Measuring Progress: The Sustainable Progress Index 2021

2021

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Introduction

"The rapid growth of collective interests, and the increasing tendency towards collective action in economic affairs make it every day more important that we should know what quantitative measures of public interests are most needed and what statistics are required for them, and that we should set ourselves to obtain these statistics." Alfred Marshall, 1890.

If the first two decades of this century has taught us anything, it is that the institutions and systems developed in the late 20th century are not always what is needed to face our current challenges. The great European project, developed with the dual goals of preventing internal warfare and matching the economic power of the United States, is under more stress than ever before, with Brexit being only the most visible challenge. The neoliberal agenda of letting markets solve economic and social problems, with the state playing a subservient role, is not up to the challenges of an unstable financial system, global migration and the Covid-19 pandemic. Decades of weakening the public sector have come home to roost.

Neoliberalism has heightened the two great long-term threats to Western Civilization and life on Earth: inequality and climate change. The rise of authoritarian movements globally is a response to the exclusions created by neoliberalism, yet its goal is to substitute one set of exclusions based on wealth, income and education with another set based on race, gender and nationality. The remedy to exclusion is inclusion, not more exclusion or different forms of exclusion. Inclusion is not just the elimination of the barriers to participation; it requires the development of the capacity for meaningful participation. For many years specific groups were excluded from voting. Lifting the restrictions to vote is only the first step towards full political participation. In order to increase the participation of citizens in the development and implementation of public policy there must be greater knowledge and access to information to facilitate informed choices.

In *Building a New Social Contract* (2020), *Social Justice Ireland* has called for a reboot of Ireland's *social contract*, the general agreement among citizens of the principles and goals to collectively address their common challenges. After the Great Depression and World War Two a new social contract (the welfare state) was created and implemented by political and

academic elites.[1] In the last two decades of the 20th Century globalization imposed a new social contract (neoliberalism), led by multinational corporations and pro- business politicians.[2] *Social Justice Ireland* is suggesting that citizen engagement should be the foundation of a new social contract at all levels of the political process. As with our previous reports, this current report is an attempt to follow the advice of great 19th century economist Alfred Marshall and bring to light some "quantitative measures of public interest" (social and economic statistics) that can inform the "collective interests" and "collective actions" of this new century. We are informed and inspired by the United Nations Sustainable Development Goal (SDG) agenda to facilitate evidence-based policy making and when possible, we use the SDG indicators as our metrics. However, often we need to go beyond the SDGs targets and indicators to bring more light to an issue or use data that is not part of the SDG agenda (such as with taxation). As economists our role in this report is to bring to light some of the data and to offer some context.

1.1 Evidence-Based Policy versus Ideology, Interests and Power

Economic and social policy is typically seen as a conflict of ideas versus interests, ideologies versus power. Evidence-based policy connects ideas with reality and informs interests so that power can be wisely directed. It is the antidote to blind ideologies and raw power. Evidence (data) does not organize or interpret itself, so it does not replace ideas and ideologies. It is the necessary connection of the lived experience of the people with the policies that are supposed to address their needs. Since most public policy problems are multifaceted, it is beneficial to have evidence from many aspects of a problem. Unemployment is clearly an economic problem, and Keynesian theory shows that cyclical mass unemployment is due to inadequate aggregate demand. Yet not everyone who cannot find a job is unemployed in the same way, and many other social, cultural and political aspects of unemployment need to be understood.

Before the rise of popular democracy government policy was purely an exercise in the power of the sovereign to impose their will on their subjects, often without even the pretense of *noblesse oblige*. This was generally accepted because the alternative was mob rule and chaos. The American experiment of a government based on the consent of the governed ("We the People"), presented an empirical challenge to Thomas Hobbes's (1965, p. 83) theory that society needed a *Leviathan* (strong central government) in order to prevent a "war of every man against every man." The French Revolution and Reign of Terror soon after American Independence quickly became the cautionary tale of the dangers of too much "will of the people." Not surprisingly, this

1 The more well-known names are William Beveridge, John Maynard Keynes, Gunnar Myrdal, and Willy Brandt, but many more also played critical roles.

2 Ronald Wilson Reagan and Margret Thatcher are the key political leaders for this new social contract.

first modern democracy installed many safeguards to limit the will of the people[3] so that most people did not count as part of 'we the people' (for example, women, poor people, African-Americans).

While in prison during the Reign of Terror, the French philosopher Antoine Destutt de Tracy coined the term 'ideology' (meaning science of ideas) to develop a system of ideas based on reason and what people learned from their interactions with the material world. De Tracy and other philosophers opposed Napoleon's abusive regime and in response Napoleon referred to them as "ideologues." Since then, the term ideology has most often been used in a pejorative sense to attack the ideas of a political opponent as being unconnected with reality. For much of the 20th century large sections of the world followed either a capitalist ideology (to greater or lesser degree) or a communist ideology (also to greater or lesser degree). Neither ideology was able to deliver on the Utopian promises they preached. The 'bourgeois ideal' of equality and liberty for all turned into the capitalist reality of inequality and exploitation (Stark, 1947). Even capitalism's greatest success, the ability to dramatically increase social output and thus increase the standard of living of the masses, has fueled the existential threat to the survivability of the planet due to the challenges posed by climate change. Communism's failure was even more complete. It successfully solved the economic problem by eliminating the humanity of the people.[4] Yet it was the imperative of circumstances that prevented most countries from following either ideology to its extreme logical conclusions. The real takes precedence over the ideal.

It is now 245 years since the first modern experiment in a government based on 'We the People' (1776 America) and 232 years since the greatest fear of the rule of the people became reality (French Revolution in 1789) and we are still left with the problem of devising public policy to promote the common good. While John Maynard Keynes claimed that "the ideas of economists and political philosophers (ideology), both when they are right and when they are wrong" ruled the world[5] and that "the power of vested interests is vastly exaggerated compared with the gradual encroachment of ideas" (Keynes, 1936, p. 383) the influence of vested interests in the promotion of ideas cannot be understated. Marx's famous statement that the ruling ideas are the ideas of the ruling class is easily verified by many real-world examples. Just look at how

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3 The recent attempted insurrection in America was directed against one of those safe-guards, Congress counting the vote of the Electoral College. The Electoral College was designed as a check on the popular vote, originally to protect slave ownership in states with small voting populations. Recently, it became a way for rural states to have an oversized influence on selecting a President, leading to Bush in 2000 and Trump in 2016 being elected president while losing the popular vote. It is a bit ironic that a mob of white supremacists would attack one of the last vestiges of constitutional white dominance that provides the supporters of white dominance their only hope at success in Presidential elections.

4 If the goal of capitalism is to turn people into consuming machines, the goal of communism was to turn people into producing machines.

5 Keynes exact quote is "Indeed the world is ruled by little else" (1936, p. 383).

'think tanks' are funded. Yet there is a third factor that both Keynes and Marx mostly ignored: imperative of circumstances. While the intellectual milieu and vested interests have greatly shaped the development of economic theory and policy, so too have the changing economic and social reality. Reality trumps theory. And our economic reality is constantly evolving. Adam Smith might have provided the best model for understanding the economy in the late 18th century and John Maynard Keynes certainly provided an accurate and useful model for understanding and fixing the economic problems of the 1930s, yet we now face the realities and challenges of the 21st century; thus we need to go beyond Smith and Keynes.

Addressing the challenges of any time period has always required both ideas and interests, ideologies and power, not as abstract categories, but as part of a lived reality. Ideas (theories and models) are needed to define and organize social reality. Yet the ideas can never lose touch with reality and should never be viewed as eternal truths that exist separate from the reality they represent. Furthermore, the ideas and theories we use to understand our reality reflect the values that we bring to the analysis, values that come from many sources and which become real, that is influence our choices and outcomes, when they are shared in solidarity. As Gunnar Myrdal (1954; 1958) has demonstrated, you cannot escape the influence of values and ideology. They are necessary because they inform your point of view. The best you can do is to openly discuss them, bring them out in the open and have a dialogue with other views so that a democratic and pluralistic society can make collective choices. The claim that social analysis and social policy can be 'value-free' and completely objective was always a ruse to give one perspective dominance over others.

The role of interests and the reality of power should also not be ignored. The problem of interests is not that people have interests, or that they often or usually try to act in their own self-interest. In most cases people acting in their own self-interest are being prudent, not greedy. Yet there are at least three problems with people acting in their interests.

(1) Often people do not have sufficient or accurate information on which they can choose what is in their interest. Being free to choose without knowledge is not real freedom. Furthermore, given the uncertainty as to the future ramifications of our choices, the perfect information needed to make optimal choices does not exist.

(2) Often individual interests' conflict, thus a social mechanism is needed to mediate conflicting claims. This is how Adam Smith saw the 'invisible hand' of the market. Sometimes it works well, yet there are many market failures when it does not work optimally.

(3) Like the animals in *Animal Farm*, some interests are more equal than others. In a market economy, interests are valued based on the person's spending power, so that some have a very loud market voice, and many are mere

whispers that go ignored. In a democracy each person should have one vote. In a market some people have billions of votes.

Interests only become realities through the exercise of power, and not only the purchasing power of the market participant. The power of the state is necessary for any economic activity to be undertaken. State or public power is needed to: establish property rights; rules for what is a fair trade; rules for how property can be used; and a monetary system to facilitate the exchange of goods and services. This is the reality of power.[6] The 'economy of exclusion' is a clear abuse of economic power. Its remedy is not the elimination of power (which is impossible), it is the granting of power to the excluded so that they too have a market and political voice.

What makes ideas and interests meaningful is their link to the actual economy, the lived experience of people working, producing, buying, trading and sharing with each other. Theories are said to be like maps, but to be a useful map they must represent the important part of the reality the map is being used for. A map of the waterways of Ireland will not be very useful if I wish to drive a car from Cork to Ballina. Economic and social indicators help us to evaluate theories and to inform policy makers and citizens so that they can better understand the economic and social realities they as economic actors and as citizens need to understand to inform their choices. Democracy only works if people are making informed decisions and if there is a set of agreed upon facts in which they can exchange ideas and engage in meaningful dialogue.

In our report from last year, (Clark, Kavanagh and Lenihan 2020, chapter 2) we reviewed the connection between the development of government statistics and government objectives. Censuses are some of the first official statistics governments collected so that they could collect taxes and imports and exports were counted to assist in the collection of tariffs. The National Income System (GDP) was developed to assist in war-time planning during World War Two. As governments become more response to their citizens' wishes, the range of policies and indicators has expanded greatly. For Ireland, the two major reasons for expanding economic and social statistics have been membership in the European Union and the United Nations Sustainable Development Goals agenda. Membership in the EU and the UN has generated considerable harmonization of statistics so that meaningful comparisons can be made. The mainstreaming of the *Beyond GDP* movement has led to an explosion of alternative measures of economic and social progress.

Table 1 shows country rankings for GDP, the Social Progress Index, the World Happiness Index, the Sustainable Development Rankings and the Human Development Index (the latter is the oldest of the alternative measures of progress, first issued in 1990). The data shows that the most obvious anomaly is Luxembourg and Ireland's status as first and second

6 For an overview of role and abuse of power in economics, see Clark (2019) "Power, Subsidiarity, and the Economy of Exclusion".

on the GDP ranking (we return to this later). Here, we just want to note how rankings change as different factors are considered. Given that GDP per capita is included in the HDI, it is not surprising to see Ireland ranked at the top. With the exception of Ireland and Luxembourg, in general, we see that the same countries are in the top half or bottom half of each measure.

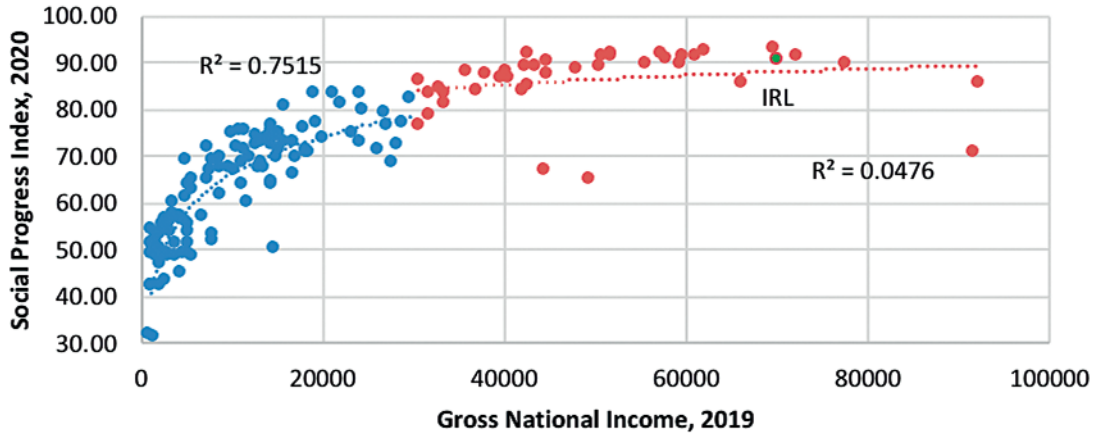
Table 1 GDP and Alternative Measures of Progress for EU15, Most Recent Years

Country	GDP per Cap 2019*	Country	Social Progress Index 2020**	Country	World Happiness Index 2017-2019***	Country	Sustainable Development Report 2020****	Country	Human Development Index 2020*****
LUX	102,200	DNK	92.11	FIN	7.809	SWE	84.7	**IRL**	**0.955**
IRL	**72,260**	FIN	91.89	DNK	7.646	DNK	84.6	DEU	0.947
DNK	53,760	SWE	91.62	NLD	7.449	FIN	83.8	SWE	0.945
NLD	46,710	NLD	91.06	SWE	7.353	FRA	81.1	NLD	0.944
SWE	46,160	DEU	90.56	AUT	7.294	DEU	80.8	DNK	0.94
AUT	44,780	**IRL**	**90.35**	LUX	7.238	AUT	80.7	FIN	0.938
FIN	43,570	LUX	89.56	GBR	7.165	NLD	80.4	GBR	0.932
DEU	41,510	AUT	89.50	**IRL**	**7.094**	BEL	80	BEL	0.931
BEL	41,450	BEL	89.46	DEU	7.076	GBR	79.8	AUT	0.922
GBR	37,830	FRA	88.78	BEL	6.864	**IRL**	**79.4**	LUX	0.916
FRA	35,960	ESP	88.71	FRA	6.864	ESP	78.1	ESP	0.904
ITA	29,660	GBR	88.54	ESP	6.401	PRT	77.6	FRA	0.901
ESP	26,430	PRT	87.79	ITA	6.387	ITA	77	ITA	0.892
PRT	20,740	ITA	87.36	PRT	5.911	GRC	74.3	GRC	0.888
GRC	17,100	GRC	85.78	GRC	5.515	LUX	74.3	PRT	0.864

*Source: *Eurostat, ** Social Progress Imperative, *** World Happiness Report 2020, **** Sustainable Development Report 2020, *****UNDP.*

In our 2019 report, we discussed a critical question: does economic growth produce more social well-being or does more social well-being generate more economic growth? As is often the case in economics, the causality runs both ways. While it is easy to see how economic growth acts as a driver of progress in poor countries, we can also find many social well-being improvements, like empowerment of women or universal education and healthcare, that also spur economic growth. In rich countries, the social well-being benefits of economic growth are much less and directly addressing well-being is a more effective strategy Figure 1 shows that for poor countries (below $30,000 Gross National Income per capita), increases in GNI are highly correlated (R^2 of 0.75) with the Social Progress Index (the social well-being measure developed by the Social Progress Imperative). However, at GNI per capita levels above $30,000, the correlation is much weaker (R^2 under .05).

Figure 1 Economic Growth and Social Progress



Source: Social Progress Imperative

GDP is an example of both *Indicator Bias* and *Indicator Fetish*. *Indicator Bias* is when an indicator is emphasized because it represents the interests of a group. The policies that the Mercantilists supported in the 17th and 18th centuries directly benefited merchants (and not surprisingly all the leading Mercantilist writers were merchants). The business community has a strong interest in promoting growth in GDP because GDP measures market transactions, which is mostly goods and services sold by the business community. One could imagine that a teacher's union might use teachers per 100,000 as an indicator for a country's performance in education. The fact that there is some bias does not mean that the indicator is not useful, as the teacher to student ratio is an important metric in education. But one should always recognize possible biases. *Indicator Fetish* is when success in the indicator replaces success in reality that the indicator is supposed to represent, so that the connection to reality is weakened. Many phones have an app that counts the number of steps taken by the owner of the phone. Many people keep track of this statistic to record if they are getting exercise. It is not uncommon to hear people lament that they have gone for a walk and not had their phone with them to record their steps. Sometimes our focus on the indicator might distract us from the reality it should be pointing towards.

GDP became the primary economic statistic to guide public policy in the 1960s. How GDP growth was achieved and how the benefits were distributed (not to mention any negative effects) was typically not part of the discussion. The successes in using Keynesian policies to stimulate economic growth by using policies to adjust macroeconomic variables (lower taxes, increase government spending, lower interest rates to promote investment) to increase the growth rate of GDP became the standard by which economic policy has since been measured. Politicians and economists assumed that increasing GDP would lead to rising standards of living and improved well-being and coming out of the Great Depression and the scarcity of World

War Two it was clear that an increase in output was warranted. But by the late 1950s, objections began to be raised on the use of GDP as the primary focus of economic policy. In 1958, John Kenneth Galbraith published his classic *The Affluent Society* in which he argued that most of the problems of advanced capitalist economies can be traced to a lack of public spending and not to a shortage of private goods and services. In fact, he argued that most of the goods and services the private sector provided were to satisfy needs they also manufactured. Thus, the fetish with GDP was leading to a misallocation of society's resources.

The most successful use of fiscal policy to promote economic growth was the Kennedy tax cuts in the early 1960s. Galbraith argued against the Tax Cut proposal as a way to stimulate the economy with the hope that it would help improve well-being, stating that increasing public expenditures would have a greater and more direct effect. Reacting to a discussion on the Kennedy policy in 1970, Galbraith wrote (in a letter to Otto Eckstein):

> "You say, in effect, that the human point of view 'although desirable' is subordinate to the question of economic growth as a test of social performance. It does seem to me that this was the prime error of the decade. What is there besides the human point of view? Had we been concerned with admittedly more subjective human goals we would have also been more concerned to have had growth in a manner most consistent with the most desirable and civilized resource allocation" (Holt, 2017, p. 417-18).

What we have learned in the subsequent 50 years is that the benefits of economic growth do not trickle down to all people and to all problems. Indeed, it can create new problems. Hence, if we want to address issues that are part of human flourishing in many cases, we will need more direct indicators that reflect the issues.

2

Key Indicators for Building a New Social Contract

In this section, we provide an examination of the range of indicators that can be used to inform and evaluate some of the priorities of *Building a New Social Contract*. Our purpose is to give some idea on what is available, not to recommend or evaluate policy suggestions. Where possible, we use the SDG indicators because they are increasingly the focus of public policy discussion and analysis at the European Union and United Nations levels. However, some of the issues are not addressed by the SDGs (such as taxation) and so we also add additional indicators to inform the SDG indicators.

2.1 Measuring a Vibrant Economy

Let us remind ourselves again, about the problems with GDP as the key indicator to reflect a vibrant economy.

