effect on rising inequality, and in turn can have an impact on overall economic performance, by reducing governments' ability to stabilise the economy. This has three policy implications. First, this leaves few alternatives to discretionary policy in addressing major shocks. Second, rebuilding fiscal buffers when the economy is rapidly expanding and drawing down public debt has proved more difficult, as the steady rise in public debt over the last decade prior to the COVID-19 crisis demonstrate. Third, this indicates that promoting growth through improved work incentives presents a trade-off with the goal of reducing inequality, which can at the same time hamper the stabilisation properties of fiscal policy.

Monetary policy and inequality: evidence from the great financial crisis

Monetary policy has the potential to affect income and wealth inequality. The impacts through the employment channel, and subsequently on income distribution, are well-known and will not be considered here. However, it may impact inequality through other, less direct channels, notably *via* changes in returns on assets, debt interest payments and asset prices. Moreover, inequality can also influence the effectiveness of monetary policy, as less wealthy and lower-income households, with a higher marginal propensity to consume, are less likely to hold assets and more likely to be credit constrained (Box A.1).

Box A.1. Theoretical linkages between inequality and monetary policy

From monetary policy to inequality

Assessing the direct impact of monetary policy on income and net wealth inequality via interest rates and asset prices is conceptually challenging for two reasons:

- While monetary policy affects macroeconomic aggregates, which influence income and net wealth distributions, quantifying its exact impact on these aggregates is difficult, especially for quantitative easing and more generally unconventional monetary policies. This reflects, among other things, challenges with singling out pure monetary policy shocks from reactions of real and nominal variables to other shocks hitting the economy, and responses of monetary policy to these shocks.
- The direct effects of monetary policy on income and wealth inequality can go in opposite directions over different phases of a business cycle. In a downturn, monetary policy easing is expected to reduce income inequality (i.e., to lessen the downturn-related increase in income inequality). At the same time, the easing is expected to raise asset prices from downturn-induced subdued levels and thus potentially increase net wealth inequality (i.e., limit the downturn-induced reduction in wealth inequality) if rising asset prices make the distribution of net wealth more unequal. This tends generally to be the case for equities and bonds, but not for real estate. The opposite effects are expected when monetary policy is tightened in the boom phase.

With these limitations in mind, the impact of interest rate cuts on the income distribution, i.e., the income gains stemming from lower interests through reduced returns on interest-paying assets and lower debt servicing costs, depends on the relative size and distributions of assets and liabilities in the wealth distribution. When the net wealth distribution is more skewed towards high incomes than the income distribution, a fall in interest rates reduces inequality. This happens when liabilities are sufficiently large relative to assets, and liabilities are less skewed to top earners than income. This stems from lower-income households benefiting more from lower debt servicing costs. Also, inequality will decrease when assets are sufficiently large (relative to liabilities), and more skewed to top earners than income. The size of these effects will depend on the magnitude of interest rate changes.

Monetary policy can also alter the income distribution by affecting dividends, as equities are held primarily by high-income households. Lower interest rates may boost dividends over time as, ceteris paribus, firms' profits increase thanks to lower debt servicing costs and stronger economic activity. Thus, and unlike in the above with interest-paying assets, interest rate cuts can benefit households both due to higher dividends and lower debt servicing costs. In that case, an interest rate cut will always increase income inequality if liabilities and equities are more skewed toward top-earners than income, regardless of the relative sizes of equities and liabilities. However, this will not be the case for liabilities. If liabilities are more equally distributed than income, a rise in income inequality following an interest rate cut will occur if households have sufficiently more equities than liabilities.

Regarding now the effect of monetary policy on net wealth inequality, the effects of an asset price change on it will depend crucially on the relative distribution of assets and liabilities, which shape leverage across the distribution. If there are no liabilities, or if assets and liabilities are distributed in the same way (that is, leverage does not vary across the distribution), then the asset price change has no effect on the net wealth distribution. Moreover, if assets are more skewed to the top of the net wealth distribution than liabilities, a general rise in asset price reduces net wealth inequality. This stems from high leverage at the bottom of the net wealth distribution. Consequently, asset price appreciation increases net wealth for poor households more than for wealthy households.

