

# Measuring Progress: Economy, Society and Environment in Ireland



**2022**

This report is written by:

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# Introduction

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*“By providing people with opportunities for greater well-being and helping them realise those opportunities, policy-makers are not only promoting well-being as an intrinsic good, they are also investing in people’s potential as a key driver for long-term economic growth, societal resilience and stability. Similarly, by paying attention to the sustainability of well-being over time, policy-makers can maximise the potential for long-term economic growth and better protect their economies from adverse shocks. In both cases, the “Economy of Well-being” seeks to establish and sustain a “virtuous circle” in which both elements – sustainable economic growth and well-being – work together to the benefit of people and society.” (LLena-nozai, 2019, p. 8).*

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## **1.1 Wealth, Wellbeing and Happiness**

The relationship between wealth and wellbeing is filled with paradoxes. For the poor person or country, the remedy to their situation is obvious – they need more wealth. Yet, the relationship between wealth and wellbeing is not always so simple. As John Kenneth Galbraith once noted “wealth is the relentless enemy of understanding” (1958, p. 1). While increasing the production of food to feed hungry people is an example of increasing wealth which also increases wellbeing, there are numerous ways that wealth can be increase while harming wellbeing. When Adam Smith wrote that: “Consumption is the sole end and purpose of all production... [And that this] maxim is so perfectly self-evident, that it would be absurd to attempt to prove it” (1976b, p. 660) he famously assumed that the “invisible hand” of competition would ensure that increases in economic output would necessarily lead to an increase in wellbeing.

In the nearly 250 years since Smith wrote *The Wealth of Nations* (1776) the necessary conditions needed to ensure that the “invisible hand” always equates wealth and wellbeing have rarely been met and wealth has often been created at the expense of wellbeing. These possibilities were well known to Adam Smith whose primary purpose in writing *The Wealth of Nations* was to argue that merchants and businesspeople will use political influence to enact laws and regulations so that they can create wealth for themselves at the expense of the wellbeing of the public. “People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices”

(Ibid, p. 145). Most economic policy since the 1600s has been some form of a helping one group capture wealth rather than to help the country increase overall wealth and wellbeing (Clark 2021a). The linking of wealth creation and increased wellbeing usually requires a political fight.

Another way increases in wealth do not necessarily lead to improvements in wellbeing is when the additions to wealth are superfluous. This too Adam Smith understood, for wellbeing or human happiness constitute more than just higher levels of consumption. Smith referred to wealth and greatness as “mere trinkets of frivolous utility” (1976a, p. 301) and stated that the “disposition to admire, and almost worship, the rich and powerful, and to despise, or, at least, to neglect, persons of poor or mean condition, is...the great and most universal cause of the corruption of our moral sentiments. That wealth and greatness are often regarded with the respect and admiration which are due only to wisdom and virtue; that contempt, of which vice and folly are the only proper objects, is often unjustly bestowed upon poverty and weakness, has been the complaint of moralists in all ages” (Ibid., p. 126). According to Smith the false promise that riches will bring happiness is a deception that “nature imposes upon us” and that this is good because it “arouses and keeps in continual motion the industry of mankind” (Ibid., p. 303) claiming that all economic progress has its roots in this deception. This is more “sleight of hand” than “invisible hand”.

The acceptance of prioritising economic growth, regardless of the means by which it is achieved, or the effects it has, is harder to accept now than they would be in the 18<sup>th</sup> century. The great injustices that have been carried out in the name of economic progress cannot be justified just because they eventually led to an increase in the standard of living which we now enjoy. In any case, in the 21<sup>st</sup> century there is a level of scrutiny over the means used to promote economic growth, and at the more basic level of what constitutes economic growth, just as there is a broader understanding, or at least discussion, of social wellbeing and happiness. In many ways the discussion of wealth and wellbeing has come back to Aristotle’s *Nicomachean Ethics* where wellbeing is understood by the broader term of flourishing (eudaimonia) and money and money making are seen as means to ends and not as ends by themselves. This has spread to a more critical attitude of how we conceive and measure progress, particularly GDP and what is now referred to as the Beyond GDP movement.

## **1.2 Rise and Fall of GDP**

Gross Domestic Product (GDP) became the central organizing concept for economic policy when economic growth became a primary government responsibility. Before World War II governments sought wealth and riches, often for itself, or for the elites they represented, but had no real concept of aggregate economic output or income. Government policy most often consisted of a “preferential option for” whatever group that it felt was the key to its success. At the beginning of the rise of the nation-state merchants tended to dominate economic policy. This period is often called Mercantilism because of the merchant’s prominence. The merchants played a key role in carrying out the sovereign’s goal of empire building, which typically



consisted in the mass plunder of lands, resources, and people (the slave trade) outside one's own country, often on another continent, which fueled the economic growth of these nations. With the Industrial Revolution the merchants were replaced by capitalists as the preferred group, as capital accumulation was seen as the best way to promote the national interests. Capitalism's successes brought with it financial and economic instability which necessitated greater government regulation and macroeconomic interventions. Furthermore, the failure for the gains of economic progress to sufficiently "trickle-down" to the masses necessitated the creation of the Welfare State with its numerous social policies to ensure that more people benefited from economic growth, as well as the need to provide sufficient social solidarity to prevent political instability. Promoting economic growth as measured as increases in GDP became the sweet-spot in government policy as it ensured that the rich got richer (as the accumulation of capital *is* the main point of capitalism) while providing sufficient resources to fund the essential services that improved the lives of the average citizen.<sup>1</sup>

By the 1950s a growing GDP was one of the key indicators of the success or failure of the government. This belief in the benevolence of economic growth was passed onto, if not imposed upon, the newly independent countries in the 1960s. The primacy of GDP growth became the hammer, and every economic, social and political problem was reduced to being a nail, waiting for the wealth created by economic growth to redress the problems caused by 400 years of blunder. We see this clearly in the United Nations efforts to help the newly independent countries. Starting with the United Nations expert group report (UN-DEA, 1951), followed by four United Nations Development Decades (UNGA, 1961; 1971; 1981; 1991), GDP growth targets (which went up each decade) were set, with capital friendly policies proposed as the means to achieve these goals. The UN Development Decades pushed capital accumulation as the main road to development, encouraging higher domestic saving rates to fund their growing capital needs (Clark 2021b). Encouraging poor countries to save more to fund capital accumulation is self-serving for it shifts the responsibility of funding development onto the poor, and it ignores the reality that much of the savings of poor countries flow to the Banks and Stock Markets in the rich countries. This reached its logical conclusion (or height of absurdity) when the IMF's<sup>2</sup> (International Monetary Fund) structural adjustment policies forced indebted countries to cut health and education budgets so that indebted governments could better pay their foreign debt. Not surprisingly, promoting illness and illiteracy led to declines, rather than increases, in economic growth, particularly in Africa, making it harder for them to meet their debt obligations.

As John Maynard Keynes pointed out, the main way that capital accumulation was promoted was not to encourage greater savings among the population, but instead promote greater income inequality so that more money goes to the potential investor classes. It is through

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1 For a longer demonstration of economic growth policy as a series of preferential options for merchants, capitalists, and bureaucrats, respectively, see Clark (2021a).

2 While technically a UN institution, like the World Bank, the IMF has an independent governance structure.

rising inequality that the poor “save” to fund capital accumulation. Keynes optimistic spin on this experience in Europe is enlightening (1920, p. 18-19):

“Europe was so organized socially and economically as to secure the maximum accumulation of capital. While there was some continuous improvement in the daily conditions of life of the mass of the population, Society was so framed as to throw a great deal of the increased income into the control of the class least likely to consume it. The new rich of the nineteenth century were not brought up to large expenditures, and preferred the power which investment gave them to the pleasures of immediate consumption. In fact, it was precisely the *inequality* of the distribution of wealth which made possible those vast accumulation of fixed wealth and the capital improvements which distinguished the age from all others. Herein lay, in fact, the main justification of the Capitalist System. If the rich had spent their new wealth on their own enjoyments, the world would long ago have found such a regime intolerable.”

Another way to explain the system Keynes describes is “exploitation” and the brutal repression used around the world to install and maintain this system was “intolerable” to many. Keynes is a little closer to the reality of the role of plunder in the process when he traces the origin of Great Britain’s foreign holdings (estimated at £4 Billion in 1930) to the treasure Drake stole from the Spanish in 1580 (Keynes 1930).

While the promotion of increasing GDP did not work so well in the developing countries, for the advanced capitalist economies GDP became both the means and ends of economic policy. GDP was based on the Keynesian framework, which provided the policy tools that allowed governments to promote policies to increase GDP or to address the problems of inflation (fall in the real value of GDP) and unemployment (which was due to inadequate aggregate demand, which is merely another term for GDP). While there were many other economic and social goals, economic growth was the necessary, and sometime the sufficient, condition needed to address these other challenges.

### **1.3 Beyond GDP**

In past reports we have analyzed the many problems with GDP as a measure of progress. Much of the growth in GDP in the past forty years has really been the result of social and environmental decay producing market transactions. However, it should be mentioned that a reliable indicator of economic performance or output is needed to measure economic activity and capacity (potential output). National Income Accounting systems were mostly developed to give government planners information on the capacity of the economy. GDP measures all final market transactions and incomes, and it can be helpful in determining the level of resources that are available to society for public and private purposes. Yet when large corporations use

transfer pricing as a tool for avoiding taxes and incomes get booked as if earned in one country, yet that income is not available to be used for public or private purposes in a country, then GDP can be a gross distortion of the level of economic activity in a country.

We have also demonstrated in previous reports that using GDP or GNI as a measure of economic activity for Ireland is problematic. Here we present some more evidence of how Ireland's GDP and GNI estimates are a poor indicator of the state of Ireland's economy. Table 1 below presents the GDP per capita and the Final Consumption per capita<sup>3</sup> (household and government) for the 14 countries that are the focus of this report. Table 1 shows that Luxembourg and Ireland have the two highest GDP per capita out of the 14 countries, with Ireland's GDP per capita being 64.2% above the EU 14 average (Luxembourg is a shocking 132% above the EU 14 average). Yet when we look at Final Consumption, which is a more accurate measure of what is spent in a country, we see that Ireland is in the 9<sup>th</sup> position in the EU 14 and is just 1.3% above the EU 14 average.

**Table 1** EU 14 GDP and Final Consumption, 2019

Country	GDP per capital	Country	Final Consumption per capital
Luxembourg	€102,200	Luxembourg	€47,610
Ireland	€72,260	Denmark	€37,600
Denmark	€53,760	Finland	€32,900
Netherlands	€46,710	Sweden	€32,870
Sweden	€46,160	Netherlands	€31,900
Austria	€44,780	Austria	€31,860
Finland	€43,570	Belgium	€30,850
Germany	€41,510	Germany	€30,220
Belgium	€41,450	Ireland	€29,720
France	€35,960	France	€27,630
Italy	€29,660	Italy	€23,390
Spain	€26,430	Spain	€20,140
Portugal	€20,740	Portugal	€16,750
Greece	€17,100	Greece	€15,220
EU 14 AVG	€44,449	EU 14 AVG	€29,190
Ireland as % of AVG	162.6%	Ireland as % of AVG	101.8%

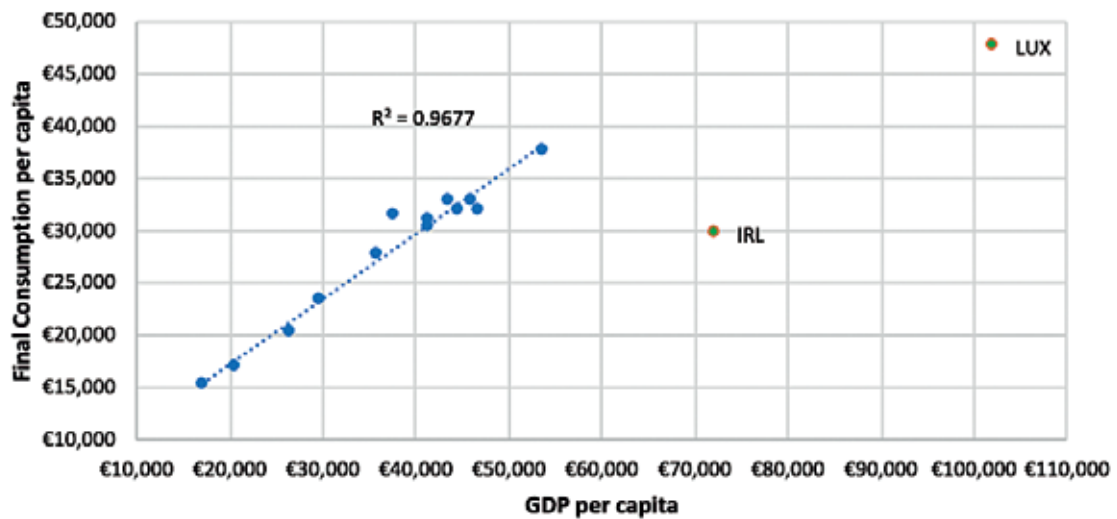
Source: Eurostat. Figures are in current prices.

3 The SNA (2008) defines Final Consumption: "Final consumption consists of goods and services used by individual households or the community to satisfy their individual or collective needs or wants" (SNA 2008, p. 8).

How much a country can consume is typically determined by how much they produce (or if the country is an empire, how much they can transfer from their colonies to their mother country). In Figure 1, we can see that this normal relationship holds for 12 of the 14 countries, with a very high positive correlation between their final consumption and GDP per capita (0.9677). Nowhere near the trend line is Ireland and Luxembourg, which are clearly outliers in this data set.

Ireland's and Luxembourg's distance from the trend line suggests that a considerable portion of what is included in GDP is not being spent as Final Consumption in each respective country.

**Figure 1** Relationship between EU 14 GDP and Final Consumption, 2019



Source: Eurostat

However, most of the motivation behind the *Beyond GDP* movement has to do with GDP as an indicator of the country's overall economic and social progress or as a measure of social welfare. One of the main problems with using GDP or growth in GDP as the primary indicator of progress stems from GDP being a measure of market transactions without any distinction between transactions that are welfare enhancing or which harm welfare. A €14 pack of cigarettes are as valuable to GDP as €14 worth of a life saving medicine.

The United Nations (along with other agencies) produces the *System of National Accounts* to provide the framework to guide national efforts at measuring their economic performance. While earlier versions did mention the problem of using GDP as a measure of welfare, the most recent version (SNA 2008) issues a stronger warning: "GDP is often taken as a measure of welfare, but the SNA makes no claim that this is so and indeed there are several

conventions in the SNA that argue against the welfare interpretation of the accounts” (SNA 2008, p. 12). They note that while GDP measures food consumption (as an example) it does not distinguish between food being consumed by someone who lives in extreme poverty or someone who is already well fed. Same amounts consumed will likely have very different welfare implications. Furthermore, GDP does not account for unpaid services, the impact of external events on welfare, the impact of externalities on welfare (such as pollution) and non-economic impacts on welfare. The manual states “it is unrealistic to expect a system of economic accounts to necessarily and automatically yield a wholly satisfactory measure of welfare” (Ibid, p. 13).

## 1.4 The Stiglitz-Sen-Fitoussi Report

The Stiglitz-Sen-Fitoussi Commission Report has lent considerable credibility to the Beyond GDP movement and has become an influential guide in shaping alternative measures of progress by countries and international agencies such as the OECD. The *Commission on the Measurement of Economic Performance and Social Progress* (official name of Stiglitz-Sen-Fitoussi Commission) was created by the French Government in 2008 to look at alternatives to GDP. The final report came out in September of 2009. Combined with the Financial Meltdown of 2007-9 and subsequent Great Recession, the report provided support to the widespread feeling that economic growth was no longer improving the lived reality of many people in advanced capitalist economies. After noting the many problems with measuring GDP in a 21<sup>st</sup> century economy, the commission recommends that countries should “*shift emphasis from measuring economic production to measuring people’s well-being*. And measures of well-being should be put in a context of sustainability” (Stiglitz, Sen and Fitoussi, 2009, p. 12).

The report (Ibid, p.14-15) identifies the key dimensions of wellbeing as follows:

1. Material living standards (income, consumption, and wealth)
2. Health
3. Education
4. Personal activities including work
5. Political voice and governance
6. Social connections and relationships
7. Environment (present and future conditions)
8. Insecurity, of an economic as well as physical nature.

The report (ibid.) also notes that:

“The information relevant to valuing quality of life goes beyond people’s self-reports and perceptions to include measures of their “functionings” and

freedoms. In effect, what really matters are the capabilities of people, that is, the extent of their opportunity set and of their freedom to choose among this set, the life they value. The choice of relevant functionings and capabilities for any quality of life measure is a value judgment, rather than a technical exercise. But while the precise list of the features affecting quality of life inevitably rests on value judgments, there is a consensus that quality of life depends on people's health and education, their everyday activities (which include the right to a decent job and housing), their participation in the political process, the social and natural environment in which they live, and the factors shaping their personal and economic security. Measuring all these features requires both objective and subjective data. The challenge in all these fields is to improve upon what has already been achieved, to identify gaps in available information, and to invest in statistical capacity in areas (such as time-use) where available indicators remain deficient."

The availability of resources, as well as their distribution (which will determine individuals access to resources) certainly play an important role in the quality of life of a community or country, the "quality of life is a broader concept than economic production and living standards... Which other metric should be used instead for assessing quality of life depends on the philosophical perspective taken" (ibid., p. 41).

The commission examined three philosophical approaches to understanding "quality of life": Subjective wellbeing; the Capabilities Approach; and Fair Allocation. Subjective wellbeing is tied to the new science of happiness and uses surveys of happiness or life satisfaction to measure quality of life. The Capabilities Approach is based on the work of Amartya Sen and Martha Nussbaum, which emphasizes the ability of individuals to have the capabilities (functionings) necessary to pursue goals they value (rather than just the right), with particular emphasis on the social institutions that can support or become barriers to these functioning's. The Fair Allocation approach builds on welfare economics looking at the allocation of non-monetary dimensions of quality of life. The Commission made the following recommendations (Stiglitz et al. p. 58-59):

**Recommendation 1:** Measures of subjective well-being provide key information about people's quality of life. Statistical offices should incorporate questions to capture people's life evaluations, hedonic experiences and priorities in their own surveys.

**Recommendation 2:** Quality of life also depends on people's objective conditions and opportunities. Steps should be taken to improve measures of people's health, education, personal activities, political voice, social connections, environmental conditions and insecurity.

**Recommendation 3:** Quality-of-life indicators in all the dimensions they cover should assess inequalities in a comprehensive way.

**Recommendation 4:** Surveys should be designed to assess the links between various quality of-life domains for each person, and this information should be used when designing policies in various fields.

**Recommendation 5:** Statistical offices should provide the information needed to aggregate across quality-of-life dimensions, allowing the construction of different scalar indexes.