The Problem with GDP, Again

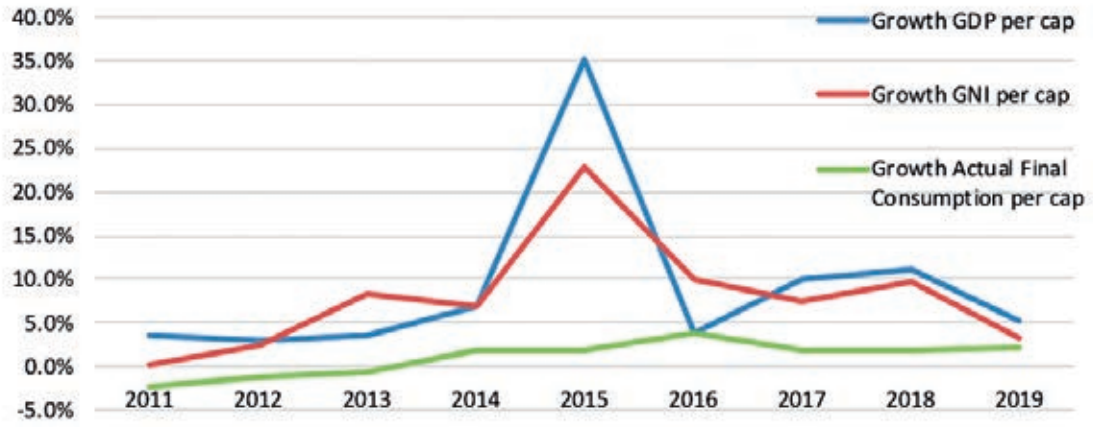
The problem with GDP is not that it does not give any useful information and has no value. Rather, the issue is that it gives a narrow snapshot of the economy and society and has been used as if it provided a panoramic view of everything that needs to be seen. Thus, it is not surprising the first indicator included in SDG8 *Decent Work and Economic Growth* is real GDP per capita. It is fair to say that the indicator is useful in comparing economic performance between two countries. However, for a long time, the inaccuracy of GDP as a measure of the size and rate of growth of the Irish economy has been a topic of discussion among economists. When Ireland's GDP grew by over 25% in 2015, the issue became more than an academic curiosity, prompting Paul Krugman to coin the term 'leprechaun economics' to refer to the

effect of tax-haven policies on GDP. A group of experts, including representatives from the IMF and Eurostat, concluded that "[i]t is becoming increasingly difficult to represent the complexity of economic activity in Ireland in a single headline indicator such as GDP."[7] As a result, the CSO have developed 'modified GNI' (GNI*) to adjust for the effects of foreign corporations' tax strategies. However, GDP is so embedded in international statistics that it is hard to escape its influence.

Even though GDP as a measure of progress is questionable for Ireland, policy makers still need to measure the size and growth rate of the Irish economy. Table 2 compares Ireland's economic performance relative to the EU15 using three indicators: GDP per capita, Gross National Income (GNI) per capita and Household Consumption per capita. GDP per capita shows Ireland in the second position (after Luxembourg) at €72,260, 64.2% above the EU 15 average. It is unlikely that anyone feels that Ireland's economy is 64% more productive than the average of these European countries. Using GNI per capita to measure aggregate economic activity changes the result slightly. Ireland is still in 2nd place but is now only 30.1% above the average. The CSO modified version of GNI brings the value down to €43,576 from €47,611, which is only 19.1 above the average.

One can argue that Household Consumption per capita is a more accurate reflection of the relative standard of living among the EU15 countries, as it reflects the economic activity (consumption) that most directly affects how families participated in the economy. On this measure, Ireland is slightly (2.8%) above the EU15 average.

Figure 2 Three Measures of Economic Growth, Ireland, 2011-2019



Source: OECD, Eurostat

7 https://www.europarl.europa.eu/RegData/etudes/IDAN/2016/587367/IPOL_IDA(2016)587367_EN.pdf

Using consumption as an indicator of economic activity is in line with the advice of Adam Smith (1976, p. 660): "Consumption is the sole end and purpose of all production. … [This] maxim is so perfectly self-evident, that it would be absurd to attempt to prove it." Yet there is a limitation on using household consumption as an indicator because it ignores public consumption, which is obviously important for promoting well-being (for example, with education, healthcare and public safety). In Table 2, we present the data on Household and Government Consumption and this measure shows Ireland is below the EU15 Average.

Table 2 Household and Government Consumption, EU15 Countries, 2019

Country	Household Consumption	Government Consumption	Total Consumption
Luxembourg	$36,646	$21,244	$57,890
Denmark	$28,627	$14,811	$43,437
Austria	$31,233	$11,749	$42,983
Belgium	$28,959	$12,978	$41,938
Germany	$30,153	$11,757	$41,910
Netherlands	$26,813	$15,008	$41,821
United Kingdom	$31,937	$9,537	$41,474
Sweden	$25,700	$14,676	$40,377
Finland	$27,850	$12,293	$40,144
EU 15 AVG	**$29,769**	**$13,784**	**$43,553**
France	$27,236	$11,708	$38,944
Ireland	**$26,980**	**$10,959**	**$37,939**
Italy	$27,481	$8,554	$36,034
Spain	$24,928	$8,205	$33,132
Portugal	$24,187	$6,391	$30,577
Greece	$22,011	$6,264	$28,275

Source: OECD

Another indicator that captures SDG8 is Investment as a share of GDP. Investment spending is important in determining long term economic growth as it affects the future productive capacity of an economy. Of course, as with GDP, not all investment spending is directed towards increasing production. Table 2 shows that Ireland had the highest level of investment spending at 45.6% of GDP in 2019, more than twice the EU15 Average.[8]

8 And this is with the inflated GDP as the denominator. A more realistic measure of aggregate economic activity would produce an even higher estimate of investment spending.

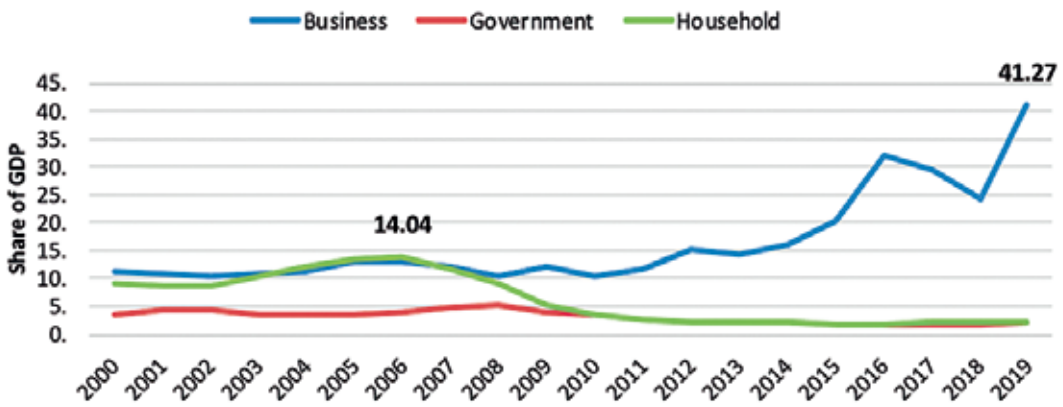
Table 3 Investment as a Share of GDP, EU15, 2019

Country	Investment as a % of GDP
Ireland	45.6
Austria	24.7
Sweden	24.4
Belgium	24.2
Finland	23.9
France	23.6
EU15 AVG	22.5
Denmark	22.0
Germany	21.7
Netherlands	21.0
Spain	19.9
Portugal	18.2
Italy	18.1
United Kingdom	18.0
Luxembourg	16.8*
Greece	10.1

*Source: Eurostat, *2018*

A more detailed examination of Ireland's investment spending as a share of GDP, by business, government and households is presented in Figure 3. The household sector was 14% of GDP in 2006 during the housing boom and steadily fell to approx. 2.5% in 2019. Government investment spending, which used to be consistently about 5% has fallen to half of its previous levels, but this could partly be due to GDP inflated estimates. Indeed, we can see that the unrealistically high investment levels come from the business sector; the levels rose significantly during the same time period that GDP became disconnected from reality due to foreign businesses' accounting practices. No doubt part of the foreign sector economic activity is being captured as investment spending.

Figure 3 Investment in Ireland by Sector, 2000-2019



Source: Eurostat

Employment and Poverty

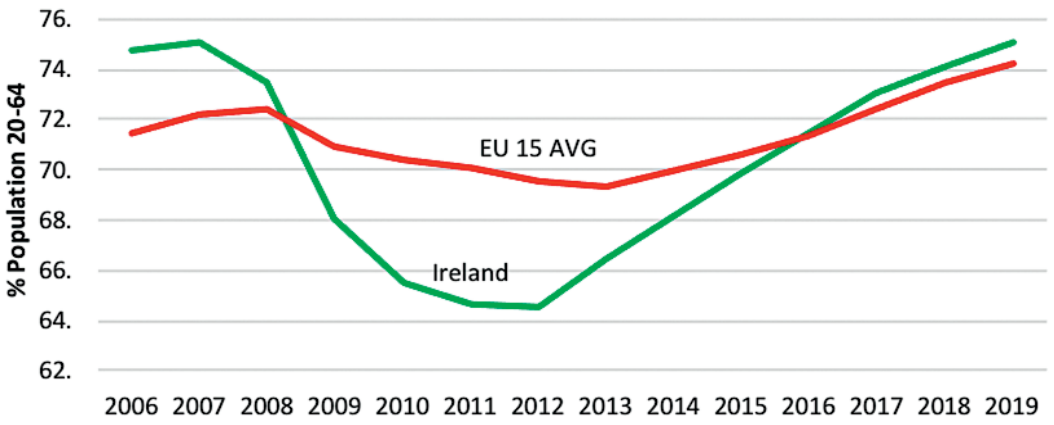
It is unlikely that Adam Smith's above-mentioned maxim on the primacy of consumption would be accepted today. The economy provides more than just consumer goods; it is one of the main ways people participate in their communities, working with others to achieve common goals. SDG 8 includes indicators on employment and those being left out of the economy. The aggregate statistic reflecting these indicators is the Employment Rate, which is the percent of the adult population (20-64) who are employed. In 2019, Ireland's employment rate was 75.1%, just above the EU15 average of 74.2% (see Table 4). This captures Ireland's recovery from the Great Recession. Figure 4 illustrates the extent to which employment fell during the Great Recession, from the mid-70s range to the mid-60s in 2011-2012.

Table 4 EU15 Employment Rate, 2019

Country	Employment Rate
Sweden	82.1
Germany	80.6
Netherlands	80.1
United Kingdom	79.3
Denmark	78.3
Finland	77.2
Austria	76.8
Portugal	76.1
Ireland	**75.1**
EU 15 avg	**74.2**
Luxembourg	72.8
France	71.6
Belgium	70.5
Spain	68.0
Italy	63.5
Greece	61.2

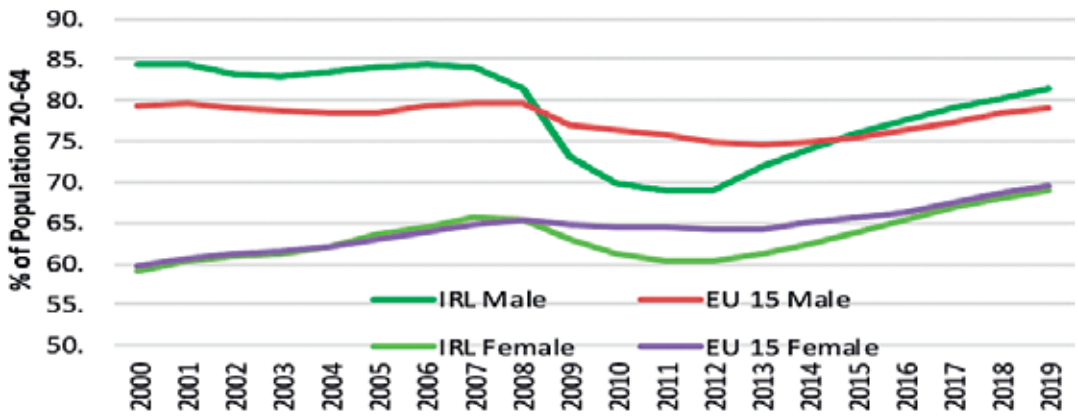
Source: Eurostat

Figure 4 Ireland and EU15 AVG Employment Rate, 2006-2019



Source: Eurostat

Figure 5 Employment by Genre, 2000-2019

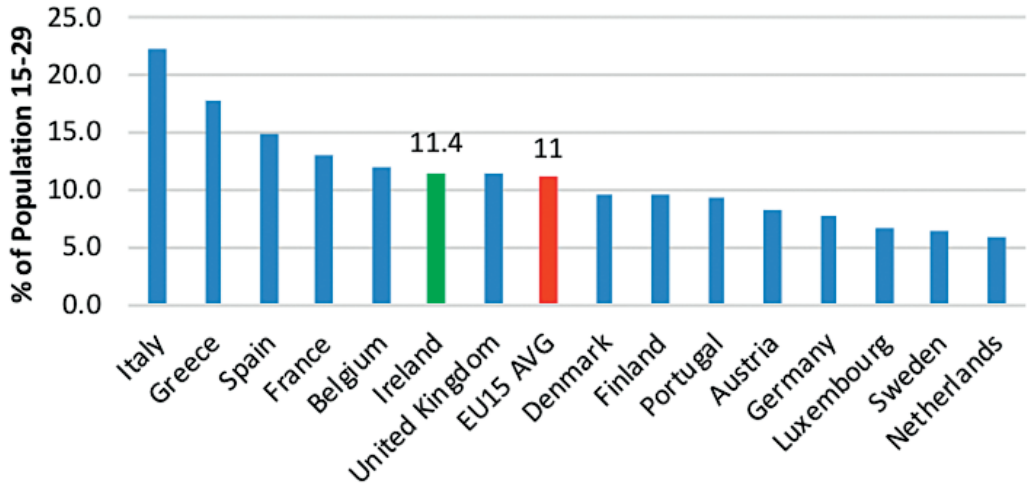


Source: Eurostat

SDG indicators often distinguish between males and females, as exclusion of women from participating in the labour market is one negative impact on social well-being. Figure 5 shows that the gap between male and female employment rates for Ireland and the EU15 Average are comparable.

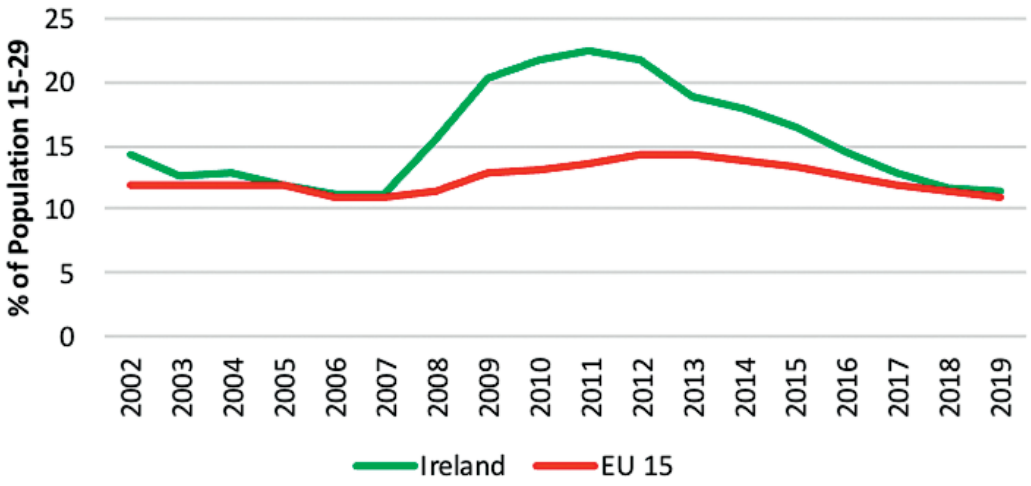
Besides gender, employment experience often differs by age. Of particular importance is the experience of youth. The concern is that if young people do not participate in the labour market by working or by preparing to work by obtaining more education or training, their future success in being able to 'earn a living' will be significantly diminished. Young people who are not in employment, education or training (NEETs), tend to have much lower levels of other forms of social engagement. If they experience long-term unemployment, their lifetime earnings can be significantly reduced. Figure 6 shows the NEET rate for Ireland and the EU15 in 2019 and Figure 7 looks at the trend from 2002-2019. Together, the data shows that Ireland's NEET is generally similar to the average for the EU15, but that for the Great Recession years, it was significantly higher. This suggests that Ireland needs to find better ways to engage its young people when the economy is under stress.

Figure 6 NEET for EU15, 2019



Source: Eurostat

Figure 7 Ireland and EU15 AVG NEET, 2002-2019



Source: Eurostat

Our last indicator we examine in trying to assess the state of the economy is the risk of poverty Table 5 indicates that Ireland's rate in 2019 was above the EU15 average. Measuring poverty is an area where there have been many new developments, moving beyond the mere income cut-off approach and including the multidimensional nature of poverty. The development of poverty indicators that are useful for insights into international comparisons has been lagging behind slow; we know that poverty can be manifested in different ways in different national contexts.

Table 5 Risk of Poverty or Social Exclusion, EU15, 2019

Country	Risk of Poverty
Greece	30
Italy	27.3
Spain	25.3
United Kingdom	23.1
Portugal	21.6
Ireland	21.1
Luxembourg	20.6
EU 15 AVG	20.5
Belgium	19.5
Sweden	18.8
France	17.9
Germany	17.4
Austria	16.9
Netherlands	16.5
Denmark	16.3
Finland	15.6

Source: Eurostat

2.2 Decent Services and Infrastructure

While Adam Smith is often labeled as a strong supporter of 'laissez-faire' economic policies, Smith recognized the limits of markets to solve all economic problems and the need for effective government action in the economy. Writing in the late 18th century, Smith noted that besides National Defense and Administration of Justice (which includes the protection of property rights without which there could be no market exchange) governments have the responsibility "of erecting and maintaining those public institutions and those public works, which, though they may be in the highest degree advantageous to a great society, are, however, of such a nature that the profit could never repay the expense to any individual or small number of individuals, and which it therefore cannot be expected that any individual or small number of individuals should erect or maintain" (Smith 1976, p. 723). The examples Smith mentions as beneficial to society as a whole included infrastructure that is beneficial to commerce (roads, bridges, canals); institutions that support and protect foreign trade and education.[9] In the 18th century, the effectiveness of government policy was restricted by a limited range of issues they could adequately address as well as minimal popular participation so that governments which did not fully represent the people and which received very little input from the people were not seen as an ally in improving peoples well-being. This is not the case in the 21st century. It

9 Interestingly, Smith uses education of youth and religious education of all ages as his example of education that is beneficial to society.

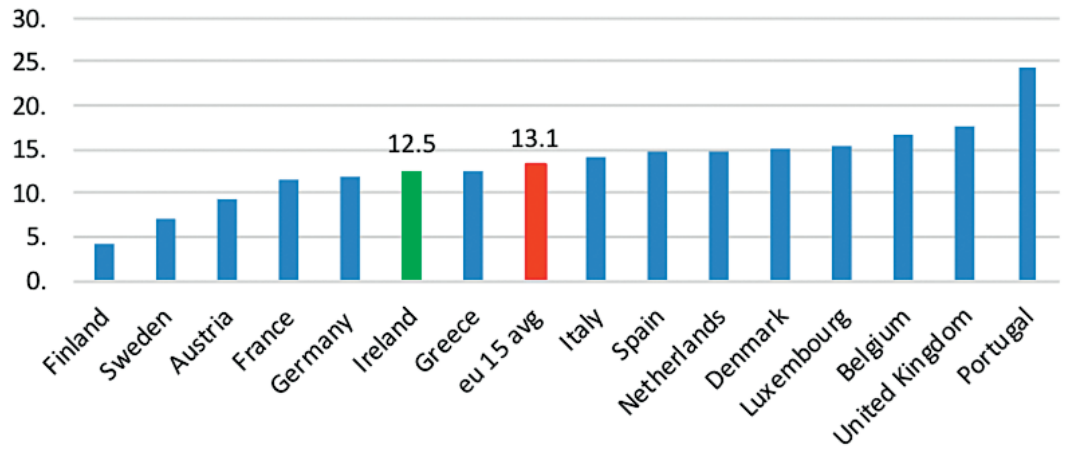
has been the universal experience of all countries that have been able to ensure, or move in the direction of ensuring, a minimum decent standard of living which included decent housing, access to healthcare, enough food and an adequate education have all done so only with an active and supporting government sector. And while there have been many variations on how these goals have been achieved, as we see, with the variety of healthcare systems among the advanced capitalist societies, success always requires a leading role by the public sector.

In looking at how to evaluate the provision of decent services and infrastructure, we focus on Housing and Healthcare.