From inequality to monetary policy transmission

Inequality can also alter monetary transmission. Indeed, households are an important channel for the transmission of monetary policy, with final household consumption accounting for more than half of GDP in G7 economies. Monetary policy easing can induce households to consume more through income, wealth, and credit-access effects, but high wealth and income inequality could potentially reduce these effects. Indeed, with higher inequality, monetary policy is transmitted relatively more to households with large asset holdings and high incomes, and thus not liquidity constrained, and with a relatively low marginal propensity to consume (MPC).

Cuts to interest rates have a priori unclear effects on income and consumption. Net income effects will depend on the relative size of debt and interest-paying assets, but also on the MPC of borrowers and lenders. It has been largely documented that borrowers, especially with high debt servicing costs and large loans, usually have a larger MPC than lenders. Cuts to interest rates will thus increase consumption. However, income and wealth inequality can reduce this effect. As high-income households generally hold most of the debt, the income effect is concentrated among households that have a low MPC. There is strong evidence which shows that higher income groups have a lower MPC. In the United States, low-income households and those with high loan-to-value ratios are more likely to increase consumption following an interest rate cut rather than pay back debt.

Cuts to interest rates through reduced policy rates and quantitative easing may also induce households to shift future consumption to the present by borrowing or reducing savings. This channel of monetary policy transmission may be affected by an unequal distribution of income. Low-income households may have a lower elasticity of inter temporal substitution, because they consume proportionately more necessities than luxury goods, and are also facing a higher credit risk, due to lower incomes and higher chances of becoming unemployed, and thus more

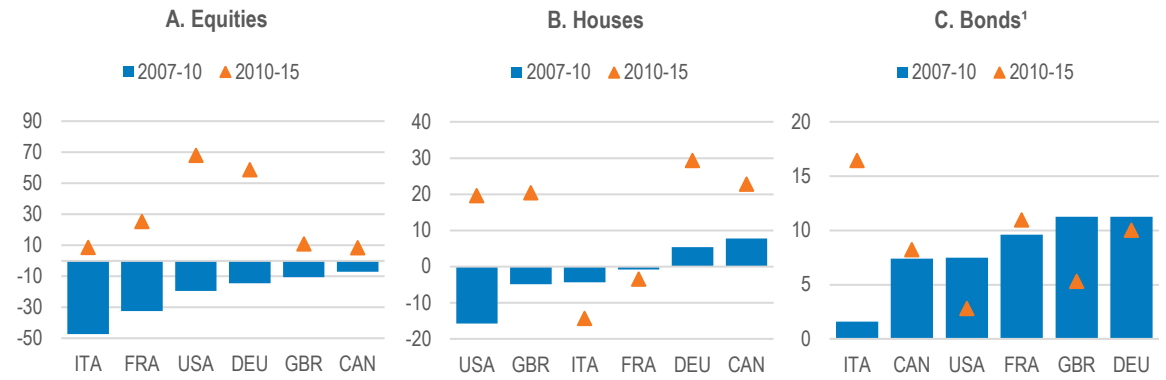
binding credit constraints. Thus, A more equal income distribution would likely imply an overall higher elasticity of inter temporal substitution, and in turn more effective monetary policy

Net wealth inequality can also interact with monetary policy transmission via changes in asset values. The increase in asset prices induced by monetary policy may prompt households to consume more, especially if such increases are perceived as permanent. It also pushes out the budget constraint of households. The wealth effect depends on the overall size of assets (and liabilities) and the nature of assets, such as housing versus financial assets, and the MPC. Wealth effects also depend on the distribution of assets as the MPC, out of wealth, declines as wealth increases. Thus, highly unequal wealth distribution can lower the effectiveness of monetary policy.