# Objective Measures of Wellbeing

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Since the Stiglitz-Sen-Fitoussi report, alternatives to GDP and measures of wellbeing have grown significantly. What was once a small cottage industry of academics (Clark and Kavanagh, 1996) and small institutes (Miringoff, Miringoff and Opdycke, 1996; Cobb, Halstead and Rowe, 1995)<sup>4</sup> has become big business, including the Economist magazine, the Organization for Economic Cooperation and Development (OECD, 2020 latest edition); various United Nations agencies, as well as the *Social Progress Imperative* started by Harvard Management Professor Michael Porter. In Table 2 we can see GDP per capita and some of the leading alternative indicators for the EU 14 countries. Ireland ranks at the top (2<sup>nd</sup>) for GDP per capita and Human Development Index (1<sup>st</sup>), both of which are the result of the problematic nature of measuring GDP in Ireland. The other indexes place Ireland around the middle of the EU14.

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4 For an overview of the developments in the 1990s see Jackson and McBride (2005).

**Table 2** Various Objective Measures of Wellbeing for EU 14, 2020-21

Country	GDP per cap 2020	Country	SPI 2021	Country	SDG Index 2021	Country	World Happiness Index 2021	Country	HDI, 2020
LUX	€101,760	FIN	92.26	FIN	80.8	FIN	7.889	IRL	0.955
IRL	€74,870	DNK	92.15	SWE	80.6	DNK	7.515	DEU	0.947
DNK	€53,600	SWE	91.20	DNK	79.3	NLD	7.504	SWE	0.945
SWE	€45,920	NLD	90.57	AUT	78.0	LUX	7.404	NLD	0.944
NLD	€45,870	DEU	90.32	DEU	75.3	SWE	7.314	DNK	0.94
FIN	€42,680	IRL	89.47	FRA	72.7	DEU	7.312	FIN	0.938
AUS	€42,540	AUT	89.44	BEL	72.5	AUS	7.213	BEL	0.931
DEU	€40,490	LUX	88.75	NLD	72.1	IRL	7.035	AUS	0.922
BEL	€39,580	BEL	88.68	IRL	70.6	BEL	6.839	LUX	0.916
FRA	€33,960	FRA	88.23	PRT	69.1	FRA	6.714	ESP	0.904
ITA	€27,820	ESP	87.53	ESP	68.5	ESP	6.502	FRA	0.901
ESP	€23,690	ITA	86.56	ITA	68.5	ITA	6.488	ITA	0.892
PRT	€19,430	PRT	85.97	LUX	65.8	GRC	5.788	GRC	0.888
GRC	€15,420	GRC	84.37	GRC	64.8	PRT	5.768	PRT	0.864

Source: Eurostat; Sustainable Progress Imperative 2021; Sustainable Development Report, 2021; World Happiness Report 2021; Human Development Report 2020.

The first major alternative to GDP was the Human Development Index produced by the United Nation Development Program. The HDI, like the Genuine Progress Index, was designed to supplement GDP. The intention of the HDI was to move attention away from using GDP per capita to assess the progress of developing countries, adding life expectancy and education metrics to the already widely used Gross National Income. The hope was that countries would target education and health as means to improve wellbeing, and not just GDP. It did not have the desired impact. The change in focus came with the Millennium Development Goals (MDG) agenda that brought to the forefront numerous health and education indicators as areas in need of significant investment. The eight MDGs and 21 targets helped to direct more international development funding towards human development, and they also brought about the improved statistical capacity to track progress in these areas.

One of the most unique aspects of the MDG Agenda is that it was *not* GDP focused. Unlike the earlier four United Nations Development Decades, which had growth in GDP as their 1<sup>st</sup> stated goal, and often had ways to improve GDP growth (such as more investment, higher savings rates) as the 2<sup>nd</sup> goal (Clark 2021b, Table 1, p. 1140), the MDGs did not list GDP growth as a goal! And while growth in GDP per capita was not one of the 8 goals or 21 targets, growth in GDP per capita, especially in Sub-Saharan Africa, increased dramatically, going from 10% for the 1990s (the 4<sup>th</sup> Development Decade) to 76.2% from 2000-2016 (Ibid., p. 1146).

**Table 3** Goals of Millennium Development Goals and Sustainable Development Goals

MGD, 2000	SDG 2015
1. Eradicate Extreme Poverty and Hunger	1. No Poverty
2. Achieve Universal Primary Education	2. Zero Hunger
3. Promote Gender Equality and Empower Women	3. Good Health and Well-being
4. Reduce Child Mortality	4. Quality Education
5. Improve Maternal Health	5. Gender Equality
6. Combat HIV/AIDS, Malaria, and other diseases	6. Clean Water and Sanitation
7. Ensure Environmental Sustainability	7. Affordable and Clean Energy
8. Global Partnership for Development	8. Decent Work and Economic Growth
	9. Industry, Innovation, and Infrastructure
	10. Reduced Inequalities
	11. Sustainable Cities and Communities
	12. Responsible Consumption and Production
	13. Climate Action
	14. Life Below Water
	15. Life on Land
	16. Peace, Justice and Strong Institutions
	17. Partnerships for the Goals

Source: UNDP

Like the MDGs, the 17 Sustainable Development Goals (and over 200 indicators) focus on objective measures of progress. Both are inspired and informed by Sen and Nussbaum's Capabilities Approach.<sup>5</sup> In many ways the Capabilities Approach is a return to Aristotle's view of human happiness as flourishing and to the role of the State in promoting this goal. The link between well-being and public policy can be found in Aristotle, who provides some of the earliest analysis of both the role of the state and on wellbeing. Writing in the *Nicomachean Ethics*, Aristotle argues that humans act to achieve the "good" and that the highest good for man is happiness, defined as living a good life (flourishing) based on the cultivation of the virtues ("courage, justice, moderation, honesty, greatness of soul, hospitality, cultivation of knowledge and perceptiveness, proper judgement and practical wisdom" (Nussbaum, 1993, cited in Bache and Scott, 2018, p. 9). In *The Politics* Aristotle states that: "Every state is a community of some kind, and every community is established with a view to some good; for mankind always act in order to obtain that which they think good. But, if all communities aim at some good, the state or political community, which is the highest of all, and which embraces all the rest, aims, and is a greater degree than any other, at the highest good" (Aristotle in Monroe, 1924, p. 3). Building on Aristotle, but without the defense of slavery which is part of Aristotle's analysis, Sen and Nussbaum develop categories of capabilities that are critical for humans to develop and flourish.

5 There are differences between Sen's and Nussbaum's analysis of Capabilities. Specifically, Martha Nussbaum is much more willing to state a list of necessary capabilities needed for human flourishing, whereas Sen is less inclined to view them as fixed or universal.

Most of the SDG indicators are measurements of conditions or resources that are necessary to promote human flourishing, or they are measurements of outcomes to see if flourishing is in fact taking place.

The main benefit of objective measures of wellbeing is that policy makers can target them more effectively. If the goal is to reduce infant mortality rates it is generally easy to measure the outcomes and to figure out which policies are more effective in bringing maternity care to underserved regions. If the specific indicators reflect the public policy goals, they become a way to target programs and to assess progress in reaching these goals. For most public goods it is about providing access and not about the optimal level of consumption. The goal is to give people the freedom to make their own choices, and not for the state to start making the choices for them.

## 2.1 Measuring Subjective Wellbeing<sup>6</sup>

Economic theory has a long tradition of loosely defined concepts. This is particularly the case when economists talk about wellbeing. As McGillivray and Clarke (2006, p. 3) note: “quality of life, welfare, well-living, living standards, utility, life satisfaction, prosperity, needs fulfillment, development, empowerment, capability expansion, human development, poverty, human poverty, land, and more recently, happiness are often used interchangeability with wellbeing without explicit discussion as to their distinctiveness.” It is very common to see wellbeing and happiness used as if they were synonyms. However, in psychology social wellbeing is a broader concept than happiness.<sup>7</sup> There is no accepted definition for wellbeing or happiness. It has been suggested that there can be an objective measure of happiness using brain waves (Conceição and Bandura, 2008, p. 6), but for the most part we measure subjective wellbeing by asking people how they feel.

The idea of ‘subjective wellbeing’ has been part of economic analysis since at least Jeremy Bentham’s development of utilitarian philosophy and psychology (1780) and was introduced into the core of neoclassical economics theory when the Marginal Utility Theory of Value replaced the Labor Theory of Value. Adam Smith rejected utility as a determinant of the value of a good, instead arguing that the value of a good is based on the objective costs of production, most importantly labor. Reflecting the rise in individualism and psychological explanations, the Marginal Utility Theory shifts the focus of economy theory away from the historical and social realities of production and towards the inner psyche of rational economic man.

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6 This section relies heavily on Conceição, Pedro and Bandura, Romina. (2008). “Measuring Subjective Wellbeing: A Summary Review of the Literature”, New York: UNDP.

7 See Bruni and Porta (2007) for an explanation of the differences between wellbeing, life satisfaction and happiness.

The foundation of the subjective theory of value (neoclassical economics) was laid by Bentham's *Introduction to the Principles of Morals and Legislation* (1789, p. 11): "Nature has placed mankind under the governance of two sovereign masters, pain and pleasure. It is for them to point out what we ought to do, as well as to determine what we shall do. On the one hand the standard of right and wrong, on the other the chain of causes and effects, are fastened to their throne. They govern us in all we do, in all we say, in all we think." Any theory which rejects the principle of utility "deal in sounds instead of sense, in caprice instead of reason, in darkness instead of light" (ibid.). One of the conclusions of Bentham's philosophy is that the measure of right or wrong is "the greatest happiness of the greatest number." While Bentham saw the ancient school of Epicureanism as a precursor to his own ideas, unlike Epicurus<sup>8</sup> he saw his mission as using his new philosophy to craft public policy and legislative reforms.

One of the earliest marginal utility theorists (Francis Edgeworth) proposed a "psychophysical machine, continually registering the height of pleasure experienced by an individual" (quoted in Colander, 2007, p. 217) which he called a *hedonmeter*. While psychologists in the 1880s were working on experiments on sensory sensations the science did not develop any method for measuring utility from consumption. For the next century economists accepted that they could not directly measure utility and instead relied on the assumption that utility is revealed in the choices economic actors make, what Samuelson called "revealed preference" (Samuelson, 1938). This did not solve any of the numerous problems the concept of utility brings to economics (see particularly Sen, 1977) yet most neoclassical economists were content to ignore the underlying tautology of the marginal utility theory of value. As Joan Robinson noted: "Utility is a metaphysical concept of impregnable circularity; utility is the quality in commodities that makes individuals want to buy them, and the fact that individuals want to buy commodities shows that they have utility" (Robinson 1962, p. 48).

An interesting unrecognized aspect of utility theory is that many of the initial adherents to marginal utility theory were socialists and they argued that the theory of diminishing marginal utility was a strong argument for the redistribution of income from the rich to the poor. If each additional unit of consumption gives you less satisfaction than the previous one, then it is just a matter of simple maths to show that redistribution of income will increase the overall happiness of society. Eventually neoclassical economists argued that redistribution violated the voluntary nature of exchange, so that the initial distribution is to be taken as datum, and not to be critically evaluated. After the development of national income accounting, GDP became the proxy for the revealed preferences of the country thus making GDP per capita the primary measure of well-being.

Numerous economists have been critical of the hedonistic foundations of neoclassical economics based on it being a poor representation of actual human behavior and motivations.

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8 Epicurus discourage a life of political engagement, as it would be stressful and contrary to a life seeking pleasure.

Starting with Thorstein Veblen (1899, 1909) and John Kenneth Galbraith (1958) they have argued that consumption is always a form of social communication, often connected with status and power, and the exclusion of the historical and social context when attempting to understand economic activity entails the removal of the factors that allow social scientists the ability to explain uniformities in behavior and order in the market. The extreme individuals of subjective wellbeing measures (relying on surveys on how people report their feelings) ignores the social and relation aspects of wellbeing. Wellbeing and happiness are as much about participating in social groups as the activities that the groups do. Ignoring the social and relational aspects of human wellbeing excludes what is often most important.

Following the work of Cognitive Behavior Therapy, Behavioral Economics and the Science of Happiness, new attention went into measuring subjective wellbeing which looks to measure and predict which factors and outcomes are correlated with happiness defined as “frequent positive emotions and infrequent negative emotions” (Yetton et al, 2019, p. 1). From this new research agenda came two versions: one version looked at how outside events affected people’s happiness while the other looked at how people felt about the outside events. In the second approach the problem is not that I lost my job, it is how I feel about losing my job. Taken to its logical conclusion, the “subjective well-being approach goes beyond equality of resources and opportunities and places ultimate value on the final end of a positive state of consciousness consisting of pleasure and satisfaction” (Austin, 2018, p. 54). For some the goal is to settle policy disputes by appealing to which goals promote the most happiness. The classic macroeconomic challenge has been dealing with the two problems of unemployment and inflation. If we look at the intensity of the effect on happiness unemployment has, for the person who loses their job, the larger negative impact, yet inflation affects everyone. Do we decide on which problem to address based on surveys of happiness? Do we put our efforts into making people feel better about bad outcomes?

Most of the research on happiness focuses on how different factors affect average happiness. The *World Happiness Report* (2021) “Life Ladder” is made up of the factors that research shows positively or negatively affects happiness: Income; Social Support; Health; Freedom; Generosity; and Perceptions of Corruption. In Table 4 we present their results for the EU 14 countries. This is a mixture of objective and subjective variables.

**Table 4** Happiness (Life Ladder) and its Components for EU 14

Country	Life Ladder	Country	Log GDP per capita	Country	Social support	Country	Healthy life expectancy at birth	Country	Freedom
FIN	7.889	LUX*	11.648	FIN	0.962	ESP	75.0	FIN	0.962
DNK	7.515	IRL	11.323	IRL	0.960	FRA	74.2	SWE	0.951
NLD	7.504	DNK	10.910	DNK	0.947	ITA	74.0	DNK	0.938
LUX*	7.404	NLD	10.901	FRA	0.947	AUS	73.6	NLD	0.935
SWE	7.314	AUS	10.851	NLD	0.944	AVG	73.1	LUX*	0.930
DEU	7.312	SWE	10.838	SWE	0.936	DNK	73.0	PRT	0.913
AUS	7.213	DEU	10.833	ESP	0.935	SWE	72.8	AUS	0.912
IRL	7.035	AVG	10.793	AUS	0.925	DEU	72.8	IRL	0.882
AVG	6.949	BEL	10.771	AVG	0.916	GRC	72.8	DEU	0.864
BEL	6.839	FIN	10.750	LUX*	0.912	PRT	72.8	AVG	0.853
FRA	6.714	FRA	10.643	DEU	0.905	LUX*	72.6	FRA	0.823
ESP	6.502	ITA	10.563	BEL	0.904	NLD	72.5	ESP	0.783
ITA	6.488	ESP	10.488	ITA	0.890	IRL	72.5	BEL	0.767
GRC	5.788	PRT	10.371	PRT	0.875	BEL	72.4	ITA	0.718
PRT	5.768	GRC	10.215	GRC	0.779	FIN	72.1	GRC	0.565

Source: World Happiness Report, 2021

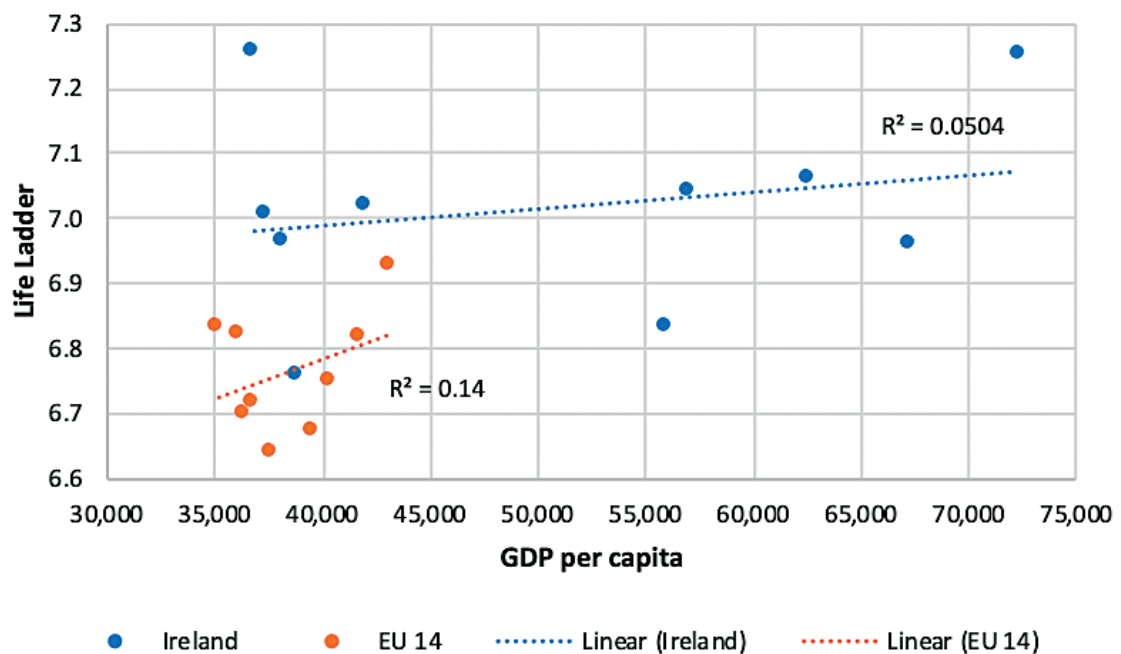
Happiness (Life Ladder) and its Components for EU 14

Country	Generosity	Country	Perceptions of corruption	Country	Positive affect	Country	Negative affect
NLD	0.151	FIN	0.164	DNK	0.818	FIN	0.193
SWE	0.091	SWE	0.203	IRL	0.797	DEU	0.206
DNK	0.052	DNK	0.214	LUX*	0.789	AUS	0.206
IRL	0.014	NLD	0.281	NLD	0.784	LUX*	0.212
AUS	0.011	IRL	0.356	AUS	0.769	SWE	0.222
LUX*	-0.045	LUX*	0.390	SWE	0.766	DNK	0.227
DEU	-0.060	DEU	0.424	DEU	0.760	FRA	0.231
AVG	-0.070	AUS	0.464	FIN	0.744	IRL	0.246
FIN	-0.116	AVG	0.493	AVG	0.735	NLD	0.247
ESP	-0.121	FRA	0.565	FRA	0.732	AVG	0.256
ITA	-0.150	BEL	0.634	ESP	0.686	BEL	0.260
BEL	-0.164	ESP	0.730	GRC	0.684	ITA	0.311
FRA	-0.169	GRC	0.764	ITA	0.670	ESP	0.317
PRT	-0.238	ITA	0.844	PRT	0.648	GRC	0.322

Source: World Happiness Report, 2021

The early research looked at how income levels influenced average happiness across countries and across time. This led to the famous ‘Easterlin Paradox’ which showed that while people with more money tended to be happier than people with less, and people in richer countries tended to be happier than people in poorer countries, increasing the income level of an individual country did not always increase the average level of happiness in the country. To give the extreme example: “Japan is a rare case of a country for which long-term happiness data is available, starting from the late 1950s when it was a relatively poor country with income per capita below \$3,000. Japan’s GDP per capita rose more than five-fold from 1958 to 1991, without any change in reported happiness” (Conceição and Bandura, 2008, p. 7-8). Similar results have been found for the United States and other advanced capitalist countries.