Housing

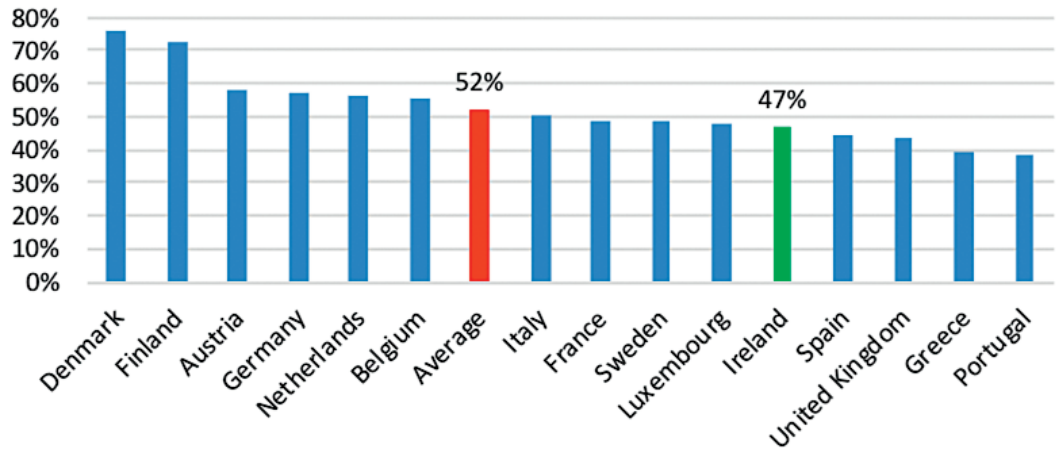
The issue of Housing falls under SDG11: *Sustainable Cities and Communities.* Most of the indicators in SDG11 are about communities: their safety, sanitation and sustainability. Included in the Eurostat indicator set is: population living in a dwelling with a leaking roof, damp walls, floors or foundations or rot in window frames. Figure 8 indicates that in 2019, Ireland is doing a little better than the average of the EU15, and this has been the case since at least 2005. Going beyond the SDGs, Figure 9 shows data from a survey of housing satisfaction from the OECD. It reveals that 47% of Irish households are satisfied with their housing, below the EU15 average of 52%.

Figure 8 People with Basic Deficit in Housing, EU15, 2019



Source: Eurostat

Figure 9 Satisfaction with Housing, EU15, 20017-2019



Source: OECD

An important issue that has arisen since the Great Recession in Ireland has been the extent of homelessness. Gaps exist on homelessness data. The data on the homeless population for the EU 15 in Table 6 are collected in different years (from 2012-2019). Nevertheless, it shows that Ireland is in the middle of the ranking. Table 7 shows a limited data set that supports the fact that there has been a recent increase in the homeless population in Ireland and it has been significant.

Table 6 Homeless Population, Various Years, EU countries

Country	Year	Homeless as % of Total Population
Germany	2018	0.41%
Luxembourg	2014	0.37%
Sweden	2017	0.33%
Austria	2017	0.25%
France	2012	0.22%
Greece	2009	0.19%
Netherlands	2016	0.18%
Ireland	**2018**	**0.13%**
Denmark	2019	0.11%
Finland	2018	0.10%
Italy	2014	0.08%
Spain	2012	0.05%
Portugal	2017	0.04%

Source: OECD

According to the OECD, Ireland's population rose by 6.18% from 2010 to 2018 (4,549.428 to 4,830,392) yet the social housing stock rose only 0.25% (253,800 to 254,380) while the total housing stock increased by 1.96%. This goes a long way towards explaining why Ireland is currently experiencing a housing crisis where supply is concerned; and why the cost of housing has risen so dramatically as demand substantially exceeds supply.

Table 7 Recent Change in Homelessness

Country	Change circa 2015 -circa 2018
Portugal	230.9%
Ireland	**116.7%**
Wales	16.3%
Denmark	10.5%
Scotland	5.0%
Germany	0.6%
Netherlands	-1.6%
Austria	-9.2%

Source: OECD

Healthcare

In the article that started the field of healthcare economics, Kenneth Arrow (1963) demonstrated that healthcare did not have the necessary characteristics to be treated as a 'private good' which can be effectively provided by the private sector relying on markets to allocate its distribution and determine the level of production. And while many economists and politicians have argued that healthcare needs the discipline of the market to generate efficiencies, this is a task the market will never be able to perform adequately. Firstly, no person can rationally determine their preferences for 'healthcare' or 'healthcare services' before they need them so that they can efficiently allocate their funds to provide for healthcare when they need them. A normal person's demand for any medical procedure would typically be zero until they receive a diagnosis from their healthcare provider telling them they need to have a procedure. Secondly, the costs of healthcare products and procedures is often well beyond the means of even well-off consumers. Thirdly, the cost and uncertainty in the development of medical knowledge that leads to improvements in healthcare are beyond the capabilities of the private sector, which is why the cost of medical research and training are so heavily subsidized by governments. Most healthcare can be safely classified as a public good, which is why most healthcare in developed countries is funded out of tax revenues or social insurance.[10]

10 There is an argument that the market does a good job allocating the supply and demand for elective plastic surgery. However, none of that argument transfers to the specifics of all other healthcare. For more on 'For-Profit Health Care', see Clark (2018).

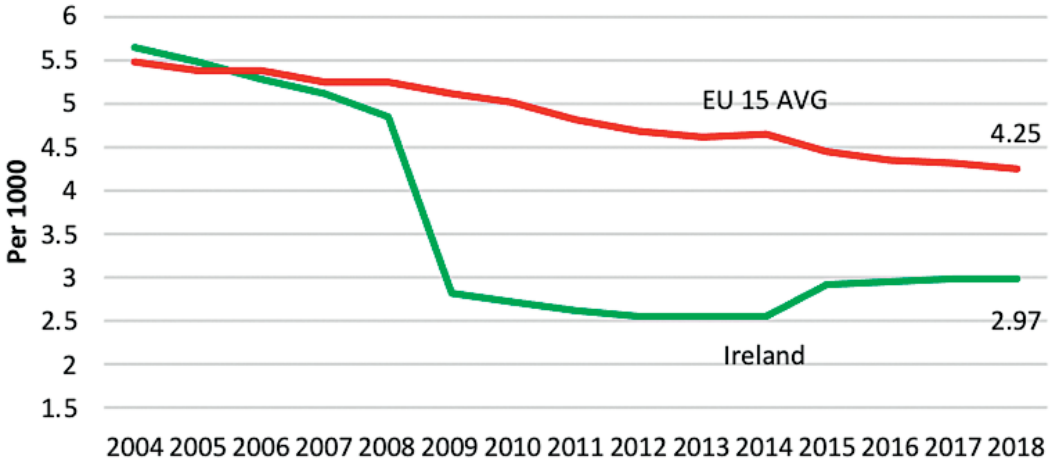
Our focus here is on the Government's investment in medical infrastructure. One of the major investments a country makes in healthcare is in the provision of hospitals. The recent Covid-19 pandemic has brought this issue to the forefront. Ireland has one of the lowest levels of hospital beds in the EU15 (Table 8). In the early 2000s, Ireland's hospital bed capacity was around the average for the EU15 and it has fallen significantly since 2008, from over 5.5 beds per 1000 to under 3 in 2018 (Figure 10). Overall, the EU15 average fell also, but not nearly as steeply as it did in Ireland. This was a public policy decision. Furthermore, Ireland has below the EU15 average of long-term residential beds, as seen in Figure 11. The need for long-term residential beds is largely a function of demographics. In the 1980s and 90s, Ireland was touted as having one of the youngest populations in Europe and would yield a demographic bonus as these young people entered the workforce with fewer dependents, thus reducing, for a short period, the dependency ratio. Eventually however, Ireland's population will age and a greater number of long-term residential beds will be required.

Table 8 EU15 Hospital Beds per 1000

Country	2018
Germany	8.0*
Austria	7.27
France	5.91
Belgium	5.62
Luxembourg	4.51
EU15 AVG	**4.25**
Greece	4.20
Finland	3.61
Portugal	3.45
Netherlands	3.17
Italy	3.14
Ireland	**2.97**
Spain	2.97
United Kingdom	2.50
Denmark	2.43
Sweden	2.14

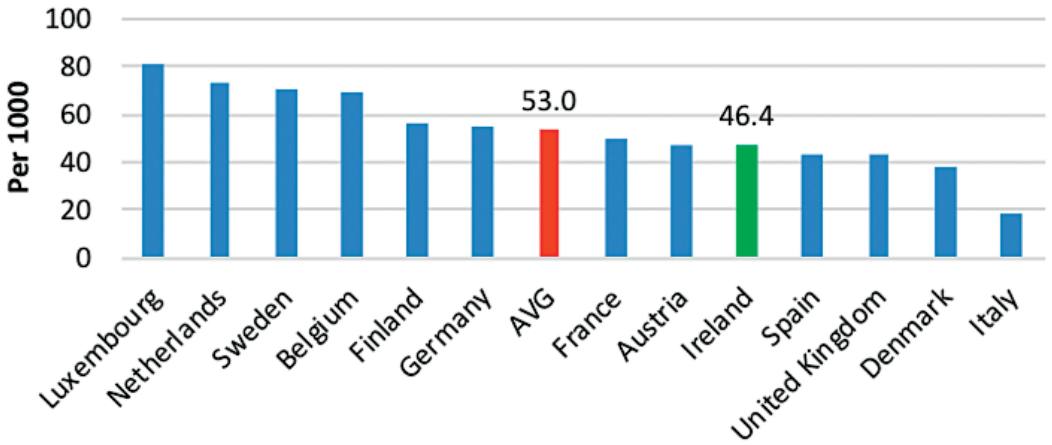
*Source: OECD, * 2017*

Figure 10 Hospital Beds Capacity, Ireland and EU15, 2004-2018



Source: OECD

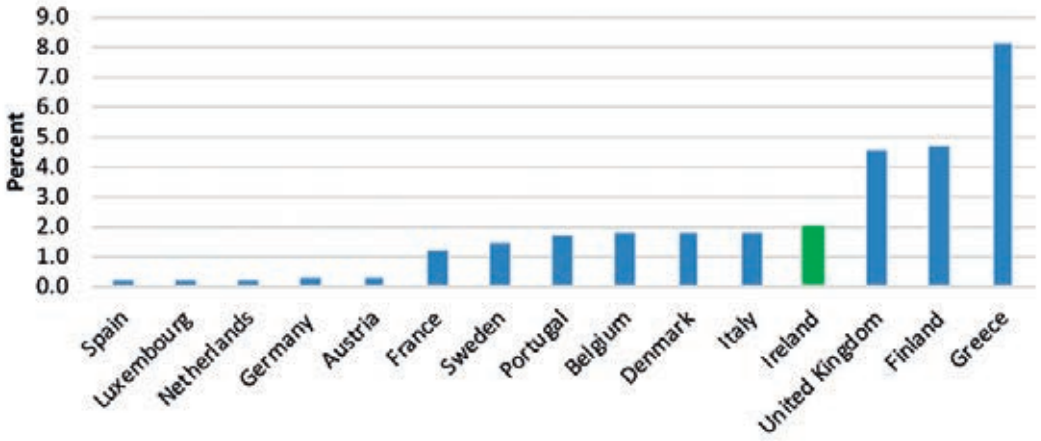
Figure 11 Beds in Residential Long-Term Care (last year), EU



Source: OECD

The results of a survey on unmet medical needs in the EU are provided in Figure 12 and we can see that Ireland is placed 4th from the bottom among the EU15 countries, (although Ireland's score was significantly better than the United Kingdom, France and Greece). Even before the Covid-19 pandemic, stories about long wait times at Irish hospitals were common in the media.

Figure 12 Self-Reported Unmet Medical Needs, 2019



Source: Eurostat

2.3 Just Taxation

Let us begin this section by reminding ourselves about the purpose of taxation.

Purpose of Taxation

Benjamin Franklin famously stated that "Nothing is certain except death and taxes."[11] This is certainly true for much of recorded history. The study of taxation, while admittedly not the most exciting of topics, is essential if one is to understand the economic, political and social realities of living in society. Yet while economists might pretend that their subject matter consists of laws and regularities that are constant in time and space, no one who studies the history of taxation, or the reality of any given system of taxation, could hold such a delusion. As Peter Clarke has noted: "any taxation system is a human invention and evolves in response to changing 'just taxation' in Ireland, it is necessary to always keep the 'changing needs and demands in society' in mind.

Like all human history, the history and development of taxation has been greatly shaped by the two driving forces of:

11 Interestingly, this famous quote was a comment on the newly passed US Constitution: "Our new Constitution is now established, everything seems to promise it will be durable; but, in this world, nothing is certain except death and taxes." The events of the last few months in America have certainly challenged its durability.

(1) exploitation (what Adam Smith called man's "love of domination" (Smith 1978, p. 186)) and

(2) solidarity, the ability of people to collectively work towards common goals.

Admittedly these are conflicting forces, so not surprisingly we find considerable conflict in the implementation and use of taxation, both in the past and in the present.

Much of the history of taxation is the use of taxation as a means of transferring goods, services and productive property (wealth) from a population (often one that has been conquered) to the sovereign. And while the sovereign often provided services for their subjects (law and order, defense from other sovereigns) which gives the impression that these taxes are a just or fair exchange between subjects and sovereign, the provision of public services was most often needed for such a transfer. Protecting property benefits all property owners, even those with small holdings, yet it has been an essential function of governments, if not the quintessential function of the government, to protect the property of the rich against claims on that property by the poor.[12]

It has often been the case that the sovereign takes ownership or control of much of the land or productive property so that it can support itself with the income or goods and services which this land and property can produce. In such cases the luxury of the leaders and the services they provide as sovereign are supported by their property holdings and there is not much need for an extensive system of taxation. In such societies taxes are introduced for specific needs, often related to military endeavors. It is only when much of the property in a country is privately owned that some form of collecting revenue to pay for the functions of government must be developed. Of course, if the population does not have a political voice, then the system of taxation will merely be a more sophisticated form of exploitation. However, when government spending and taxation are controlled by the general population then the collecting and spending of government revenue can be better directed to meet the needs of the populace.

In medieval times, most of the revenue that supported the sovereign came from land or property that was owned by the sovereign. Those who lived on estates (non-property owners) would pay a share of their output as well as a certain amount of labour towards the Lord of the manor. One of the earliest forms of money taxation in Ireland was the 'scutage' which was "a tax paid by a feudal tenant in place of military service" (Clarke, p. 8). While first recorded in 1222, it became a normal revenue stream by the second half of the 13th century.[13] With the growth in trade, Customs and Excise duties became more important sources of the sovereign's

12 As Adam Smith has noted: "Civil government, so far as it is instituted for the security of property, is in reality instituted for the defense of the rich against the poor, or of those who have some property against those who have none at all" (Smith, 1976, p, 715).

13 Tenants on the Kings land would be required to do no more than 40 days military service.

revenue, leading to the constant problem of regulating trade at ports. Many ports in Ireland went unregulated ('havens') thus leading to an inefficient system of tax collection.

As the requirements of the government expanded, means for collecting revenue expanded, although it is worth noting that these requirements are of the government and not the citizens. While Ireland had a Parliament since the end of the 13th century, property ownership criteria, and eventually religious restrictions, meant that only a small portion of the adult population could vote. A government representing property owners will shift tax away from their property (land) and on to other economic activity. As trade grew, taxing trade became a primary means for collecting revenue. Excise taxes (on beer, wine, ale, tobacco) became a major source of government revenues, as well as an early form of a wealth tax -- a 'Hearth Tax' (based on stoves and fireplaces), which was introduced in 1662. By 1711, Irish tax revenue consisted of: Excise Taxes (42.5%); Customs Duties (28%); Additional Duties (13.5%); Hearth Tax (12.3); Licenses (2.8%) and Miscellaneous (0.7%).

While income taxes were imposed in Great Britain in 1799 (to pay for the Napoleonic Wars), they were not imposed in Ireland for fear that they would encourage insurrection. Great Britain waited until 1853 before they extended income taxes to Ireland, although this was probably not the optimal time to impose such a tax given that the Irish were struggling to recover from the Great Famine, along with an increase in the duties on spirits. According to Gladstone it was unfair that "an Irishman should be able to get intoxicated more cheaply than an Englishman" (quoted in Clarke, 2014, p. 12). The taxation of the Irish to support 'imperial purposes', an example of exploitation and not solidarity, contributed to the call for independence.

In the early 20th century, 'estate taxes' were introduced which were based on the principle of graduation, and this principle eventually became applied to income tax. When the Irish Free State achieved sovereignty over the powers of taxation, they "voluntarily accepted the British taxation system, even though that system had evolved to suit the needs and conditions of the more industrialised Great Britain" (Clarke, p. 14). This is the common experience of former colonies, as their economic systems, which includes their tax systems, were designed to transfer wealth from the periphery to the center.

Table 9 Structure of Taxation in Ireland, 1924

Type of Tax	% of Revenues
Customs	32%
Excise	37%
Estate duties	4%
Stamp duties	2%
Income tax	20%
Surtax	2%
Excess profit duty	2%
Corporate profits tax	1%

Source: Clarke (2014)

As the tax system was designed to support the interests of Great Britain, it did not reflect the economic realities of 1920s Ireland.

Just Taxes

Most discussions of fair or just tax systems or taxation start with Adam Smith's four maxims of taxation:

- Equity (taxes should be proportional to income and wealth);
- Certainty (taxes should be clear to the payer);
- Convenience (timing and method of payment should be convenient for the payer); and
- Economy (tax collection should minimize the costs of collection).

As Adam Smith felt that the role of the state was limited, the governments need for revenue is also limited. According to Smith, the function of the government was to provide for the national defense, law and order, and public works (roads, bridges etc.) that the market cannot or will not efficiently provided.

In the 21st century, the distinction between private and public goods is not as clear as it was in the 18th century. Most, if not all, economic activity is a combination of public and private activity. Governments not only provide the essential goods and services that the market cannot provide (such as mass education and healthcare), but they also promote the environment and context which allows private individuals and companies to prosper. In Adam Smith's time, neither education nor healthcare were necessary for people to obtain employment, whereas today they are the key to a country's competitiveness.

Today, many advocates for Tax Justice argue that tax systems need to go beyond Adam Smith's four maxim to include four goals or objectives:

(1) Raise sufficient revenue to support the governmental functions needed in a 21st century society.

(2) Redistribute income and reduce poverty so that all citizens benefit from social output and reduce economic instability.

(3) Repricing of goods and services to ensure that "all social costs and benefits of production or consumption of a particular good are reflected in the market price" (Cobham, 2005, p. 2) which is an essential way that the goal of sustainability can be integrated into the economy; and

(4) Taxes connect citizens to the government and provide an important 'channel' of political representation. Taxes are part of a 'fiscal contract' (sometimes

called a 'tax bargain') which should reflect and strengthen public priorities. Countries that rely on direct taxes are more responsive than governments that rely on sale of natural resources as their primary source of revenue.

The purpose of this section is to review some of the data that is or can be used to monitor and evaluate Ireland's taxation system. Many of the indicators were not developed with an eye towards tax justice or equity, but to facilitate government efforts in planning. For many of the issues that Tax Justice advocates raise, there are no clear and accepted indicators. While there is a growing consensus[14] that a progressive income tax promotes a more stable economy (lower volatility in output), widely accepted indicators that measure the progressivity of a tax system do not exist. Thus, for some issues, we must rely on indirect measures.

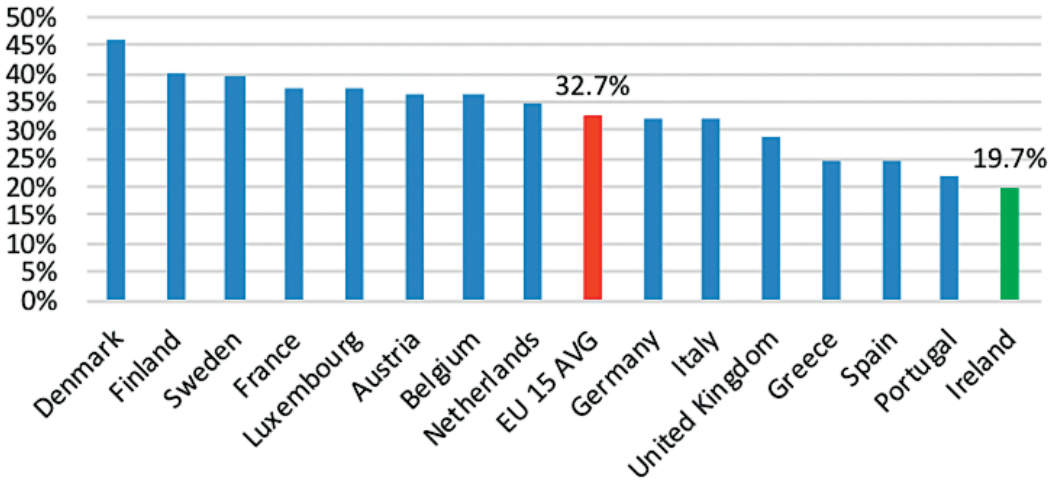
The two major issues we examine are: (i) the ability of the government to collect sufficient revenue to carry out the activities needed to promote social and sustainable well-being in Ireland; and (ii) the methods used to collect revenue. We try to compare Ireland to the other EU15 countries.

