Measuring Progress: Economy, Society and Environment in Ireland

Prof. Charles M.A. Clark, St. John's University, New York
Catherine Kavanagh, University College Cork
Niamh Lenihan, University College Cork

Measuring Progress: Economy, Society and Environment in Ireland

Prof. Charles M.A. Clark, St. John's University, New York

Catherine Kavanagh, University College Cork

Niamh Lenihan, University College Cork

ISBN 978-1-907501-20-3

First Published April 2017

Published by
Social Justice Ireland
Arena House
Arena Road
Sandyford
Dublin D18 V8P6
Ireland

www.socialjustice.ie

Tel: 01- 2130724

e-mail: secretary@socialjustice.ie

This work is part-funded by the European Commission's DEAR project 'Make Europe Sustainable For All.

The contents of this publication are the sole responsibility of *Social Justice Ireland* and can under no circumstances be taken as reflecting the position of the European Union.

The work is partly supported by the Irish Department of Rural and Community Development via the Scheme to Support National Organisations and Pobal.

Table of Contents

List of Figures

List of Tables

1

Introduction

On November 17, 2017 Fortune Magazine, well known for its coverage of the rich and famous, posted an article on its website highlighting the richest countries in the world. Ireland was fifth on the list. Ranking countries has become quite a popular exercise over the years. Some commentators discuss Ireland vs. EU15, or Ireland vs. OECD countries, in the same way that sports commentators endlessly discuss FIFA rankings. A key difference is however, every four years there is actually a competition which provides an answer to which country has the best football team!

Comparing countries performance, if based on evidence-based analysis, can be useful; it can inform public policy discussions. Country rankings are comparable in the world of business to companies benchmarking themselves against their competitors. Importantly however, countries do not have the same rivalries when it comes to issues of social progress and sustainable development. While some economic relationships are like zero-sum, winner/loser games, many are based on cooperation and collaboration, particularly so when we consider the social and environmental aspects of social progress. Lack of progress in these areas can have spill-over effects on neighbouring countries (for example, air and water pollution can have real spill-over impacts). Usually however, progress is more often regarded as a positive externality[1] for other countries.

The Fortune Magazine ranking of countries was based on an IMF study which estimated Gross Domestic Product (GDP) of each country in the world in 2016, and then translated these estimates into a single uniform standard called the International Dollar (equated to the purchasing power of the US dollar). It is argued that strong construction and investment spending, as well as a strong banking system helped to propel Ireland to its high relative ranking (Fortune Magazine, 2017).

---

[1] Externalities refer to the situation when one party, who is not one of the partners in an economic activity (not a buyer or a seller) is negatively or positively affected by the economic exchange. Second hand smoking is an example of a negative externality. However, prosperity in one country (country A) often leads to that country importing more goods and services from other countries, thus raising the GDP and stimulating greater economic activity in those countries.

Table 1.1 Top Five Richest Countries in the World in 2016

	Country	GDP per capita $International	SDG Score*	SDG Rank*
1	Qatar	$124,930	63.1	99
2	Luxembourg	$109,190	75.0	33
3	Singapore	$90,530	69.0	61
4	Brunei	$76,740	NA	NA
5	**Ireland**	**$72,630**	**77.9**	**19**

*Sachs et al (2017)

Source: Fortune Magazine (2017).

The findings of the IMF study might surprise those who have been observing Ireland's economic performance over the past 20 years. It was, for example, not too long ago that financial markets regarded Ireland as one of the PIGS of Europe[2], under the watchful eye of the Troika. In Table 1.1, we include a broader measure of progress (relative to GDP). This is the most recent Sustainable Development Goal (SDG) score and rank from the SDG Index and Dashboard Global Report (Sachs et al, 2017). The ranking changes significantly. Qatar gets downgraded to 99th place in the sample. Only Ireland remains in the top 20. The GDP per capita measure is highly sensitive to some characteristics; for example, being a small country. Qatar and Brunei are small oil rich states. Singapore has developed into an export-orientated economy, while Luxembourg and Ireland have grossly inflated GDPs (due in no small part to their tax policy), which artificially inflates the main measure of economic activity - GDP.

Comparing a country's performance with others can be a useful tool when trying to identify what policies or institutions promote better outcomes. But comparisons are not always helpful. Often, policy analysts in developed countries in the West suggest their socio-economic models should serve as a template for the developing countries. Yet, developing countries do not share the same history as the Western economies[3]. Useful benchmarking (as in business) requires that the countries are similar in meaningful ways. In terms of social progress, we know that countries that have similar levels of economic development (including level of technological development), have similar political and social institutions, and are economically interdependent to some extent. In this report, we examine how Ireland has been progressing with special focus

2 PIGS refers to the countries of Portugal, Ireland, Greece and Spain. Some analysts included Italy to arrive at PIIGS. In any case, we believe it is a horrible acronym!

3 Western economies were able to exploit the Global South to fund and fuel their industrial revolution, and use them as a source of cheap resources (including labour) to support a high consumption lifestyle. There is not a Forth World to serve this role for the Third World. Furthermore, since the negative effects of high consumption societies damages the environment with a stock of greenhouse gases (which is already too high), aspects of the West's development strategy are not available to the developing countries.

on its performance relative to the EU15. We argue that this type of benchmarking can highlight the possibility of duplicating the success of other countries. For example, if two countries are similar in many ways, but one has a lower poverty rate, it shows that improvement is possible.

1.1 If it Counts, it is Counted; if it isn't Counted, it Doesn't Count! - A Brief History of Measuring Progress

Collecting economic and social information has always been a political activity.[4] The most basic data collection tool was the periodic census, which even the ancient world undertook. These were expensive activities and were not undertaken at the curiosity of ancient sociologists. Countries and empires counted what they felt mattered, and knowing the number of people that one controlled in an area is important information, especially for accessing and collecting taxes. Economic and social statistics are socially constructed - based on the values and interests of those in power. William Petty, a key figure in employing scientific methods to collect information (well before the introduction of National Income Accounting), developed his expertise through counting all the loot taken from the Irish to pay the financiers of Oliver Cromwell's 17th Century invasion of Ireland. During the Mercantilist period (1600-1800), collecting data on imports, exports and the flow of precious metals was considered important. The primary economic policy goal was a positive trade balance, which was designed to increase the flow of money (gold and silver) into the nation. It was common at the time to equate national wealth with how much gold and silver a country had, although, it should be acknowledged that most of the mercantilist writers saw the value of an increased supply of money circulating in the country as an aid to increasing the ease of commerce. While Adam Smith proposed a different concept of progress (the level of production of goods and services), we don't really see a move towards an aggregate measure of economic activity (Systems of National Accounts) until the 1930s, spurred on by the work of Simon Kuznets and Colin Clark in US and Richard Stone in UK. World War II, and then the commitment to macroeconomic stability through Keynesian fiscal and monetary policy, required a more detailed accounting of the level of economic activity and an understanding of the various variables that led to changes in the level of economic activity.
The main economic policy goal of the post WWII era was economic growth measured as increases in GDP. GDP per capita became the primary metric to both measure individual countries progress, and to compare countries' relative economic performance. All other goals were secondary to GDP growth. Many seemingly competing goals were believed to be most effectively addressed by the increase in wealth which would result from rising GDP. Table 1.2 shows the growth in Ireland's GDP per capita from 1820 to 2005 (based on the work of Angus Maddison). It should be noted that GDP per capita does not address issues of distribution.

4 See Thomas A. Stapleford's *The Cost of Living in America* (2009), which details the many political factors in the creation and development of the Consumer Price Index (CPI) in the US.

The US GDP figure of $1,257 GDP in 1820 no doubt included a significant contribution from the work of slaves, yet they were only counted as 3/5 of a person in the US Census. We could argue that if every Irish person had an income of nearly 70% of the average American in the 19th century, we would not have witnessed the flow of migrants from Ireland that has resulted in 34.5 million Irish Americans in the US today[5]. Table 1.2 also shows that in the period 1994-2005, Ireland rose from 21 to 4 in the rankings - the so- called Celtic Tiger economy!

Table 1.2 Top Ten Richest Countries, and Ireland, by GDP per Capita*, 1820-2005

Country	1820	Country	1973	Country	1994	Country	2005
Netherlands	1,838	Qatar	42,916	USA	24,279	USA	30,481
UK	1,706	Kuwait	26,689	Norway	20,905	Hong Kong	27,667
Belgium	1,319	UAE	24,887	Hong Kong	20,770	Norway	27,377
Denmark	1,274	Switzerland	18,204	Switzerland	20,653	Ireland	26,643
USA	1,257	USA	16,689	Denmark	19,847	Singapore	24,772
Austria	1,218	Sweden	14,018	Japan	19,637	Canada	24,470
France	1,135	Denmark	13,945	Canada	18,936	Australia	23,996
Italy	1,117	Canada	13,838	Australia	18,424	Denmark	23,973
Switzerland	1,090	Netherlands	13,081	Netherlands	18,055	Switzerland	23,259
Germany	1,077	Australia	12,878	France	18,008	Sweden	22,987
Ireland	**877 (14)**	**Ireland**	**6,867 (37)**	**Ireland**	**13,191 (21)**		

* 1990 International Geary-Khamis dollars. Ireland's rank in parentheses.

Source: Maddison Project, https://www.rug.nl/ggdc/historicaldevelopment/maddison/

Until recently, social goals like gender equality, or reducing air and water pollution, were seen as 'luxury goods[6]' that consumers or citizens would choose once their incomes were high enough. For example, a rising GDP causes citizens to buy cleaner air or pursue greater opportunities for women. When high growth rates of the post WWII period began to slow down, preceded in part by the two oil price shocks of the 1970s, equality began to be seen as a barrier to future progress. In 1974, Arthur Okun, in *Equality and Efficiency: The Big Trade-off*, argued that the

5 https://www.washingtonpost.com/news/wonk/wp/2013/03/17/the-irish-american-population-is-seven-times-larger-than-ireland/?utm_term=.475fc0ca6025

6 A luxury good is a good for which demand increases more than proportionally as income rises. This is in contrast to a necessity good, for which demand increases proportionally less than income.