**Figure 2** Ireland and EU 14 Economic Growth and Happiness, 2010-2019



Source: World Happiness Report

As seen in Figure 2, the relationship between economic growth and happiness for Ireland and for the EU 14 Average is weak. For many countries, it looks like the level of happiness seems to adapt to its average level rather than showing any real trend.

An explosion of research on measuring subjective wellbeing<sup>9</sup> has sought to monetize the impact variables have on subjective wellbeing so that a cost/benefit analysis can determine

9 See Kahneman and Krueger, (2006); Conceição and Bandura, (2008) and Bache (2020) for an overview of the literature.



policy options. While this monetization attempts a level of exactness that has not been approached anywhere in economics, the general conclusions on what variables influence happiness seems like common sense even if their numerical values are questionable. In Table 5 we present the *What Works Wellbeing* (a UK policy group) summary of how different variables affect happiness.

**Table 5** Evidence on the Drivers of Subjective Wellbeing

Drivers of Wellbeing	What the Evidence Suggests
<b>Health</b> <ul style="list-style-type: none"> <li>- mental</li> <li>- physical</li> </ul>	Mental and physical health are strong predictors of wellbeing. Enough sleep, exercise, eating healthy foods improves wellbeing.
<b>Personal Finance</b> <ul style="list-style-type: none"> <li>- income</li> <li>- debt</li> <li>- financial uncertainty</li> </ul>	Income has significant effect on wellbeing for people living in poverty, but as basic needs are met it becomes less important for wellbeing. Money allows us to 'buy' other things that improve wellbeing (healthcare, education). Wellbeing depends on our income relative to others. Debt and financial uncertainty cause stress, negatively affecting wellbeing.
<b>Education and Skills</b> <ul style="list-style-type: none"> <li>- education level</li> <li>- life skills, capabilities</li> </ul>	Higher levels of education improve job quality and incomes (which help wellbeing). Continued learning is associated with improved wellbeing.
<b>Relationships</b> <ul style="list-style-type: none"> <li>- close relationships</li> <li>- trust</li> <li>- friendship</li> </ul>	Close relationships (with family and friends) and having someone to rely on are very important for wellbeing.
<b>What we do and Purpose</b> <ul style="list-style-type: none"> <li>- employment</li> <li>- good quality jobs</li> <li>- participating in arts, sports, music</li> <li>- a minimal degree of volunteering, altruism</li> <li>- commuting time</li> </ul>	Having a job is good for wellbeing, having a 'high quality' job is even better. High quality job has job security, good relationships with colleagues and some control over work. Different activities can affect our wellbeing (exercise, creative arts). Having a sense of purpose also adds to wellbeing.
<b>Broad Environment</b> <ul style="list-style-type: none"> <li>-fear of crime/safety</li> <li>-trust in people</li> <li>-access and satisfaction with services, housing</li> <li>-natural environment</li> </ul>	Security is important for wellbeing, as are feelings of belonging. Access to services that address needs contributes to wellbeing, as does satisfaction with these services. Lower air quality lowers wellbeing.
<b>Autonomy</b> <ul style="list-style-type: none"> <li>- participation</li> <li>- self-esteem, dignity</li> <li>- fairness</li> </ul>	Opportunity to participate has as positive effect on wellbeing. Self esteem and dignity are important aspects of wellbeing. A sense of fairness is an important predictor of wellbeing

Source: Taken from Annex Table 1a (p. 9) of "Wellbeing in Policy Analysis" *What Works Wellbeing*, (2018).

One of the factors that has the biggest impact on happiness is the amount and quality of sleep. How this translates into public policy is another question. In the UK there was a considerable increase in mental health funding based on research that showed that increasing mental health services can have a big impact on perceived happiness.

The research on perceived happiness is problematic. Like the wave vs particle debate on light in physics, there is a debate on whether pain is qualitative or quantitative phenomena.

Just as it is highly questionable that utility is quantitative (Stark, 1947) so too is it questionable that pleasure or happiness is quantitative, and that the same scales or surveys can capture it across cultures or over time. Furthermore, the measured response of subjective wellbeing to the various outside factors tends to be short term in duration and for most of these factors people eventually revert to their pre-factor levels.

The central problem for subjective wellbeing measures is the underlying individualistic and mechanicalistic view of society which views individual psych data as separate from social and historical context, and which can be guided, or naturally move, towards an optimal equilibrium level.

## **2.2 OECD Better Life**

The OECD Well-being Framework looks at the quality of life across the member countries of the OECD. It has become the model for many countries, including Ireland's CSO Well-being Information Hub. The OECD has expanded its Wellbeing framework since the initial launching in 2011 to highlight not only statistics on current wellbeing (which was in the original), but also recognizing that the average wellbeing indicator score is insufficient. They have added two other sets of statistics: including data on inequality and deprivation as well as data on the sustainability of wellbeing.

### **2.2.1 There and Now**

The OECD framework starts with the 'here and now' of wellbeing, the current situation, focusing on: Income and wealth; Subjective wellbeing; Work and job quality; safety; housing; work-life balance; health; social connections; knowledge and skills; civil engagement; and environment quality. They measure these variables first with country averages, but also include data on inequalities between groups (horizontal inequalities by gender, age, race); income classes (vertical inequalities); as well as people who are living with significant deprivations.

## **2.3 Future Wellbeing**

Furthermore, they have statistics on resources needed to sustain wellbeing into the future based on four types of capital: Economic Capital (man-made and financial assets); Natural Capital (stocks of natural resources, biodiversity, ecosystems and their services); Human Capital (skills and future health of individuals) and Social Capital (social norms, shared values, institutions that foster cooperation).

Ireland's CSO Well-Being Platform is based on the Here and Now wellbeing indicators in the OECD framework. The CSO uses different variables for many of the wellbeing factors and relies more heavily on subjective measures (13 for CSO and 5 for OECD). There are numerous indicators one could pick for each variable. CSO often has more variables than the OECD.

One major difference between the two is that the OECD is constrained on using variables that they have data for all countries, or where the variables are measured in the same way for each country, so that international comparisons are possible. While the CSO does provide international comparisons for some of its variables, many are from Ireland only surveys. The “New Dwelling Completions” indicator for the CSO Well-Being Information Hub seems to be a response to the current housing problems in Ireland and would not be included in a framework that is looking at international comparisons or is looking at well-being as a general issue. Clearly adequate housing is an important component of wellbeing but building housing by itself does not necessarily contribute to wellbeing, only in the context of a housing shortage does it factor into wellbeing.

**Table 6** OECD and CSO Ireland Wellbeing Frameworks

OECD Better Life		CSO Well-Being Information Hub	
Dimensions	Indicators	Dimensions	Indicators
<b>Housing</b>	Dwellings without basic facilities Housing Expenditure % Rooms per person	<b>Housing and Local Area</b>	New Dwelling Completions A or B Domestic Dwelling energy rating Average Distance to everyday services At risk of poverty after rent and mortgage interest
<b>Jobs</b>	Labour market insecurity Employment rate Long term unemployment Personal earnings	<b>Work and Job Quality</b>	Labour underutilization rate Employment rate Mean Weekly Earnings
<b>Education</b>	Educational attainment Student skills Years in education	<b>Knowledge and Skill</b>	Reading and Maths performance in 15-year-olds Lifelong learning rate Research and development personnel
<b>Civic Engagement</b>	Stakeholder engagement in regulations Voter turnout	<b>Civic Engagement and Cultural Expression</b>	<i>Persons who experienced discrimination in the 2 years</i> <i>satisfaction with democracy in Ireland</i> <i>Perceived social inclusion</i>
<b>Life Satisfaction</b>	<i>Life Satisfaction</i>	<b>Subjective Well-being</b>	<i>Population overall life satisfaction</i> <i>Population not feeling depressed in last 4 weeks</i> <i>School aged children who report being happy with their life at present</i>
<b>Work-Life Balance</b>	Working very long hours Time devoted to leisure and personal care	<b>Time Use</b>	Long working hours in main job careers Providing at least 20 hours care per week <i>Population satisfied with time use</i>
<b>Income</b>	Household net adjusted disposable income Household net wealth	<b>Income and Wealth</b>	Median Real Household Disposable Income Median Household Net Wealth <i>Household making ends meet with great difficulty</i>
<b>Community</b>	<i>Quality of support network</i>	<b>Community, Social Connections and Cultural Participation</b>	<i>Population who feel lonely</i> <i>Population with at least 2 people they are close enough to count on if they had a serious problem</i>
<b>Environment</b>	Air pollution <i>Water Quality</i>	<b>Environment, Climate and Biodiversity</b>	<i>Pollution, Grime, and other environmental problems</i> Water Bodies assessed as high or good Greenhouse Gas Emissions Waste to landfill
<b>Health</b>	Life expectancy <i>Self-reported health</i>	<b>Mental and Physical Health</b>	Healthy life years <i>Population reporting depression</i> <i>Unmet need for Medical Attention</i>
<b>Safety</b>	Homicide rate <i>Feeling safe walking home alone</i>	<b>Safety and Security</b>	Murder rate per 100,000 Persons killed or injured on roads <i>Population who worry they could be a victim of a crime</i>

Objective: 19; Subjective 5

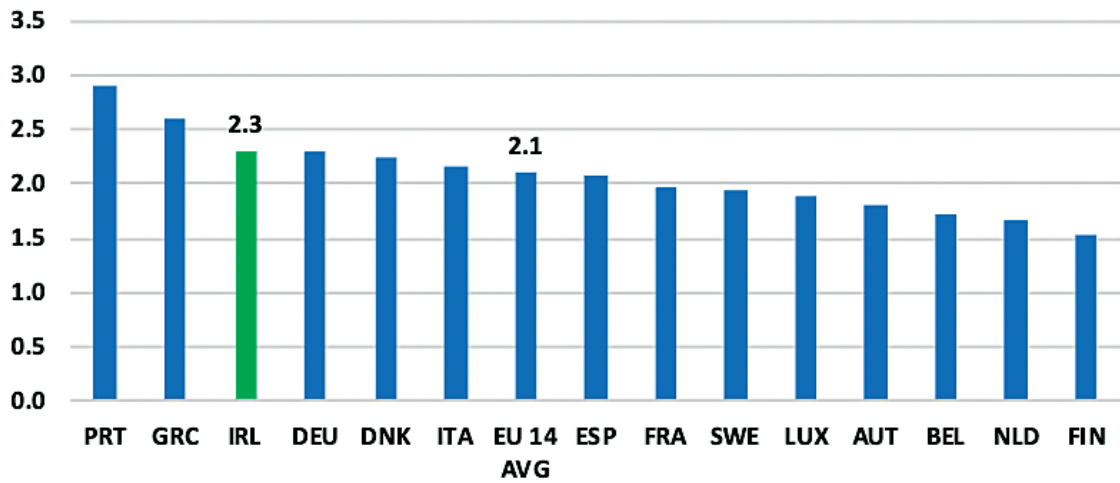
Objective: 20; Subjective 13

Source: OECD; CSO

*italics=subjective*

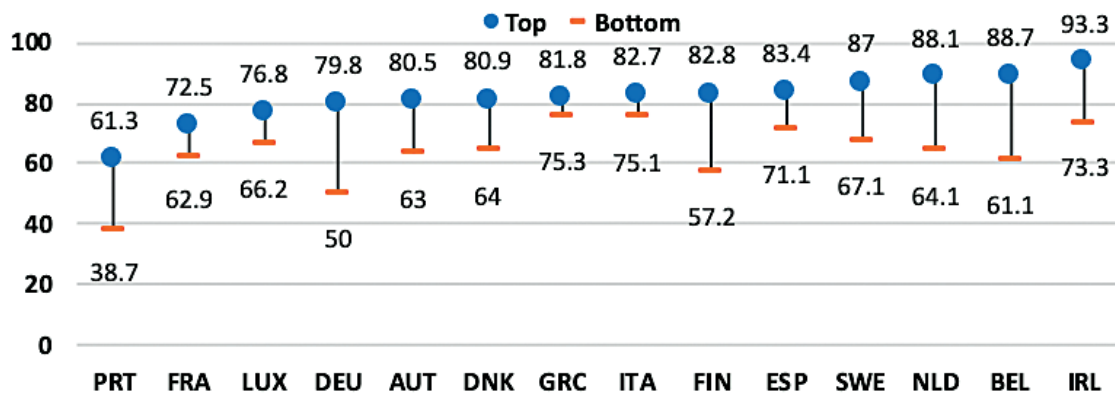
The CSO Wellbeing Information Hub provides data beyond averages, often breaking the data down by sex, age, principle economic status, household type and rural/urban. For Discrimination and Perceived Social Inclusion, they also break the data down by religion. Conspicuously missing is any analysis based on income inequality. Many of these variables will have significant ranges based on income levels. We can see significant differences in the two Figures below. Figure 3 shows the ratio of average life satisfaction score for the 80% and 20%, indicating that individuals in the top 80% income quintile report a 2.3 times higher life satisfaction score than individuals in the lowest 20% quintile. Figure 4 shows the difference in reported health based on whether one is in the Top or Bottom income quintile.

**Figure 3** EU14 80/20 Ratio of Life Satisfaction, 2018



Source: OECD

**Figure 4** Share of Adults Reporting "Good" or "Very Good" Health by Income Quintile



Source: OECD

Gender inequalities are very important, as are region inequalities (urban/rural), but one of the central challenges over the past four decades has been income inequality and more information on the causes and consequences of that is important to shape evidence-based policy solutions.

## 2.4 Investing in the Future

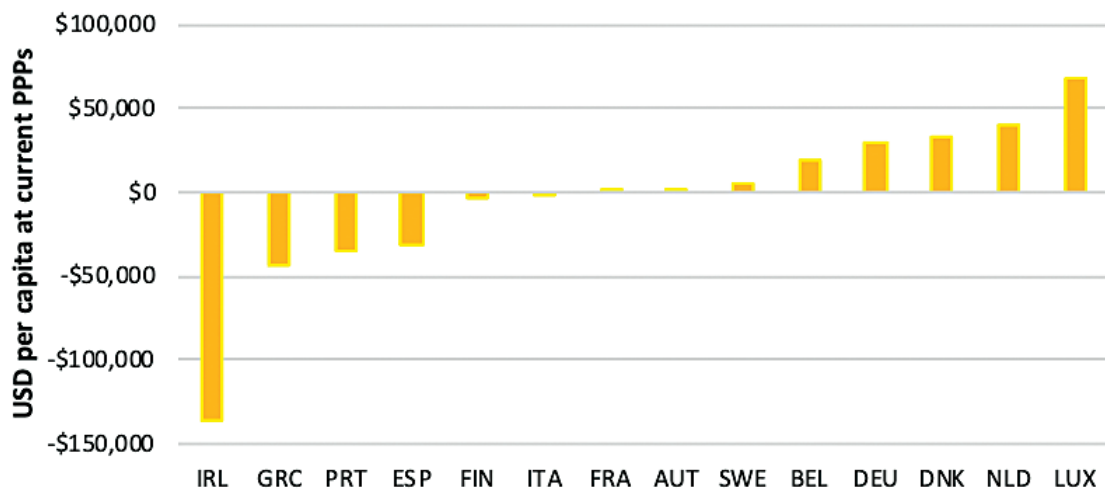
The OECD wellbeing framework has adopted the four capitals approach we wrote about in the 2019 report (Clark and Kavanagh, 2019, pp. 11-14). Building on the standard economic view that economic growth is synonymous with capital accumulation, it expands our understanding of capital to include a wider range of the assets necessary for a society and economy to prosper. Besides tools and buildings (manufactured capital) a society needs to finance future lead investments. They combined these two (manufactured and finance) into the broad category of Economic Capital. However, tools and money are not enough. Society has to invest in human education and skills development, what is normally called Human Capital. Furthermore, the challenge of climate change and the increasing polarizations of societies highlight that societies must invest in their environment and their social institutions, which the OECD has categorized as Natural Capital and Social Capital. These are equally important issues for Ireland, and it is hoped that the CSO will add these categories to their Well-being Information Hub as they are needed to inform policy makers.

## 2.5 Sustainable Capital

Based on the OECD data on Economic Capital the overall picture looks promising for Ireland, however there are some outliers that could be problematic. In many cases this could be the result of the underlying problems with measuring GDP in Ireland. Ireland scores

well in Produced Fixed Assets and Intellectual Property Assets (these could be due to foreign companies). However, there are anomalies, such as Ireland's Gross Fixed Capital Formation being the weakest in the OECD and their Investment in R&D being the highest. The financial sector is not as strong as the manufacturing. We see in the Figure 5 that Ireland's Financial Net Worth is not only negative, but the worst in the OECD (increasing by 300% since 2010). Government debt and household debt have either stayed the same or improved in this time period, so this probably is from the business sector. In any case, the sustainability of this needs to be examined.

**Figure 5** Financial Net Worth of Total Economy, 2018

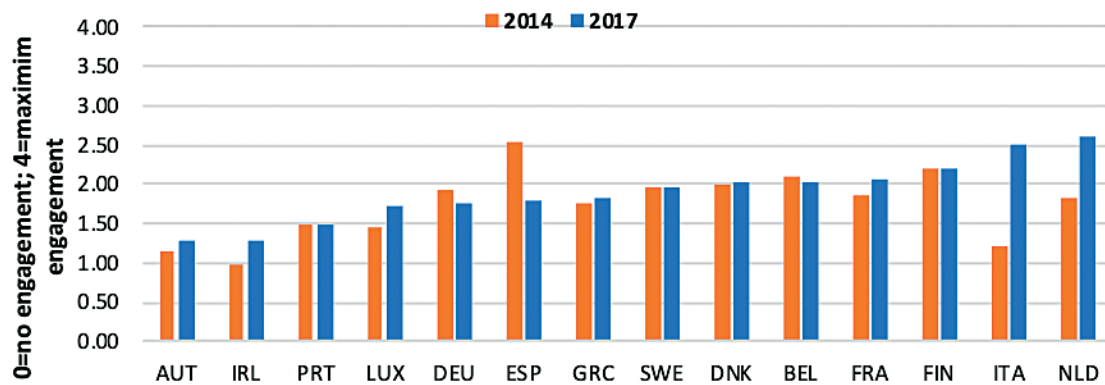


Source: OECD

For most Natural Capital indicators Ireland is near the OECD average. Ireland's Carbon Footprint and their Material Footprints have declined from 2010 to 2018 (with Material Footprint decline going against the trend, as overall for the OECD it has increased). Human capital is mostly health and education indicators. Ireland scores well in the education categories, and in general near the OECD averages on most of the health indicators. For one Social Capital indicator, Stakeholder Engagement, Ireland scores very poorly (see Figure 6 below). This indicator reflects how different stakeholders can participate in the development of new laws and regulatory standards. In the OECD of examples of stakeholder engagement, 17 countries have listed examples of their policies and Ireland is not one of them.<sup>10</sup>

10 <https://www.oecd.org/gov/regulatory-policy/stakeholder-engagement-examples-by-country.htm>

**Figure 6** Government Stakeholder Engagement, 2014 and 2017



Source: OECD

## 2.6 Summary

The main point is that well-being cannot be reduced to questions of positive or negative effect on a given day. Wellbeing is based on human capabilities, which require supporting institutions and resources, all of which are provided collectively. The individualization of wellbeing misses the fact that we are by design and necessity social animals and how well any of us are doing is always based on how and where we fit into social networks and communities, and how well those communities are doing is a major determinant of how well we as individuals are doing. If we reduce wellbeing to individual happiness and positive thinking, public policy ceases to be very important and it is no longer necessary for public policy to meet the goals and aspiration of citizens. In such a world there is no common good.