Tax Revenue

The Irish Government's ability to deliver necessary public goods, promote a vibrant economy, and provide an adequate safety net is greatly determined by how much Tax Revenue is collected. There are other sources to finance government spending. Borrowing is an important source of funds for many countries, as is revenue from state enterprises and the sale of assets. Yet these are generally not the major focus of policy debates. Given that Ireland does not have a sovereign currency it has limited 'fiscal space' to access credit markets. Expanding this fiscal space is more a function of European Central Bank policy decisions than it is a decision the Irish Government can make. We concentrate our attention on regular tax revenue.

14 See Rieth, Checherita-Westphal, and Attinasi (2016) for a review of the literature and some contemporary results.

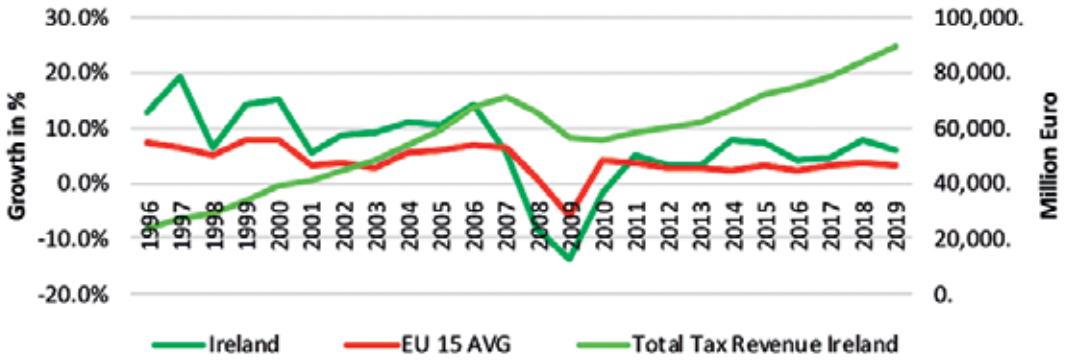
Figure 13 Tax Revenue Growth Rate, Ireland and EU15 AVG, 1996-2019



Source: Eurostat

Ireland's tax revenue has increased substantially since the beginning of the Celtic Tiger economic expansion in 1996, with a significant drop during the Great Recession (see Figure 13). Yet the decline during the Great Recession was much larger than the EU15 average and has been generally more volatile than the average of the EU15. Part of the reason that Ireland's tax revenue growth has been higher than the EU15 average is because Ireland's decline during the Great Recession was much more pronounced; Ireland has had more ground to catch up. Our concern here is on measuring tax revenue to make international comparisons. In making international comparisons of tax revenue collection, it is most common to look at Tax Revenue as a share of GDP. As we saw earlier, GDP is a problematic statistic for Ireland, overstating the size of Ireland's economy and thus creating a very low Tax Revenue as a Share of GDP (19.7% for Ireland compared with the EU15 average of 32.7% - see Figure 14).

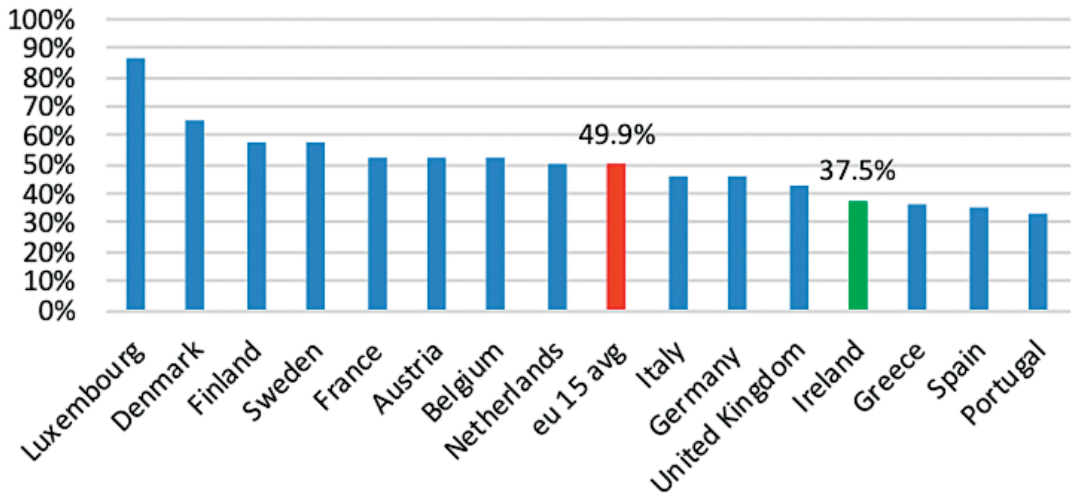
Figure 14 Tax Revenue as Share GDP, EU15, 2019



Source: Eurostat

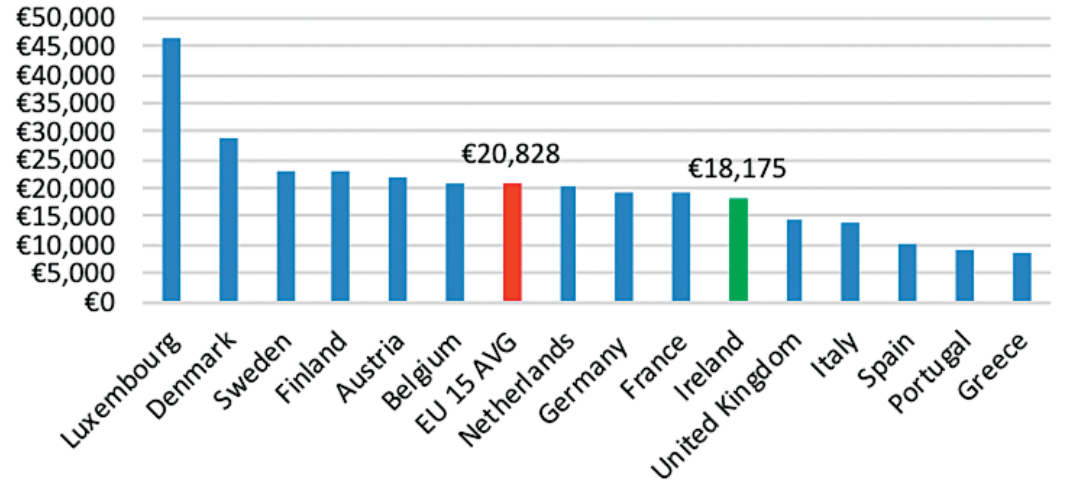
For Ireland, a better comparison is Gross National Income (GNI). Substituting GNI for GDP (Figure 15) moves Ireland from the lowest in the EU15 to 4th lowest. Yet at 37.5%, it is still well below the EU15 Average of 49.9%. In Figure 16, we present the Tax Revenue per capita data which sees Ireland move to the 6th lowest at €18,175 - 12.7% below the EU15 average.

Figure 15 Tax Revenue as a Share GNI, 2019



Source: Eurostat

Figure 16 Tax Revenue per Capita, EU15, 2019



Source: Eurostat

Structure of Taxation

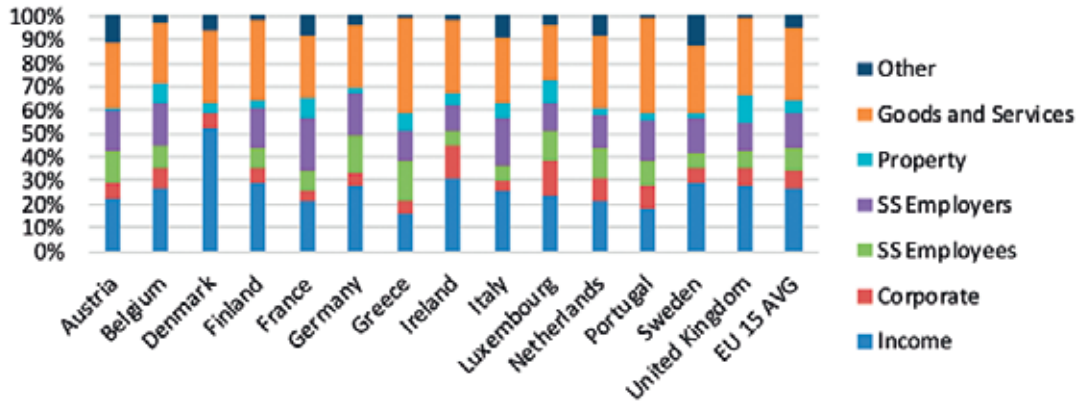
Earlier, in Table 9, we saw that Ireland inherited a structure of taxation that relied heavily on Customs and Excise taxes and various duties, which besides estate duties, tend to be highly regressive. In Table 10 and Figure 17, we compare Ireland's structure of taxation with the EU15 countries for 2019. Compared to the EU15 average, the data reveal that Ireland is not an extreme outlier.

Table 10 EU 15 and Ireland Structure of Taxation Revenue, 2019

Type of Tax	Ireland	EU15 AVG
Personal Income Taxes	31%	27%
Corporate Income Taxes	14%	8%
SS Employees	6%	10%
SS Employers	11%	15%
Property, Estate and Gift	6%	6%
Goods and Services	31%	30%
Other	2%	5%

Source: OECD

Figure 17 Structure of Tax Revenue, EU15, 2019



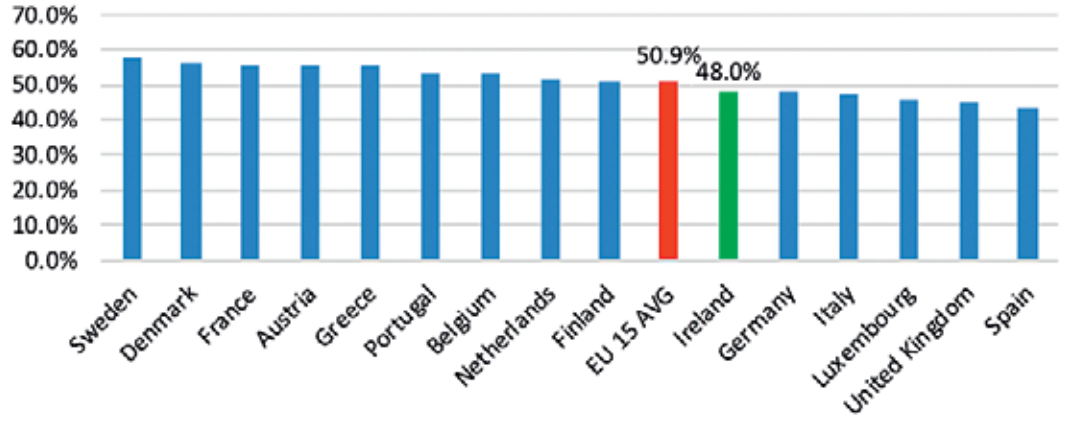
Source: OECD

Income and Consumption Taxes

Income and VAT (sales) taxes are the two largest revenue generators for Ireland and the EU 15 in general. Both account for 31% of Irish tax revenue. Generally, economists are most concerned with the "marginal" tax rate, which is the rate a person pays on additional income earned. The reason that economists focus on "marginal" rates is because this is the rate the person will consider when they have the opportunity to earn more income (an example is the opportunity to work more hours). The marginal tax rate will determine their take--home pay for the extra work. This all assumes that workers only work for income and that workers can control how many hours they work and can make such a decision. Often, hours worked is determined by the employer or a collective bargaining agreement.

We see from Figure 18 that the top tax rate among the EU 15 countries is a fairly limited range, from the mid-40s to the high 50s. Ireland's top rate is just under the EU15 average. Data in Table 11 shows how progressive an income tax system is. The number of tax brackets tells us how many rates a tax system has. According to the OECD, Ireland has the least number of tax brackets (not counting those with incomes below the minimum tax threshold). Just over half of EU15 countries have 4 or 5 tax brackets. Assuming that deductions are the same, the more brackets, the more potentially progressive a tax system will be. The table also provides the top income tax rate threshold, which is how much larger the threshold in which the top rate begins s is to the average income. Ireland's threshold is the third lowest. Some of the Central European countries have significantly lower rates and much less progressivity (for example, Hungry has a flat tax rate at 15%).

Figure 18 Highest Personal Income Tax Rate, EU15, 2019



Source: OECD

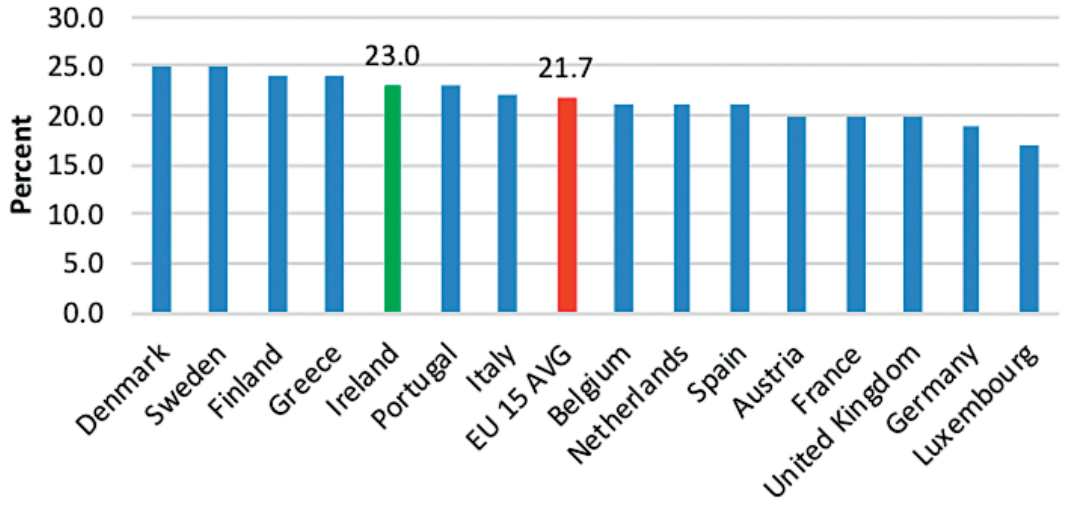
Table 11 Progressivity of Income Taxes, EU15, 2019

Country	Number of Tax Brackets	Top Income Tax Rate Threshold
Luxembourg	19	3.5
Austria	7	22.7
Portugal	7	15
Belgium	5	1.1
Germany	5	5.3
Italy	5	2.6
Spain	5	2.4
Finland	4	1.9
France	4	16.3
Greece	4	11
Netherlands	4	1.4
Sweden	3	1.5
United Kingdom	3	3.7
Denmark	2	1.3
Ireland	2	1.4

Source: OECD

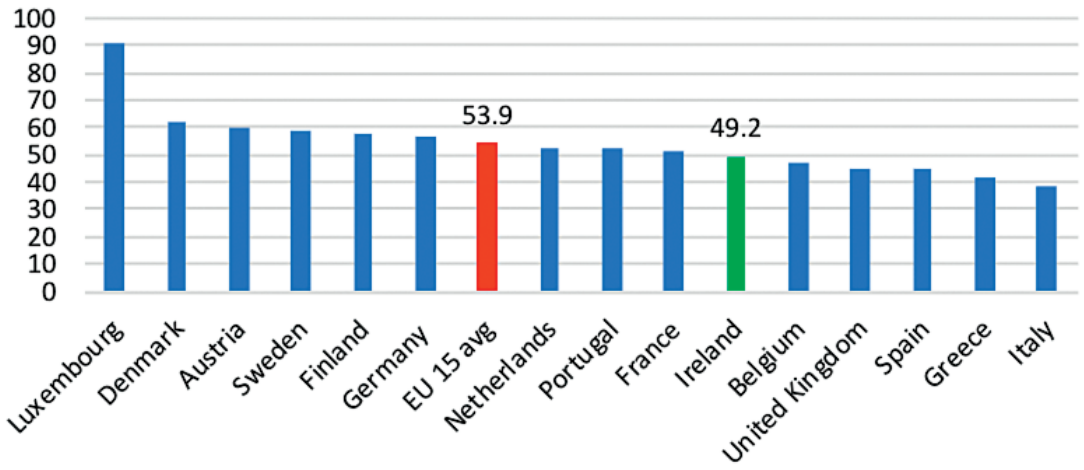
Most of the EU 15 countries also have similar Value Added Tax rates, with Ireland's being slightly higher than the average (Figure 19). The share of consumption that is subjected to VAT is lower for Ireland (49.2%) than it is for the EU15 average (53%). This is a measure of how many goods and services are exempt from VAT. Luxembourg subjects 90% of total consumption to VAT. Luxembourg has increased the consumption tax base and lowered the rate (Figure 20).

Figure 19 Value Added Tax Rates, EU15, 2019



Source: OECD

Figure 20 VAT/Sales % Total Consumption, EU15, 2019

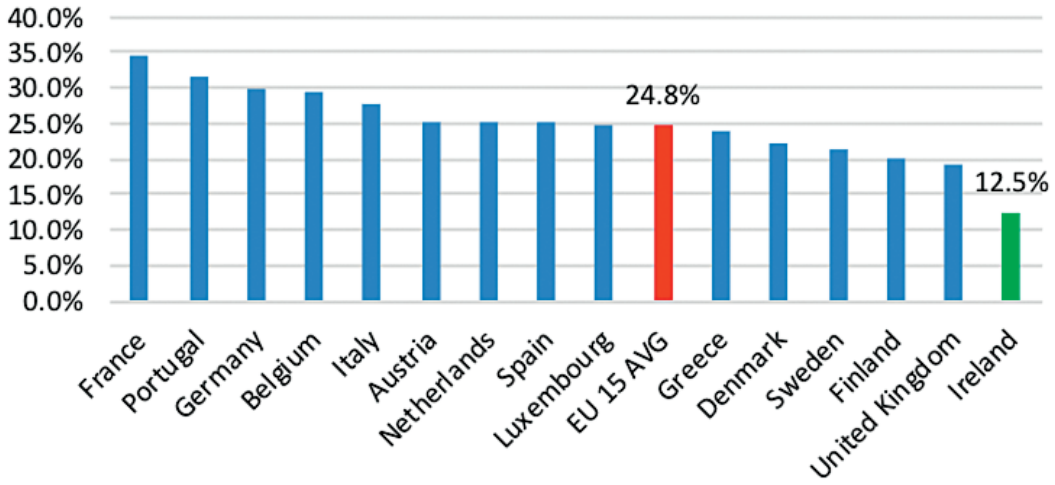


Source: OECD

The most controversial aspect of Ireland's tax system is probably its low corporate tax rate, at 12.5%. The EU15 average is 24.8%, making Ireland's rate nearly half the average (Figure 21). The argument for the low rate is that Ireland needs the low rate to attract foreign businesses to locate in Ireland. While multinationals are an important part of the Irish economy, John FitzGerld (2019) has argued that "Ireland's economic success is more than the simple story of

reliance on foreign investment attracted to Ireland by the low corporation tax rate. That view had some validity over the period 1970 to 2000. However, most of the foreign multinationals operating in Ireland today are primarily here because of the availability of the skilled labour they need, not because of the attractions of the low rate of corporation tax."