US had reached a high enough income level that it could afford to sacrifice some economic growth (loose some efficiency) to pursue the goal of greater equality. His well-known metaphor is worth repeating: he argued that transferring money in the economy from the rich to the poor was like transferring water from one barrel to another; in the process you will spill some water due to leaky buckets. In effect, policies that promote economic equality, by interfering with market signals, reduce the efficiency of markets, thus leading to lower levels of economic growth. Social goals like a cleaner environment, reducing poverty, safer inner cities, greater opportunities for the excluded or those on the margins were, just like equality, thought of as either luxury goods, or harmful to economic growth. Thus, the strategy of the Reagan-Thatcher revolution (and the supply-side economics revolution) was to increase inequality in order to promote greater economic growth. Growth should then provide the funds needed to solve any and all social problems.

While the Reagan-Thatcher policy was successful in redistributing income and wealth upwards, the rise of neoliberal policies did not lead to an increase in economic growth, and it has therefore not produced more resources to solve the increasingly threatening social and environmental problems, many of which are worse because of the rise in income and wealth inequality[7]. Evidence now supports the view that a rising tide only helps people who already have strong boats. With lower overall growth rates, and with rising inequality funnelling the benefits of growth to fewer people, GDP, as a measure of progress is being re-examined from many different angles. Feminists have questioned the failure of GDP to fully consider the contributions of those in homecare roles. Environmentalists object to the lack of accounting for the depletion of natural resources or the negative costs of pollution. A growing sense among the general public of "if GDP is up, why do I feel so down?" has emerged. The problems with GDP as a measure of progress and welfare have been discussed in the official manual used to develop and guide National Income Accounting. The *SNA 1953* was the first manual developed by the United Nations (UN) to help countries develop systems of national income accounting. In *SNA 1993,* an explanatory note is included that gives guidance on using GDP as a measure of economic welfare. This was updated further in *SNA 2008*.

SNA 2008 emphasises that the link between GDP and social well-being comes from GDP being a measure of market transactions, and in a competitive market economy, prices are supposed to reflect both the cost of production and the benefits from consumption. However, actual consumption, and more specifically changes in consumption (what is consumed), can be either more or less than changes in consumption expenditures. The distribution of any increase in consumption will greatly affect its relationship to changes in well-being. Specifically, the report notes the following.

---

7 This is the conclusion of Wilkson and Pickett's *The Spirit Level* (2009), and many other books on the rise in inequality.

- Not all expenditures are welfare enhancing; "an increase in consumption of food by someone living in extreme poverty is likely to lead to a greater increase in welfare than a similar increase in consumption by someone already well-fed" (SNA 2008, p, 12). With obesity rates in developed countries becoming more of a problem, an increase in food consumption can actually lead to a reduction in well-being. Some of the increase in market transactions in the past 30 years has not been additions to social welfare but rather, have been defensive expenditures due to social decay. Buying fast food replaces home cooked meals. Childcare replaces parents taking care of their children and expensive smart phones replace actual human interaction.

- GDP does not include goods and services produced and consumed by households and can therefore underestimate well-being.

- Non-economic events (like bad weather or epidemics) can have a significant negative impact on social well-being, but often have the opposite effect on GDP. Natural disasters can often result in significant growth in GDP, yet they clearly harm social well-being.

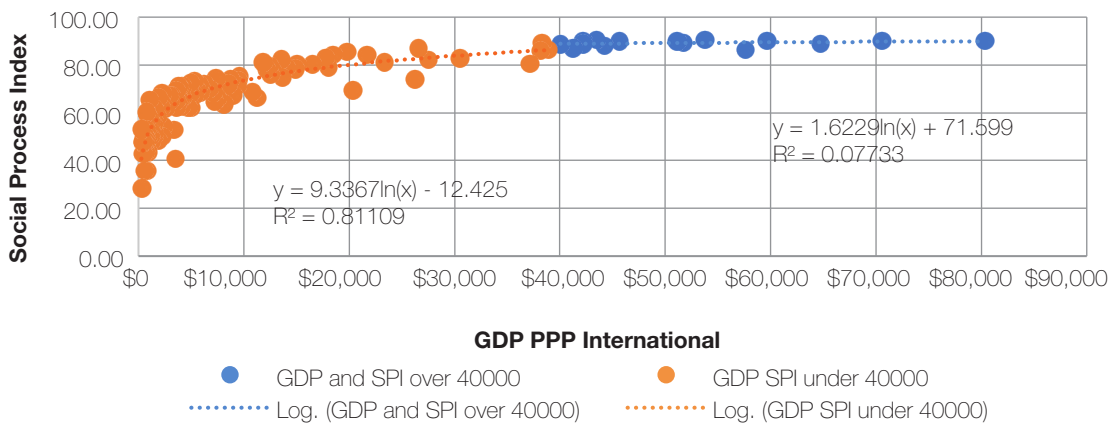
- GDP does not account for externalities. For example, externalities often cause more market transactions, such as medical bills from the effects of second-hand smoke. They appear as a positive in GDP although they are not welfare improvements.

The observations made in *SNA 2008* are now generally accepted in mainstream economics. Further support for the *Beyond GDP* movement comes from the literature on happiness in economics. Beginning in the 1970's, economists and social scientists noticed that increases in income did not have the same corresponding increase in happiness and well-being (see Danner 1974, Scitovsky, 1976). Increasing support for the observation has arisen from the growth in surveys on happiness. Robert Lane (2001) provides evidence that family and friendships are the main drivers of happiness. Further, increased income, once past the poverty level, does not add to lasting increases in happiness. Also, high levels of income can be a threat to happiness, as it challenges social solidarity. This research has inspired growth in social well-being indices, both by both private and non-profit bodies, and government supported initiatives.

Harvard Business School professor, Michael Porter, spearheaded the development of one of the more comprehensive measures of social progress, the Social Progress Index (SPI). The index has

50 indicators and covers 170 countries. Figure 1.1 compares GDP per capita to the SPI[8]. There is a close correlation between GDP per capita and the SPI for low and middle-income countries, but the correlation between the two metrics is much less significant for high income economies (over $40,000 GDP per capita).

Figure 1.1 GDP per Capita and Social Progress Index, 2017

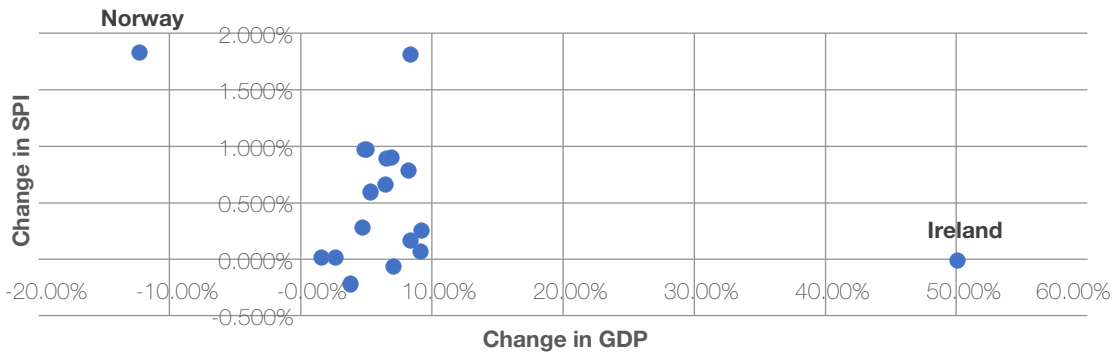


Source: Social Progress Imperative

The figure shows the correlation between GDP and the SPI falls from 81% to 7.8% (.8111 to .0773) as we move from poorer countries to the high income countries. There is a grouping of countries with no real connection between changes in economic growth and changes in social progress. Further evidence is provided in Figure 1.2 which shows the relationship between changes in GDP from 2013-2016 and changes in SPI for high income countries. The data includes two outliers: (1) Norway (on the upper left corner), which experienced a decline in GDP of over 12% but had an increase in SPI of nearly 2% (one of the 2 largest increase) and (2) Ireland, (on the extreme lower right) which had a 50% increase in GDP, yet was one of only three countries that experienced a decline in the SPI.

8 The Social Progress Index is produced by the Social Progress Imperative. It is an aggregate index of social and environmental indicators that capture three dimensions of social progress: Basic Human Needs, Foundations of Wellbeing, and Opportunity. See http://www.socialprogressimperative.org/

Figure 1.2 Change in SPI and Change in GDP for High Income Countries 2013–2016



Source: Author's Analysis

Several reports conclude (Stiglitz, Sen and Fitoussi, 2009) that many 'goods' which economic progress is supposed to make affordable are: (1) often independent of economic growth, and (2) supportive of economic progress and not a deterrent. We have argued that gender equality used to be seen as a luxury that rich countries can afford. Now, it is increasingly seen as a necessary precondition to progress in developing countries. Strong families and social institutions are now seen as 'social capital' that needs to receive support and 'investment' as much as manufacturing or financial capital. The World Bank used to force countries in financial distress to cut its funding on education and healthcare in order to meet their financial obligations to service foreign loans. Such structural adjustment programs are now viewed as counterproductive. Reducing the education and health of a country will only reduce the productivity of its workers. The World Bank now argues that poverty reduction is the primary goal, and not a competing goal.