# The Sustainable Progress Index 2022

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The focus on sustainable development has gained momentum over the recent past and includes the introduction of the Sustainable Development Goals (SDGs) by the United Nations (UN). The SDGs are part of the UN's 2030 Agenda for Sustainable Development which was proposed and adopted in 2015. The UN identified 17 SDGs based on 169 targets and over 230 indicators. In January 2016, the SDGs came into force. The SDGs are designed to identify policies that directly help people's wellbeing in harmony with our natural environment. They aim to provide both a pathway out of poverty and a pathway to a sustainable future for all countries and peoples. Monitoring the SDGs enables countries to identify progress they have made in achieving the 2030 Agenda vision. The World Bank, WHO, IMF, OECD and Eurostat, have all committed to data collection efforts to support the monitoring of the SDGs.

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**Figure 7** The 17 Sustainable Development Goals



Source: United Nations (UN)

The SDGs are holistic in their emphasis on three fronts: our economic, social and natural worlds. The global pandemic has underlined the interconnectedness of these three spheres, while at the same time, given new impetus to global efforts for achieving sustainable development. There is a real sense that the SDGs are more important than ever, although achievement of them is more challenging.

“The pandemic has made achieving the 2030 Agenda and the SDGs even more challenging, both for the EU and globally” (Eurostat, 2021, p.9).

Paolo Gentiloni, Commissioner, European Commission Responsible for Economy and for Eurostat recently reiterated the EU’s commitment to delivering on the 2030 Agenda and encourages action at all levels in society:

“The European Commission remains committed to the 2030 Agenda and has an ambitious political programme to deliver on sustainability in the EU and beyond. The SDGs will continue to provide the umbrella for all EU policies and for investing EU funds. Sustainable development is mainstreamed into the policymaking and economic coordination processes, like the European Semester. Actions at all levels, from local, regional and national to European, are necessary to achieve a better and more sustainable future. To achieve the SDGs, everybody has to contribute to make sustainable development a reality” (Eurostat, 2021, p.4).

Since the adoption of the SDGs, there have been several attempts to track countries' progress on achievement of the goals (see Sachs et al, 2021 and earlier reports; reports by Eurostat and OECD)<sup>11</sup>. Incorporating 100 indicators, the most recent Eurostat report (2021) concludes that the EU has made progress towards most of the 17 SDGs over the past five years (see Figure 8)<sup>12</sup>. The improvement of goals has occurred at different paces for each SDG, ranging from moderate (9 SDGs) to strong progress (3 SDGs). However, a movement away from the sustainable development objectives occurred in some indicators within goals, and also two goals overall.

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11 See Sachs et al, (2021 and earlier reports); Eurostat, (2021 and earlier reports); OECD, (2017). The SDG Index and Dashboard report is published by Sachs et. al. on an annual basis since 2016. Although not an official UN publication, the work by Sachs et. al. is important. The authors produce an index which provides a measure of absolute distance towards the goals. Country specific dashboards provide guidelines to policymakers of areas of specific challenges.

12 The EU SDG dataset is structured along the lines of the SDGs. However, some indicators are not official UN indicators, but are more specific to EU policies and strategies. Further, the report does not produce an index. Rather, it examines the SDGs at indicator level and by key themes to arrive at an overall assessment of progress.

**Figure 8** Eurostat's Assessment of EU Progress on the SDGs



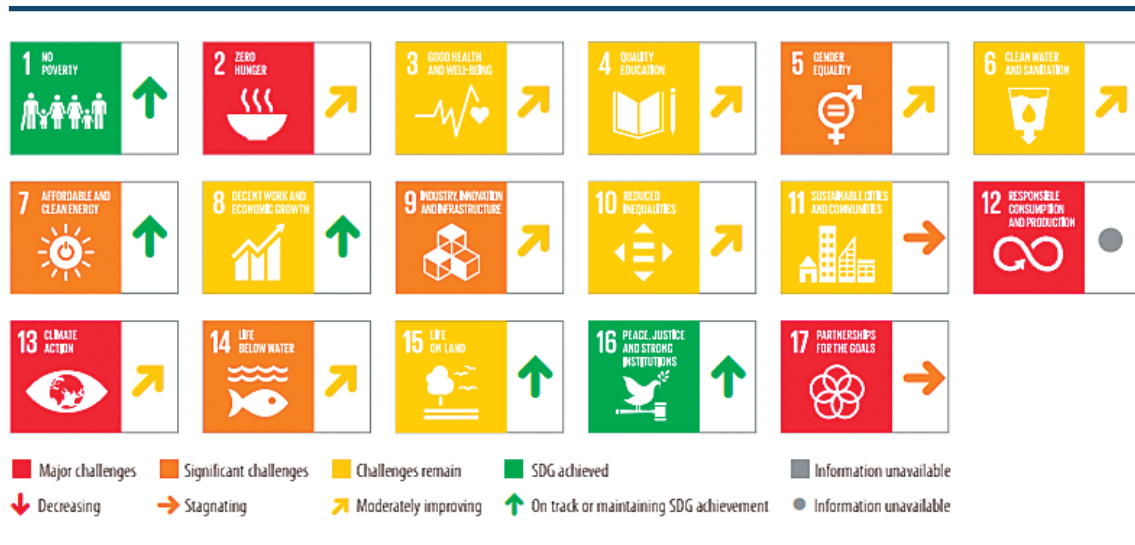
Source: Eurostat (2021, p.11)

Strong progress has been made towards fostering peace and personal security, access to justice, as well as trust in institutions (SDG 16). Good progress is also seen in reducing certain aspects of poverty (SDG 1) and in improving the EU's health situation. However, some indicators used to reflect SDG1 and SDG3 refer to the year 2019 and so do not reflect the impact of the COVID-19 pandemic. The quality of life in cities and communities (SDG 11) has improved also, driven in part by the improvements in SDG3 and SDG1. Against this positive background, we see the impact of the pandemic already affecting some goals, including the economy and the labour market. The assessment of other goals shows that progress has been moderate at best, or slowed, as seen in goals capturing inequality, education and global partnership. Two goals – SDG7 ('Affordable and Clean Energy') and SDG15 ('Life on Land') show a slight movement away from the objectives of sustainable development over the past 5 years. Lack of reliable data means that trends are not calculated by Eurostat for two goals, (SDG6 'Clean Water and Sanitation' and SDG14 'Life Below Water').

The reports by Sachs et al (2021 and earlier reports) complement the Eurostat reports. The most recent report provides a detailed country profile on 165 countries, (including many less developed countries). The authors conclude that the Covid-19 pandemic has had a significantly negative impact on the path towards sustainable development and the achievement of the SDGs. The average global SDG score decreased for the first time in 2021 since the adoption of the SDGs. This was driven mainly by increased poverty rates and unemployment following the outbreak of Covid-19. Further, all three spheres are affected – economic, social and environmental.

The Sachs et al (2021) assessment of Ireland's progress towards the SDGs is illustrated in Figure 9. The dashboard colour codes identify the progress being made under each SDG. A green indicator rating implies achievement but all indicators under the goal need to be also green for the SDG to get a green colour. Yellow, orange and red indicate increasing distance from the achievement of the goal (Sachs et al, 2021). Ireland is ranked Ireland 13<sup>th</sup> out of 165 countries. Their analysis suggests Ireland scores particularly poor on SDGs 12, 13, 14 where major challenges are visible and significant challenges in 5 other SDGs (coded orange in Figure 9).

**Figure 9** Ireland's Current SDG Dashboard



Source: Sachs et al (2021, p. 256)

The key aim of our work over the years<sup>13</sup> is to complement the work being done by others by specifically focusing on how Ireland performs relative to its EU peers on achievement of the SDGs, and to shed some light on the actions that we must take to achieve the 2030 Agenda. We believe this is valuable, because as noted by Klaus Schwab, Chairperson of the World Economic Forum, in his commentary on the SDGs: “[w]e must continually measure progress on the ground, at local, national and international levels” (Sachs et al, 2017, p. 4).

### 3.1 Data Selection

An extensive dataset is required for the computation of our Sustainable Progress Index. Similar to previous reports, our starting point is the official UN Global Indicator Set which was adopted in 2017. We also draw heavily on the EU SDG Indicator Set (2021), which is aligned with the UN indicator set as closely as possible, but also includes indicators most relevant to the EU. This data set is open to annual reviews to incorporate indicators from new data sources and to take into account new EU policy priorities. Eurostat argues that their choice of indicators better reflects EU policy and initiatives, while still reflecting the principles of the official UN indicators incorporated in the SDGs. As far as possible, our final dataset is closely aligned to the official global indicators while also taking account of the EU context.

13 See Clark and Kavanagh (2021), Clark, Kavanagh and Lenihan (2020), Clark and Kavanagh (2019), Clark, Kavanagh and Lenihan, (2018a, 2018b), and Clark and Kavanagh (2017).

We employ a number of additional rules to guide our approach to data collection.

- **Relevance and applicability:** the data must be directly related (e.g. an exact match), similar, or relevant to monitoring of the SDG. For example, some official indicators (e.g. prevalence of stunting and wasting, extreme poverty measures, prevalence of undernourishment, etc.) are less relevant to high income countries in the EU. We exclude these indicators. Other indicators, although not official UN indicators, are included to capture the theme of a particular SDG.
- **Quality:** The most up to date and reliable data is used in this report. In addition to the EU and UN datasets, we use data from official sources (OECD, World Bank, WHO, ILO, others) and non-official data sources (research centers and non-governmental organizations such as Gallup and Transparency International). Our aim is to ensure the best, most reliable data is used to capture each SDG.
- **Most recent available:** as far as possible, all data must refer to the most recent year available. For most indicators, this is 2020 data. However, due to time lags in data generation, earlier data must be used for some indicators. We exclude data that is judged to be out-dated (for example, some official indicators have not been updated in several years and hence their use in the assessment of SDG achievement is questionable).
- **Coverage:** we only include indicators where data is available for all our EU countries. Indicators that have missing data for countries are not used in our index. This report focuses on 14 EU countries. Unlike previous reports, the United Kingdom is not included in our analysis.

Based on the above criteria, this current report utilises 87 indicators across the 17 goals to arrive at our final index scores. The following points are worth emphasizing:

- As mentioned above, we attempt to use the most recently available data, and this relates to 2020 for many indicators. This means that the impact of COVID-19 on the SDGs cannot be fully captured in this year's index, despite the containment measures that were widely introduced by EU Member States during the period. The full scale of the pandemic will likely only be revealed in later editions.
- Where possible, each SDG is covered by a minimum of 4 indicators. There are some exceptions. For example, data limitations and coverage imply we use just 2 indicators for SDG13 to capture themes of climate mitigation, impact and

initiatives; this is far from ideal. Similarly, for SDG 11, we draw on just three indicators<sup>14</sup>.

- The SDG scores and rankings are not comparable to results from previous reports. As new information becomes available, the number of indicators evolves. For example, the EU dataset is reviewed and updated annually to provide for continuous policy relevance and to enhance the statistical quality of the indicator set. Some SDG indicators are revised based on new methodologies for producing better quality indicators in an attempt to better reflect the SDGs. Further, as previously mentioned, this report excludes the UK in the analysis.

### 3.2 Our Method

Ireland is compared to 14 peer countries in the EU in this report. This evaluation is useful: comparing relative performance among countries from a similar region or income group should encourage policymakers to better understand reasons for divergence and design strategies for achieving the SDGs by 2030.

There is considerable heterogeneity in our SDG dataset. Hence, the first step in constructing the index is to rescale the data to make it comparable. Following our earlier reports, we employ a similar method to that proposed by Sachs et al (2016). The benefit of this approach is that it allows us to benchmark Ireland against the other EU countries, at individual indicator level, SDG level and aggregate index level.

The main steps in the construction of the index are as follows. First, a percentile rank is assigned to each indicator. A percentile rank of 100 is assigned to the country with the best performance, 0 to the country with the worst performance. All indicators are expressed in ascending order, so that a higher score on the indicator corresponds to a higher overall SDG score. This allows for clarity and ease of interpretation. Next, we aggregate the percentile rank of each indicator to compute the SDG score for each country. As we have data on every SDG, this implies that every country has an SDG score for each of the 17 goals. Finally, we compute the overall Sustainable Progress Index by aggregating across all goals for each country. Equal weight is assigned to each SDG. Our justification for this follows the UN's (2015, paragraph 5) commitment to treat all SDGs equally<sup>15</sup>

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14 The complete list of indicators used in the construction of the SDG measures is provided in Appendix A.

15 There is no agreement about assigning higher weights to some SDGs over others. Our approach here has the benefit of allowing for the addition of new indicators for a particular SDG without affecting the relative weight of each SDG in the composite measure.



The overall index score allows us to rank the 14 countries and identify those that are making the most progress in achieving the SDGs. The individual SDG scores allow for a closer look at certain aspects of sustainable development.

All the goals are interdependent and interconnected. However, in keeping with the action plan set out in the 2030 Agenda which is holistic in its emphasis on three fronts (social inclusion, economic development, and environmental sustainability), we think there is value in attempting to understand how countries are doing on these three areas of progress. Hence, using our judgement, we cluster the goals by the three dimensions: economic, social and environment. The following section then presents the latest Sustainable Progress Index<sup>16</sup>.

### 3.3 The Economy Index

SDG 8 and 9 are combined to reflect the economy aspect of Agenda 2030. Table 7 provides the country ranking and scores of the Economy Index<sup>17</sup>. Despite significant improvement in many aspects of the economy, (in particular, GDP and GDP per capita – see Figure B1 in Appendix B), our broader measure of the economy shows that there is significant room for. Ireland ranks 9<sup>th</sup> relative to its EU peers on the Economy Index<sup>18</sup>. We explore elements of each SDG further below.

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16 Statistical tests were conducted as part of the analysis. We assessed both collinearity between the goals and between the indicators under each goal. Based on the Pearson's pairwise correlation exercise for the goals, there is no sign of collinearity (defined as > 0.9). We found little evidence of collinearity at indicator level and retain the choice of indicators as they are directly related or relevant to the official UN list.

17 The score compares *average performance* across SDGs 8 and 9.

18 The arithmetic mean and the geomean averages were explored as two approaches to aggregating the data. Both indexes show a high degree of correlation (Pearson's correlation coefficient of 0.98). For ease of interpretation, we settle on the arithmetic mean.

**Table 7** The Economy SDG Index – Ranking by Country

Country	Index Score	Country Rank
Netherlands	0.8011	1
Sweden	0.7962	2
Denmark	0.7718	3
Germany	0.7231	4
Finland	0.6140	5
Belgium	0.6101	6
Austria	0.5999	7
Luxembourg	0.5295	8
Ireland	0.3984	9
France	0.3368	10
Portugal	0.2380	11
Spain	0.2341	12
Italy	0.2073	13
Greece	0.1242	14

Source: Authors' analysis



### *SDG8 'Decent work and economic growth'*

SDG8 appeals for providing opportunities for full and productive employment and decent work for all while reducing child labour, and human trafficking by promoting labour rights and secure working conditions. The goal recognises that growth is essential for employment (particularly well-paid quality jobs), living standards, and prosperity.

6 indicators are used to compute SDG8. Despite the pandemic, the data shows steady improvement in economic growth in Ireland. GDP per capita is high, second only to Luxembourg. The growth rate of GDP is also high, first among the 14 countries in 2020.

In order to capture the other components of SDG8, (including the theme of 'decent work'), additional indicators included are: the employment rate, the NEET rate (youths not in employment, education or training), accidents at work, and average wages. The unemployment rate and employment rate fare relatively well, at least compared to the countries in our sample.

At 14.2%, Ireland still struggles with the NEET rate; it is the fourth highest of the countries. This increase in the NEET rate is also visible among most other EU countries. The indicators 'accidents at work' and 'average

wages' are an attempt to mirror decent work<sup>19</sup>. Ireland is ranked 8<sup>th</sup> on both of these indicators. Combining all other indicators gives an overall rank for Ireland of 6 on SDG8.

**SDG8: Rank = 6**



### ***SDG9 'Industry, innovation and infrastructure'***

SDG9 focuses on supporting inclusive and sustainable development, technological progress, and human wellbeing, with the aim of improving living standards. In doing so, the goal is to promote increased access to financial services, and information and communication technologies. It also recognises the importance of research and innovation for achieving the goals.

5 indicators reflect the theme of SDG9. Expenditure on R&D (as a percentage of GDP) in Ireland is the second lowest of the EU14 at 1.23%. In general, the EU's R&D intensity continues to grow too slowly to reach the long-standing objective of raising R&D expenditure of 3% of GDP (Eurostat, 2021, p. 14). Sweden, Austria, Germany and Belgium are the exceptions: they score highest on this indicator and all have expenditure greater than 3% of GDP.

The other indicators under this SDG - internet use, number of patents filed, number of researchers per 1,000 workers, - show Ireland performing somewhat better, but there is still significant room for improvement. The World Bank's Logistics Performance Index is an indicator that attempts to measure the quality of trade and transport-related infrastructure. Ireland's score on this indicator puts it in 12<sup>th</sup> place for logistics capacity. Ireland's scores on SDG9 puts it in 12<sup>th</sup> place overall.

**SDG 9: Rank = 12**

## **3.4 The Society Index**

The overall score and country ranking for the Society Index are presented in Table 8. 8 SDGs<sup>20</sup> are combined to reflect the society dimension of sustainable development. Ireland is in

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19 It would be preferable to have a good measure of 'decent work', although there is yet no agreed measure developed for use in the SDGs.

20 The 8 SDGs that make up our society index are: 1, 2, 3, 4, 5, 10, 16 and 17.

8<sup>th</sup> place overall. This dimension includes strong performance on SDG4 ‘Quality education’ and relatively good rankings on SDG16 ‘Peace and justice’, and SDG 3 ‘Good health and wellbeing.’