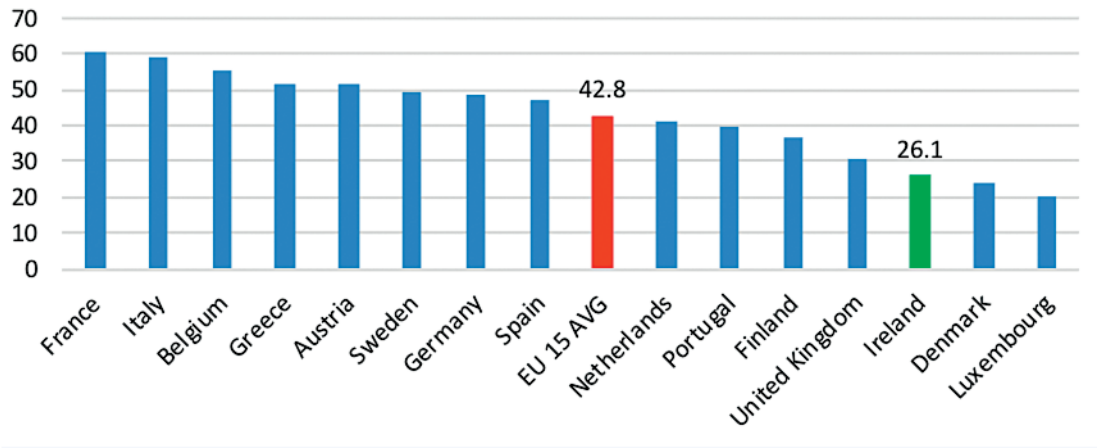
Figure 21 Highest Corporate Income Tax Rate, 2019



Source: OECD

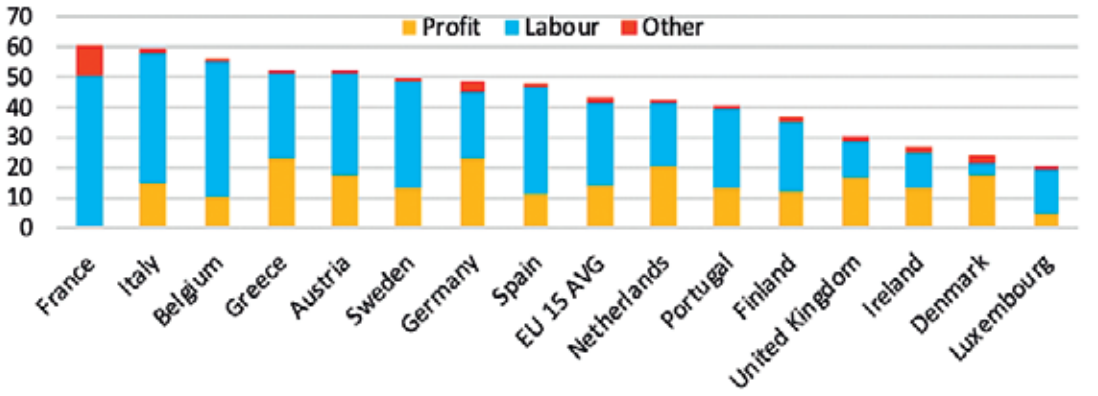
Figures 22 and 23 provide some comparative analysis of business taxation, from the World Bank's Paying Taxes, 2020. Ireland's business taxes are well below the EU15 average. Figure 23 sheds some light on the breakdown of business taxation by profits, labour and other taxes.

Figure 22 Total Tax and Contribution Rate of Business, 2018



Source: Paying Taxes, 2020, PWP and World Bank

Figure 23 Total Tax and Contribution Rate of Business by Type, 2018



Source: Paying Taxes, 2020, PWP and World Bank

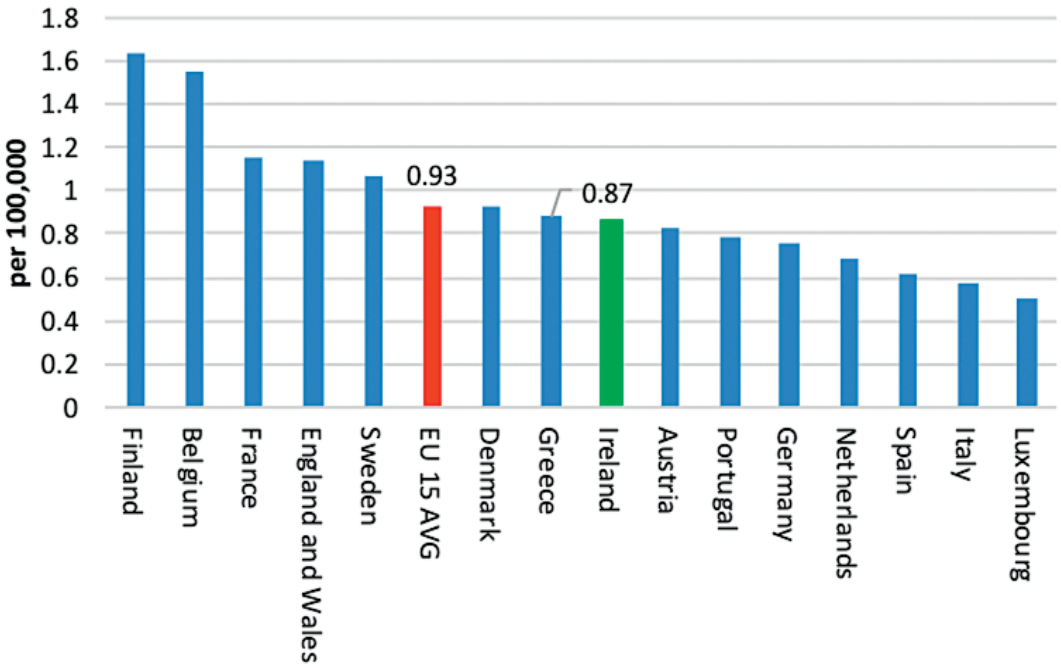
2.4 Good Governance

Comparative evidence-based analysis of governance is in its infancy compared with economic policy. As we saw with taxation, government institutions and practices are often at least slightly idiosyncratic based on a country's history and circumstances. In *The Spirit of the Laws* Montesquieu proposed that various external factors influence the laws and governing institutions of a country, notably geography, climate and culture. Adam Smith was influenced by Montesquieu's approach, yet he emphasized the economic factors, particularly the stage of

economic development (what Marx called 'mode of production'). Smith's economic determinism gave the state a limited role, stating early in his career that "Little else is requisite to carry a state to the highest degree of opulence from the lowest barbarism, but peace, easy taxes, and a tolerable administration of justice; all the rest being brought about by the natural course of things" (Stewart, 1980, p. 322). Yet it turns out that the "tolerable administration of justice" is a bit of an understatement. As many in the United States of America and many European countries have learned, citizens have an expectation of more than just a tolerable level of government services, even when they have been told by politicians that government should be minimal, the only part they accept should be minimal is paying for it. Liberal or conservative, citizens want their roads fixed, their buildings inspected for safety, their food systems free of dangerous substances, and all that goes along with a modern advanced capitalist society. Assessing which countries or governments are doing a good job is thus necessary for people to be informed citizens.

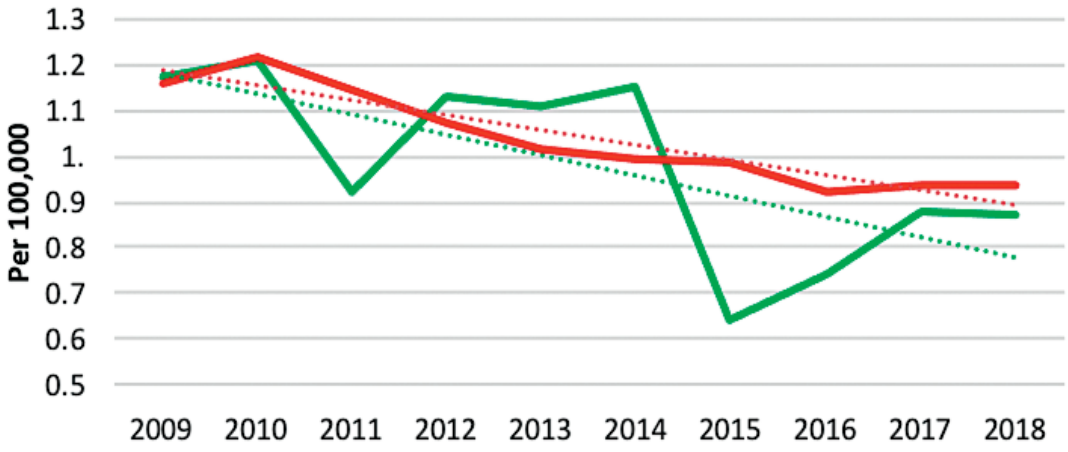
Good governance is part of SDG16: *Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels*. One way to measure governance is by comparing outcomes, and a common measure of government effectiveness is the Intentional Homicide Rate (per 100,000 population). Homicides are often used as a measure of justice and safety. Generally, homicides are reported, so it does not suffer from the problem of under reporting. Ireland's rate of Intentional Homicides is below the EU15 average (see Figure 24), and has been trending downward, yet the assault rate has been increasing, (especially sexual assaults), since 2013. Part of the increase in sexual assaults is clearly due to an increase in reporting.

Figure 24 EU15 Homicide Rate, 2018



Source: Eurostat

Figure 25 Average International Homicife Rate, EU and Ireland, 2009-2018

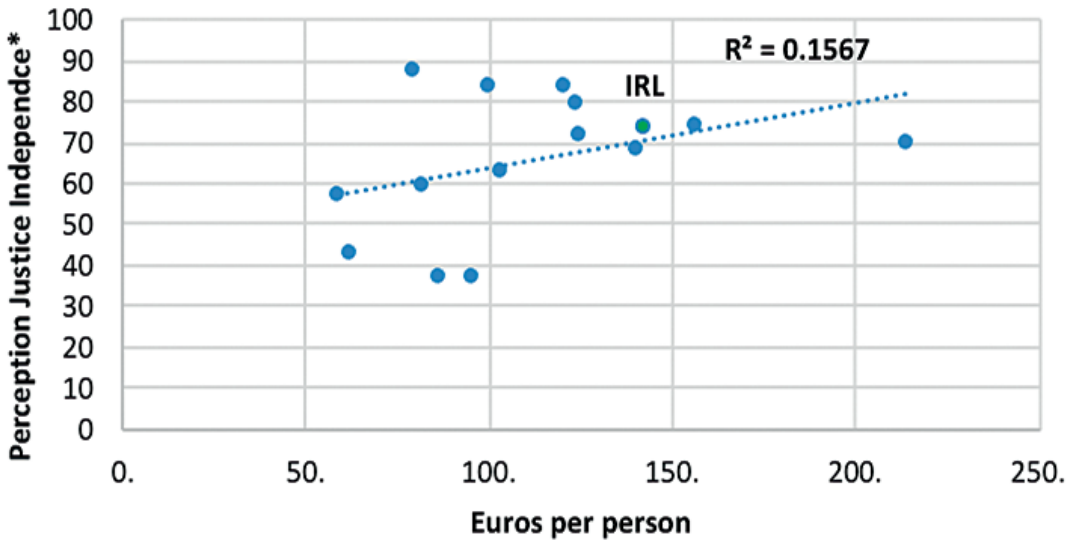


Source: Eurostat

Two other ways that governance is evaluated is to compare how much countries spend towards a specific program and how citizens evaluate programmes in surveys. This is commonly done in comparing health and education systems. Figure 26 attempts to capture both how much

the EU15 countries spend on their court systems per person and how the citizens perceive the independence of their justice systems. In terms of perception, 74% of Irish citizens view their judicial system's independence as very good or fairly good, which puts Ireland in 5th place overall. Ireland's spending on its court system is 3rd highest in the group. The data suggest that there is a weak relationship between the perception of the justice system and the amount of resources society puts into the system (although it is worth noting that paying for the court system is only part of a countries system of justice, and police interactions with the public probably have a greater impact on perceptions of the public).

Figure 26 EU15 Spending on Courts and Perception of Independence of Justice System, 2018-2019



*Percent that responded very good or fairly good.

Source: Eurostat

One of the most comprehensive international comparisons of governance is carried out by the World Bank's Worldwide Governance Indicators (WGI). WGI defines governance as: "the traditions and institutions by which authority in a country is exercised. This includes: (a) the process by which governments are selected, monitored and replaced; (b) the capacity of the government to effectively formulate and implement sound policies; and (c) the respect of citizens and the state for the institutions that govern economic and social interactions among them" (Kaufmann, Kraay and Massimo, 2010, p. 4). WGI indicators are "based on several hundred variables obtained from 31 different data sources, capturing governance perceptions as reported by survey respondents, non-governmental organizations, commercial business information providers, and public sector organizations worldwide" (Kaufmann, Kraay and Massimo, 2010, p. 2). The data is organized into six broad categories which should not be

viewed as independent of each other, but which are mutually interdependent. The perception of considerable government corruption will weaken the state's ability to be effective and promote the rule of law. The six indicators are presented in Table 12 and the comparative data for the EU15 countries are in Table 13.

Table 12 Governance Indicators

Voice and Accountability (VA)	Perception citizens can participate in government, freedom of expression, association and a free media.
Political Stability and Absence of Violence/Terrorism (PV)	Perception that the government could be destabilized or overthrown by unconstitutional or violent means.
Government Effectiveness (GE)	Perception of quality of government services, civil service, credibility of the government's commitment public services.
Regulatory Quality (RQ)	Perception that state can institute sound policy and regulate private sector.
Rule of Law (RL)	Perception of following rules of society, quality of police and courts, extent of crime and violence.
Control of Corruption (CC)	Perception that the state is "captured" for private gain.

Source: World Bank's Worldwide Governance Indicators

The data show that except for Political Stability and Absence of Violence/Terrorism, Ireland is ranked in the middle of the EU15 countries, and close to the EU15 average. Given the large amount of variables that are included in this analysis, it seems clear that Ireland's governance is average compared to its comparable group. We argue that there is room to improve if it has the aspiration to be a leader in good governance.

Table 13 Worldwide Governance Indicators, EU15, 2020

CTRY	VA	CTRY	PV	CTRY	GE	CTRY	RQ	CTRY	RL	CTRY	CC
DNK	95.1	LUX	82.4	DNK	92.3	FIN	91.3	FIN	94.2	FIN	95.2
FIN	95.1	PRT	71.4	FIN	92.3	NLD	91.3	AUS	92.3	DNK	94.7
NLD	95.1	SWE	68.6	SWE	90.9	SWE	90.4	DNK	92.3	SWE	94.7
SWE	95.1	DNK	67.6	NLD	89.9	DEU	89.4	SWE	92.3	LUX	93.8
LUX	90.6	AUS	67.1	LUX	87.5	LUX	87.5	NLD	90.4	NLD	92.8
BEL	87.7	IRL	66.7	DEU	85.6	GBR	86.5	LUX	89.9	DEU	91.8
DEU	84.2	FIN	65.7	AUS	83.7	DNK	83.7	DEU	88.0	GBR	89.9
AUS	83.7	NLD	61.9	GBR	81.3	IRL	83.7	GBR	88.0	AUS	88.5
IRL	83.7	DEU	54.8	FRA	79.8	AUS	82.2	FRA	85.1	BEL	88.5
GBR	81.8	GBR	53.8	IRL	78.4	FRA	82.2	BEL	83.7	IRL	83.7
PRT	80.8	BEL	50.5	PRT	75.0	BEL	76.4	IRL	83.7	FRA	82.7
FRA	75.4	ITA	50.0	BEL	73.6	ESP	74.0	PRT	78.8	PRT	68.8
ESP	73.9	FRA	46.2	ESP	73.1	PRT	72.6	ESP	75.0	ESP	66.3
ITA	71.9	ESP	46.2	ITA	55.8	ITA	72.1	ITA	53.8	ITA	55.8
GRC	71.4	GRC	45.7	GRC	53.4	GRC	62.0	GRC	51.0	GRC	45.7
AVG	84.4	AVG	59.9	AVG	79.5	AVG	81.7	AVG	82.6	AVG	82.2

VA = Voice and Accountability
PV = Political Stability and Absence of Violence and Terrorism
GE = Government Effectiveness
RL = Rule of Law
CC = Control of Corruption
RQ = Regulatory Quality

Source: World Bank's Worldwide Governance Indicators

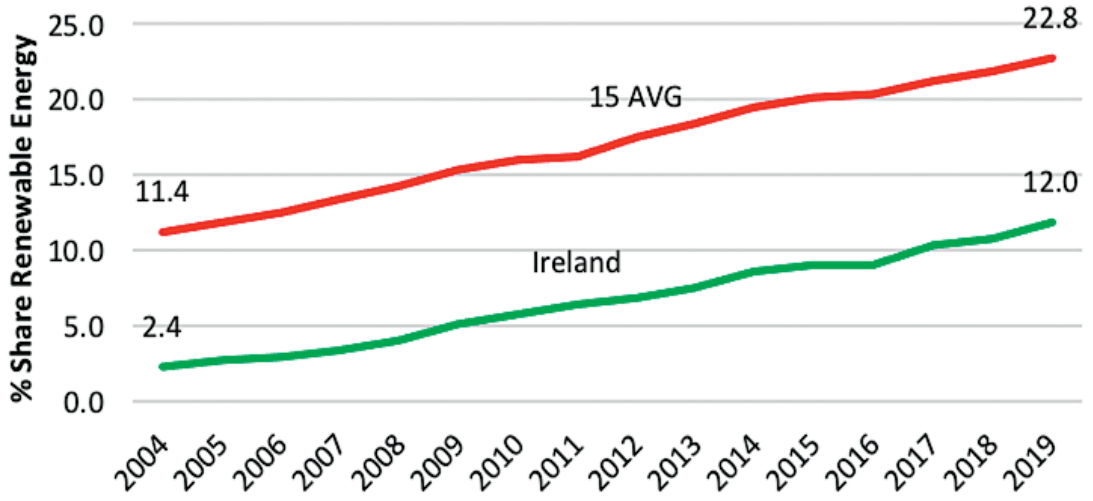
2.5 Sustainability

Sustainability means the ability of a system to continue. Most often it is used in the context of the environment, but social systems and businesses also need to consider the sustainability of their processes and policies. The SDGs are not just an addition of a few environmental goals to the Millennium Development Goals (MDGs) which pre-existed the SDGs and which the SDGs replaced. Sustainability is at the heart of the SDGs. In this section, we focus on (i) the environmental aspects of sustainability and (ii) a key indicator (indicator 17.2.1) under SDG17, which focuses on Official Development Assistance.

Environmental Aspects of Sustainability

Moving to renewable energy sources is a critical aspect of developing a sustainable economy and society. Data from Eurostat shows that Ireland was initially considerably behind (21%) the average of the EU15 in 2004, and has remained well below the EU15 average since then, reading 52.6% of the EU15 average by 2019. At just 12%, Ireland's share of renewable energy is well behind Denmark (37.2%), Finland (43.1%) and Sweden (56.4%).

Figure 27 Share of Renewable Energy, Ireland and EU15 Average, 2004-2019



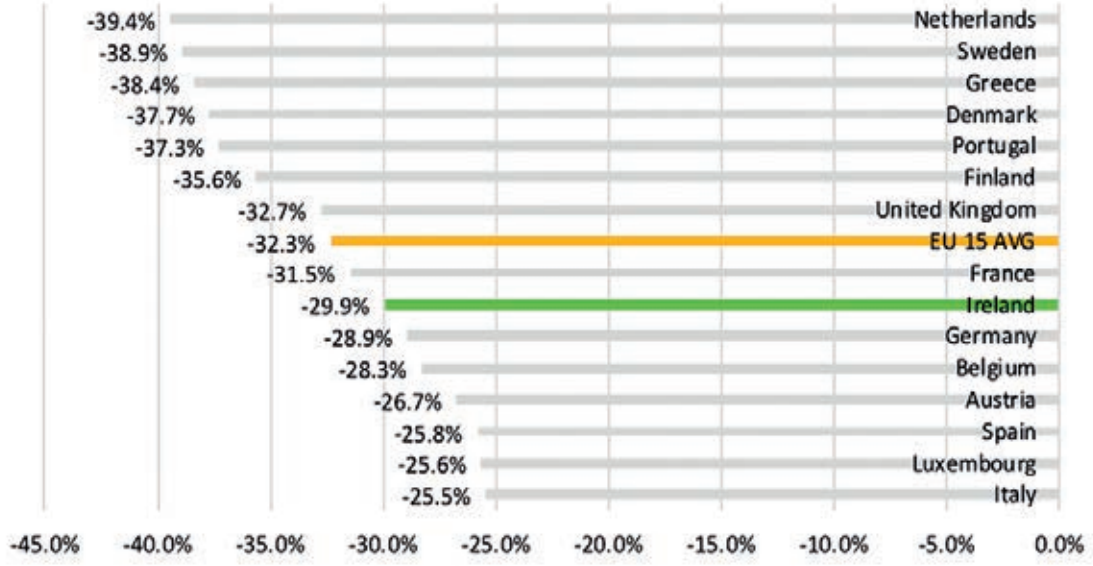
Source: Eurostat

Besides moving to renewables, reducing energy consumption, reducing pollution from automobiles and using resources more efficiently are all necessary steps towards reducing the negative impact of economic activity on the environment. Figure 28 highlights that Ireland's energy consumption has been declining since 2010 at a slightly faster rate than the EU15 average. Ireland's auto emissions are falling and are declining slightly below the rate of the average of the EU15 (Figure 29). Table 14 presents the change in resource productivity, an indicator that reflects how much output is being produced by a given amount of resources. Ireland's has moved from 3rd lowest in the ranking to just below the EU15 average. It must be noted that part of this is due to the exaggeration of Ireland's aggregate output, GDP, which we discussed of this chapter.