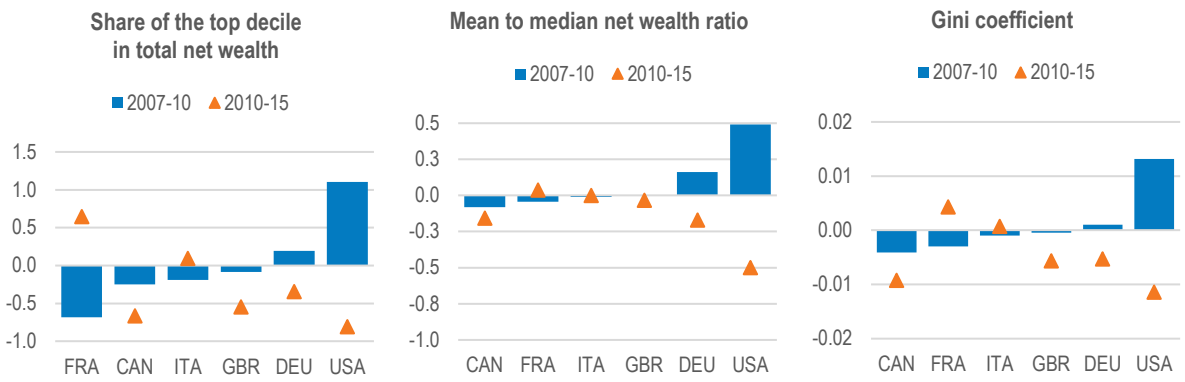
OECD countries experienced large declines in asset prices during the Great Recession, followed by strong gains in some of them, partly reflecting extraordinary monetary policy stimulus via quantitative easing. These asset price changes likely affected the net wealth distribution (Figure A.2). Between 2007 and 2010, and for countries where the value of total assets declined due to house and equity prices falls, wealth inequality is estimated to have decreased in France, Italy, and the United Kingdom, but it is estimated to have increased in the Netherlands and the United States. In the latter case, this stems from particularly high leverage of households at the bottom of the net wealth distribution, in contrast with the top of the distribution. In Belgium, Canada and Germany, total assets increased due to the rise in house and bond prices (despite falls in equity prices). This is estimated to have increased net wealth inequality in Germany but reduced it in Belgium and Canada. The differentiated outcome is explained by a more skewed distribution of real estate relative to equities in Germany than in Belgium and Canada. In all the analysed countries, implied changes in inequality measures remained relatively small, even for the Netherlands and the United States.

Figure A 2. Asset price changes during and after the Great Recession and implied changes in net wealth inequality

A. Percentage change in assets prices



B. Absolute change in net wealth inequality indicators²



Notes:
[1] Based on 5-year sovereign bonds.
[2] The change resulting from respective asset price changes as depicted in panel A.
Source: O'Farrell, Rawdanowicz and Inaba (2016[147]), "Monetary Policy and Inequality", *OECD Economics Department Working Papers*, No. 1281, OECD Publishing, Paris, https://doi.org/10.1787/5jm2hz2x9hxr-en.

Following policy interventions, the evolution of asset prices since 2010 and up to 2015 is estimated to have had the opposite effects on the net wealth distribution than in the 2007-10 period in all countries examined but in Canada, the Netherlands, and the United Kingdom. In the Netherlands, inequality continued to increase given the sustained appreciation of total assets, and in Canada and the United Kingdom inequality declined further as households in the middle of the net wealth distribution gained most from the appreciation of total assets. While bearing in mind that singling out pure monetary policy shocks is challenging, those results point to the fact the exceptional monetary policy responses put in place in the aftermath of the financial crisis had a limited impact on inequality.

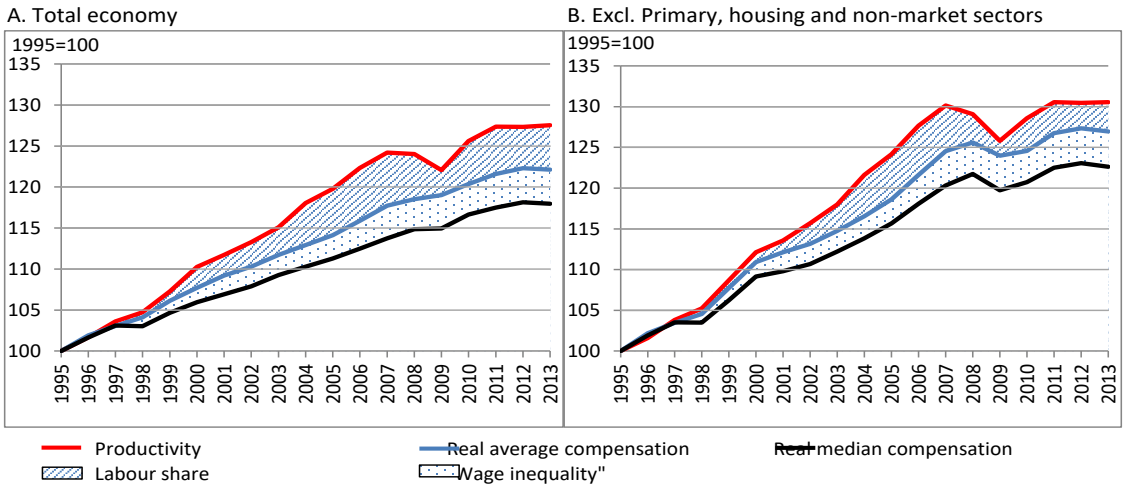
Growth, technological change, globalisation and inequality