**Table 8** The Society SDG Index – Ranking by Country

Country	Index Score	Country Rank
Sweden	0.7009	1
Denmark	0.6554	2
Netherlands	0.6194	3
Finland	0.5923	4
Belgium	0.5372	5
Austria	0.5247	6
France	0.5008	7
Ireland	0.4946	8
Luxembourg	0.4823	9
Germany	0.4809	10
Portugal	0.4059	11
Italy	0.3748	12
Spain	0.3502	13
Greece	0.2738	14

Source: Authors’ analysis



### *SDG 1 ‘No poverty’*

SDG1 pleads for an end to poverty in all its manifestations. It aims to ensure peoples’ basic needs are met, by focusing on equal rights and access to economic and natural resources, including technology, property and basic financial services. Monitoring SDG1 in the EU context involves tracking aspects related to multidimensional poverty and basic needs. In recent years, the EU has made good progress in almost all aspects of poverty tracked, and moderate progress in reducing the share of people at risk of income poverty after social transfers (Eurostat, 2021, p. 59). The UN official indicators include measures that capture extreme poverty (such as the poverty headcount ratio at \$1.90/day, percentage of the population). We exclude some of the less relevant UN indicators, given our focus on 14 EU countries with broadly similar levels of development.

Our SDG1 is constructed using 4 indicators from Eurostat and the OECD. They are chosen to reflect the broad objectives and ambitions of the goal. The indicators are: the poverty rate (the share of the population whose incomes fall below half the median disposable income for the entire population after taxes and social transfers – this is closely aligned

with the UN indicator): severely materially deprived people (percentage of the population); low-work intensity households, and people living in deprived conditions, (leaky roof, damp walls, floors, etc.). The latter three indicators from Eurostat are meant to capture poverty among more developed countries. Ireland's score on the poverty rate puts it in 7<sup>th</sup> place. However, less positive scores on the other indicators puts it in 11<sup>th</sup> place overall. Denmark, Sweden and Belgium rank at the top end for SDG.

### **SDG 1: Rank = 11**



### **SDG 2 'No hunger'**

SDG2 is concerned with food security, the eradication of hunger, improved nutrition and sustainable agriculture. Many of the official indicators under this goal are more applicable to developing countries. Food security, in terms of sufficiency and supply, is generally not considered a major concern for the EU countries, but malnutrition problems are evident. Achieving healthy diets and ensuring agricultural systems remain productive and sustainable are the key challenges associated with this goal in the EU.

Obesity in Ireland is the highest among the EU14, according to Eurostat data. Over 25% of the population are categorized as obese. Obesity is a significant health issue and is a contributing factor to non-communicable diseases, such as cancer, cardiovascular diseases and diabetes (Eurostat 2021, p. 77). Evidence suggests obesity disproportionately affects people with lower levels of education and generally tends to increase with age until late in life. At EU level, obesity presents the most serious nutrition-related health issue (Eurostat, 2021, p.77).

SDG2 is also concerned with ensuring long-term productivity and the sustainability of agriculture. We use 4 indicators to reflect this aspect of SDG 2: cereal yield efficiency, ammonia emission from agricultural land, the extent of organic farming, and the Harmonised Pesticide Risk Indicator.

Ireland's organic farming share of the total utilised agricultural area (UAA) is well below the EU average at 1.63%; it scores lowest of the EU14 on this indicator (see Figure B2 in Appendix B). On the plus side, Ireland scores 3<sup>rd</sup> highest on both the pesticide risk indicator and the cereal yield indicator. The score on the ammonia emissions indicator is much

less favourable. Combining the 5 selected indicators for this goal gives a ranking of 12 for Ireland.

### ***SDG 2: Rank = 12***



### ***SDG 3 'Good health and wellbeing'***

Improving healthy lives and promoting wellbeing at all stages of life is the focus of SDG3. It also focuses on behavioural or environmental health risks. As well as being important to the individual in terms of improving their quality of lives, good health is also valuable for social and economic growth.

This SDG includes indicators like life expectancy, maternal and neo-natal mortality rates, subjective wellbeing measure, etc. It also covers indicators such as death due to chronic diseases, incidence of alcohol and smoking.

The range of data available to fully reflect this SDG is more comprehensive. We use 10 indicators to reflect the aims of the goal. As well as the above, we include road transport deaths, suicide, adult fertility, alcohol and smoking consumption, wellbeing, and unmet medical needs. The final score places Ireland in 6<sup>th</sup> place. The Netherlands, Sweden and Luxembourg top the rankings on this goal.

The assessment of SDG2 does not fully reflect the impacts of the Covid-19 pandemic. Future assessments of this goal will likely show some deterioration, given the impacts on mortality, life expectancy, etc.

### ***SDG 3: Rank = 6***



### ***SDG 4 'Quality education'***

SDG4 advocates inclusive and equitable quality education and promotes lifelong learning opportunities for all. Education is seen as key in meeting other SDGs; it aims at reducing poverty, inequality, gender inequality and contributes to growth, employment, productivity, innovation, competitiveness and healthier lifestyles

We utilize 7 indicators in our computation of SDG4, reflecting education at all levels of life. Ireland scores highest on two indicators: childhood education and second level education. Good performance is also seen for third level education outcomes, early leavers from education and on the

PISA<sup>21</sup> score (see Figures B3 and B4 in Appendix B). Although Ireland's track record on the employment of recent graduates has generally been positive, the latest data on this indicator is less favourable (though still high) relative to other countries; it is likely the data shows the impact of Covid-19 on employment opportunities for this cohort. The indicator score that reflects life-long learning (adult participation in learning as a percentage of the population) also suggests improvement is required; Ireland is ranked 8<sup>th</sup> on this measure. Overall however, the positive performance of several measures mean that Ireland scores very well on this SDG and is ranked first overall.

#### **SDG 4: Rank = 1**



#### **SDG 5 'Gender equality'**

SDG5 aims at ending all forms of discrimination, violence and any harmful practices against women and girls. It calls for equal rights, recognition and equal opportunities of leadership at all levels of political and economic decision making. We use 5 indicators in our measure of SDG5.

Performance on this goal is mixed based on the selected indicators. Ireland continues to score poorly on indicators for both the share of women in national parliament and in senior management roles, and is below the EU average (see Figure B5 in Appendix B).

Reducing the gender employment gap — the difference between the employment rates of men and women aged 20 to 64 — is important for equality and a sustainable economy. Data on this indicator places Ireland at the lower end of the ranking, as many more women than men still remain economically inactive due to caring responsibilities.

On a positive note, the gender gap is reversed in the area of education, meaning that women are ahead of men and Ireland is ranked first on this indicator (female education as a percentage of male education).

Another key priority of gender policies at both EU and national levels is the reduction in the gender pay gap. The gender pay gap has narrowed slightly over the years in the EU but remains about 14.1%. In Ireland, the latest data puts the gap at 11.3%, below the EU average.

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21 The Programme for International Student Assessment (*PISA*) is an international assessment of the skills and knowledge of 15-year-olds. *PISA* assesses students' performance on reading, maths and science.

The overall score on SDG5 puts Ireland in 10<sup>th</sup> place. Sweden, Finland and Denmark score highest on this SDG.

**SDG 5 Rank = 10**



### ***SDG 10 'Reduced inequalities'***

It is widely agreed that economic prosperity alone will not achieve social progress. Further, high levels of inequality leave much human potential unrealized and can hinder economic activity and undermine democratic participation (Eurostat, 2021, p. 215). Hence, reducing inequality relating to income, sex, ages, disability, race, class, ethnicity, and religion within and among countries is the focus of SDG10. It also focuses on increasing the income of the bottom 40 per cent of the population by adopting relevant policies and legislation and calls for the facilitation of orderly and safe migration and mobility of people.

In the EU, despite positive developments in the past five years, the income gap between the rich and the poor in the EU remains large. In 2019, the income of the richest 20% of the households in the EU was 5 times higher than that of the poorest 20% (Eurostat, 2021, p.217).

We use four indicators to capture the theme of this goal. Data for the Gini coefficient shows Ireland is ranked 7<sup>th</sup> on this indicator. Another relevant measure - the income share of the bottom 40% - gives Ireland a similar ranking. Other indicators suggest a mixed performance. A measure of social justice places Ireland in 6<sup>th</sup> place, while the score on an indicator of household debt ranks Ireland 9<sup>th</sup>.

Overall, our selected indicators for this SDG give Ireland a ranking of 7.

**SDG 10: Rank = 7**



### ***SDG 16 'Peace, justice and strong institutions'***

SDG16 calls for peaceful and inclusive societies based on human rights, protection of the most vulnerable, the rule of law and good governance.

This SDG is at the top of the ranking in the EU as favourable trends on all the indicators have been observed over the past five years, indicating that “the EU has become a safer place to live” (Eurostat, 2021, p.337).

8 indicators are used to mirror our SDG16, covering data on homicides and prisoners, occurrence of crime/violence/vandalism, the perception of



corruption, confidence in the judicial system, and protection of property rights.

The data paint a favourable picture: Ireland is a relatively safe society with a low number of deaths associated with homicide or assault, and a lower perceived occurrence of crime, violence and vandalism. We conclude Ireland is doing well on this SDG based on the selected indicators, with an overall rank of 6.

### **SDG 16: Rank = 6**



### **SDG 17 'Partnership for the goals'**

SDG17 focuses on the global macro economy to ensure an open universal multilateral trading system for sustainable development under the WTO. Global partnership and cooperation with developing countries can promote and develop sustained economic activity, which aids on achieving the targets of the 2030 Agenda.

In the EU, monitoring of SDG17 focuses on global partnership and financial governance within the EU. Progress in achieving SDG17 in the EU is mixed and has been strongly impacted by the Covid-19 pandemic. We use 4 indicators to reflect SDG17. Ireland's contribution to Overseas Development Aid (ODA) at 0.31% of Gross National Income (GNI) in 2020 is below the EU average, and in 9<sup>th</sup> place on this indicator<sup>22</sup>. The EU as a whole is still well off its target of dedicating a share of 0.7 per cent of its GNI to ODA by 2030. The target of 0.7 per cent of GNI to ODA was only met by 4 EU countries in 2020: Denmark, Sweden, Germany and Luxembourg. As a member state of the EU, Ireland is clearly a long way off meeting its commitment.

Data for our second indicator comes from Eurostat; the share of environmental taxes as a proportion of revenue. Ireland is on a par with the European average on this indicator and is ranked 9<sup>th</sup> in our sample.

An indicator of General Government Gross Debt is included to capture the theme of financial governance. Ireland's debt has fallen in recent years and at 58.4%, is below the EU average in 2020. The indicator is important at EU level: the EU stipulates that EU countries' debt level should not exceed 60 per cent of GDP.

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22 See Figure B6 in Appendix B for an illustration of the trend in ODI vs EU Average.

Combining our indicators, Ireland is ranked 9<sup>th</sup> overall. We need to interpret the ranking of SDG 17 with some caution. Lack of data means the indicators do not necessarily capture the key aims of the SDG. It is hoped that better and more reliable quality data will emerge to mirror this goal in time. All the SDGs can only be realised with a strong commitment to global partnership and cooperation.

**SDG 17: Rank = 9**

### 3.5 The Environment Index

Table 9 shows the country scores and rankings for the Environment Index<sup>23</sup>. The evidence suggests Ireland, with a rank of 9, continues to face significant challenges in meeting our commitment to several of the environment goals set out in Agenda 2030.

**Table 9** The Environment SDG Index – Ranking by Country

Country	Index Score	Country Rank
Sweden	0.6050	1
Finland	0.5892	2
Netherlands	0.5576	3
Austria	0.5359	4
Denmark	0.5321	5
Germany	0.5191	6
France	0.5048	7
Luxembourg	0.4804	8
Ireland	0.4741	9
Portugal	0.4660	10
Belgium	0.4448	11
Spain	0.4340	12
Italy	0.4317	13
Greece	0.4077	14

Source: Authors' analysis



#### *SDG 6 ‘Clean Water and Sanitation’*

SDG6 calls for universal access to safe and affordable drinking water, sanitation and hygiene. It aims at improving water quality, water use efficiency and sustainable supply.

23 The 7 SDGS used to compute our Environment Index are: 6, 7, 11, 12, 13, 14 and 15.

In the EU, generally favourable developments are visible for access to sanitation and bathing water quality. The share of people without improved sanitation facilities in their households has been steadily decreasing, with the vast majority of member states already having universal access to sanitation.

Results for this SDG, which draw on 4 indicators, are mixed. Ireland scores well on Eurostat's water exploitation index, which is a measure of total fresh water use as a percentage of the renewable fresh water resources (groundwater and surface water) – Ireland is ranked in 3<sup>rd</sup> place. Indicators for access to improved drinking water and sanitation show further development is required. The proportion of wastewater that is treated is lower in Ireland relative to the best performing countries.

The overall score for Ireland ranks it in 10<sup>th</sup> place on this goal.

#### **SDG 6: Rank = 10**



#### ***SDG 7 'Affordable and Clean Energy'***

Access to reliable, affordable, and sustainable energy services to fulfil demands is a key aim of SDG7. The goal also calls on countries to promote investment in resource- and energy-efficient solutions and low-carbon energy infrastructure.

Assessing the trend in this goal in the EU, Eurostat argue that negative developments between 2014 and 2019 in the areas of energy consumption and energy supply imply a slightly negative evaluation of SDG7. As a result, the EU is currently not on track to meeting its target to improve energy efficiency by 32.5% by 2030 (Eurostat, 2021, p.16).

We use 4 indicators to reflect SDG7. Ireland's CO<sub>2</sub> emissions from energy fuels combustion/electricity output (MtCO<sub>2</sub>/TW) are one of the highest in the sample. The share of renewable energy is one of the lowest relative to our EU peers and is well below the EU average<sup>24</sup>. On the other hand, final energy consumption in household per capita has fallen since 2000 and is now below the EU average (2020 data, Eurostat). The score for the proportion of people who are unable to keep their home adequately warm places Ireland in the middle of the rankings.

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24 See Figure B7 in Appendix B.

Combining the indicators gives a score that ranks Ireland in 11<sup>th</sup> place, suggesting that Ireland, like other EU countries, is struggling to meet the objectives of this goal.

**SDG 7: Rank = 11**



### ***SDG 11 ‘Sustainable cities and communities’***

SDG11 focuses on quality of life in cities and communities, sustainable transport and adverse environmental impacts. It aims to make cities safe and sustainable by ensuring access to safe and affordable housing, investing in infrastructure, and improving planning and management in a way that is both participatory and inclusive.

The focus in the EU is on indicators of overcrowding and poor dwelling conditions, as well as people’s exposure to noise and air pollution, and the occurrence of crime, violence and vandalism in the neighbourhood. There have been improvements at the EU level in these aspects of SDG11. Satisfaction with public transport models and transport deaths are less favourable. However, many of the indicators under this goal do not reflect the impact of the COVID-19 pandemic.

3 indicators are used here to mirror SDG11. We omit some of the official indicators that are more relevant to developing countries. On the plus side, air pollution is less of a problem in Ireland’s urban areas than in many other EU countries – Ireland is ranked 3<sup>rd</sup>, with the Scandinavian countries doing better. Ireland scores poorly on the indicator capturing satisfaction with public transport (Ireland ranks 11). As the SDG calls for safe and affordable housing, we include a measure of rent over-burden from the OECD, who state that households that spend more than 40 per cent of disposable income on housing are considered “overburdened” (OECD, 2019). Ireland does well on the SDG: the overall score for quality of life in our cities and communities shows Ireland in 4<sup>th</sup> place.

**SDG 11: Rank = 4**



### ***SDG 12 ‘Responsible consumption and production’***

Economic growth has long been linked to an increase in resource and energy consumption. SDG12 calls for adopting sustainable practices and procedures for business and an increase in environmentally friendly activity by consumers to enhance sustainable consumption and production. In the EU, the focus is on developments in the area

of decoupling environmental impacts from economic growth, energy consumption, and waste generation and management.

Ireland ranks poorly on this SDG, based on our 6 selected indicators. The production of municipal waste is one of the highest among the countries here (Ireland is ranked 11) The recycling rate of municipal waste is very low and the indicators of circular material use (%) is one of the lowest in our sample. The pattern for CO2 emissions from new passenger cars paints a more favourable picture, as does the indicator reflecting resource productivity. The overall score and rank of 11 shows the extent of the challenge facing Ireland on this goal.

### ***SDG 12: Rank = 11***



### ***SDG 13 ‘Climate Action’***

On fulfilling the promise to the United Nations Framework Convention on Climate Change and operationalising the Green Climate Fund, SDG13 integrates climate change mitigation and measures into strategies and policies to reduce the severity from the effects of climate related hazards and natural disasters.

Climate mitigation, climate impacts, and climate initiatives that support climate action are the main focus of this goal in the EU context. Commenting on the EU’s progress on this SDG, Eurostat note that “[o]n the basis of the indicators used, the EU is not on track to meeting two of the three climate and energy targets monitored here, including the increased 2030 greenhouse gas emissions reduction target.” (Eurostat, 2021, 275). However, it is also noted that “support to climate action is increasing in the EU, both in terms of climaterelated expenditure and the number of local and regional governments signing up to the Covenant of Mayors for Climate and Energy” (Eurostat, 2021, p.275).

Problems with data availability (for example, reliable and comprehensive measures of mitigation, impacts and initiatives) make this one of the SDGs that international agencies still find problematic when attempting to determine important trends. A key indicator used by Eurostat is GHG emissions and this is one of our two indicators used to compute the SDG13 score. Ireland witnessed an increase in its GHG emissions from 1990 to 2001 (see Figure B8 in Appendix B) and although these emissions have since fallen, they remain well above EU average. Given data limitations, our SDG measure here focuses on just 2 indicators:

COemissions per capita indicator, and the carbon pricing score<sup>25</sup>. Ireland is ranked 10<sup>th</sup> overall on this SDG.

### **SDG 13 Rank = 10**



### **SDG 14 'Life below Water'**

The conservation of the oceans, seas and marine resources by safeguarding and ensuring their sustainable use is the aim of SDG14. It aims to reduce marine pollution, ocean acidification and overfishing as addressed through policy. The world's oceans – their temperature, chemistry, currents and life – drive global systems that make the Earth habitable for humankind. Hence, a key priority for a sustainable future is the careful management of this goal.

Due to data limitations, it has, and continues to be, difficult to estimate how each country is contributing to ocean health. Ocean acidification poses a risk to the marine environment and global climate regulation. Unfavourable trends are visible and “due to the absorption of CO<sub>2</sub> into the world's oceans, the mean ocean acidity continues to increase, and in 2019 reached a new unprecedented high over pre-industrial levels (Eurostat, 2021, p.17).

More recently, different indicators have been used to capture sustainable fishery and healthy oceans; protected marine sites, extent of fish trawling and fish dredging, and measures of the percentage of fish caught and then discarded. Estimates of ocean health, including ocean acidity are available from the Ocean Health Index<sup>26</sup> which measures ocean health by country. However, complete data remains a problem for accurately estimating achievement on this SDG for most countries. For example, the available data for protected marine sites do not provide an indication of the sites' conservation status nor the effectiveness of the protection they offer to species and habitats (Eurostat, 2021, p.17). Hence caution is advised in interpreting the findings here.