Figure 28 Final Energy Consumption, Ireland and EU15 AVG, 2000-2018

Source: Eurostat

Figure 29 EU15 Reduction in CO2 from New Passenger Cars, 2000-2018



Source: Eurostat

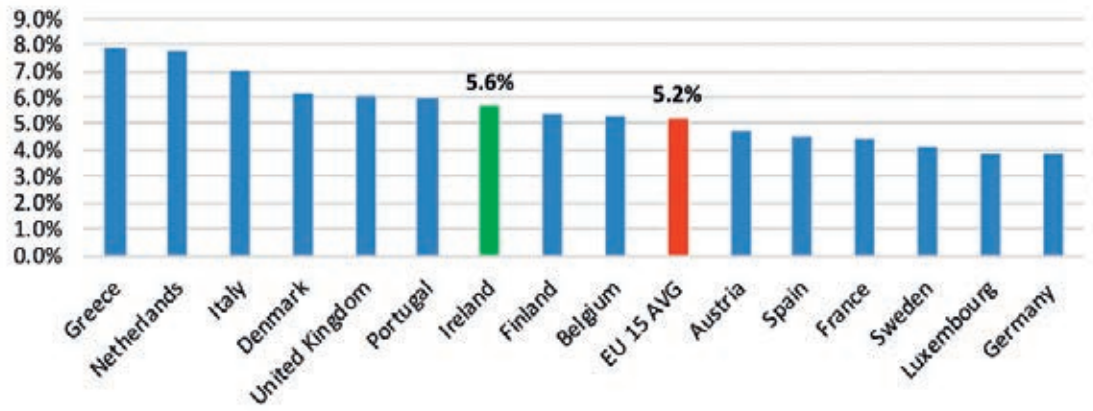
Table 14 Change in Resource Productivity in EU 15, 2004 and 2019

Country	2004	Country	2019
Netherlands	2.799	Netherlands	4.421
Luxembourg	2.759	United Kingdom	3.927
United Kingdom	2.145	Luxembourg	3.883
Italy	2.072	Belgium	3.313
Belgium	2.002	Italy	3.305
France	1.993	France	2.916
EU 15 AVG	1.701	Spain	2.865
Sweden	1.676	EU 15 AVG	2.628
Denmark	1.648	Ireland	2.491
Germany	1.619	Germany	2.435
Austria	1.567	Denmark	2.031
Spain	1.261	Austria	1.971
Greece	1.239	Greece	1.859
Ireland	0.995	Sweden	1.780
Finland	0.904	Finland	1.148
Portugal	0.833	Portugal	1.070

Source: Eurostat

The last indicator we examine here is environmental taxes as a share of total tax revenue. Underlying most, if not all, environmental issues, is the mispricing of public goods like clean air and natural resources. As we discussed in the section on taxation earlier, one of the purposes of a tax system is to correct for this mispricing. An indicator for how much environmental taxes are being used to make such corrections is presented in Figure 30. The data reveal that even the country with the highest share (Greece) accounts for just under 8%. We conclude that this tool is not being as widely used as the size of the climate change problem suggests might be necessary.

Figure 30 Environmental Taxes as Share of Total Tax Revenue, EU15, 2019

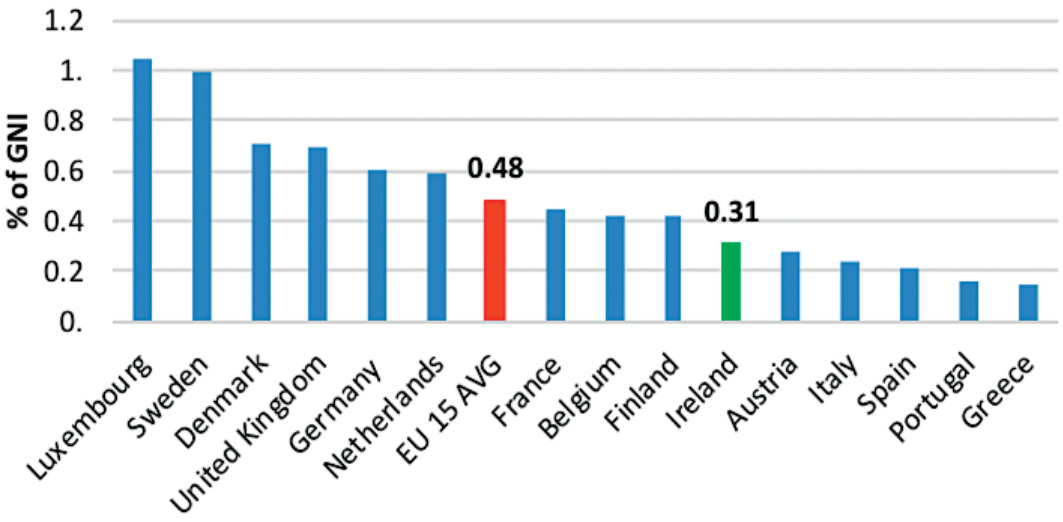


Source: Eurostat

Overseas Development Assistance

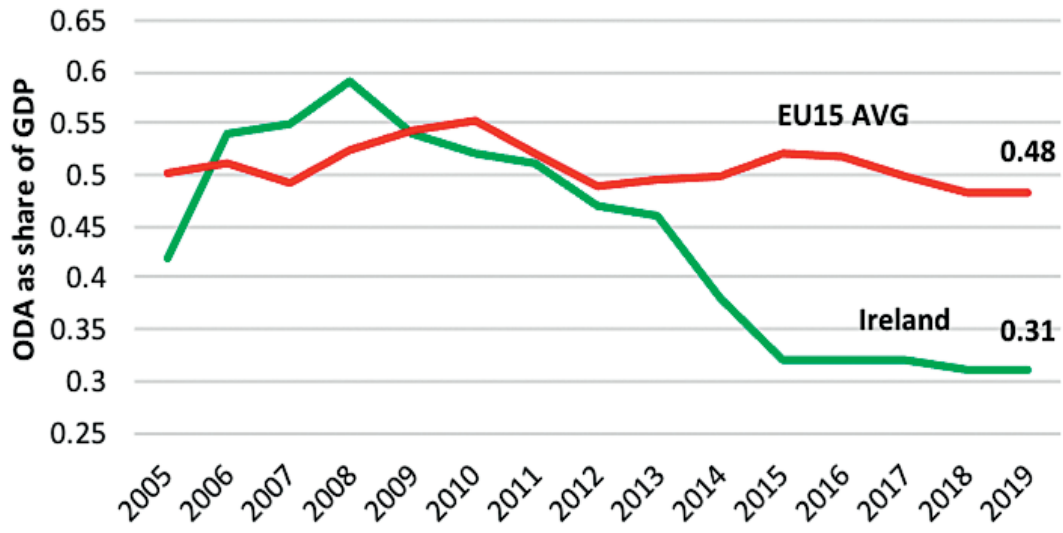
In 1970 the United Nations General Assembly passed a resolution committing the advanced countries to increase their Overseas Development Assistance (ODA) to 0.7% of their GDP. In the 1990s, the target was changed to 0.7% of GNI. Only a handful of countries have reached this commitment. Before the Great Recession, Ireland was making progress towards achieving the 0.7% of GNI commitment, reaching 0.59% in 2009. During the Great Recession, this declined to around 0.3% of GNI. In 2019, it is 0.31%, below the EU15 average of 0.48%. ODA, along with Foreign Direct Investment, is necessary for developing countries to grow and to invest in the technologies so that they can grow their economies without using inefficient and high polluting technologies.

Figure 31 Overseas Development Assistance, EU15, 2019



Source: Eurostat

Figure 32 ODA, Ireland and EU Average, 2005-2009



Source: Eurostat

2.6 Summary

One of the primary motivations for the development of economic theory has been to assist in the development of policies to promote economic growth. Mostly these policies have focused on either increasing the volume of inputs (land, labour and capital) or in improving the efficiency with which inputs are used (improved technology). The positive spillover effects on

other aspects of society, such as social well-being, were merely assumed to occur, if they were considered at all. Economic statistics were developed to better inform policy makers and to assist governments to more effectively produce the outcomes they sought.

Today, citizens are calling for social well-being and the environment (as well as other goals) to take center stage in public policy discussions. Not only is economic growth alone not enough to achieve these new public policy goals, very often, economic growth can be pursued in a manner which is contrary to these goals. Economists have started to redirect their attention to how social and environmental factors affects the economy, and how the economy can affect people, communities, society and the planet. Governments will need to focus more attention and resources into developing metrics so that citizens and public officials are better informed about the nature of these new challenges, and so that analysts can investigate which factors and policies produce the most desired results.

3

The Sustainable Progress Index 2021

Sustainable development can be defined as "[d]evelopment which meets the needs of the current generations without compromising the ability of future generations to meet their own needs". This is the definition of sustainable development that was first introduced in the Brundtland report by the World Commission on Environment and Development (WCED) in 1987, and it is still the most widely used definition.

The emphasis 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 UN adopted the 2030 Agenda for Sustainable Development in 2015, and identified 17 SDGs based on 169 targets and over 230 indicators. The SDGs were implemented in 2016. The SDGS are designed to refocus efforts towards policies that directly help people and communities in the long run. They aim to provide a pathway out of poverty for the world's population towards a sustainable future for all countries and peoples. Further, the SDGs enable countries to track the progress they have made in achieving the 2030 Agenda vision. Many institutions, including the World Bank, WHO, IMF, OECD and Eurostat, have all committed to data collection efforts to support the monitoring of the SDGs.

Figure 33 The 17 Sustainable Development Goals

Source: United Nations (UN)

There is a real sense that the SDGs are more important now than ever, especially in the context of the global pandemic. The current global crisis clearly shows us the interdependence of our economic, social and natural worlds. The three areas need to be approached in a holistic manner, which is one of the key principles on which the SDGs are built. António Guterres, Secretary-General, United Nations believes that:

"Far from undermining the case for the SDGs, the root causes and uneven impacts of COVID-19 demonstrate precisely why we need the 2030 Agenda" (UN, 2020, p.2)

Paolo Gentiloni, Commissioner, European Commission, Responsible for Economy and for Eurostat shares this view:

> "As we are battling the dramatic repercussions of the Covid-19 pandemic, we should not lose sight of global challenges that need to be tackled to prevent future crises and natural disasters, such as climate change, biodiversity loss and growing social and economic inequality. Implementing policies to reach the SDGs in their entirety, together with the Paris Agreement on Climate Change, is the best answer we have. It is our roadmap and compass to a better world — a world where all people can enjoy a higher level of well-being, living in balance with our natural environment" (Eurostat,2020, p. 4).

Further, the EU states that is fully committed to delivering on the 2030 Agenda and its implementation through its internal and external polices. According to the UN Report (2019, p.3), "the European Union (EU) now have more than 300 policies and instruments supporting sustainable consumption and production".

There have been several attempts to track countries' progress on achievement of the SDGs since the adoption of the goals[15]. The most recent Eurostat (2020) monitoring report is based on a set of a 100 indicators[16], including 37 multipurpose indicators, and covers a five year time span. Improvement in achievement of the goals has occurred at different paces for each SDG, ranging from moderate to significant progress. The report shows that over the past five years, 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 seen in reducing certain aspects of poverty (SDG 1) and in improving the health situation of the EU population (SDG 3). 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, goals dealing with environmental aspects of sustainability are positioned at the other end of the spectrum, with slow or no EU progress over the time period. Progress towards the EU's climate and energy targets (SDG 7 and SDG 13) as well as the shift towards a circular economy (SDG 12) has slowed to varying degrees. Meanwhile, progress on SDG 15 has also been slow, as ecosystems and biodiversity are still under pressure from human activities (see Figure 34).

15 See Sachs et al, (2016, 2017, 2018, 2019, 2020); Eurostat, (2017, 2019, 2020; OECD, (2017).

16 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 34 Eurostat's Assessment of EU Progress on the SDGs

Source: Eurostat (2020, p.11)

Work by Jeffrey Sachs and his colleagues in the Sustainable Development Solutions Network (SDSN) has also provided important insights over the years into countries' progress towards achievement of the SDGs. The 2020 report provides a detailed country profile on 166 countries, (including many less developed countries). Their computation of an SDG index ranks each country on the basis of how far away it is from achieving each SDG. Although the 2020 report does not reflect the impact of Covid-19, the authors argue the pandemic will have severe negative impacts on most SDGs. Further, pre-Covid, even rich countries faced many challenges in achieving the SDGs.

In the Sachs et al (2020) analysis, a scale presents the score for each country's performance on a particular indicator from 0 to 100, with 100 denoting the best possible score. Figure 35 illustrates their assessment of Ireland's progress towards the SDGs. The overall score ranks Ireland 14th out of 166 countries. 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 SDG achievement (Sachs et al, 2020). The authors conclude that Ireland country faces challenges in 7 SDGs, significant challenges in 5 SDGs and 3 major challenges.

Figure 35 Ireland's Current SDG Dashboard

Source: Sachs et al (2020, p. 264)

Our reports over the years[17] have focused on how Ireland performs on the SDGs in an EU context. This report is our latest contribution to the debate on the shape of Ireland among the EU15 countries, and sheds some light on the actions that we must take to achieve the 2030 Agenda. We believe this is valuable: knowing where we stand, identifying the most pressing sustainability challenges and critically examining our performance is essential if we are to ensure a sustainable Ireland in a sustainable world.

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

3.1 Data Selection

The computation of an SDG index requires an extensive dataset. Our starting point (as in previous reports), is the official UN Global Indicator Set which was adopted in 2017. We also utilize the EU SDG Indicator Set (2020), which 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. Our final dataset therefore is aligned as closely as possible to the official global indicators while also taking account of the experiences of countries in the EU context.

A number of additional rules are used 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 EU15. We exclude these indicators. Other indicators, although not official UN indicators, are included to capture the theme of a particular SDG. For example, we include an indicator of household debt in SDG10. The level of debt resulting from the financial crisis and global recession has impacted on the ability of many EU households to lead decent lives.
- ***Quality:*** The presentation of the most up to date and reliable data remains the backbone of this report. As mentioned above, we draw closely on the EU and UN datasets, and include 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). This ensures the best, most reliable data is used to capture each SDG.
- ***Coverage:*** we only include indicators where data is available for all 15 countries. Indicators that have missing data for countries are not used in our index.
- ***Most recent available:*** as far as possible, all data must refer to the most recent year available. For most indicators, this is 2019 data but for some environmental indicators in particular, due to time lags in data generation, earlier data must be used. We exclude the use of data that is considered out-dated.

Applying these criteria, this current report utilises **81 indicators across the 17 goals** to arrive at our final SDG scores.

Some key points are worth noting.

- It is important to emphasise that our report only describes the situation in the EU up to 2019 (although for some few indicators, data is available for 2020). Hence, COVID-19 containment measures that were widely introduced by EU Member States are not reflected in our analysis. We believe first findings of any COVID-19 related implications will only be possible in the 2021 edition of our report and the full scale of the crisis only revealed in later editions.
- Our dataset is structured along the 17 SDGs and covers the social, economic, environmental aspects of sustainability as represented by the Agenda 2030. Where possible, each SDG is covered by a minimum of 4 indicators. There are some exceptions. For SDG13, coverage considerations imply we can only employ 2 indicators to capture themes of climate mitigation, impact and initiatives; this is far from ideal. We use only 3 indicators for SDG11 due to reliability and comparability issues. The complete list of indicators used in the construction of the SDG measures is provided in Appendix A.
- The number of indicators evolves as new information becomes available. 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. As a result, our SDG scores and rankings are not comparable to results from previous reports.

3.2 Our Method

As in previous reports, the focus of our analysis is the EU15 countries. Comparing relative performance among countries from a similar regional or income group is valuable. Sachs et al (2016) have emphasised the substantial variations observed in small groups of similar regions should encourage policymakers to better understand reasons for divergence and design strategies for achieving the SDGs by 2030.

Since the aim is to compare performance across all goals, the first step in constructing the index is to make the data comparable; this is critical, given the heterogeneous nature of the data and the myriad of sources used in data collection. As in previous reports, we use a similar

method to Sachs et al (2016). The approach allows us to benchmark Ireland against the other EU countries, at individual indicator level, SDG level and aggregate index level.

Briefly, the method can be summarized as follows. A percentile rank is first 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. The second steps involved aggregating the percentile rank of each indicator to compute the SDG score for each country. Given that we have data on every SDG, this implies that every country has an SDG score for each of the 17 goals. Finally, to arrive at the composite Sustainable Progress Index, we aggregate across all goals to arrive at a score for each country. Equal weight is assigned to each SDG (and each indicator under each goal). This is in accordance with the view of the UN (2015, paragraph 5) that all SDGs are equally important and should be treated equally[18]. The individual SDG scores allow us to rank the countries at goal level while the aggregate measure[19] provides a snapshot of how Ireland is faring overall on the SDGs relative to the EU15.

Agenda 2030 sets ambitious targets across the three dimensions of sustainable development: economic development, social inclusion and environmental sustainability. Although we acknowledge that all goals are interdependent and interconnected, we think there is value in attempting to understand how countries are doing on the three aspects of progress. Hence, we first cluster the goals by these three dimensions: economic, social and environment and examine country rankings. Then in section 3.5, we present the results for the aggregate Sustainable Progress Index[20]. It is important to note that the overall ranking is sensitive to methodological choices including the methods for aggregation and weighting. Hence, we encourage interested readers to go beyond the aggregate SDG Index and look at comparative performances at the goal and indicator level.

18 "These are universal goals and targets which involve the entire world, developed and developing countries alike. They are integrated and indivisible and balance the three dimensions of sustainable development" UN's (2015, paragraph 5). It is worth pointing out that there is no agreement about assigning higher weights to some SDGs over others. Our approach 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.

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

20 Statistical tests were 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.

3.3 The Economy Index

First, we examine the economy aspect of the SDGs by combining SDG8 and SDG9. Country ranking and scores of the Economy Index are presented in Table 15. Our broader measure of the economy, as captured by the two SDGs, places Ireland in 10th place out of the 15 countries. Ireland's GDP per capita continues to be at the top of the scale relative to other countries, and the unemployment rate also scores well. However, the wider view of the economy as captured by our index here, shows that there is significant room for progress on this dimension. Below, we explore the elements of each SDG further.

Table 15 The Economy SDG Index – Ranking by Country

Country	Index Score	Country Rank
Netherlands	0.797	1
Germany	0.777	2
Denmark	0.752	3
Sweden	0.711	4
Austria	0.652	5
Finland	0.639	6
Luxembourg	0.618	7
Belgium	0.556	8
United Kingdom	0.554	9
Ireland	**0.407**	**10**
France	0.351	11
Portugal	0.238	12
Italy	0.193	13
Spain	0.176	14
Greece	0.106	15

Source: Authors' analysis

SDG8 'Decent work and economic growth'

SDG8 identifies the importance of sustained and inclusive economic growth, economic productivity and global prosperity. The goal recognises that growth is essential for employment (particularly well-paid quality jobs), living standards, and prosperity. It focuses on providing opportunities to eradicate forced labour, human trafficking, and child labour globally by promoting labour rights and safe and secure working conditions.