1.2 Decoupling: From Means to Ends and Back to Means

We noted that in the post WWII era, governments, in response to the demands of their citizens, were increasingly held accountable for the performance of the macro economy, specifically in the areas of employment, price stability and business profitability, but also the provision of a wider range of public goods including education, healthcare, adequate housing and infrastructure. The primary policy objective was economic growth measured as the percentage change in GDP. All other goals were seen as secondary to a growing economy. The goal of full employment, it was argued, brought with it greater incomes for households and less requirements for government welfare assistance. Maintaining a growing economy however is not just a matter of fiscal and monetary policy. As the West transitioned from a supply-constrained economy (where the central economic problem is meeting the basic needs of a growing population) to a demand-

constrained economy (where the central issue is maintaining sufficient consumption to keep businesses profitable), there was a need for a corresponding change in culture and values. Old-fashioned values like thrift and resourcefulness had to be replaced by mainstreaming Veblen's concept of 'conspicuous consumption'. Marketing consultant, Victor Lebow, stated in 1955:

> "Our enormously productive economy demands that we make consumption our way of life, that we convert the buying and use of goods into rituals, that we seek our spiritual satisfactions, our ego satisfactions, in consumption. The measure of social status, of social acceptance, of prestige, is now to be found in our consumption patterns. The very meaning and significance of our lives today is expressed in consumption terms…We need things consumed, burned up, worn out, replaced and discarded at an ever-increasing pace" (Lebow, 1955).

John Maynard Keynes noted that the productivity of a modern capitalist economy, specifically the accumulation of productive capital, created an income stream to the owners of capital. This presented an underlying problem in that such income was not needed to support the owners of capital; it only entered back into the flow of the economy to purchase goods and services when it was spent on more capital accumulation (which makes the underlying shortfall in potential consumption ever greater), otherwise it was saved, creating insufficient aggregate demand. He argued that Medieval Europe and the Ancient Egyptians had creative outlets for the accumulated wealth of the rich to be recirculated back into the economy via large public works projects like the Pyramids or Gothic Cathedrals. However, capitalist rules of the game make this type of spending problematic, as one would only finance the Pyramids or Gothic Cathedrals if they would produce an income stream to repay the money advanced to build them, along with a competitive return for the lender. The monetary return on the investments in Pyramids came over 4,000 years after they were built, when Egypt became a major tourist destination. Not even Warren Buffet, well known for his long-term investment approach, would likely be so patient!

A modern capitalist economy must artificially stimulate spending in order for past investment spending to be profitable[9]. Keynes noted in the *General Theory* that while intelligent people in government would be able to devise useful ways to inject money into the economy, it would be

---

9 It is worth recounting an anecdote about John Maynard Keynes' first trip to meet President Roosevelt to illustrate this new attitude towards spending. Keynes came to Washington DC to try to convince the President to increase government deficit spending (the President had run on a pledge to balance the budget). Leon Keyserling (one of the President's economists) met Keynes at his hotel room and while waiting for Keynes to get ready, asked if he could use the bathroom to freshen up. While Keyserling was drying his hands, Keynes noticed that he was doing so without messing up the towels. This prompted Keynes to walk in, grab the towels and toss them on the floor. "Now they have to hire a maid to clean up the room" Keynes stated, illustrating the process of stimulating demand. Spending, not thrift, was the message of the day!

better to pay one worker to dig holes and another to fill them in rather than to do nothing[10]. It has long been understood that capitalism only achieves near full employment when it is artificially stimulated. Consumerism and the Cold War were the engines of economic progress in the post WWII era. Just as the Cold War threatened to make the planet uninhabitable through nuclear war, so too does the consumerism and waste-based economy through climate change and the depletion of the world's resources.

1.3 New Means and New Ends

In *The Material Footprint of Nations* (Wiedmann et al, 2015), it is estimated that the world extracted 69,686 million tons (m/t) of natural resources in 2008. Ireland's material footprint per capita was 30.8m/t, ranking it 31st internationally. Therefore, if the whole world had Ireland's material footprint (which for 30 countries would be a reduction, but for approx. 150 countries, it would be an increase), the world would have consumed 203,802 m/t, nearly tripling the extraction of resources from the planet in 2008. We believe that development for the developing countries is a human right. Sustainable development does not mean the prevention of development in the poor countries so that rich countries can sustain their lifestyles. Planetary boundaries, both the limited resources and the limit on the planet to absorb the pollution caused by extracting an ever-higher rate of natural resources, means it is impossible for all of the planet's 7 billion people to attain a typical western lifestyle. The western countries must develop an economic model which is not based on generating a high flow of waste to maintain high levels of employment and corporate profitability. This involves the development of new technologies to reduce the use of fossil fuels. Critically, it also involves a cultural shift away from the conspicuous consumption and throw-away society.

When the nations of the world committed to the Millennium Development Goals (MDGs), one of which was to reduce poverty by 2015, they were not just putting the eradication of poverty on the world's development agenda. This is a new approach to development. Rather than promoting GDP growth alone, the new approach suggests a policy of promoting development by improving the lives of the poor. In order words, the 'ends' become the 'means'. This is particularly true of the underlying commitment to a human rights approach. Once development is recast as human development (instead of just GDP growth), poverty necessarily becomes multi-dimensional, and as a result, our statistics used to monitor it must also become multi-dimensional.

10 When Lawrence Klein told this story at a presentation at the *New School for Social Research* in the early 1980s, Anwar Shaikh (one of the Professors who commented on Klein's lecture) stated that in a world with serious environmental challenges, tossing towels (creating waste so that we could pay people to pick it up) is not a workable solution.

The increasing evidence of the effect of human activity on the planet (especially the waste-based consumption patterns of the western countries) has forced another change in how development is to be understood and pursued. A country with large forests could achieve a high growth rate in GDP by cutting down its trees and selling them on the international market. This could continue for years, until the country runs out of trees to cut down and sell. Unless the money from the sale of trees was used to plant new trees to replace what was cut down, or the money was invested in another sector that could replace the revenue that would be lost when they run out of trees (and compensate for the many environmental challenges that de-forestation causes), it is not a sustainable path to development. In a similar way, pursuing policies that create short term economic growth but that also harm families, weaken social and political institutions, and generate greater inequality, are also not sustainable.

The sustainable development goals (SDGs) are an attempt to provide a pathway out of poverty for about a billion people in the world, while also providing a pathway to a sustainable future for all countries and peoples. The 17 goals, 169 targets, and over 230 indicators, are designed to refocus efforts towards policies that directly help people and communities and importantly, that will help in the long run. International agencies like the World Bank, IMF, OECD and Eurostat have committed to data collection efforts to support the monitoring of the SDGs[11]. How effective the SDGs will be for promoting development remains to be seen. Most economic development is carried out by private businesses and individuals. Governments play a critical supportive role, including the provision of infrastructure, education and research, health, law and order, etc. But their function is to provide the capacity and capabilities so that individuals can pursue their idea of a life worth living.

The SDGs have become an essential part of scoring economic, social and environmental progress. Additionally, new measures of social progress have been developed over the recent past by various organisations and agencies[12]. This development is to be welcomed. As seen in Table 1.3, the various progress indices can highlight how countries perform very differently to GDP. Each index is usually focused on a different aspect of progress: what is clear however is that some countries that perform very well on GDP do not perform well on many of these additional indices. Ireland is benchmarked against the EU15[13] in Table 1.3. In terms of GDP per capita, Ireland is ranked 2nd. The Human Development Index (HDI) and Global Peace Index (GPI) both put Ireland in fourth place. Ireland's ranking on the Better Life Index is less impressive and its worst performance (11th) is in the Global Competitiveness Index.

---

11 The EU, OECD and Sachs et al (2017) have published a number of documents in 2017 in the follow-up to the adoption of the SDGs. See Appendix A for a brief review of these documents.

12 Clark and Kavanagh (1996) provided an early attempt to measure social progress in Ireland. There has been significant development in the area since then, including for Ireland.

13 These 15 countries are part of the EU region since 1995, and are classified by the OECD as 'high income countries'.

Figure 1.3 The 17 Sustainable Development Goals

Source: United Nations (UN)

Table 1.3 EU 15 Countries Ranked by GDP per capita and Other Alternative Measures of Progress

GDP per capita, PPS, 2016	Human Dev Index	World Happiness Index	Better Life Index	Social Progress Index	Global Competitiveness Index (GCI)	Environment Performance Index	Global Peace Index
LUX	DEU	DNK	DNK	DNK	NLD	FIN	PRT
IRE	DNK	FIN	SWE	FIN	DEU	SWE	AUT
NLD	NLD	NLD	FIN	NLD	SWE	DNK	DNK
AUT	IRE	SWE	NLD	SWE	UK	ESP	IRE
DNK	SWE	AUT	DEU	IRE	FIN	PRT	DEU
DEU	UK	IRE	LUX	UK	DNK	FRA	FIN
SWE	LUX	DEU	BEL	DEU	AUT	UK	SWE
BEL	FRA	BEL	AUT	AUT	LUX	AUT	BEL
FIN	BEL	LUX	UK	BEL	BEL	IRE	NLD
UK	FIN	UK	IRE	ESP	FRA	LUX	ESP
FRA	AUT	FRA	FRA	FRA	IRE	GRC	ITA
ITA	ITA	ESP	ESP	PRT	ESP	ITA	UK
ESP	ESP	ITA	ITA	ITA	PRT	DEU	FRA
PRT	GRC	GRC	GRC	GRC	ITA	NLD	GRC
GRC	PRT	PRT	PRT	LUX n.d.	GRC	BEL	*LUX nd*

Source: Authors' Analysis. Data for all indices refers to the latest year available.

Social progress, like human development and poverty, is multidimensional. The aim of this report is to provide some further evidence that will assist policy-makers with implementation of the 2030 Agenda for Sustainable Development. It presents a high-level overview of strengths and weaknesses across the SDGs. Aggregate indices, like the one we present here, provide a starting point in an important discussion; they provide us with a signal that we should need deeper into the details - the many dimensions of human well-being. To paraphrase Norris Clarke[14], we go from the one to the many, and it is by understanding the many that we come to understand the one.