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25 The Carbon Pricing Score (CPS) (also called the effective carbon tax rate) measures the extent to which countries have attained the goal of pricing all energy related carbon emissions at certain benchmark values for carbon costs. The more progress that a country has made towards a specified benchmark value, the higher the CPS. The measure here comes from the OECD and excludes CO<sub>2</sub> from biomass.

26 <http://www.oceanhealthindex.org/region-scores/annual-scores-and-rankings>. We use the clean waters score from the Index.

Our SDG14 is computed using 5 indicators for 12 countries<sup>27</sup>, drawing on available data and the overall score gives it a ranking of 4 on this SDG. Denmark, Finland and Greece are the top three scoring countries. Given time, it is hoped better quality data will allow for more reliable estimates of SDG14.

***SDG 14 Rank = 4 (out of 12)***



### ***SDG 15 'Life on land'***

SDG15, which seeks to protect, restore and promote the conservation and sustainability of ecosystems, is one of the key goals that incorporate environmental considerations, along with SDG14. SDG15 is concerned with the use of terrestrial, inland-water and mountain ecosystems, which are enhanced by halting deforestation, restoring degraded land and protecting species.

Just like SDG14, monitoring of SDG 15 remains somewhat limited because of data availability issues. In the EU, policy focuses in the EU focus on attempting to ensure ecosystems are healthy and sustainably used and managed. Commenting on SDG15, Eurostat note that the results of other evaluations, which conclude that the status of ecosystems and biodiversity in the EU is insufficient is confirmed by their analysis, and that “the negative impacts of EU consumption patterns on global biodiversity are considerable” (Eurostat, 2021, p.16).

5 indicators are used to capture the theme of SDG15, mainly from Eurostat but also BirdLife International. On the plus side, indicators of the share of protected terrestrial areas and freshwater areas place Ireland high in the ranking order. The score on the Red List index which estimates biodiversity loss is less favourable - Ireland is ranked 8th on this indicator. Finally, the share of land dedicated for forestry use is low in Ireland and is well below the EU average. Combining the indicators gives an overall rank of 8 on this goal.

***SDG 15 Rank = 8***

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27 Both Austria and Luxembourg are landlocked – hence there is no data for this goal.

### 3.6 Summary

The goals in the 2030 Agenda imply an obligation for all, including governments, business and individuals. The SDGs call on all nations to combine economic prosperity, social inclusion, and environmental sustainability. Our analysis shows the challenges Ireland continues to face under these three dimensions. Table 10 summarises how Ireland has scored on each SDG under the three categories examined above.

**Table 10** Ireland's Rank by Dimension and by SDG

<b>Economy</b>		<b>9</b>
<b>SDG 8</b>	Good Jobs and Economic Growth	
<b>SDG 9</b>	Industry, Innovation and Infrastructure	
<b>Society</b>		<b>8</b>
<b>SDG 1</b>	No Poverty	11
<b>SDG 2</b>	Zero Hunger	12
<b>SDG 3</b>	Good Health and Wellbeing	6
<b>SDG 4</b>	Quality Education	1
<b>SDG 5</b>	Gender Equality	10
<b>SDG 10</b>	Reduced Inequality	7
<b>SDG 16</b>	Peace and Justice	6
<b>SDG 17</b>	Partnerships for the Goals	9
<b>Environment</b>		<b>9</b>
<b>SDG 6</b>	Clean Water and Sanitation	10
<b>SDG 7</b>	Affordable and Clean Energy	11
<b>SDG 11</b>	Sustainable Cities and Communities	4
<b>SDG 12</b>	Responsible Consumption and Production	11
<b>SDG 13</b>	Climate Action	10
<b>SDG 14</b>	Life Below Water	4
<b>SDG 15</b>	Life on Land	8

Source: Authors' analysis

### Strengths

Ireland is in the top 5 for just 3 SDGs; 'Quality education' (SDG 4), 'Sustainable cities and communities' (SDG11) and 'Life below water' (SDG14). The good score on SDG16 'Peace and justice' indicates that Ireland is a relatively safe place to live with reasonably good transparent, effective and accountable institutions. Ireland's relatively good performance on 'Good health and wellbeing' does not of course take account of the Covid-19 pandemic; the crisis has



underlined shown the importance of every country having an effective social protection system, and universal health coverage.

### **Weaknesses**

Several of the SDG scores reflecting the environment show the need to address some important sustainability issues. Challenges lie ahead if Ireland is to achieve its objectives on SDG 7 'Affordable and clean energy', SDG12, 'Responsible consumption and production', SDG13, 'Climate action', and SDG6, 'Clean water and sanitation.' The low score on SDG2 'No hunger' emphasizes the need to embrace fully the idea of sustainable agriculture.

### **Somewhere in the Middle**

The remaining SDGs lie in the middle of the rankings. But that does not imply we should be complacent. Ireland still has a long way to go to meet the aims of Agenda 2030. Successful implementation of the SDGs requires a balance between economic and social progress and sustaining the planet's environment and resources as well as combatting climate change.

## **3.7 How Are We Doing Overall? - The Sustainable Progress Index**

The objective of the 17 SDGs as part of the 2030 Agenda was to set universal goals that meet the urgent environment, political and economic challenges evident in our world. They focus on identifying global challenges relating to issues on poverty, inequality, climate, environmental degradation, prosperity, peace, and justice.

The recent COVID-19 pandemic has highlighted the interdependence of our economic, social and natural spheres. It has also made the achievement of the 2030 Agenda and the SDGs even more challenging, both for the EU and globally. However, they must remain at the top of the policy agenda if we are to ensure a more sustainable future for all.

The composite *Sustainable Progress Index (SPI)* is presented in Table 11. The benefit of the aggregate measure here is that it provides a simple report card to track Ireland's overall performance on the SDGs compared to its EU peers: countries that have experienced similar levels of development. Our index is based on the most up-to-date data available and our indicators are selected to reflect the broad aims and objectives of the SDGs. Two further points are worth emphasizing again.

- (i) Our analysis is based only on what can be measured. In spite of best efforts to identify data for the SDGs, several indicator and data gaps persist, particularly for the environment SDGs

(ii) Due to due to time lags in data reporting, the impact of Covid-19 is not fully captured in this year's index.

**Ireland is ranked in 10<sup>th</sup> place on the SPI 2022.** As in previous editions, three Nordic countries and the Netherlands top the Index.

**Table 11** The Sustainable Progress Index Ranking by Country

Country	Index Score	Country Rank
Sweden	0.6726	1
Denmark	0.6183	2
Netherlands	0.6153	3
Finland	0.5936	4
Austria	0.5383	5
Germany	0.5251	6
Belgium	0.5077	7
Luxembourg	0.4875	8
France	0.4832	9
<b>Ireland</b>	<b>0.4748</b>	<b>10</b>
Portugal	0.4109	11
Italy	0.3785	12
Spain	0.3711	13
Greece	0.3113	14

Source: Authors' analysis



# Conclusion and Future Policy Considerations

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**T**he SDGs are a blueprint to achieve a better and more sustainable future. This report is the latest in our contribution to the debate on the shape of Ireland, Europe and our world in 2030 and beyond. The aim is to inform interested parties, including Irish and European citizens, policy makers and business people, to adopt sustainable development actions. Our central goal is to show how Ireland compares relative to our EU peers. We believe that knowing where we stand, identifying the most pressing sustainability challenges, and critically examining our performance is essential if we are to ensure a sustainable future for our country.

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In the past year, the Government has worked to deliver a Well-being Framework to “to better measure Ireland’s progress as a country and better align policy decisions with people’s experiences.”<sup>28</sup> Aligning that Framework with the SDGs would also ensure policy coherence between our national targets and our international commitments.

The First Report on a Well-being Framework for Ireland was published in July 2021 (Government of Ireland, 2021), setting out the work undertaken across stakeholders to that point. The overarching Vision set out in that First Report was:

enabling all our people to live fulfilled lives now and into the future. It is ingrained in well-being across person, place and society. (p.14).

This Vision had two elements, firstly to provide an overarching framework for policy making and deliver greater policy coherence across Government Departments; and secondly to improve the impact of policy on people's lives. Determining the second element, of course, requires the ability to measure that impact. It is said that what is counted is what counts, and so the indicators used to measure the impact of the Well-being Framework are critical.

In developing the dimensions, the Department drew primarily from the OECD Well-being Framework, consisting of 11 domains. The National Economic and Social Council (NESC) also established a Subgroup of Stakeholders and Experts, of which *Social Justice Ireland* was part. This Subgroup provided consultation supports throughout the development of the Well-being Framework with a focus on equality and inclusion. The NESC Report on Ireland's Well-being Framework Consultation (NESC, 2021) identified three overarching and inter-linked priorities – Equity, Agency and Sustainability, ensuring that all voices are heard, particularly those who may be furthest away from the policy space (but likely to be among the most impacted by policy changes).

Ireland's Well-being Framework consists of 11 dimensions:

1. Subjective Well-being
2. Mental and Physical Health
3. Income and Wealth
4. Knowledge and Skills
5. Housing and Local Area
6. Environment, Climate and Biodiversity
7. Safety and Security
8. Work and Job Quality
9. Time Use
10. Community, Social Connections, and Cultural Participation
11. Civic Engagement and Cultural Expression

According to the First Report, each of the dimensions were explored in three ways: an overarching definition that reflects on the capability approach; several aspects to illustrate how the high-level definition will directly relate to people's lived experiences; and some examples of how the dimensions link with each other. This linking together, or interconnectedness, is illustrated within the First Report as a series of concentric circles, placing the person at the centre, place around that, and society surrounding both (Figure 10):

**Figure 10** Interconnections between Dimensions

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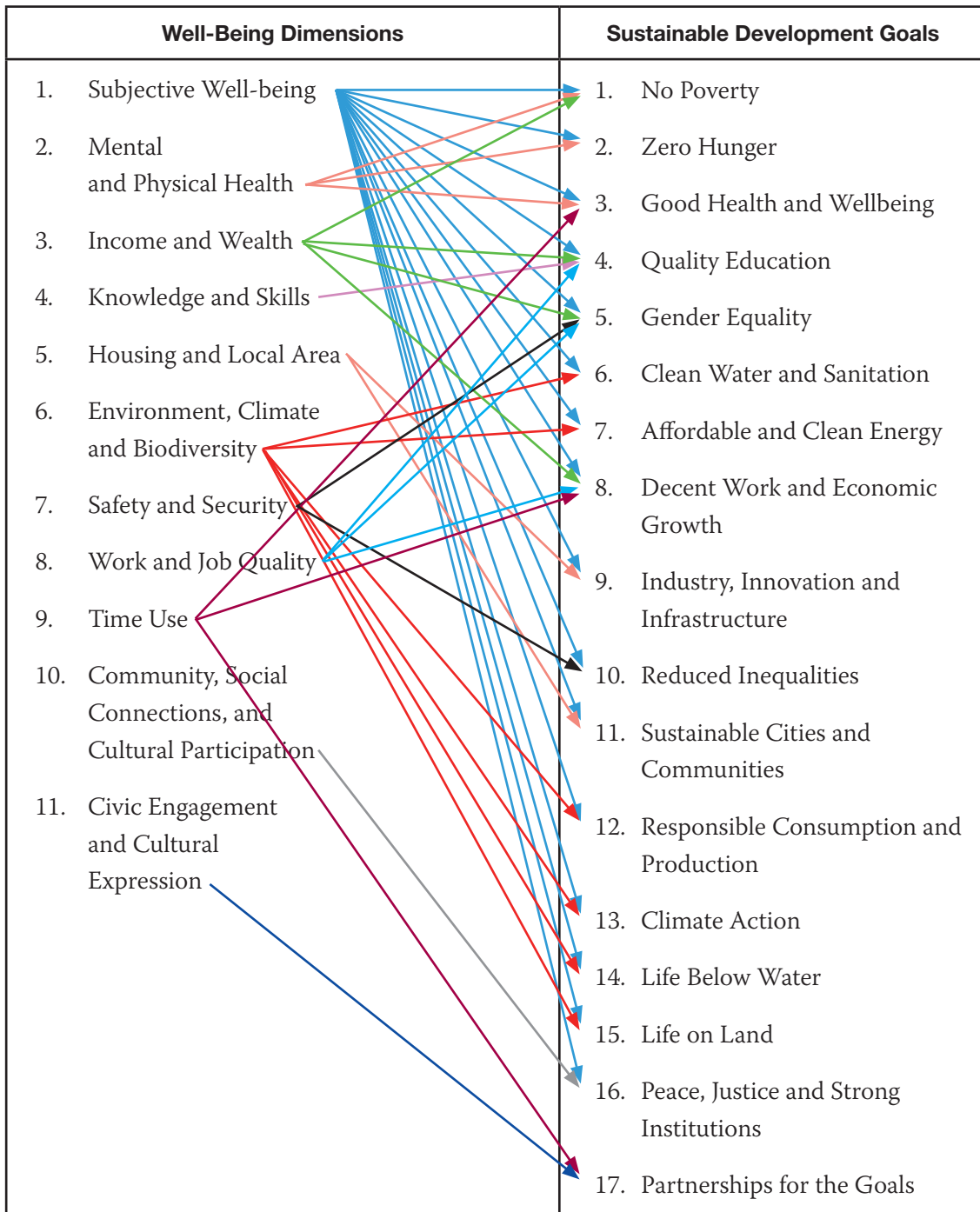


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**Source:** Government of Ireland (2021): *First Report on a Well-being Framework for Ireland*, Stationery Press: Dublin, p.17

But this is just one illustration of how these dimensions interconnect. Civic Engagement and Cultural Expression is as much a personal dimension as it is a societal one. Subjective Well-being can depend on the place as much as the person. Housing and Local Area certainly spans all three. In aligning the Well-being Framework with the SDGs, the interconnectedness, and need for policy coherence, is again apparent, as illustrated in Figure 11.



**Figure 11** Well-being Framework and SDG Alignment




There is significant cross-over across dimensions when it comes to implementing the SDGs. Proper implementation of the Well-being Framework could help bring Ireland closer to meeting its Goals.




## 4.1 Policy Proposals


Putting this interconnectedness into practice, while also supporting Ireland’s progress to achieve the targets set as part of the 2030 Agenda for Sustainable Development, will require real action across a range of policy areas. In this regard, we make the following policy proposals set out both within the framework of the 11 Well-being Dimensions and the 17 Sustainable Development Goals.


SDG Number	National Level	Local Level
<b>Wellbeing Indicator 1: Subjective Well-being</b>		
	<ul style="list-style-type: none"> <li>• Introduce a new Social Contract to underpin the Wellbeing of all in Ireland</li> </ul>	<ul style="list-style-type: none"> <li>• Introduce local social dialogue mechanisms to ensure that all communities have a say in their own Wellbeing</li> </ul>
<b>Wellbeing Indicator 2: Mental and Physical Health</b>		
	<ul style="list-style-type: none"> <li>• Fund research on food poverty through stakeholder groups such as the Vincentian Partnership for Social Justice, St. Vincent de Paul and MABS.</li> <li>• Expand the ‘hot school meals’ programme, particularly for schools and pre-schools in disadvantaged areas and those with a high concentration of homeless children / children living in Direct Provision who do not have own cooking facilities.</li> </ul>	<ul style="list-style-type: none"> <li>• Provide funding for research on local initiatives on sustainable food production.</li> <li>• Support ‘farm to fork’ and short supply chains in food production.</li> </ul>

SDG Number	National Level	Local Level
	<ul style="list-style-type: none"> <li>• Fully resource the implementation of Sláintecare, including the €500 million commitment to in-frastructure over the next 6 years.</li> <li>• Increase the number of community beds.</li> <li>• Increase supports to carers.</li> <li>• Increase home care package provision and introduce legislation for a right to homecare.</li> <li>• Recruit and upskill healthcare workers to meet demand.</li> <li>• Invest in Community Health Networks and step-down facilities.</li> <li>• Properly resource mental health services.</li> <li>• Create additional respite care and long-stay facilities for older people and people with disabilities.</li> <li>• Ensure medical card coverage for all who are vulnerable.</li> </ul>	<ul style="list-style-type: none"> <li>• Support the integration of primary care networks and GP led community healthcare services.</li> <li>• Support the roll-out of ‘Smile agus Sláinte’ as part of primary care provision.</li> </ul>






SDG Number	National Level	Local Level
<b>Wellbeing Indicator 3: Income and Wealth</b>		
	<ul style="list-style-type: none"> <li>• Set an ambitious national poverty reduction target.</li> <li>• Make persistent poverty the primary indicator of poverty measurement.</li> <li>• Introduce a Basic Income, Refundable Tax Credits and a Living Wage.</li> <li>• Benchmark all social welfare payments to at least 27.5 per cent of Average Wages as a move towards a Minimum Essential Standard of Living.</li> <li>• Implement a programme to reduce overall poverty rate to 4per cent within five years.</li> <li>• Ensure adequate income through the lifecycle, including adequate payments for children, women, and a Universal State Social Welfare Pension.</li> </ul>	<ul style="list-style-type: none"> <li>• Support the development of social and affordable housing on State lands.</li> <li>• Seek to replace the Local Property Tax with a Site Value Tax and increase the tax-take, while in-cluding hardship measures for those who cannot afford to pay it in full.</li> </ul>
	<ul style="list-style-type: none"> <li>• Adopt and implement a national financial literacy strategy</li> </ul>	
	<ul style="list-style-type: none"> <li>• Introduce a Universal State Social Welfare Pension.</li> </ul>	<ul style="list-style-type: none"> <li>• Support high-quality community childcare, particularly in disadvantaged areas.</li> </ul>



SDG Number	National Level	Local Level
<b>Wellbeing Indicator 4: Knowledge and Skills</b>		
	<ul style="list-style-type: none"> <li>• Deliver a long-term, sustainable, appropriately funded education strategy that takes a whole-person, life-cycle approach to learning.</li> <li>• Make combatting educational disadvantage a priority.</li> <li>• Commit to increasing investment in Early Childhood Care and Education by 0.1 per cent of GDP annually to meet the OECD average by 2025.</li> <li>• Develop a framework to deliver sustainable funding revenues for higher education over the next five years with a roadmap to 2028.</li> <li>• Invest in Lifelong Learning as part of a human capital investment strategy.</li> <li>• Invest in education, literacy and retraining programmes to address NEETs.</li> </ul>	<ul style="list-style-type: none"> <li>• Enhance community education programmes and life-long learning through the library network.</li> <li>• Ensure full implementation of the 'Our Public Libraries 2022' strategy and ensure that its implementation is inclusive and supportive of smaller branch libraries as a hub for local communities.</li> </ul>




SDG Number	National Level	Local Level
<b>Wellbeing Indicator 5: Housing and Local Area</b>		
	<ul style="list-style-type: none"> <li>• Invest in initiatives that strengthen social infrastructure – schools, primary care centres, social housing and so on.</li> <li>• Support a minimum corporation tax rate of 6 per cent so that large corporations and MNCs contribute to the sustainability of the community in which they are situated.</li> <li>• Commit to increasing the total tax take by between €2.5 to €3bn annually.</li> <li>• Review the use of tax expenditures to promote investment in areas that support society.</li> </ul>	<ul style="list-style-type: none"> <li>• Expedite the roll-out of the National Broadband Plan, commencing with those with the largest proportion of premises dependent on it.</li> <li>• Improve the primary road network across the country to support the increased provision of public transport.</li> </ul>