As mentioned above, some of the key recommendations of the Stiglitz-Sen-Fitoussi Commission is to emphasise the household perspective and give more prominence to the distribution of income, consumption and wealth. Indeed, average measures of per-capita income give no indication of how the available resources are distributed across persons or households. For example, average income per capita can remain unchanged while the distribution of income becomes less equal. A conceptually simple way of capturing distribution aspects is to measure median income (the income such that half of all individuals are above that income, and half below. The median individual is, in some sense, the "typical" individual. If inequality increases, the differences between medians and averages may well increase, so a focus on averages does not give an accurate picture of the economic well-being of the "typical" member of society. For example, if all the increases in societal income accrue, say, to those in the top 10%, median income may remain unchanged, while average income increases.

Over the years, many advanced economies have been grappling not only with slow productivity growth but have additionally experienced a slowdown in real average and median wage growth relative to productivity growth, which has been reflected in a falling share of wages in GDP. At the same time, growth in low and middle wages has been lagging behind average wage growth, contributing to rising wage inequality. Together, these developments have resulted in the decoupling of growth in low and middle wages from growth in productivity, the man driver of GDP growth. Thus, GDP alone as a performance target may fall short of capturing the typical experience of individuals and households.

A look at the evolution of both the average and median wage in comparison to productivity on average across OECD countries since the mid-1990s shows that the growing market income inequality over the period has in many countries reflected both an increase in wage dispersion and a decline in the wage share (Figure A.3). This phenomenon is described as the decoupling of the wage of the typical (or median) worker from productivity. The decoupling at the macro-level reflects both a shift in the distribution of overall income from labour to capital and a growing gap between the median and mean wages.

Figure A 3. Median income growth has decoupled from productivity gains



Note: [1]"Wage inequality" refers to total economy due to data limitations.
Source: *OECD National Accounts Database*, *OECD Earnings Database.*

Previous studies on this decoupling suggest that technological change, trade integration and reforms in product and labour markets are the main determinants of decoupling. While a number of previous studies suggest that labour share developments are mainly driven by technological change (Karabarbounis and Neiman, 2014[148]; OECD, 2012[149]), others point to the importance of international trade integration (Elsby, Hobijn and Sahin, 2013[150]; Harrison, 2005[151]) and reforms in product and labour markets, such as privatisation (Azmat, Manning and Van Reenen, 2012[152]) or changes to collective bargaining (Stephen, 2016[153]). All these drivers are GDP-enhancing but may not benefit the median worker to the same extent.

Capital-augmenting technological change or technology-driven declines in equipment prices may reduce the labour share by raising capital intensity measured in efficiency terms. If factor prices are determined competitively, the labour share declines with capital intensity so long as the elasticity of substitution is larger than unity (Elsby, Hobijn and Sahin, 2013[150]). Technological change may also raise wage inequality by raising the demand for high-skilled workers. With given endowments of low- and high-skilled labour (whose stock can only be adjusted slowly over time), technological change raises wage inequality if it complements high-skilled workers but substitutes for low-skilled workers (Katz and Murphy, 1992[154]; Braconier and Ruiz-Valenzuela, 2014[155]). While skill-biased technical change can account reasonably well for changes in skill premia over time and for differences across countries, it cannot account for the disproportionate wage growth at the very top of the wage distribution documented in the previous section. Brynjolfsson and McAfee (2014[156]) argue that digitalisation leads to “winner-takes-most” dynamics, with innovators reaping outsize rewards as digital innovations are replicable at very low cost and have a global scale.