14 Norris Clarke, *The One and the Many, 2001.*

2

Ireland's Progress on the SDGs

The action plan set out in the 2030 Agenda is holistic in its emphasis on three fronts: social, economic and environmental. In 2017, we presented an index of sustainable progress for Ireland (Clark and Kavanagh, 2017). The goal was to track Ireland's performance on these three integrated aspects of development. Data was collected on 34 indicators, and each SDG consisted of between one and four indicators. Scores for each of 17 goals, which were then aggregated into 3 separate indexes (see Table 2.1). The next step involved aggregating the 3 index scores to arrive at the composite Sustainable Progress Index. This allowed us track Ireland's performance in a simple and easy to follow way.

In this report, we follow a similar method. This section focuses solely on assessing Ireland's record over the past 10 years across the same three dimensions. The aim is to take stock of where we now stand on the SDGs[15]. In section 3, we present an updated and revised sustainable progress index which gives an insight into how Ireland is doing relative to the EU 15.

15 There are difficulties in estimating time series trends for many of the variables due to insufficient data. However, we attempt to conclude, on the basis of what we can measure, how Ireland has progressed on the SDGs.

Figure 2.1 The 3 Dimensions of Progress

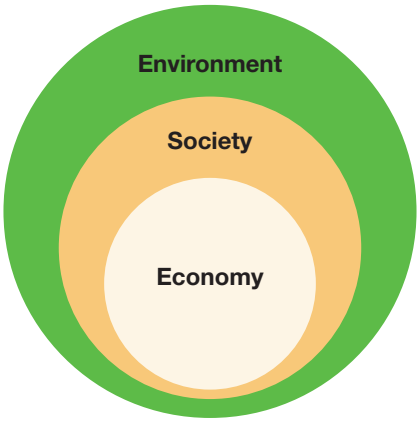


Table 2.1 SDGS used in the 3 Dimensional Indexes

SDG Index	SDGs Included
Economy	8, 9
Society	1, 2, 3, 4, 5, 10, 16, 17,
Environment	6, 7, 11, 12, 13, 14, 15

Of course, it could be argued that some of the social SDGs should be included under the economy dimension and vice versa. However, we reiterate that the three dimensions are interdependent and interlinked.

2.1 The Economy Index

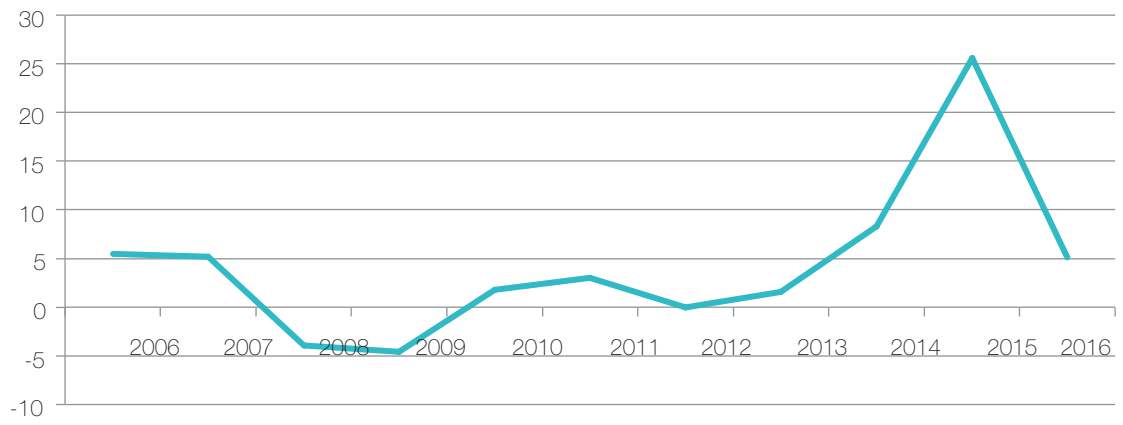
SDG 8 'Decent work and economic growth'

GDP Growth

Although we have discussed the disadvantages of GDP as a measure of progress, it is nevertheless important this metric is included under SDG 8. It is not our contention that GDP is a poor statistic, or that growth in GDP is necessarily bad for social progress. Rather, we argue that GDP cannot carry the full weight of measuring social progress. It measures market activity, and while there are large gaps in this measurement (especially neglected environmental costs and missing benefits of leisure and home production), it is an important tool for public policy. GDP measures market activity and most market activity is good – for both buyer and seller. Indeed, a major way that humans participate in a modern society is through market activities. Further,

it is better to have an economy that is growing rather than one that is shrinking. Indeed, part of public policy should be geared towards preventing recessions and financial crashes, in order to achieve a sustainable economy.

Figure 2.2 Growth in Real GDP, Ireland, 2006-2016

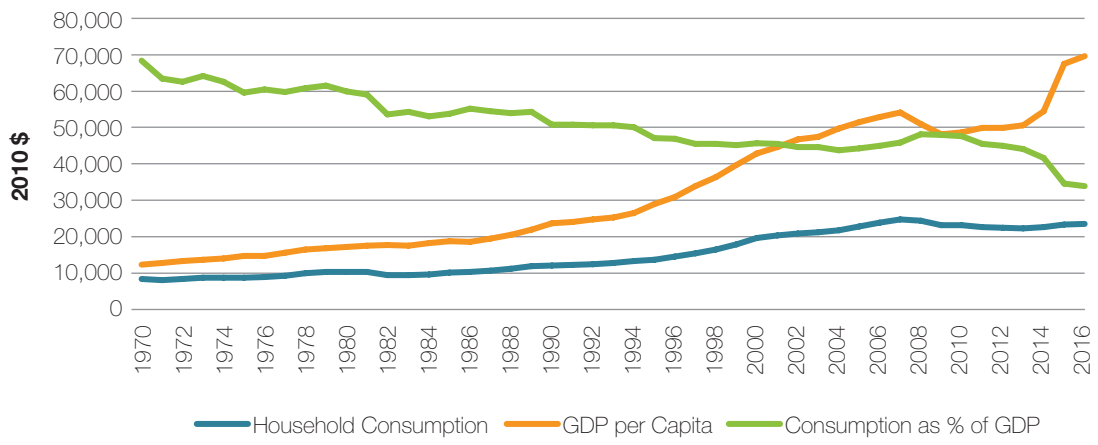


Source: Eurostat

Figure 2.2 presents the trend in GDP growth since the end of the Celtic Tiger years. A downward trend is evident in 2008 and the beginning of a sustained recovery in 2013. The period 2008-2013 is commonly called the Great Recession, as it lasted around half as long as the Great Depression, although prices did not fall as sharply. The spike in GDP growth in 2015 (25.6%), as well as high GDP per capita surely suggest that there is something wrong with GDP as a metric in Ireland[16]. Clark and Kavanagh (2017) looked at the role of Apple in exaggerating Ireland's GDP. But Apple is just one of several foreign companies that use transfer pricing to shift profits to Ireland because of its low corporate tax rate. We argue that policy makers need a good indicator of how the macro economy is doing (although given that Ireland is in the Eurozone, it does have substantially less policy space for macroeconomic policies). In Figure 2.3, we compare Ireland's GDP per capita with Household Final Consumption per capita; the latter measures how much money households are spending, a better measure of the benefits of economic activity - at least the benefits in consumption goods and services that households consume (Nordhaus and Tobin, 1972).

16 This is not news to most people. In his 2000 presidential address, William Keating (Central Statistics Office) covered many of the problems with GDP as a measure of progress in the Irish economy.

Fig 2.3 Household Final Consumption per capita and GDP per capita, Ireland, 1970-2016



Source: World Bank

Figure 2.3 also shows that consumption as a share of GDP has continuously fallen, to 33.9% in 2016. Most advanced capitalist economies have become consumption-based economies, and show a different trend to what we see here. The trend in this indicator since 2008 is, we argue, a better measure of how the Irish economy has fared in recent years.

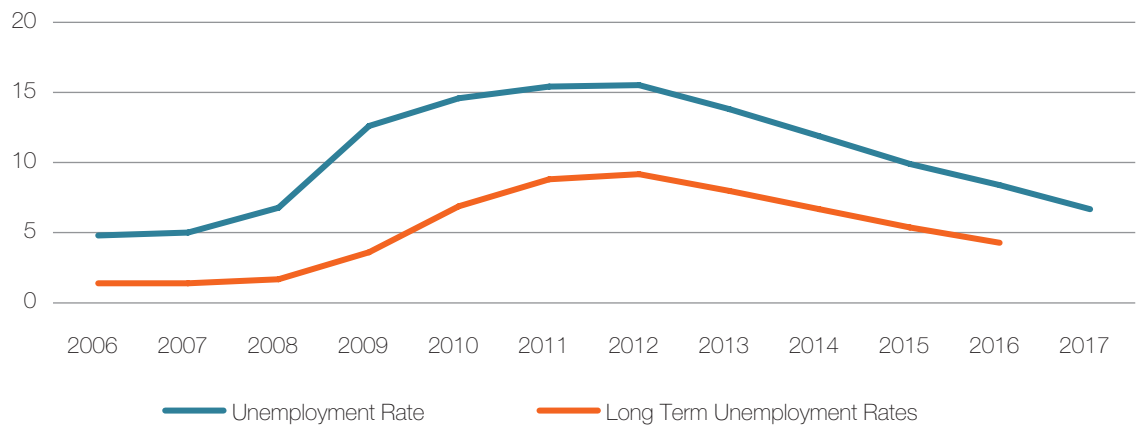
Unemployment

Working with others has been the main way that humans have promoted their own and their community's well-being. This is as true today as it was for our cave-man ancestors. In a market economy, paid employment is often viewed as the main form of working with others. Although, this may not be true, for financial reasons, most families require some members to engage in paid employment. Additionally, most people who are employed are significantly happier than those who are unemployed. People who are unemployed are by definition seeking paid employment yet have been unsuccessful. In classical and neoclassical economic theory, high rates of unemployment are either very rare or a matter of personal choice (people choose not to work because the real wage in not high enough to induce them out of their inactivity). Part of the success of Keynesian economics is that it shows that periodic high unemployment is a normal part of capitalism and that sustained full employment is rare. Since the Great Depression, keeping the rate of unemployment low has been a major public policy goal.[17]

17 The exception is when inflation is high. In this case, governments often promote higher rates of unemployment to reduce pressure on prices. As Ireland is in the Eurozone, it no longer faces this problem.