The Irish economy, pre-Covid, is characterised by steady improvement in economic growth and the labour market. Ireland's GDP per capita is high; second only to Luxembourg. The EU has witnessed similar trends. The EU in 2019 was close to meeting its Europe 2020 target of raising the employment rate to 75 %. due to steady gains over the past few years.

We use 6 indicators to reflect SDG8. As well as GDP per capita and the unemployment rate, we include other measures to capture the theme of the goal: the employment rate, the NEET rate (youths not in employment, education or training), accidents at work, and average wages. At 11.2%, Ireland still struggles with the NEET rate which, and is ranked 10th on this indicator. The indicators 'accidents at work' and 'average wages' are an attempt to mirror decent work[21]. Ireland is ranked 8th on both of these indicators. The overall rank for Ireland on SDG8 is 9.

SDG 8: Rank = 9

SDG 9 'Industry, innovation and infrastructure'

SDG9 calls for building resilient and sustainable infrastructure and promotes inclusive and sustainable industrialization, with the aim of improving living standards. It also recognises the importance of research and innovation for finding lasting solutions to social, economic and environmental challenges.

5 indicators are used to compute SDG9. At 0.78%, Ireland's expenditure on R&D (as a percentage of GDP) is the lowest of the EU15. In the EU generally, R&D intensity has increased only slightly since 2013, and most countries have struggled to meet the 2020 target of raising R&D expenditure to 3 % of GDP[22]. Other indicators under this SDG - internet use, number of patents filed, number of researchers per 1000 workers - all suggest there is significant room for improvement. We include a new indicator that attempts to measure the quality of trade and transport-related infrastructure. The Logistics Performance Index is based on a survey conducted by the World Bank. Ireland performs poorly on this indicator; the score puts Ireland in 13th place for logistics capacity. The overall rank for Ireland on SDG9 is 12.

SDG 9: Rank = 12

3.4 The Society Index

We compute the Society Index by combining 8 SDGs[23]. The overall score and country ranking are presented in Table 15. Ireland is in 6th place overall. Our relatively favourable

21 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.

22 The exceptions in 2019 are Austria, Germany and Sweden.

23 The 8 SDGs that are included in the society index are: 1, 2, 3, 4, 5, 10, 16 and 17.

position is driven by strong performance particularly on the education, and peace and justice goals.

Table 15 The Society SDG Index – Ranking by Country

Country	Index Score	Country Rank
Sweden	0.714	1
Denmark	0.687	2
Finland	0.634	3
Netherlands	0.594	4
Austria	0.538	5
Ireland	**0.499**	**6**
Germany	0.492	7
Belgium	0.481	8
Luxembourg	0.477	9
France	0.476	10
United Kingdom	0.443	11
Portugal	0.415	12
Spain	0.384	13
Italy	0.371	14
Greece	0.293	15

Source: Authors' analysis

SDG 1 'No poverty'

SDG 1 calls 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 and financial services.

According to Eurostat (2020, p.35), meeting its citizen's basic needs and eradicating all forms of poverty has been an ongoing priority of the EU. However, despite favourable trends in the EU over the past few years, Eurostat believe that the improvement in poverty has been "too slow to put the EU on track towards meeting its target of lifting at least 20 million people out of this situation by 2020" (Eurostat, 2020, p.12).

Various indicators are used by Eurostat to reflect SDG1. However, the key focus is proportion of people living below the poverty line (however measured), and access to basic facilities and services. The UN official indicators include measures that capture extreme poverty (such as the poverty headcount ratio at $1.90/day, percentage of the population). Our focus here is the EU15 countries (with broadly similar levels of development), so we exclude some of the less relevant UN indicators.

4 indicators, based on data from Eurostat and the OECD are used to compute our SDG1. The indicators are chosen to give an overall picture of poverty in the EU15. 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) is closely aligned with the official UN indicator. The Eurostat indicators: severely materially deprived people (percentage of the population); low-work intensity households, and people living in deprived conditions, (leaky roof, damp walls, floors, etc.) are meant to capture poverty among more developed countries. While Ireland does reasonably well on the poverty measure, less favourable scores on the other indicators puts it in 9th place overall. Finland, Sweden and Austria score highest on this SDG.

SDG 1: Rank = 9

SDG 2 'No hunger'

Food security, the eradication of hunger, improved nutrition and sustainable agriculture are the main concerns of SDG2. There are no major issues about food security within the EU region, in terms of sufficiency and supply, Hence, in the EU, achieving healthy diets and ensuring agricultural systems remain productive and sustainable are the key challenges associated with SDG2.

The EU's nutrition-related health issue is with obesity, affecting almost 15% of the adult population in 2017. It also disproportionately affects people with lower levels of education and generally tends to increase with age until late in life. The most recent available data indicate Ireland's obesity rate is the second highest in our sample, with just the UK having a higher rate. Over 25 per cent of the population are categorised as obese.

The sustainability of agriculture and ensuring long-term productivity are also key elements of SDG2. 4 indicators are used to reflect this part of SDG 2: cereal yield efficiency; the extent of organic farming; ammonia emissions from agriculture and the Harmonised Pesticide Risk Indicator. The latter is a new addition to the Eurostat Indicator set, replacing the earlier indicator of nutrient balance of agricultural land.

At 1.63%, Ireland's organic farming share of the total utilised agricultural area (UAA) is well below the EU average: it scores lowest of the EU15 on this indicator. On the plus side, Ireland scores high (3rd place) on the cereal yield indicator, although the ranking on the ammonia emissions and harmonized

pesticide risk indicator is much less favourable. The overall rank on this SDG is 12.

SDG 2: Rank = 12

SDG 3 'Good health and wellbeing'

SDG3 focuses on improving healthy lives and promoting wellbeing of all ages by improving reproductive, maternal and child health. It aims to end epidemics of major communicable diseases; and reduce non-communicable and mental diseases. It also focuses on reducing behavioural and environmental health-risk factors.

Hence, in addition to indicators like life expectancy, maternal and neo-natal mortality rates, subjective wellbeing measure, etc. indicators such as death due to chronic diseases, incidence of alcohol and smoking are included under this SDG.

Within the EU, this SDG continues to be characterised by rather strong progress over the past five years. Significant progress in almost all health-related indicators is seen. The trend is similar for Ireland.

A more expansive range of data is available to reflect this SDG compared to others. We settle on 10 relevant indicators, utilizing many of the Eurostat data and excluding indicators that are more relevant to the developing countries. Our final list includes road traffic deaths, wellbeing, and unmet medical needs, as well as the usual measures mentioned above. Ireland scores in the middle of the rankings. The Netherland and Sweden score highest, respectively.

SDG 3: Rank = 7

SDG 4 'Quality education'

The aim of SDG 4 is to ensure access to equitable and quality education through all stages of life. It focuses on increasing the number of youth and adults with employment and entrepreneurship opportunities and advocates life-long learning. It also aims to eliminate gender and income disparities in access to education.

Access to equitable and quality education through all stages of life is the aim of SDG4. It also aims to decrease inequalities among gender or income in accessing education. Education is significant in meeting other SDGs; education and training are key drivers for growth and jobs as they help

to improve employability, productivity, innovation and competitiveness. Education can help reduce poverty, inequality, and gender inequality, and can empower people to live healthier lives and adopt a more sustainable lifestyle.

We utilize 6 indicators in our computation of SDG4, reflecting education at all levels of life. Ireland scores 2nd highest on the share of the population aged 30 to 34 that have completed tertiary or equivalent education (a measure of 3rd level outcomes) and 2nd highest on the PISA[24] score (a measure of 2nd level outcomes). Ireland also does well on the early-leavers indicator. Ireland's track record on the employment of recent graduates is also positive. A new indicator on early childhood education also paints a positive picture. Less favourable is the indicator score that reflects life-long learning (adult participation in learning as a percentage of the population). Overall however, Ireland scores well on this SDG and is ranked 2nd.

SDG 4: Rank = 2

SDG 5 'Gender equality'

SDG 5 aims at achieving gender equality by ending all forms of discrimination, violence, and any harmful practices against women. This goal calls for equal rights, recognition and equal opportunities of leadership at all levels of political and economic decision making. Legislation and sound policies are required to eliminate gender discrimination and foster women's empowerment in all societal spheres.

Our SDG5 is computed using 5 indicators. Based on the selected indicators, we see a somewhat mixed performance for Ireland. Indicators for both the share of women in national parliament and in senior management roles show Ireland well below the EU average with scores that place Ireland in 14th and 12th place, respectively. The employment gap also puts Ireland at the lower end of the ranking, as many more women than men still remain economically inactive due to caring responsibilities.

Reducing the gender pay gap is one of the key priorities of gender policies at both EU and national levels. At EU level, the gender pay gap has decreased slightly over the years, but remains about 14.8%. The score for the gender pay in Ireland is close to the EU average.

24 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.

On the plus side, in the area of education, the gender gap is reversed, meaning that females are ahead of males. Ireland is ranked first of the EU15 for this indicator (female education as a percentage of male education).

Ireland's overall score puts it in 9th position overall. Once again, Sweden, Finland and Belgium score highest on this SDG overall.

SDG 5 Rank = 9

SDG 10 'Reduced inequalities'

SDG10 calls for reducing inequality relating to income, sex, ages, disability, race, class, ethnicity, and religion within and among countries. It also focuses on inequalities between countries, and migration and social inclusion. Increasing the income of the bottom 40 per cent of the population by adopting policies and legislation is another aim of SDG10.

Trends regarding inequalities in the EU show an overall stagnation in income inequalities between different groups of society over the past five years (Eurostat, 2020). However, the income gap between the rich and the poor remains large: "[i]n the EU, this ratio (the income quintile share) has increased slightly since 2010, reaching 5.1 in 2018. This means that the income of the richest 20% of households was about five times as much as that of the poorest 20%" (Eurostat, 2020, p. 185).

Our SDG10 is calculated using 4 indicators. Data for the Palma Index[25] shows Ireland is ranked 8th on this indicator. Using another measure, the Gini coefficient, results in the same ranking for Ireland among the EU15. We see a mixed performance with other indicators for SDG10. A measure of social justice places Ireland in 7th place, while a measure of household debt gives Ireland an indicator score putting it in 9th place.

Overall, our selected indicators for this SDG give Ireland a ranking of 8.

SDG 10: Rank = 8

SDG 16 'Peace, justice and strong institutions'

SDG16 seeks to promote a peaceful and inclusive society for sustainability, supported by human rights, protection of the most vulnerable, access to justice, and secure governance.

25 The Palma Index is another measure that attempts to capture inequality. It is the the ratio of the richest 10 per cent of the population's share of gross national income divided by the poorest 40 per cent's share.

Favourable trends on all the indicators for SDG16 are observed for the EU over the past five years, putting the goal on top of the ranking. "Life in the EU has become safer over the past few years" (Eurostat, 2020, p. 12).

To reflect and assess the theme of SDG16, we employ 6 different indicators. The theme of peace and personal security is captured by indicators of homicides, occurrence of crime/violence/vandalism, and feeling safe walking home. The theme of access to justice and strong institutions is measured by: an indicator of confidence in the judicial system (Eurostat); the perception of corruption (Transparency International); and the number of unsentenced detainees (as per cent of the population – an official UN indicator).

Our analysis of SDG16 shows that 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. Ireland therefore performs well on this goal, and the overall score puts it in 4th place.

SDG 16: Rank = 4

SDG 17 'Partnership for the goals'

The SDGs can only be realized with a strong commitment to global partnership and cooperation. This is the basis for SDG17 which focuses on the global macro economy. The goal seeks to ensure an open universal multilateral trading system for sustainable development under the WTO. Coordinating policies to help developing countries, particularly the least developed countries, is vital to achieving sustainable growth and development.

In an EU context, monitoring of SDG17 has focused on global partnership and financial governance within the EU. Progress in achieving SDG17 is mixed. Official development assistance (ODA) has grown slowly but steadily. Nevertheless, "the EU's ratio of ODA to gross national income (GNI) has fallen since 2016, putting the EU off track towards reaching its target of dedicating a share of 0.7 % of GNI to ODA by 2030[26]. In the environmental taxation area, the already low share of environmental taxes in total tax revenues has declined even further[27], and a shift of taxation from labour towards environmental taxes has not been visible in the EU.

26 The idea that donor countries should contribute 0.7 % of their gross national income (GNI) to ODA has been on the international agenda for over half a century.

27 In 2018, the share of environmental taxes in total tax revenues in the EU was 6.0 % (Eurostat, 2020, p.311).

Our SDG17 is computed using 4 indicators. Regarding ODA, Ireland's contribution of 0.31 per cent of GNI in 2019 is well below the EU average, placing it in 10th place on this indicator. As a member state of the EU, Ireland is clearly a long way off meeting its commitment. We include an indicator of General Government Gross Debt to reflect the theme of financial governance. This indicator is important as the EU stipulates that EU countries' debt level should not exceed 60 per cent of GDP. Ireland's debt has fallen over the years and at 57.4% of GDP in 2019, was well below the EU27 average of 77.6%.

Ireland's share of environmental taxes as a proportion of revenue puts it on a par with the European average on this indicator, and is ranked 8th out of the 15 countries. However, Ireland's performance on the indicator which measures expenditure on health and education as a % of GDP paints a less positive picture.

Combining our indicators shows Ireland ranks 9th overall. We need to interpret the ranking of SDG 17 with some caution. We emphasise that the indicators here do not necessarily capture fully the theme of the goal, given data limitations. Hopefully, better quality data will emerge in time to better measure this important goal. As we have said previously, the SDGs can only be realised with a strong commitment to global partnership and cooperation.

SDG 17: Rank = 9

3.5 The Environment Index

Country scores and rankings for the Environment Index[28] are shown in Table 16. Our analysis sees Ireland ranked last of the EU15, implying the country faces significant challenges in meeting our commitment to the environment goals set out in Agenda 2030.

Table 16 The Environment SDG Index – Ranking by Country

Country	Index Score	Country Rank
Sweden	0.617	1
Denmark	0.580	2
Netherlands	0.564	3
Finland	0.554	4
United Kingdom	0.545	5
Austria	0.539	6
Germany	0.535	7
France	0.511	8
Greece	0.458	9
Italy	0.455	10
Belgium	0.442	11
Portugal	0.434	12
Luxembourg	0.425	13
Spain	0.422	14
Ireland	0.420	15

Source: Authors' analysis

SDG 6 'Clean Water and Sanitation'

SDG 6 advocates ensuring the availability, cleanliness and hygiene and management of sustainable water. Water is a basic need so this goal calls for universal access to safe and affordable drinking water.

The EU focuses on sanitation, water quality and water use efficiency to reflect the theme of this SDG. Available data paint a rather favourable picture for the EU and improvements across the key indicators have been seen. The majority of EU member states already have universal access to sanitation. Improved bathing water quality in inland waters is also enjoyed by Europeans.

We draw on 4 indicators from different sources to arrive at our SDG6 score. Our analysis suggests that for Ireland, there is significant room for improvement. Indicators for access to improved drinking water and sanitation are at the lower end, compared to our EU counterparts. Similarly,

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

Ireland scores poorly on the proportion of wastewater that is treated. On the plus side, 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) shows Ireland ranked 6th on this indicator. Our overall score for this goal puts Ireland in 12th place.

SDG 6: Rank = 12

SDG 7 'Affordable and Clean Energy'

SDG7 advocates access to reliable, affordable, and sustainable energy services. In order to fulfill demands, the goal calls on countries to facilitate access to clean energy research and technology and to promote investment in resource- and energy-efficient solutions and low-carbon energy infrastructure.

At the EU level, SDG7 requires monitoring developments in the areas of energy consumption, energy supply and access to affordable energy. The 2020 overall assessment of SDG7 is mixed, according to Eurostat (2020, p.14).

Our SDG 7 is computed using 4 indicators. CO2 emissions from energy fuels combustion/electricity output (MtCO2/TW) are one of the highest in Ireland in the sample, ranked 13th. Further, Ireland's share of renewable energy is one of the lowest among the EU15, falling well below the EU average. More favourable developments are visible for people's home energy use: both per capita energy consumption of households and the proportion of people who are unable to keep their home adequately warm places Ireland in the middle of the rankings on both of these indicators. The overall rank of 14 suggests that Ireland is struggling to meet the objectives of this goal.

SDG 7: Rank = 14

SDG 11 'Sustainable cities and communities'

The focus of SDG11 is on designing cities, towns, and communities in a safe, resilient and sustainable manner. It advocates access to basic services for all, including safe and affordable housing, investing in infrastructure, including transportation and green public spaces, and improving planning and management in a way that is both participatory and inclusive.

The EU indicators focus 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. However, developments are less favourable for other aspects, including satisfaction

with transport and road transport deaths suggesting the EU is off track towards meeting its respective targets by 2020.

To mirror SDG11, we utilize 3 indicators. In Ireland, air pollution is less of a problem in urban areas compared to many other EU countries. Ireland is ranked 3rd on this indicator, only out-ranked by Sweden and Finland. Our second indicator attempts to capture 'satisfaction with public transport' and this indicator ranks Ireland ranks 10th. Our third indicator is a measure of rent over-burden from the OECD; it is an attempt to reflect the 'safe and affordable housing' theme of the goal. Households that spend more than 40 per cent of disposable income on housing are considered "overburdened" (OECD, 2019). Our overall score for quality of life in our cities and communities places Ireland in 6th place.

SDG 11: Rank = 6

SDG 12 'Responsible consumption and production'

Consumption and production – key driving forces in the global economy – are the focus of SDG12. The main aim of SDG12 is about doing more and better with less. It calls for adopting sustainable practices and procedures for business and an increase in environmentally friendly activity by consumers to enhance sustainable consumption and production. Activity would be supported through the development of new technologies, production and consumption methods.

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. However, at the EU level, progress has been mixed. Specifically, while there have been improvements in decoupling environmental impacts from economic growth, increasing the value added from green products and services, and managing waste, waste generation as well as the consumption of toxic chemicals have increased over the past few years. Further average CO_2 emissions from new cars are not falling fast enough to meet the target (Eurostat, 2020, p.221).

5 indicators are used to generate our SDG12. Ireland ranks poorly overall on this SDG. Production of municipal waste is one of the highest among the EU15 (ranked 12). The recycling rate of municipal waste is very low (ranked 12) and the indicator for circular material use (%) is the lowest among the countries. On the plus side, the scores for both resource productivity, and CO2 emissions from new passenger cars put Ireland in the middle ranking

for both indicators. Nevertheless, the overall score and rank of 14 shows the extent of the challenge facing Ireland on this goal.

SDG 12: Rank = 14

SDG 13 'Climate Action'

SDG 13 seeks to implement the commitment to the United Nations Framework Convention on Climate Change and operationalize the Green Climate Fund. SDG 13 integrates climate change mitigation and measures into strategies and policies to reduce the severity from the effects of climate related hazards and natural disasters.

In the EU context, SDG13 focuses on three themes: climate mitigation, climate impacts, and climate initiatives that support climate action. Eurostat's most recent overall assessment of progress on this goal is neutral, meaning that "progress has been made in some areas, while negative developments occurred in others" (Eurostat, 2020, p.15)

International agencies still find measuring this goal problematic when attempting to determine important trends. This is due to data limitations (for example, reliable and comprehensive measures of mitigation, impacts and initiatives). Our SDG consists of 2 indicators. Eurostat utilize GHG emissions as a key indicator under this SDG and we use it here. There has been some progress on this indicator at the EU level, and GHG emissions have reduced by 20.6 % compared with 1990 levels. However, based on past trends, the EU is not on-track to meet its UN 2030 target (Eurostat, 2020, p.237). Ireland's emissions have for the most part declined over the years, but they continue to be well above the EU average. Ireland is ranked second last on this indicator, based on most recent data, second only to Luxembourg.

Our second indicator is the effective carbon tax rate[29] and Ireland is ranked 8th on this measure. Overall however, the score for SDG13 is poor among the EU15 and Ireland is in 13th place.

SDG 13 Rank = 13

29 The effective carbon rate is the sum of taxes and tradeable permits that put a price on carbon emissions. The measure here comes from the OECD and excludes CO2 from biomass.