SDG Number	National Level	Local Level
	<ul style="list-style-type: none"> <li>• Aim to make 20 per cent of all housing social housing, in line with other European countries, within the next 10 years.</li> <li>• Shift investment from Family Hubs to Housing First as a long-term strategy to eliminating homelessness.</li> <li>• Support community programmes such as sports initiatives, playgrounds, recreational centres, and libraries, to sustain communities.</li> <li>• Off-balance-sheet investment in affordable housing and rental.</li> <li>• Ensure that investment is balanced between the regions, with due regard to sub-regional areas.</li> <li>• Ensure rural development policy is underpinned by social, economic and environmental well-being and develop an Integrated Rural Development Policy Structure.</li> <li>• Appeal the Eurostat decision in respect of Tier 3 Approved Housing Bodies.</li> <li>• Close tax loopholes for property investment vehicles.</li> <li>• Invest in integrated, accessible, sustainable and environmentally friendly public transport networks.</li> <li>• Invest in hard infrastructure for cycle lanes.</li> <li>• Develop passive housing construction processes to ensure environmental sustainability in housing.</li> </ul>	<ul style="list-style-type: none"> <li>• Invest in a deep retrofitting programme for community spaces.</li> <li>• Ringfence continued funding to encourage sports participation and active lifestyle programmes.</li> <li>• Invest in the provision and maintenance of community spaces, playgrounds, and youth centres.</li> </ul>

SDG Number	National Level	Local Level
<b>Wellbeing Indicator 6: Environment, Climate and Biodiversity</b>		
	<ul style="list-style-type: none"> <li>• Continue to provide support and advice to farmers to improve water quality under the Agricultural Sustainability Support and Advice Programme.</li> <li>• Invest in Ireland's wastewater system.</li> </ul>	<ul style="list-style-type: none"> <li>• Develop a Drinking Water Safety Plan, following EPA Guidelines, for each public water supply, identifying all potential risks and detailing mitigation and control measures.</li> </ul>
	<ul style="list-style-type: none"> <li>• Upgrade the national grid and invest in infrastructure necessary to support a transition to renewable energy.</li> <li>• Invest in research and development for the use of renewable energy in our public transport systems.</li> </ul>	<ul style="list-style-type: none"> <li>• Invest in renewable energy transition programmes for Local Authority offices and community spaces.</li> </ul>
	<ul style="list-style-type: none"> <li>• Introduce a circular economy package for Ireland across all areas of economic activity.</li> <li>• Research cradle-to-cradle development.</li> <li>• Place a levy on single-use plastics.</li> <li>• Invest in the development of short supply chains.</li> <li>• Clarify and enforce the Vacant Site Levy legislation to ensure it achieves its original purpose.</li> <li>• Introduce an aviation fuel tax.</li> <li>• Reintroduce the Windfall Gains Tax at 80per cent.</li> <li>• Explore new initiatives to promote behavioural change through the tax system.</li> </ul>	<ul style="list-style-type: none"> <li>• Eliminate all single-use plastics from Local Authority buildings and public spaces.</li> <li>• Develop open consultation on ambitious waste management plans beyond 2021.</li> <li>• Adopt the principles of a circular economy, particularly for construction and demolition waste.</li> </ul>




SDG Number	National Level	Local Level
	<ul style="list-style-type: none"> <li>• Establish a Just Transition and Adaptation Dialogue to ensure rural areas are not disproportionately impacted by low carbon policies and are supported to meet the challenges posed by the future of work.</li> <li>• Develop a comprehensive mitigation and transition programme to transition to a low carbon economy.</li> <li>• Increase carbon taxes in line with IPCC recommendations.</li> <li>• Ensure that all people are treated fairly in the creation of policies and projects that address climate change as well as in the systems that create climate change.</li> <li>• Develop a comprehensive mitigation and transition programme to support communities and people in the transition to a low carbon society.</li> <li>• Set ambitious emissions reduction targets for 2030 and ensure sufficient resources to support implementation of these targets.</li> </ul>	<ul style="list-style-type: none"> <li>• Develop Climate Change Adaptation Strategies in each Local Authority area, with the collaborative input of local communities and Public Participation Networks, supported by dedicated sustainable funding in the medium to long-term.</li> </ul>
	<ul style="list-style-type: none"> <li>• Fully implement the National Integrated Maritime Plan.</li> <li>• Regulate harvesting and end over-fishing.</li> <li>• Implement policies to restore fishing stocks to sustainable levels.</li> </ul>	<ul style="list-style-type: none"> <li>• Put a plan in place to tackle pesticides in drinking water.</li> <li>• Implement the 'Nature' programmes set out in the Climate Action Plan published by the Department of Communications, Climate Action and the Environment.</li> </ul>


SDG Number	National Level	Local Level
	<ul style="list-style-type: none"> <li>• Increase afforestation of native trees and reduce planting of Sitka spruce.</li> <li>• Ensure that sustainable agriculture policy, sustainable land management, and short supply chains for farmers and consumers form the basis of future agricultural policy.</li> </ul>	<ul style="list-style-type: none"> <li>• Invest in programmes to rewet the boglands.</li> <li>• Implement the ‘Nature’ programmes set out in the Climate Action Plan published by the Department of Communications, Climate Action and the Environment.</li> </ul>
<b>Wellbeing Indicator 7: Safety and Security</b>		
	<ul style="list-style-type: none"> <li>• Fully implement the Roadmap for Social Inclusion 2020-2025 and review the targets set out annually.</li> <li>• Fully implement the recommendations of the UN CERD.</li> <li>• Expedite legislation on hate crime and hate speech.</li> <li>• Reform the High-Income Individuals’ Restriction to include all tax expenditures.</li> <li>• Introduce a Financial Transactions Tax.</li> </ul>	<ul style="list-style-type: none"> <li>• Utilise the full allocation for Traveller specific accommodation and support the development of sites for this purpose.</li> <li>• Fully implement the National Traveller and Roma Inclusion Strategy.</li> </ul>
<b>Wellbeing Indicator 8: Work and Job Quality</b>		
	<ul style="list-style-type: none"> <li>• Introduce legislation to support flexible and remote working.</li> <li>• Make all sanitary products exempt from VAT.</li> <li>• Introduce State-led childcare.</li> <li>• Individualise and equalise social welfare payments.</li> </ul>	<ul style="list-style-type: none"> <li>• Actively promote gender equality in Local Authority elections and on Boards and Committees of strategic importance.</li> <li>• Introduce family-friendly working hours and conditions for councilors and Local Authority staff.</li> </ul>



SDG Number	National Level	Local Level
	<ul style="list-style-type: none"> <li>• Move Ireland’s total tax-take towards the EU-average by widening the tax base in a fair and just manner.</li> <li>• Make savings on expenditure, but not through cuts in services or infrastructure budgets.</li> <li>• Adjust the EU’s fiscal rules to cope with the post-COVID reality.</li> <li>• Reintroduce the Non-Principal Private Residence Tax at a rate of €500 per annum.</li> <li>• Provide an Annual Review of Tax Expenditures.</li> <li>• Simplify the tax system.</li> <li>• Integrate a Sustainable Development Framework into economic policy.</li> <li>• Recognise that, while most additional investment should be on once-off infrastructure, there is also a need to invest in recurring expenditure to generate the structural change and reform re-quired.</li> <li>• Resource the up-skilling of those who are unemployed or at risk of unemployment.</li> <li>• Increase the minimum wage to the level of the Living Wage.</li> <li>• Invest in ancillary community services to remove barriers to employment.</li> </ul>	<ul style="list-style-type: none"> <li>• Review the sustainability of jobs created through LEOs and develop plans to ensure the securi-ty of decent work.</li> </ul>



SDG Number	National Level	Local Level
<b>Wellbeing Indicator 9: Time Use</b>		
	<ul style="list-style-type: none"> <li>• Increase supports to carers, including respite hours and home help.</li> </ul>	
	<ul style="list-style-type: none"> <li>• Strengthen and enforce legislation to tackle job precarity and low pay.</li> <li>• Develop flexible working initiatives to support remote working and increased participation for people with disabilities.</li> </ul>	
	<ul style="list-style-type: none"> <li>• Implement the Sustainable, Inclusive and Empowered Communities Strategy.</li> </ul>	

SDG Number	National Level	Local Level
<b>Wellbeing Indicator 10: Community, Social Connections and Cultural Participation</b>		
	<ul style="list-style-type: none"> <li>• National Economic and Social Dialogue / Partnership to include all five pillars.</li> <li>• Ensure that all voices are heard and include all stakeholders.</li> <li>• Restore funding to the Community and Voluntary Pillar.</li> <li>• Broaden discussion beyond pay and taxation</li> <li>• Review planning legislation to ensure that its terms are consistent with the objectives of the Goals and democratic engagement.</li> <li>• Introduce impact assessment and poverty proofing on all Government initiatives.</li> <li>• Ensure that Budgetary allocations are valid, realistic and transparent, and take account of exist-ing levels of service.</li> <li>• Legislate for enforcement mechanisms where Local Authorities do not use their full allocation for Traveller Specific Accommodation.</li> <li>• Ensure adequate funding for civil legal aid.</li> <li>• Greater transparency of lobbying activities.</li> <li>• Establish a Dialogue Forum in every Local Authority involving Local Authorities and the Pub-lic Participation Networks (PPNs). Fully implement recommendations of the Commission for the Elimination of Racial Discrimination within a reasonable timeframe.</li> </ul>	<ul style="list-style-type: none"> <li>• Develop a sustainable strategy for public participation, to include medium and long-term objec-tives and associated budget commitments.</li> <li>• Move from an annual funding model for PPNs to a 3 to 5-year renewable commitment.</li> </ul>

SDG Number	National Level	Local Level
	<ul style="list-style-type: none"> <li>• Introduce an ex-ante social impact assessment of all policy proposals to be discussed at Oi-reachtas Committees.</li> <li>• Review building regulations to ensure good ventilation, heating and fire safety standards across all building.</li> </ul>	

**Wellbeing Indicator 11: Civic Engagement and Cultural Expression**



	<ul style="list-style-type: none"> <li>• Increase ODA as percentage of GNI, with a move towards the UN Target of 0.7 per cent of GNI by 2025.</li> <li>• Adopt targets and a reporting system for the Sustainable Development Goals</li> <li>• Tag all Government policies and policy proposals with the relevant Goal(s).</li> <li>• Adopt targets and a reporting system for each of the Sustainable Development Goals.</li> <li>• Develop a new National Index of Progress, ensuring social and environmental issues are incorporated into our national accounts.</li> </ul>	<ul style="list-style-type: none"> <li>• Develop strategic partnerships with Local Authorities and local government organisations, in Europe and Internationally, to support the implementation of the Goals.</li> <li>• Ensure coherence between national and local government policies.</li> </ul>
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# Appendices

## Appendix A: List of Indicators Used in the Construction of the Sustainable Progress Index 2022

**Table A.1** List of Indicators Used in the SDGs

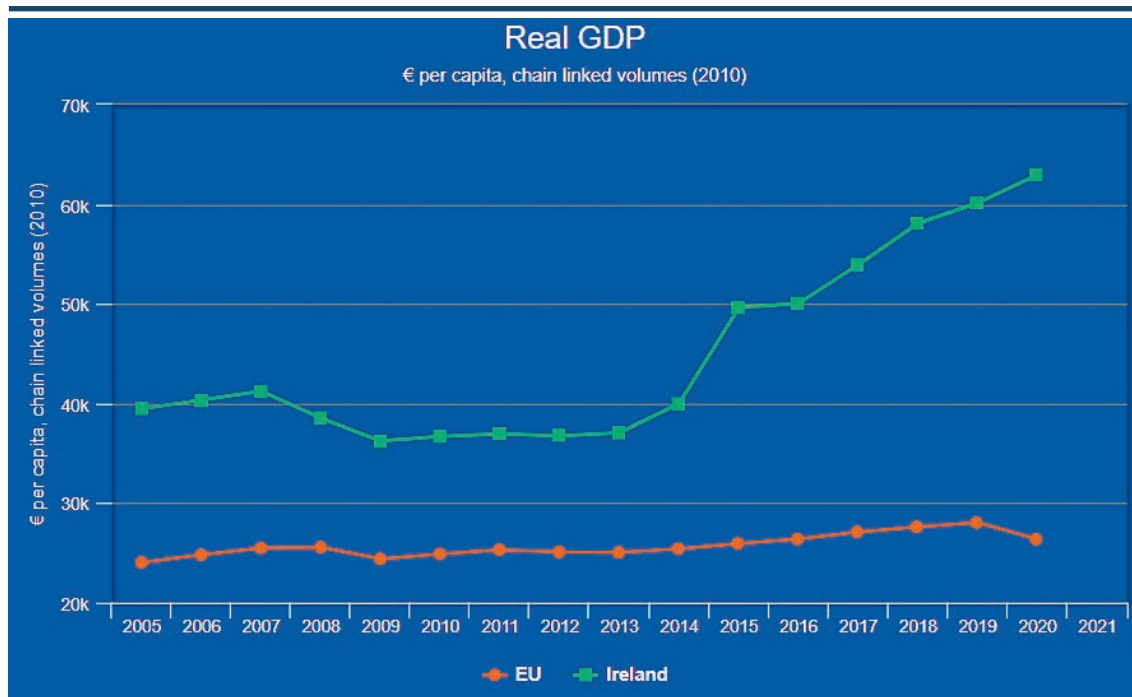
SDG	Indicator	Source
1	Poverty rate after taxes and transfers; poverty line 50% (% of population)	OECD
1	People living in households with low work intensity	Eurostat
1	Share of severely deprived people	Eurostat
1	People living in a dwelling with leaky roof, damp walls, floors or foundation, etc. (% of population)	Eurostat
2	Prevalence of obesity, BMI>30 (% of adult population)	Eurostat
2	Cereal yield (kg/ha)	World Bank
2	Ammonia emissions from agriculture	Eurostat (from EEA)
2	Harmonised Risk Indicator for pesticides	Eurostat
2	Area under organic farming (% of UAA)	Eurostat
3	Life expectancy at birth, total, years	Eurostat
3	Adolescent fertility rate (births per 1000, age15-19)	UNDP, Sachs et al (2021)
3	Subjective wellbeing (average ladder score)	Gallup (2021)
3	Smoking prevalence (% , aged 15+)	Eurostat
3	Road traffic deaths (per 100,000)	Eurostat
3	Self-reported unmet health needs (% of population)	Eurostat
3	Deaths from NCDs (per 100,000)	UNDP
3	Suicide Rate	OECD
3	Alcohol Consumption (litres per capita, age 15+)	Eurostat
3	Universal Health Coverage Index	WHO
4	Tertiary education (% of population, age 30-34)	Eurostat
4	PISA Score	OECD
4	Second Level Education	OECD, Sachs et al (2021)
4	Employment rate of recent graduates	Eurostat
4	Adult participation in learning (%)	Eurostat
4	Early leavers from education and training	Eurostat
4	Early childhood education coverage	Eurostat

<b>SDG</b>	<b>Indicator</b>	<b>Source</b>
5	Proportion of seats held by women in national parliaments (%)	Eurostat
5	Proportion of women in senior management positions (%)	Eurostat
5	Gender pay gap in unadjusted form (% of male hourly wages)	Eurostat
5	Gender employment gap	Eurostat
5	Ratio of female years of education to male mean years (% of males), population aged 25 and above	UNESCO
6	Population using safely managed water services	JMP (2020)
6	Population using safety managed sanitation services	JMP (2020)
6	Water exploitation index	Eurostat
6	Anthropogenic wastewater that receives treatment (%)	EPI (2018); Sachs et al (2021)
7	Share of renewable energy in consumption (%)	Eurostat
7	CO2 from fuels and electricity	IEA (2019)
7	Population unable to keep adequately warm (%)	Eurostat
7	Final energy consumption per capita in households	Eurostat
8	Unemployment Rate (%)	Eurostat
8	Real GDP per capita	Eurostat
8	Average gross annual wages (in PPP)	OECD
8	NEET rate (youths not in employment education or training (%))	Eurostat
8	Employment rate	Eurostat
8	Fatal accidents at work (per 100,00 workers)	Eurostat
9	R&D expenditure, % of GDP	Eurostat
9	Population using the internet (%)	ITU, Sachs et al (2019)
9	Patent applications to the EU (per 100,000)	Eurostat
9	Number of R&D researchers (% of active population)	Eurostat
9	Logistics Performance Index: Quality of trade and transport-related infrastructure (worst 1-5 best)	World Bank
10	GINI index	OECD
10	Household debt, % NDI	OECD
10	Income share of bottom 40% of population	Eurostat
10	EU Social Justice Index	Hellman et al (2019)
11	Exposure to air pollution of PM2.5 in urban areas	Eurostat
11	Satisfaction with public transport (% of population)	Gallup (2020)
11	Rent over-burden rate in the population	OECD
12	Municipal waste generated per capita	OECD
12	Resource productivity	Eurostat
12	Recycling rate of waste, excluding major mineral waste (% of total waste recycled)	Eurostat
12	CO2 from new passenger cars	Eurostat
12	Circular material use rate (%)	Eurostat
12	E-waste (kg per capita)	ITU (2021); Sachs et al (2021)
13	GHG emissions per capita	Eurostat

<b>SDG</b>	<b>Indicator</b>	<b>Source</b>
13	Carbon Pricing Score from non-road energy, excluding emissions from biomass	OECD
14	Mean area that is protected in marine sites important to biodiversity (%)	Birdlife International et al. (2021)
14	Ocean Health Index Goal	Ocean Health Index (2021)
14	Bathing sites of excellent quality (coastal and inland)	Eurostat
14	Fish caught by trawling and dredging (%)	Sea Around Us; Sachs et al (2021)
14	Fish caught that are then discarded (%)	Sea Around Us; Sachs et al (2021)
15	Surface of terrestrial sites designated under Natura 2000	Eurostat
15	Percentage of land covered by forestry	Eurostat
15	Soil Sealing Index	Eurostat
15	Red List Index	Bird Life International (2021)
15	Mean area that is protected in freshwater sites important to diversity (%)	Bird Life International (2021)
16	Corruption Perception Index	Transparency International (2021)
16	Homicides per 100,000 population	Eurostat
16	Population reporting occurrence of crime, violence or vandalism in their area (%)	Eurostat
16	Perceived independence of the justice system (%)	Eurostat
16	Prisoners (% of population)	UNOCD, Sachs et al (2021)
16	Property Rights Index	World Economic Forum: World Competitiveness Report (2019)
16	Feel safe walking at night (%)	Gallup (2021)
16	Unsentenced detainees (% of prison population)	UNODC, Sachs et al (2021)
17	Overseas Development Assistance (% of GNI)	Eurostat
17	Environmental taxes as % of tax revenue	Eurostat
17	Government spending on health and education (% of GDP)	UNESCO (2021); Sachs et al (2021)
17	General government gross debt	Eurostat