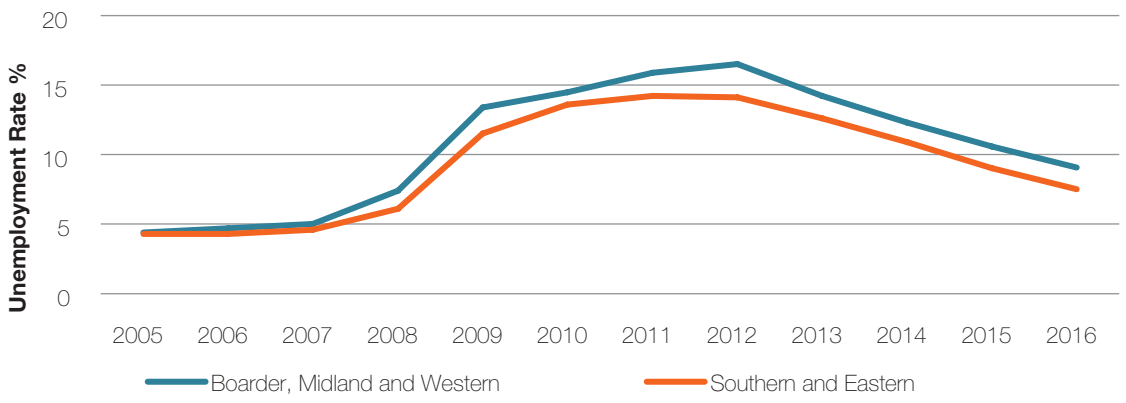
Figure 2.4 presents trends in both the unemployment rate and the long-term unemployment rates. As typically happens in a deep recession, both of these rose significantly following the economic downturn in 2008 and began to fall in 2012-13. The unemployment rate fell from 9.9% in 2015 to 8.4% in 2016, and then to 6.7% in 2017. Trends in the long-term unemployment (LTU) are less impressive and are further away from reaching the pre-crisis levels, as is expected. Re-entering the labour force after a long period of unemployment is particularly challenging, due to loss of skills and having to compete for jobs with new entrants (who usually have more recent training and education as an advantage.)

Figure 2.4 Unemployment Rate and LTU Rate, 2006--2017



Source: Eurostat

Figure 2.5 Regional Unemployment in Ireland, 2005--2016



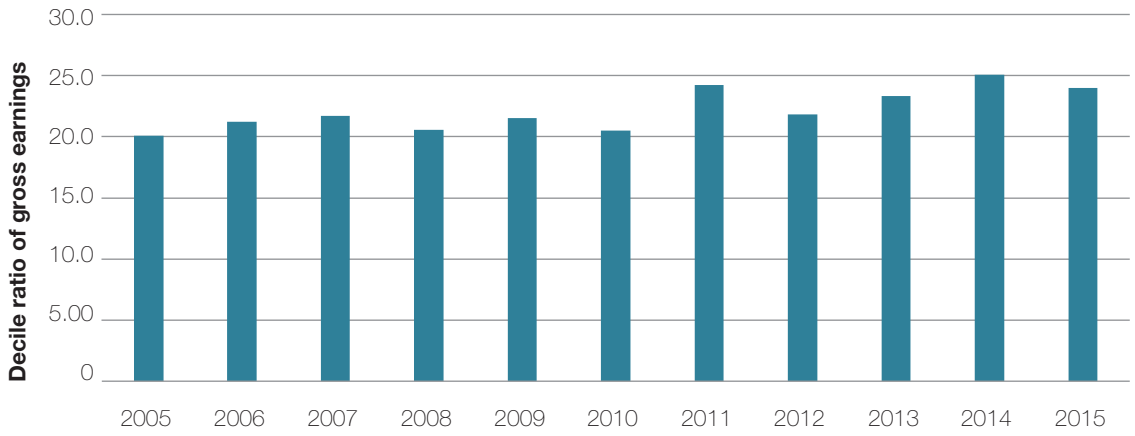
Source: Eurostat

Unemployment is rarely evenly spread across any country, and Figure 2.5 shows that areas around Dublin have fared better than other regions. This is a common aspect of the 21st century economy, which greatly favours big cities and the intellectual economies of scale they produce. Promoting vibrant rural communities should be a policy priority, especially since many of the scale economies of urban life can now be reproduced on-line.

Low Pay

Our last indicator in SGD 8 is the share of workers in low pay employment. This indicator shows that the incidence of low pay has increased slowly but steadily from 2005 to the current available year, giving rise to concerns about the 'working poor'. The share has risen from approx. 20% in 2005 to 24% in 2015 (see Figure 2.6).

Figure 2.6 Unemployment Rate and LTU Rate, 2006--2017

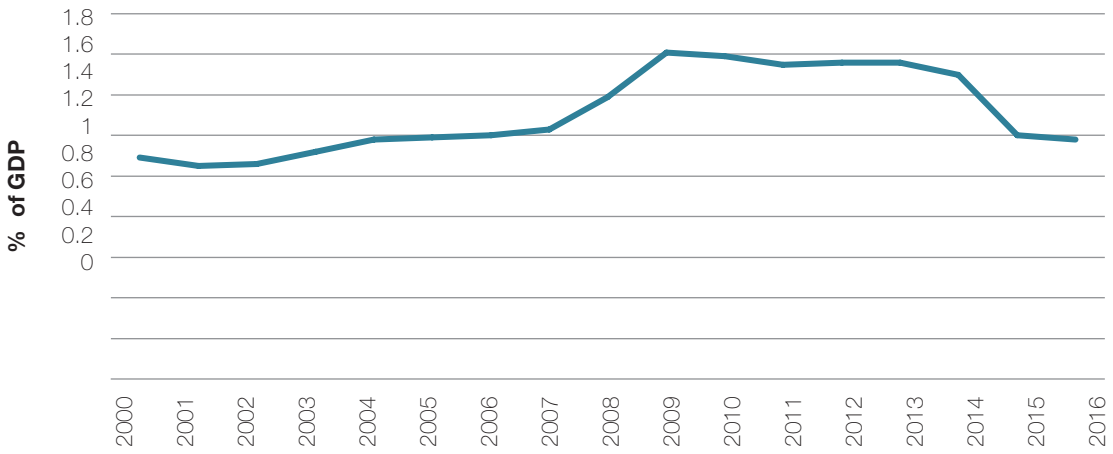


Source: OECD

SDG 9 'Industry, innovation and infrastructure'

Two key indicators under this SDG are R&D expenditure (as % of GDP) and internet access. Expenditure on R&D has been falling since its peak of 1.61% of GDP in 2009, to 1.18% in 2016. We argue that this decline is at least partly due to the over valuation of GDP.

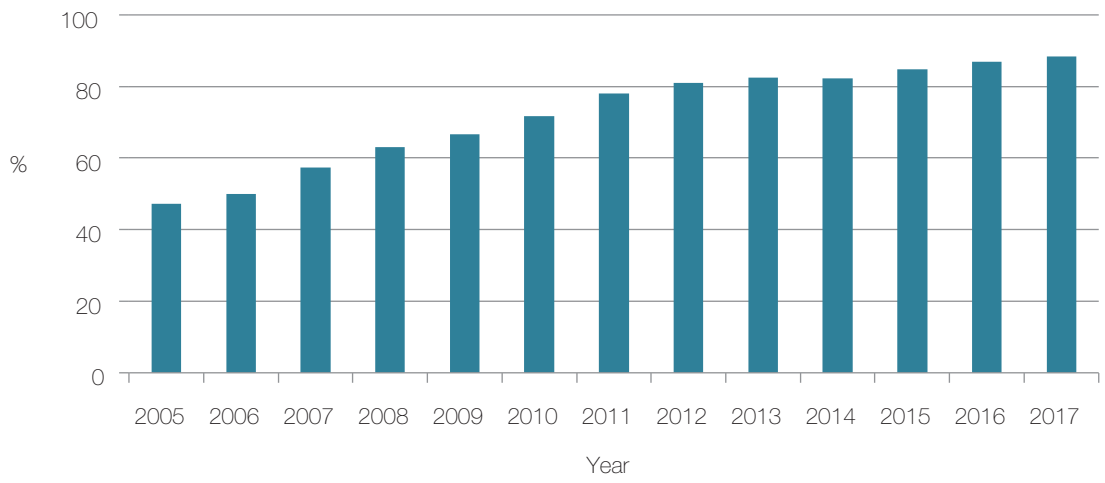
Figure 2.7 R&D Expenditure (% of GDP) 2000--2016



Source: Eurostat

The % of households with internet access has been steadily rising since 2005. Approx. 86% of households have access to the internet in 2016, up from 47% in 2005.