SDG 14 'Life below Water'

The aim of SDG14 is to conserve and sustain the use of oceans, seas and marine resources. Careful management of this essential global resource is a key priority for a sustainable future. Hence, SDG14 aims to reduce marine pollution, ocean acidification and overfishing as addressed through policy.

Available data measuring the themes of this SDG are still limited in scope. For example, it 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. According to the UN (2020), "the ocean drives global systems that make the Earth habitable for humankind…. Saving our ocean must remain a priority. Marine biodiversity is critical to the health of people and our planet. Marine protected areas need to be effectively managed and well-resourced and regulations need to be put in place to reduce overfishing, marine pollution and ocean acidification"[30]. Eurostat conclude, based on a global wide indicator for mean ocean acidity that "due to the absorption of CO_2 into the world's oceans, the mean ocean acidity continues to increase, and in 2018 reached a new unprecedented high over pre-industrial levels (Eurostat, 2020, p. 16).

Country specific data remains a problem for accurately estimating achievement on this SDG. However, we draw on what is available, including new indicators that attempt to measure sustainable fishery and healthy oceans[31]. SDG14 is estimated here using 4 indicators for 13 countries[32]. Ireland's score gives it an overall ranking of 6 for this goal. Given time, it is hopsed better quality data will allow for more reliable estimates of SDG14.

SDG 14 Rank = 6 (out of 13)

SDG 15 'Life on land'

SDG15 is one of the key goals, along with SDG14 that incorporates environmental considerations for all UN member countries. It seeks to protect, restore and promote the conservation and sustainability of ecosystems. SDG 15 is concerned with the use of terrestrial, inland-water and mountain ecosystems, which are enhanced by halting deforestation,

30 https://www.un.org/sustainabledevelopment/oceans/).

31 The measure of ocean health is taken from the Clean Waters score from the Ocean Health Index which provides estimates by individual countries. The Eurostat indicator of ocean health is a global mean ocean acidity estimate and not available at country level.

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

restoring degraded land and protecting species. This is especially important given global trends such as population growth, accelerating urbanisation and the increasing need for natural resources.

In the EU, policy focuses on attempting to ensure ecosystems are healthy and sustainably used and managed. However, SDG15 shows a mixed picture in the EU. Some progress has been made on improving the status of ecosystems. However, "progress in halting and reversing land degradation and biodiversity loss has been mixed, and most indicators of biodiversity… including those beyond the ones featured in this report… show continued and strong declines in biodiversity and species abundance" (Eurostat, 2020, p.273).

We settle on four indicators to reflect SDG15. Ireland scores in the top three for indicators of the share of protected terrestrial areas and freshwater areas. Less favourable is the score on the Red List index which estimates biodiversity loss. Ireland is ranked 8th on this indicator. Finally, at just under 11 per cent, the share of land dedicated for forestry use is well below the EU average. The overall rank on this SDG is 4.

SDG 15: Rank = 4

Summary

The SDGs call on all nations to combine economic prosperity, social inclusion, and environmental sustainability. The analysis above shows that enormous challenges remain for Ireland under these three headings. Table 17 summarises how Ireland has scored on each SDG under the three dimensions.

Table 17 Ireland's Rank by Dimension and by SDG

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

Source: Authors' analysis

Strengths

Ireland is in the top 5 for just 3 SDGs; 'Quality education' (SDG 4), SDG15 'Life on land', and 'Peace, justice and strong institutions' (SDG16). Ireland continues to have a good reputation internationally for quality education at all levels (although some attention needs to be focused on the extent of life-long learning) and skilled graduates are in high demand. The high score on SDG16 indicates that Ireland is a relatively safe place to live with reasonably good transparent, effective and accountable institutions. Finally, Ireland does well on SDG15 'Life on Land' relative to the EU, based on the selected indicators that represent the status of ecosystems. However, we must not become complacent. Human activities that damage ecosystems and increase land degradation continue to threaten the provision of ecosystem services (e.g. clean air, purified water, food provision, outdoor recreation among others) and diminish biodiverity. The health and functioning of ecosystems and the delivery of ecosystem services must remain a priority.

Weaknesses

Ireland scores at the bottom of the list for several environment SDGs indicating that some persistent sustainability issues must be addressed. The data for SDG 7 'Affordable and clean energy', SDG12, 'Responsible consumption and production', SDG13, 'Climate action' in particular, point to the need to rebalance the goals of economic and social progress with sustaining the planet's environment and resources as well as combatting climate change. The low score on SDG2 'No hunger' emphasizes the need to embrace fully the idea of sustainable agriculture while Ireland's rank on SDG9, 'Industry, Innovation and Infrastructure, points to the need for further policy action with regard to logistics and broadband capacities.

Somewhere in the Middle

Several of the SDGs are in the middle of the rankings, implying there is much scope for improvement. We should not be complacent. All the goals in the 2030 Agenda need to be taken seriously. They imply an obligation for all, including governments, business and individuals. We believe that Ireland needs to continue to gather evidence and track progress on policies that drive outcomes in order to implement the 2030 Agenda.

3.6 How Are We Doing Overall? - The Sustainable Progress Index

The recent COVID-19 pandemic has shown us the interdependence of our economic, social and natural spheres. It is obvious that they need to be approached in a holistic manner. The 2030 Agenda for Sustainable Development represents this complex holistic challenge. These 17 global goals are a blueprint to achieve a better and more sustainable future.

As in previous years, the *Sustainable Progress Index (SPI)* presents in a single measure, how the EU15 countries score and rank on the goals. Our index is based on the most up-to-date data from official sources as well as from non-official sources. We still believe there is value in presenting one statistic to capture progress – it can quickly draw our attention to potential problems or issues that need to be addressed. Additionally, the SPI metric 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. **Ireland is ranked in 11th place on our SPI 2021**. The Scandinavian countries once again top the list, with Spain and Greece again at the bottom.

Table 18 The Sustainable Progress Index (Ranking by Country)

Country	Index Score	Country Rank
Sweden	0.663	1
Denmark	0.651	2
Netherlands	0.606	3
Finland	0.602	4
Austria	0.554	5
Germany	0.544	6
United Kingdom	0.499	7
France	0.477	8
Luxembourg	0.476	9
Belgium	0.474	10
Ireland	**0.456**	**11**
Portugal	0.403	12
Italy	0.385	13
Spain	0.376	14
Greece	0.340	15

Source: Authors' analysis

It is important to emphasize that 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. Good data and analysis are critical to ensuring the SDGs become useful tools to support policy-making.

The UN states that this year marks the start of the Decade of Action to deliver the SDGs by 2030. They state it is a critical period to advance a shared vision and accelerate responses to the world's greatest challenges, including the most recent challenge of COVID-19. Market forces alone will not achieve the SDGs. Instead, directed actions by the public and private sector are needed to achieve the time-bound goals. We hope that this 2020 report will inspire everyone: policy-makers, businesses, citizens, to undertake positive sustainable development actions, particularly as part of the recovery from the Covid-19 crisis, so that Irish society can be in a better position to meet future challenges.

4

Conclusion and Future Policy Considerations

The wellbeing of people, both now and for future generations, is the goal of public policy. This is particularly the case into the future as we face into the new reality of life after Covid-19. Policy goals such as economic growth can be a means to help achieve the goal of social wellbeing, but we should not be naïve and focus exclusively on economic growth in the hope it will solve all social, economic and environmental problems. On the contrary, the evidence suggests that for rich advanced capitalist countries, economic growth is *not* the most efficient way to promote social wellbeing and many things carried out in the name of economic growth are the primary cause of our environmental challenges.

Social statistics are tools to help us promote evidence-based policies that will effectively enhance social wellbeing. There is a tendency to focus on a single statistic, like GDP, as a way of measuring progress, but this can be misleading. First, GDP has many limitations, so it is a poor indicator of social wellbeing for rich countries. Much spending that increases GDP is harmful to social wellbeing. Furthermore, Ireland's GDP has many limitations beyond those mentioned in the Beyond GDP literature. Stating that Ireland has the fastest growing GDP in the EU is close to meaningless. Since most economic policy is focused on promoting GDP growth, these policies are increasingly disconnected from the issue of enhancing social wellbeing.

Second, social wellbeing is complex, the result of the interaction between many economic, social and environmental factors. All factors must be part of policy discussions. We cannot postpone the environmental initiatives required to combat climate change or ignore families in need because GDP indicates a recession. Third, many aggregate statistics, like the unemployment rate, ignore the fact that the causes of why individuals cannot find work can

be very different for different groups. Often, there is a need for different policy responses to address different groups. The problem of the NEET (youths not in employment, education or training) is clearly very different to cyclical unemployment (due to the business cycle).

Quality of life or social wellbeing indicators have long demonstrated that GDP is a poor indicator of social progress. The rise in political polarisation is partly the result of the nature of our economic reality: on paper, countries are getting richer and richer, yet people are not feeling better off. Many people feel excluded from this false prosperity. We have seen examples of politicians who have successfully used scapegoats (the poor, migrants) to distract and redirect this anger. A more effective way is to get a clear understanding of what is not working. We should look to other countries to see if they are doing a better job at addressing these important social, economic and environmental challenges, and attempt to devise policies that would ensure Ireland achieve better results.

The 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 the EU15. 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.

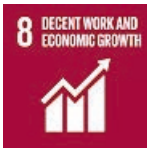
4.1 Policy Proposals

In order to achieve the targets set as part of the 2030 Agenda for Sustainable Development, we make the following policy proposals.

SDG Number	National Level	Local Level
	• Set an ambitious national poverty reduction target. • Make persistent poverty the primary indicator of poverty measurement. • Introduce a Basic Income, Refundable Tax Credits and a Living Wage. • 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. • Implement a programme to reduce overall poverty rate to 4per cent within five years. • Ensure adequate income through the lifecycle, including adequate payments for children, women, and a Universal State Social Welfare Pension.	• Support the development of social and affordable housing on State lands. • Seek to replace the Local Property Tax with a Site Value Tax and increase the tax-take, while including hardship measures for those who cannot afford to pay it in full.
	• Fund research on food poverty through stakeholder groups such as the Vincentian Partnership for Social Justice, St. Vincent de Paul and MABS. • 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.	• Provide funding for research on local initiatives on sustainable food production. • Support 'farm to fork' and short supply chains in food production.

SDG Number	National Level	Local Level
	• Fully resource the implementation of Sláintecare, including the €500 million commitment to infrastructure over the next 6 years. • Increase the number of community beds. • Increase supports to carers. • Increase home care package provision and introduce legislation for a right to homecare. • Recruit and upskill healthcare workers to meet demand. • Invest in Primary Care Networks and step-down facilities. • Properly resource mental health services. • Create additional respite care and long-stay facilities for older people and people with disabilities. • Ensure medical card coverage for all who are vulnerable.	• Support the integration of primary care networks and GP led community healthcare services. • Support the roll-out of 'Smile agus Sláinte' as part of primary care provision.
	• Deliver a long-term, sustainable, appropriately funded education strategy that takes a whole-person, life-cycle approach to learning. • Make combatting educational disadvantage a priority. • 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. • Develop a framework to deliver sustainable funding revenues for higher education over the next five years with a roadmap to 2028. • Invest in Lifelong Learning as part of a human capital investment strategy. • Invest in education, literacy and retraining programmes to address NEETs. • Adopt and implement a national financial literacy strategy.	• Support high-quality community childcare, particularly in disadvantaged areas. • Enhance community education programmes and life-long learning through the library network. • 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.

SDG Number	National Level	Local Level
	• Introduce legislation to support flexible and remote working. • Make sanitary products exempt from VAT. • Introduce State-led childcare. • Individualise and equalise social welfare payments. • Introduce a Universal State Social Welfare Pension.	• Actively promote gender equality in Local Authority elections and on Boards and Committees of strategic importance. • Introduce family-friendly working hours and conditions for councilors and Local Authority staff.
	• Continue to provide support and advice to farmers to improve water quality under the Agricultural Sustainability Support and Advice Programme. • Invest in Ireland's wastewater system.	• Develop a Drinking Water Safety Plan, following EPA Guidelines, for each public water supply, identifying all potential risks and detailing mitigation and control measures.
	• Upgrade the national grid and invest in infrastructure necessary to support a transition to renewable energy. • Invest in research and development for the use of renewable energy in our public transport systems.	• Invest in renewable energy transition programmes for Local Authority offices and community spaces.

SDG Number	National Level	Local Level
	• Ring-fence the COVID-costs incurred in 2020, 2021 and 2022 and finance these with a very long-term, low-interest loan. • Move Ireland's total tax-take towards the EU-average by widening the tax base in a fair and just manner. • Make savings on expenditure, but not through cuts in services or infrastructure budgets. • Adjust the EU's fiscal rules to cope with the post-COVID reality. • Reintroduce the Non-Principal Private Residence Tax at a rate of €500 per annum. • Provide an Annual Review of Tax Expenditures. • Establish a Taxation Commission with a clear mandate to set out a pathway towards increasing the total tax-take and broadening the tax base. • Simplify the tax system. • Integrate a Sustainable Development Framework into economic policy. • 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 required. • Resource the up-skilling of those who are unemployed or at risk of unemployment. • Increase the minimum wage to the level of the Living Wage. • Strengthen and enforce legislation to tackle job precarity and low pay. • Develop flexible working initiatives to support remote working and increased participation for people with disabilities. • Invest in ancillary community services to remove barriers to employment.	• Review the sustainability of jobs created through LEOs and develop plans to ensure the security of decent work.

SDG Number	National Level	Local Level
	• Invest in initiatives that strengthen social infrastructure – schools, primary care centres, social housing and so on. • 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. • Commit to increasing the total tax take by between €2.5 to €3bn annually. • Review the use of tax expenditures to promote investment in areas that support society.	• Expedite the roll-out of the National Broadband Plan, commencing with those with the largest proportion of premises dependent on it. • Improve the primary road network across the country to support the increased provision of public transport.
	• Fully implement the Roadmap for Social Inclusion 2020-2025 and review the targets set out annually. • Fully implement the recommendations of the UN CERD. • Expedite legislation on hate crime and hate speech. • Reform the High-Income Individuals' Restriction to include all tax expenditures. • Introduce a Financial Transactions Tax.	• Utilise the full allocation for Traveller specific accommodation and support the development of sites for this purpose. • Fully implement the National Traveller and Roma Inclusion Strategy.

SDG Number	National Level	Local Level
	• Aim to make 20 per cent of all housing social housing, in line with other European countries, within the next 10 years. • Shift investment from Family Hubs to Housing First as a long-term strategy to eliminating homelessness. • Support community programmes such as sports initiatives, playgrounds, recreational centres, and libraries, to sustain communities. • Off-balance-sheet investment in affordable housing and rental. • Ensure that investment is balanced between the regions, with due regard to sub-regional areas. • Ensure rural development policy is underpinned by social, economic and environmental wellbeing and develop an Integrated Rural Development Policy Structure. • Appeal the Eurostat decision in respect of Tier 3 Approved Housing Bodies. • Close tax loopholes for property investment vehicles. • Invest in integrated, accessible, sustainable and environmentally friendly public transport networks. • Invest in hard infrastructure for cycle lanes. • Develop passive housing construction processes to ensure environmental sustainability in housing.	• Invest in a deep retrofitting programme for community spaces. • Ringfence continued funding to encourage sports participation and active lifestyle programmes. • Invest in the provision and maintenance of community spaces, playgrounds, and youth centres.

SDG Number	National Level	Local Level
	• Introduce a circular economy package for Ireland across all areas of economic activity. • Research cradle-to-cradle development. • Place a levy on single-use plastics. • Invest in the development of short supply chains. • Clarify and enforce the Vacant Site Levy legislation to ensure it achieves its original purpose. • Introduce an aviation fuel tax. • Reintroduce the Windfall Gains Tax at 80per cent. • Explore new initiatives to promote behavioural change through the tax system.	• Eliminate all single-use plastics from Local Authority buildings and public spaces. • Develop open consultation on ambitious waste management plans beyond 2021. • Adopt the principles of a circular economy, particularly for construction and demolition waste.
	• 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. • Develop a comprehensive mitigation and transition programme to transition to a low carbon economy. • Increase carbon taxes in line with IPCC recommendations. • 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. • Develop a comprehensive mitigation and transition programme to support communities and people in the transition to a low carbon society. • Set ambitious emissions reduction targets for 2030 and ensure sufficient resources to support implementation of these targets.	• 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.

SDG Number	National Level	Local Level
	• Fully implement the National Integrated Maritime Plan. • Regulate harvesting and end over-fishing. • Implement policies to restore fishing stocks to sustainable levels.	• Put a plan in place to tackle pesticides in drinking water. • Implement the 'Nature' programmes set out in the Climate Action Plan published by the Department of Communications, Climate Action and the Environment.
	• Increase afforestation of native trees and reduce planting of Sitka spruce. • Ensure that sustainable agriculture policy, sustainable land management, and short supply chains for farmers and consumers form the basis of future agricultural policy.	• Invest in programmes to rewet the boglands. • Implement the 'Nature' programmes set out in the Climate Action Plan published by the Department of Communications, Climate Action and the Environment.

SDG Number	National Level	Local Level
	• National Economic and Social Dialogue / Partnership to include all five pillars. • Ensure that all voices are heard and include all stakeholders. • Restore funding to the Community and Voluntary Pillar. • Broaden discussion beyond pay and taxation • Review planning legislation to ensure that its terms are consistent with the objectives of the Goals and democratic engagement. • Introduce impact assessment and poverty proofing on all Government initiatives. • Ensure that Budgetary allocations are valid, realistic and transparent, and take account of existing levels of service. • Legislate for enforcement mechanisms where Local Authorities do not use their full allocation for Traveller Specific Accommodation. • Ensure adequate funding for civil legal aid. • Greater transparency of lobbying activities. • Establish a Dialogue Forum in every Local Authority involving Local Authorities and the Public Participation Networks (PPNs). Fully implement recommendations of the Commission for the Elimination of Racial Discrimination within a reasonable timeframe. • Introduce an ex-ante social impact assessment of all policy proposals to be discussed at Oireachtas Committees. • Review building regulations to ensure good ventilation, heating and fire safety standards across all building.	• Develop a sustainable strategy for public participation, to include medium and long-term objectives and associated budget commitments. • Move from an annual funding model for PPNs to a 3 to 5-year renewable commitment.

SDG Number	National Level	Local Level
	• Increase ODA as percentage of GNI, with a move towards the UN Target of 0.7 per cent of GNI by 2025. • Adopt targets and a reporting system for the Sustainable Development Goals • Tag all Government policies and policy proposals with the relevant Goal(s). • Adopt targets and a reporting system for each of the Sustainable Development Goals. • Implement the Sustainable, Inclusive and Empowered Communities Strategy. • Develop a new National Index of Progress, ensuring social and environmental issues are incorporated into our national accounts.	• Develop strategic partnerships with Local Authorities and local government organisations, in Europe and Internationally, to support the implementation of the Goals. • Ensure coherence between national and local government policies.

5

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Appendices

Appendix A: List of Indicators Used in the Construction of the Sustainable Progress Index 2021

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)	WHO
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 (2020)
3	Subjective wellbeing (average ladder score)	Gallup (2020)
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	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
5	Proportion of seats held by women in national parliaments (%)	Eurostat

SDG	Indicator	Source
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)
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	Palma index	OECD
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
13	GHG emissions per capita	Eurostat
13	Effective tax rate from non-road energy, excluding emissions from biomass	OECD (2019)
14	Mean area that is protected in marine sites important to biodiversity (%)	Birdlife International et al. (2020)

SDG	Indicator	Source
14	Ocean Health Index Goal	Ocean Health Index (2020)
14	Bathing sites of excellent quality (coastal and inland)	Eurostat
14	Fish caught by trawling (%)	Sachs et al (2020)
15	Mean area that is protected in terrestrial sites important to biodiversity	BirdLife International (2020)
15	Mean area that is protected in freshwater sites important to biodiversity	BirdLife International (2020)
15	Percentage of land covered by forestry	Eurostat
15	Red List Index	Bird Life International (2020)
16	Corruption Perception Index	Transparency International (2020)
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	Feel safe walking at night (%)	Gallup (2020)
16	Unsentenced detainees (% of prison population)	UNODC, Sachs et al (2020)
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 (2020); WHO (2020)
17	General government gross debt	Eurostat

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