Globalisation in the form of increased trade integration may have similar effects on the labour share as increases in capital intensity (Acemoglu and Autor, 2011[157]). For instance, offshoring of the most labour-intensive stages of production or increased import competition may lead to worker displacement and an increase in capital intensity. If the aggregate elasticity of substitution between capital and labour is larger than 1, this would reduce the labour share. The cross-country evidence in Harrison (2005[151]) and the cross-industry evidence for the United States in Elsby, Hobijn and Sahin (2013[150]) are consistent with this hypothesis.

Globalisation may also raise wage inequality by disproportionately reducing the demand for low-skilled workers and by raising it for the highest-skilled workers. For instance, offshoring the least skill-intensive stages of production raises the relative demand for high-skilled workers and puts upward pressure on their wages (Feenstra, 2007[158]) while increased import competition from emerging countries that are abundant in low-skill labour may put downward pressure on low-skill wages (Ebenstein et al., 2014[159]). Moreover, globalisation may lead to the divergence of top wages if increased market access amplifies the effects of small differences in skills on revenues (Frank and Cook, 1995[160]).

Public policies and institutions may also entail the same kind of trade-offs between GDP growth and the perspective of the median worker. In an imperfectly competitive economy, the labour share does not only reflect the marginal products of the factors of production but also the distribution of monopoly rents. These rents may reflect the creation of new products and services or regulations that limit competition in product markets. Regardless of the source of these rents, workers and capital owners bargain over their distribution formally or informally.

Labour market policies such as minimum wages or collective bargaining institutions directly influence the distribution of rents between workers and capital-owners (Blanchard and Giavazzi, 2003[161]). Product market reforms may not only reduce the level of rents – which typically raises both long-run productivity and wages with no direct effect on factor shares – but also their distribution. For instance, the evidence suggests that privatisation in network industries reduces the share of rents distributed to workers because privately-owned firms have a stronger preference for profits over employment than publicly owned firms (Azmat, Manning and Van Reenen, 2012[152]; Jean and Nicoletti, 2015[162]).

Beyond directly influencing labour shares and wage inequality, public policies may shape the labour market response to longer-term structural trends such as technological change and globalisation. For instance, product and labour market institutions that efficiently match workers to jobs may help displaced workers find jobs at wages corresponding to their skills. Labour market policies and institutions may also offset the erosion of workers' bargaining position implied by technological change and globalisation.

Recent empirical evidence provided support to the view that technological changes has contributed to growing inequality through both higher wage dispersion and lower labour share (Schwellnus et al., 2018[163]). Also, the ratio of R&D spending to GDP has been found to be positively associated with wage inequality at the aggregate level (De Serres and Schwellnus, 2018[164]), while digitalisation is positively associated with higher wage dispersion between firms (Berlingieri, Blanchenay and Criscuolo, 2017[165]).

As regards the impact of globalisation, recent OECD analysis further suggests that global value chain expansion has compressed labour shares (Schwellnus et al., 2018[163]). Trade integration also appears to have played a role in increased wage dispersion. At the aggregate level, the ratio of median to average wages has been found to be negatively associated with value added imports, especially from China (De Serres and Schwellnus, 2018[164]). This could reflect the fact that increased trade integration with China has reduced labour demand more among low-skilled workers than among high-skilled workers (Autor, Dorn and Hanson, 2015[166]; 2016[167]). Evidence from micro-aggregated data further suggests that between firm wage dispersion increased in sectors that became more open to trade (Berlingieri, Blanchenay and Criscuolo, 2017[165]).

Some policy implications

These results suggest that the speed of transformation induced by trade integration and technological changes along with associated displacement of manufacturing jobs in advanced economies may have been overlooked, masked by a focus on aggregate gains as revealed by GDP growth. In particular, the geographical / spatial concentration of plant closure and job losses may have been underestimated, while the mobility of (less-educated) workers and capacity to attract new businesses in most affected regions may have been over-estimated.

This also suggests that policies looking beyond average gains may have benefited from greater emphasis on placed-based measures, on unemployment insurance systems better adapted to regional conditions, a substantial strengthening of active labour market policies, with an emphasis on re-skilling, lifelong learning, etc. Additional policies would facilitate the mobility of workers, for instance through greater flexibility in the form of support provided, allowing for retraining, moving costs or investment in start-up, but also by facilitating entry in services by reviewing licensing requirements for wide range of professions.