Figure 2.8 Internet Access (% of Households)



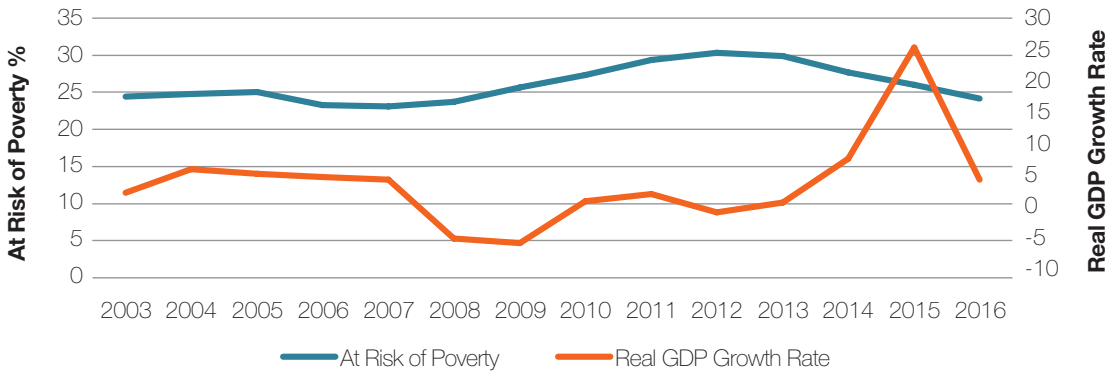
Source: OECD

2.2 The Society Index

SDG 1 'No poverty'

As expected, the poverty rate in Ireland increases when the economy enters a recession and begins to improve when it enters the expansion phase of the business cycle. In this report, we use the OECD's 50% median income measure of the poverty rate (which is different from the CSO's threshold of 60%). We use the OECD measure to facilitate comparisons with EU countries. Poverty rates have fallen slightly from 26% in 2015 to 24.2% in 2016. The most recent peak was in 2012 when it was 30.3%, and it was at its lowest in 2007 at 23.1%, just before the financial crisis. The key point to note is that at the peak of a long economic boom, Ireland still had over one-fifth of its population living in poverty. This suggests that Ireland has a structural poverty problem that will not be fixed by economic growth along. In Figure 2.8, we see that GDP per capita is much more volatile than the poverty rate. The dramatic increase in GDP does not translate into increased income for the poor.

Figure 2.9 Poverty and GDP Growth, Ireland, 2003-2016



Source: OECD and Eurostat

SDG 2. 'No hunger'

Ireland has performed better in its path towards meeting SDG2. Most of the indicators under this goal are suited to problems of developing countries (such as stunting, undernourishment.) The obesity rate is a key indicator used for developed countries under this SDG and Ireland's performance on this indicator is a concern; it is 4.1% above the EU average in 2014. Sustainable agriculture production shows improvement as agricultural factor income and government support to agricultural R&D increase. Ireland remains well above EU average on both of these indicators.

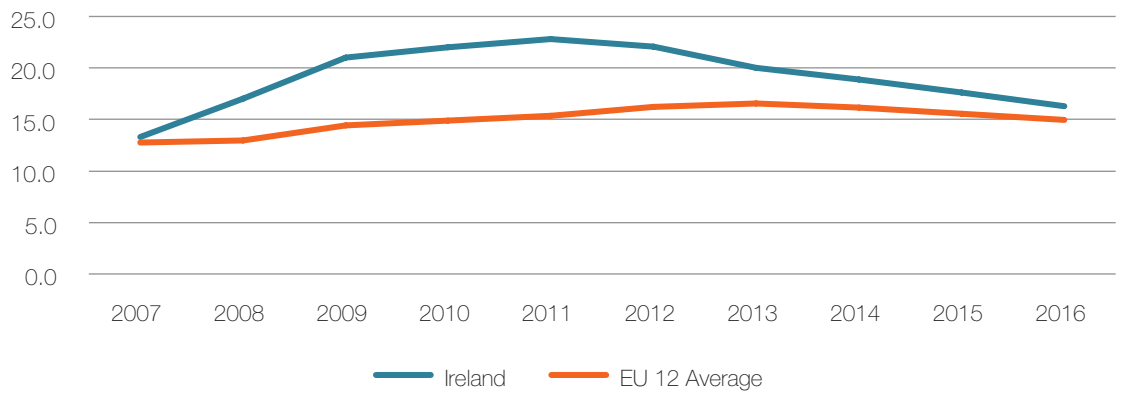
SDG 3 'Good Health and Well-being'

Ireland is making good progress on this SDG. Ireland's life expectancy has steadily increased, from 76.6 years in 2000 to 81.5 years in 2015 (slightly above the EU average, and slightly below the Euro zone average). 82.4% of the population rate their self-perception of health as good or very good, down from 84.1% in 2007, but above the EU average. Ireland's suicide rate is down from the highs during the recession, at 10.53 per 100,000. The UK is the only country below 10 suicides per 100,000. There is a significant difference between the suicide rate for females (at 3.7 per 100,000) and males (17.4 per 100,000).

SDG 4 'Quality of Education'

Ireland is making moderate progress on this SDG as more children are participating in early childhood education and care, fewer pupils are leaving school early, more people are attaining tertiary education and more young people are in employment. Ireland is getting closer to reaching the EU objective of 82% for the employment rate of recent graduates, reaching 79.5% in 2016 and is above the EU average. Adult literacy is a concern for Ireland as the percentage of population between 25–64 years old participating in learning has fallen since 2013 and was below the EU average in 2016. Youths not in employment, education or training (NEET), while showing steady improvement, is still a cause of concern. Ensuring young people are engaged with training for the labour market is a major challenge. Evidence shows that those who enter the labour market during a recession make less money over their careers and failure to find work can lead to significant problems in the longer term.

Figure 2.10 Youths (%) Not in Employment, Education or Training (NEET), 2007--2016

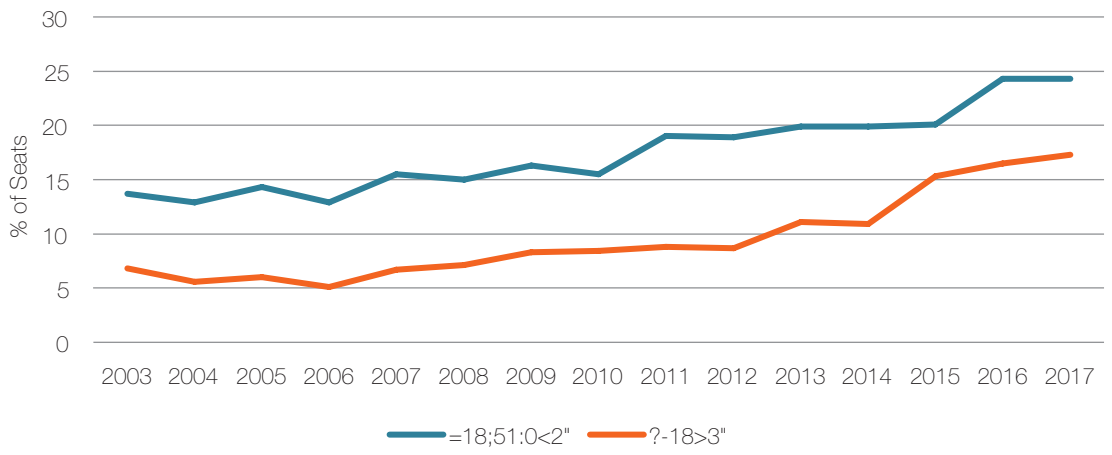


Source: Eurostat

SDG 5 'Gender Equality'

In Ireland, the gender gap for early leavers from education and training and employment has narrowed. Further, Figure 2.11 shows that there has been an increase in females in a leadership role (more females are represented in senior management positions); from 5.6% in 2004 to 17.3% in 2017. Female representation in national parliament also increased, from 12.9% to 24.3% over the same time. However, as we see in section 3, this is well below the EU average. The gender pay gap, while down from the 2005-6 levels, has hovered between 12% and 14% from 2010 to 2014.

Figure 2.11 Females in Parliament and Boards, 2003-2017

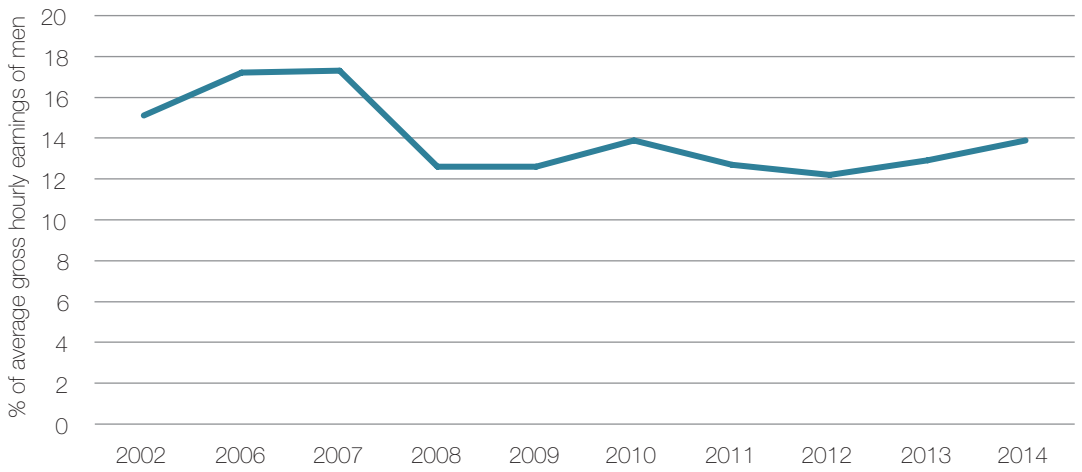


Source: Eurostat

SDG 10 'Reduce inequalities'

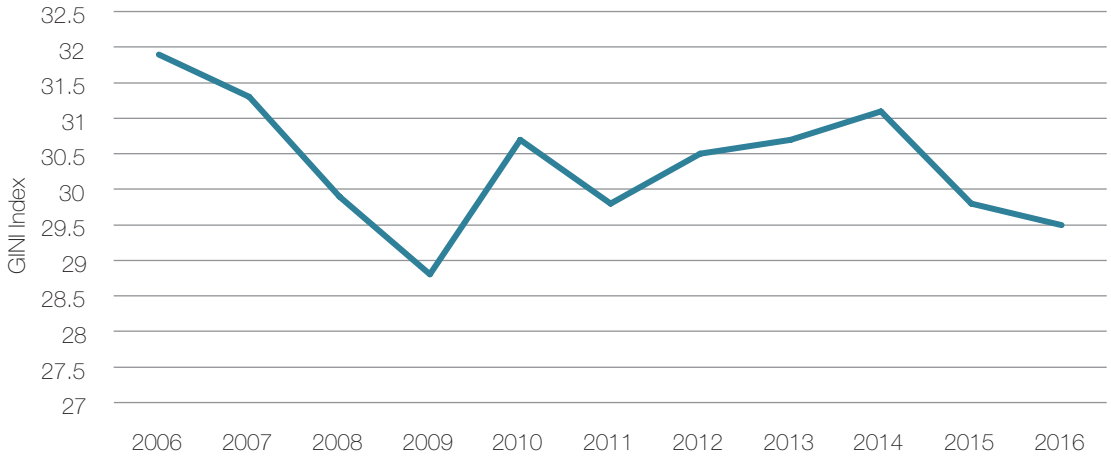
Ireland's action towards reducing global inequalities has been minimal. Slightly better progress is observed on inequality within the country, as measured by the Gini coefficient and income of the bottom 40% of the population. Ireland had historically high levels of income inequality, as had all English-speaking countries. The Gini Index (one of the leading measures of inequality) had fallen significantly from 2006-2008, yet displays an upward trend during the recession, but has fallen again in both 2015 and 2016 (see Figure 2.13). We believe that Ireland's pattern of income distribution is becoming more similar to many of the EU countries, due in some part at least to being in the Eurozone.