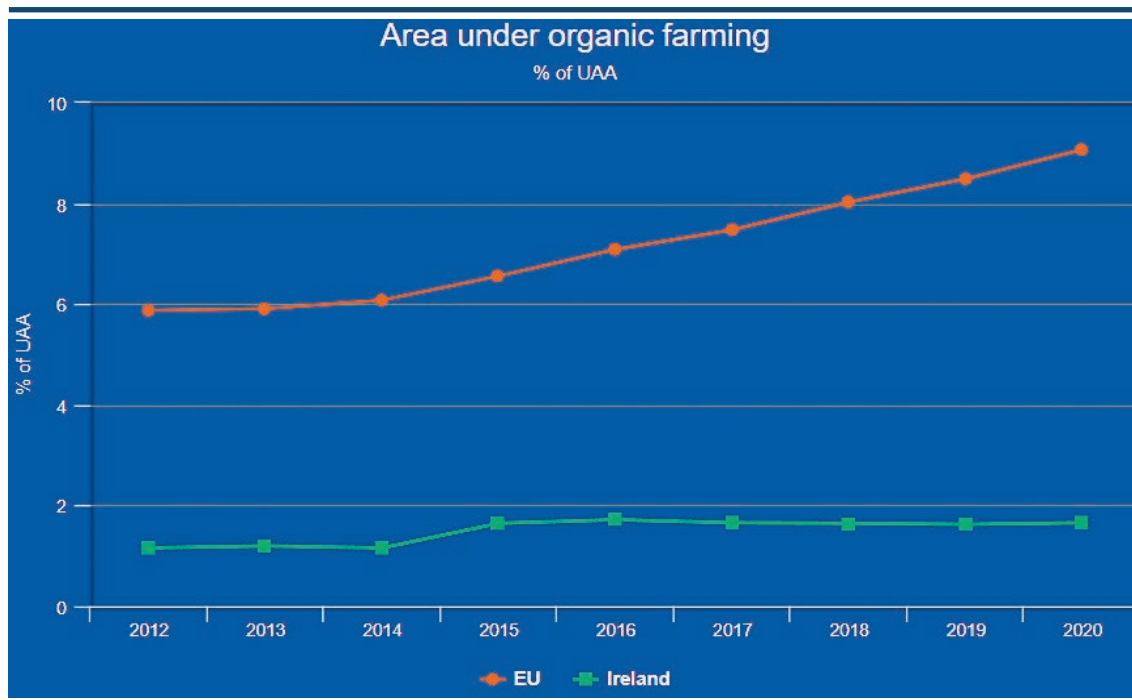
## Appendix B: Figures for Some Key Indicators, Ireland vs EU Average

Figure B1 Real GDP in Ireland and the EU Average



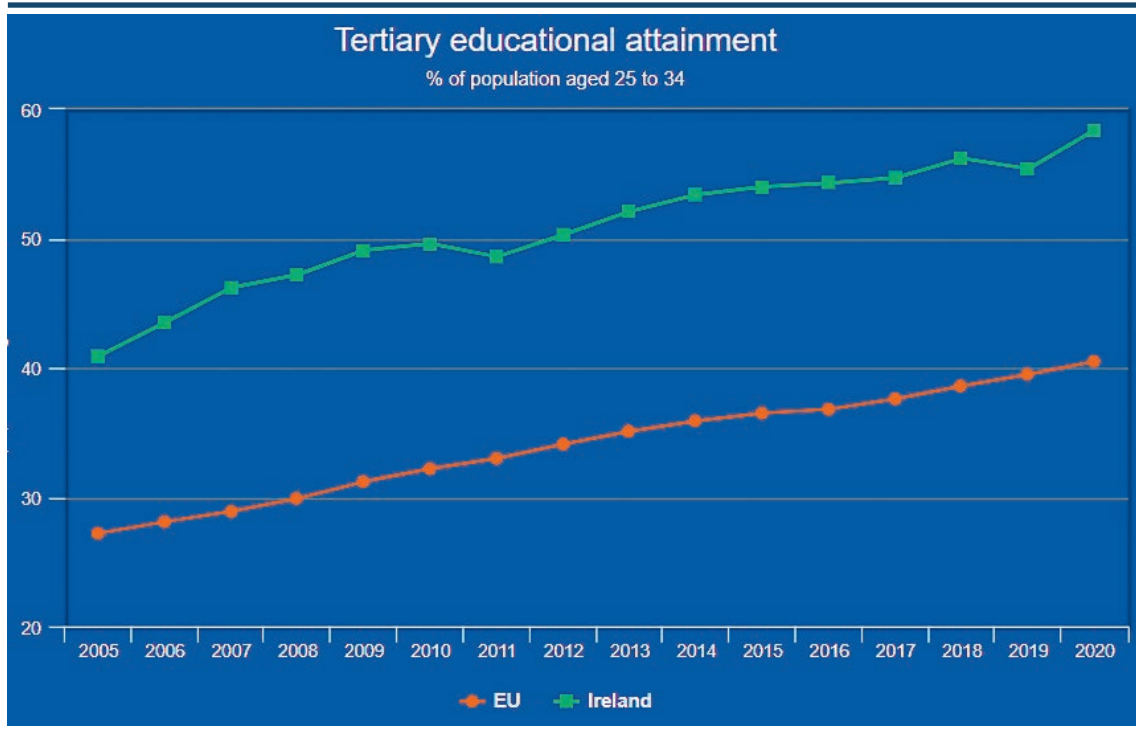
Source: Eurostat

Figure B2 Area Under Organic Farming (% of UAA), Ireland and EU Average



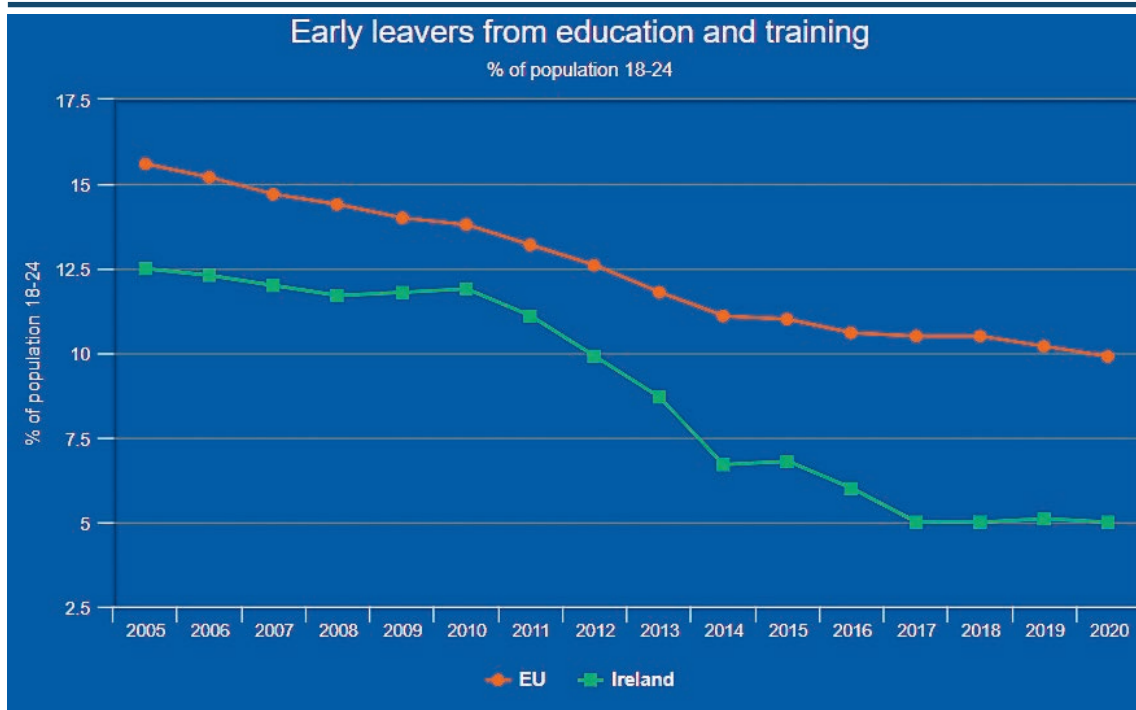
Source: Eurostat

**Figure B3** Tertiary Education Attainment, Ireland and EU Average



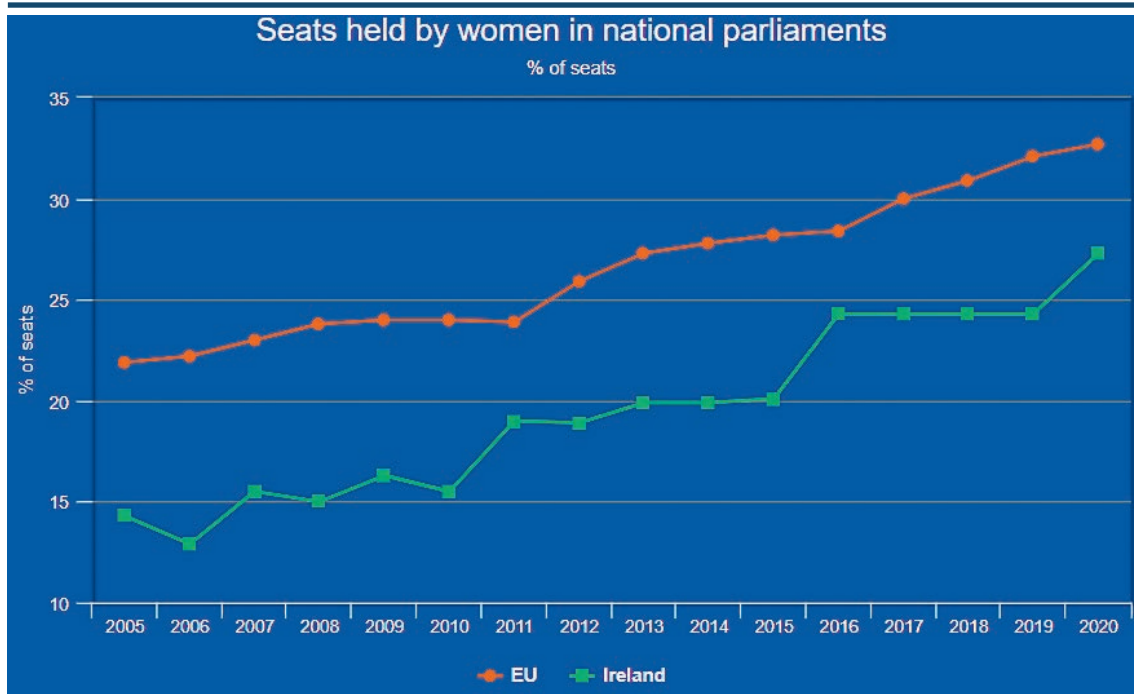
Source: Eurostat

**Figure B4** Early Leavers from Education, Ireland and EU Average



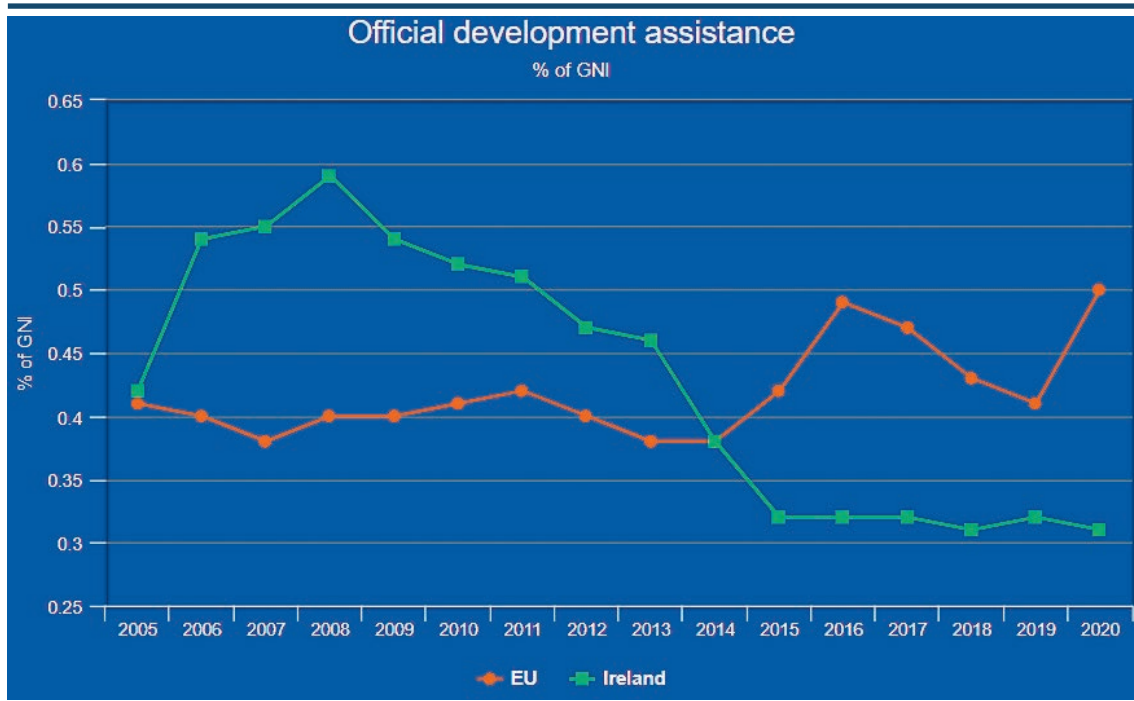
Source: Eurostat

**Figure B5** Women in National Parliaments, Ireland and EU Average



Source: Eurostat

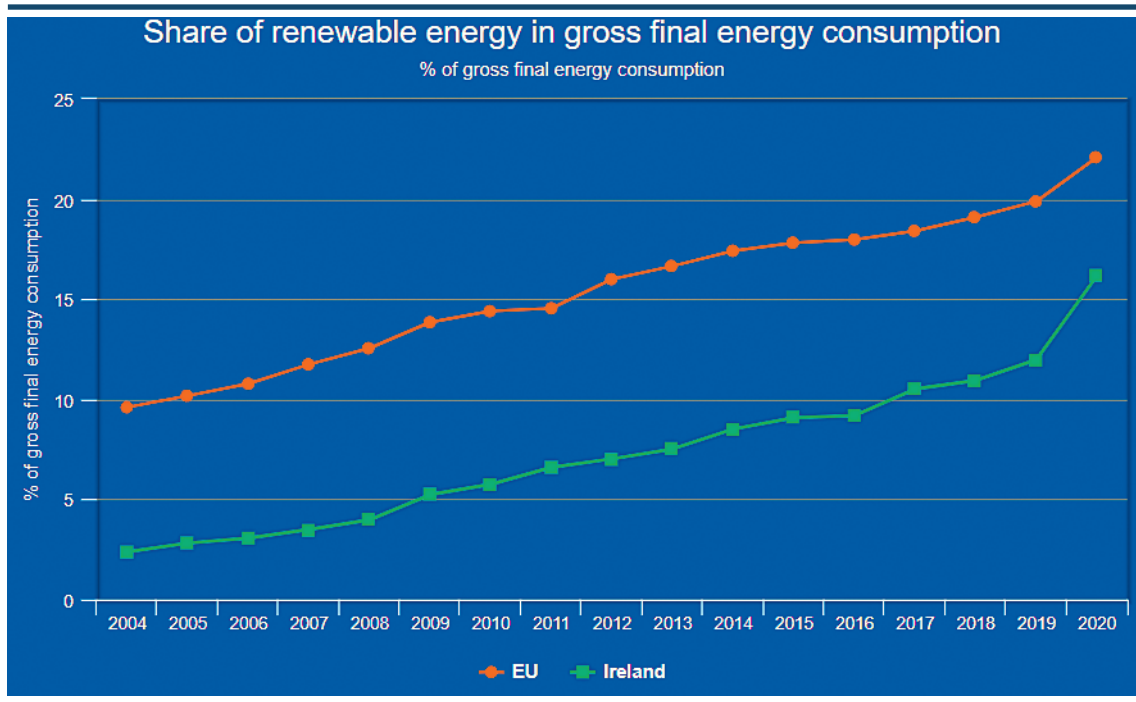
**Figure B6** ODI (% of GNI), Ireland and EU Average



Source: Eurostat

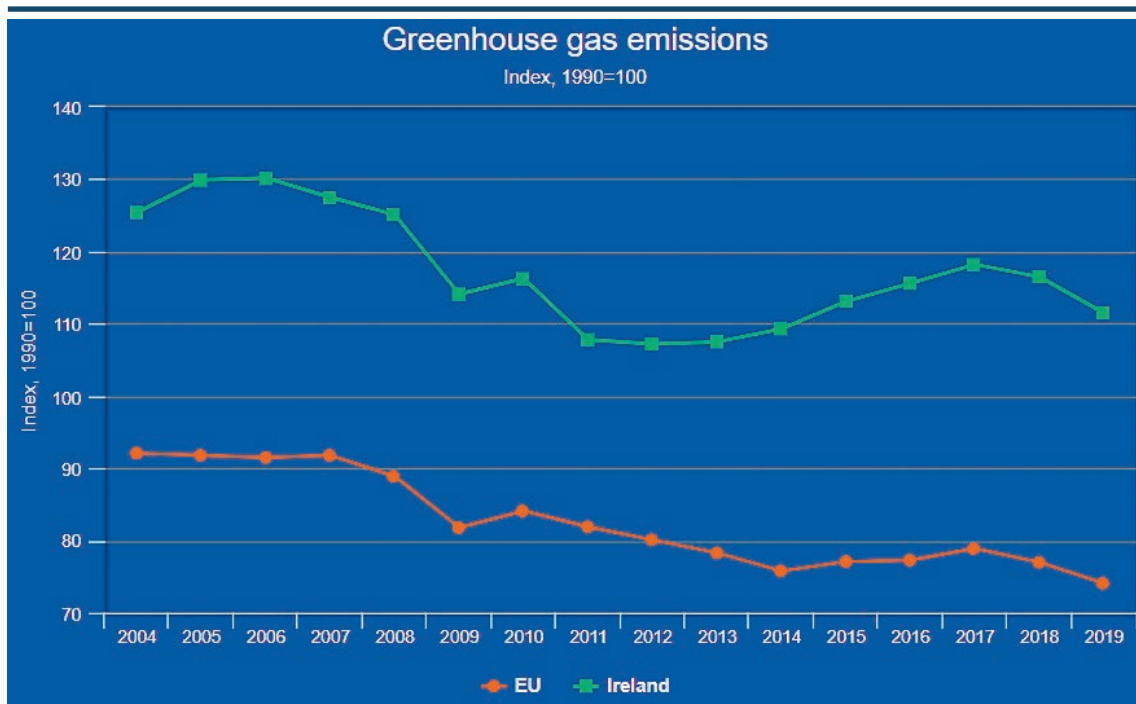


**Figure B7** Share of Renewable Energy, Ireland and EU Average



Source: Eurostat

**Figure B8** GHG Gas Emissions, Ireland and EU Average



Source: Eurostat





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