Figure 2.12 Gender Pay Gap, Ireland, 2002-2014



Source: Eurostat

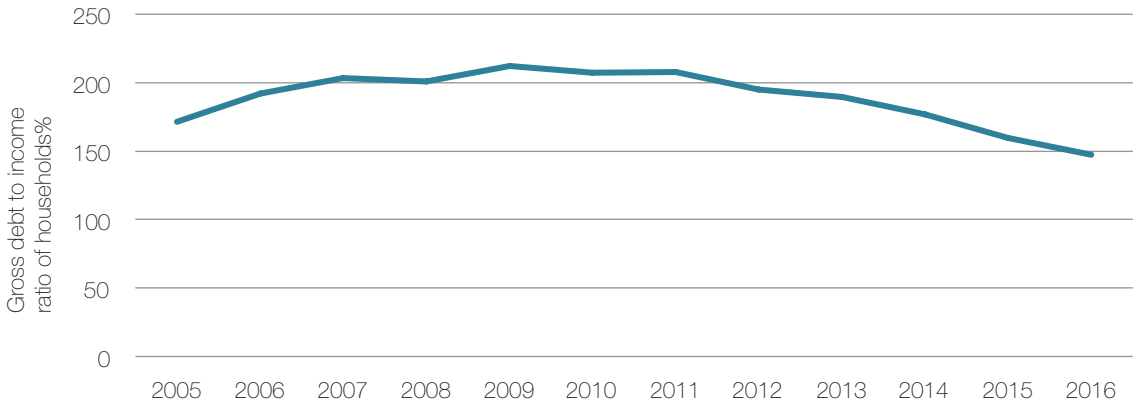
Figure 2.13 Inequality in Ireland, 2006-2016



Source: Eurostat

Ireland's household debt to income ratio has continued to fall since its peak (see Figure 2.12), yet debt amongst Irish households is still high and is well above most European countries. Excessive private (household and business) debt played a major role in the last financial crisis worldwide. Often debt is a substitute for rising incomes.

Figure 2.14 Household Gross Debt to Income Ratio, Ireland, 2005-2016



Source: Eurostat

The Social Justice Index is included under this SDG. This index is designed to measure progress (or decline) on various social justice indicators. It is composed of 28 quantitative and 8 qualitative indicators in six dimensions of social justice. Table 2.2 provides the overall scores for 2008, 2015 and 2016, as well as the scores for each of the six dimensions. While there has been progress in the overall score from 2015 to 2016, due to improvements in poverty prevention, access to labour markets and intergenerational justice, the 2016 score is still significantly lower than that in 2008 (by 12.7%), with poverty prevention (27.1% lower) and access to labour markets (7.9%) lower than in 2008. In 2008, Ireland ranked 12th in the EU. This fell to 18th place in 2016.

Table 2.2 Ireland's Social Justice Index, 2008-2016

	2008	2015	2016	Change 2015 to 2016	Change 2008 to 2016
Social Justice Index	5.91	5.16	5.4	4.7%	-12.7%
Poverty Prevention	5.49	4.0	4.4	10.0%	-27.1%
Equitable Education	5.26	5.64	5.68	0.7%	7.2%
Access to Labour Market	6.97	5.72	6.06	5.9%	-17.9%
Social Cohesion and Equality	6.09	5.95	5.97	0.3%	-2.3%
Health	6.73	6.15	6.18	0.5%	-8.6%
Intergenerational Justice	5.36	4.84	5.09	5.2%	-9.7%

Source: Social Inclusion Monitor Group

SDG 16 'Peace, justice and strong institutions'

Ireland reflects a relatively safe society with a low number of deaths due to homicide or assault and the perceived occurrence of crime, violence and vandalism all below EU average. A key indicator under this SDG is the number of homicides per 100,000. Figure 2.15 shows the performance on this indicator has been mixed over the years.

Figure 2.15 Homicides in Ireland, 2000-2014

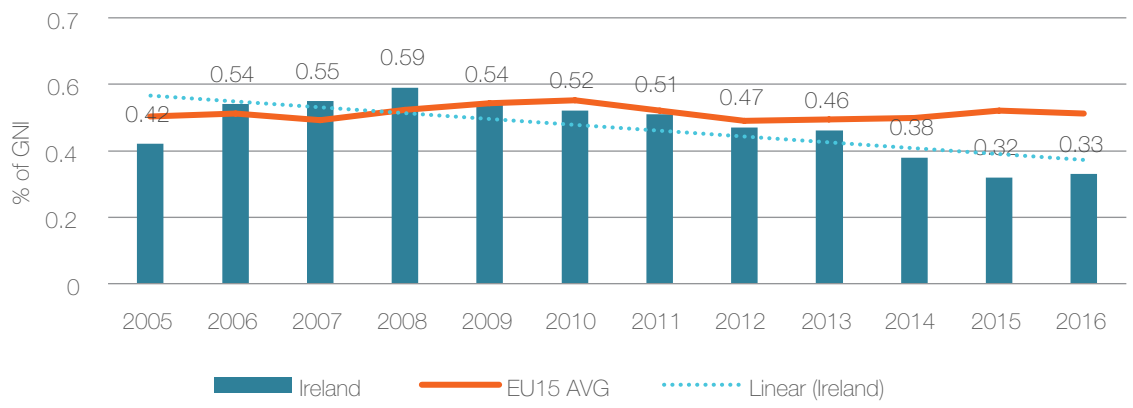
Source: UNDP

After 4 years of an upward trend (the value of the index rose from 69 to 75, where high scores indicate more corruption), Ireland's Corruption Perception Index score has improved slightly, falling to a score of 73 in 2016.

SDG 17 'Partnership for the goals'

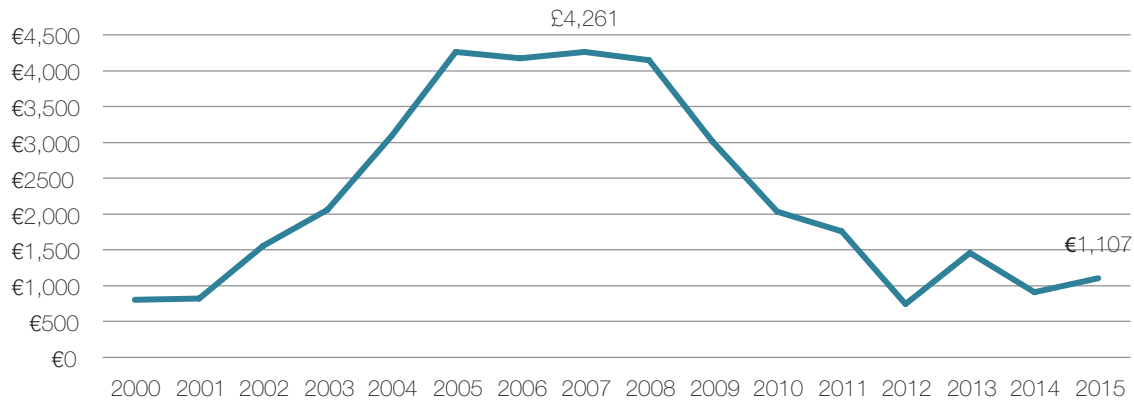
We believe Ireland is moving away from its sustainable objective in this area. Ireland's official development assistance as a share of gross national income has deteriorated, falling well below the goal of .7% as well as below the EU average (which Ireland exceeded in 2008 – see Figure 2.16). Ireland's share of financing (both private and public) to developing countries has fallen from €4.3 billion in 2007 to just over one quarter of that level in 2015 (see Figure 2.17). Overall, Ireland is performing poorly on this SDG.

Figure 2.16 Official Development Assistence, (%GNI), Ireland and EU15, 2005-2016



Source: Eurostat

Figure 2.17 Ireland's Financing to Developing Countries, 2000-2015, (m)



Source: Eurostat

2.3 The Environment Index

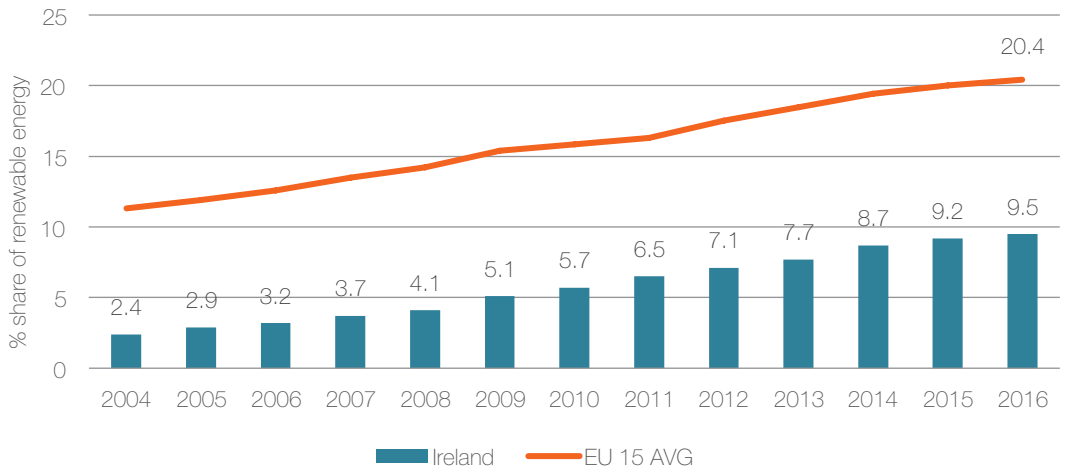
SDG 6 'Clean Water and Sanitation'

Generally, Ireland performs well on this SDG. The quality of Irish water and sanitation are among the best in Europe. However, there are several issues that need to be addressed going forward, including ensuring that all waters are brought up to a satisfactory quality level and to ensure that waters that are already in good condition continue to be protected.

SDG 7 'Affordable and clean energy'

The share of renewable energy has increased to 9.5% of gross final energy consumption in 2016; yet this remains well below the EU15 share of 20.4%. Ireland has the highest level of energy productivity amongst the EU member states but Ireland's energy dependence as a net importer has increased to 88.7% in 2015. An over-dependence on imports of energy carriers exposes the economy to volatile world market prices and the risk of supply shortages. This is a major concern for Ireland and we conclude that this SDG poses a serious challenge going forward.

Figure 2.18 Share of Renewable Energy, Ireland, 2004-2016

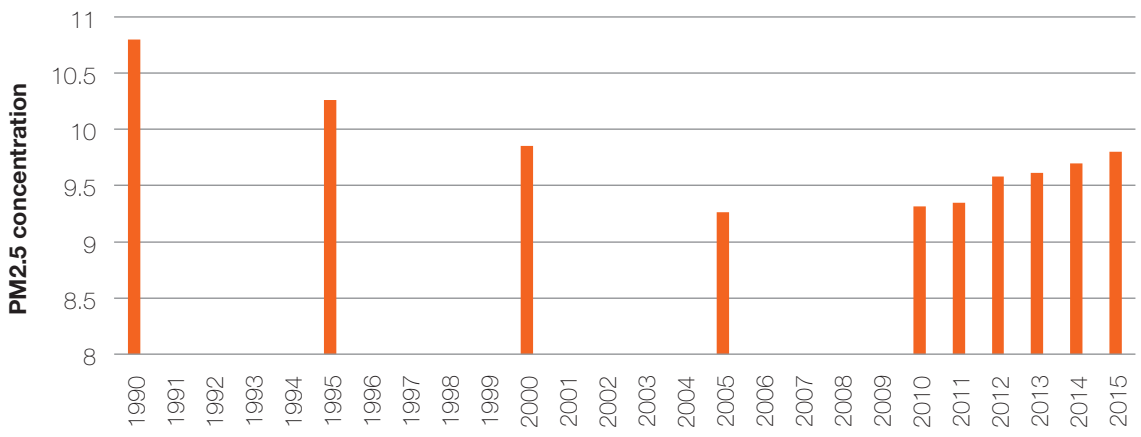


Source: Eurostat

SDG 11 'Sustainable cities and communities'

There has been some progress towards meeting the sustainable development objectives of this SDG which focuses on the quality of life in cities and communities. Data on the air pollution in urban areas indicator has sparse coverage up to 2010. It is available every year since. Air quality is Ireland is good relative to other EU countries, although Figure 2.19 shows some increase in emissions from 2010 onwards.

Figure 2.19 PM2.5 emmisions in Ireland, 1990-2015

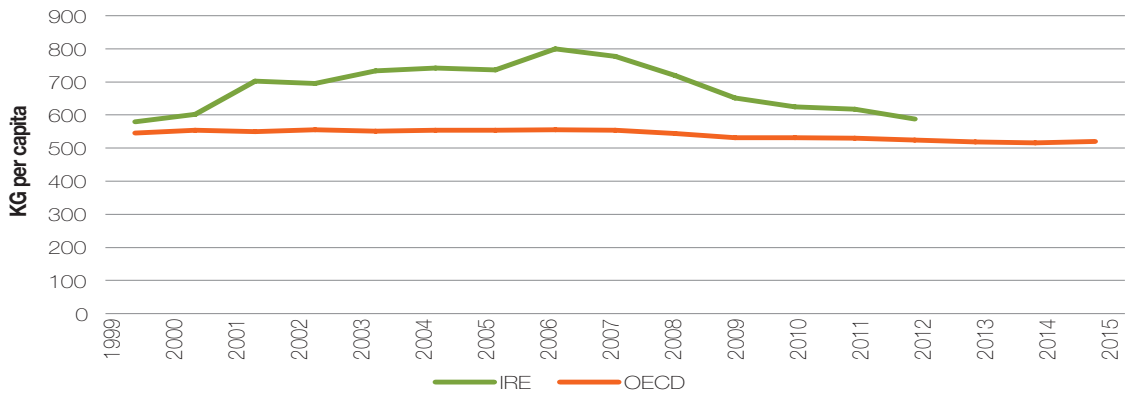


Source: World Bank

SDG 12 'Responsible consumption and production'

Steady declines in the municipal waste generated per capita are observed since 2006 (Figure 2.20), but Ireland still produces more waste per capita than its EU counterparts. We conclude the moderate progress is being made on achieving this goal.

Figure 2.20 Municipal Waste Generated, Ireland and OECD, 1990-2015

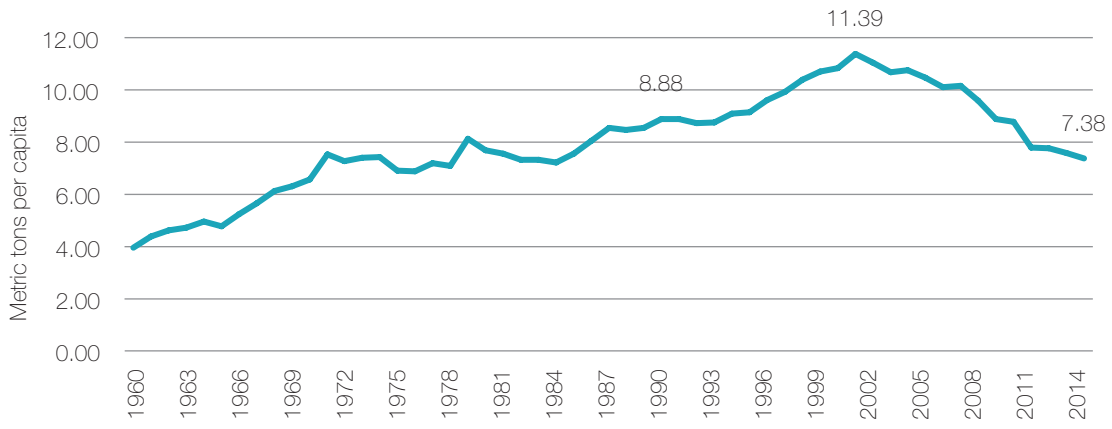


Source: OECD

SDG 13 'Climate Action'

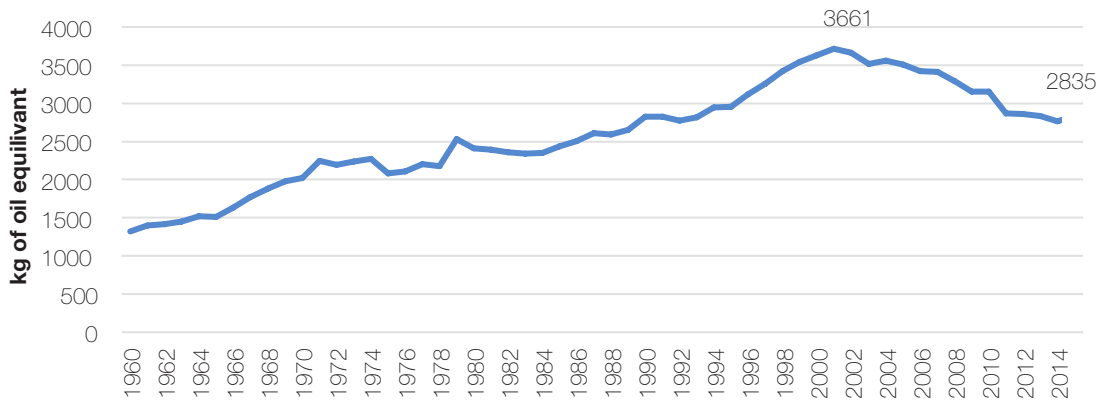
It is difficult to fully assess Ireland's performance on this SDG as data on climate impacts and climate initiatives are not available[18]. Indicators that we can comment on include CO_2 emissions and energy use. Irelands CO_2 emissions (per capita) rose by approx. 300% from 1960 to 2001, but have fallen by approx. 35% since (Figure 2.21). Similarly, Ireland's total energy use per capita more than doubled from 1960 to 2001 but has fallen 22.5% by 2015 (Figure 2.22). Overall, in our view, moderate progress has been achieved on this goal to date.

Figure 2.21 Ireland CO2 emissions per capita, 1960-2014



Source: World Bank

Figure 2.22 Ireland Energy Use per Capita, 1960-2015



Source: World Bank

18 It is worth noting that in its recent report, Eurostat could not estimate time trends for 4 SDGs, due to insufficient data.

SDG 14 'Life below water'

SDG14 aims to conserve oceans by ensuring healthy use and ensuring their sustainability. Indicators used under this SDG include measures of ocean health and sustainable fisheries. However, insufficient time-series data means it is difficult to assess Ireland's performance on this goal. Recent data is from the EU on sufficiency of marines sites dedicated under the EU Habitats Directive suggests Ireland is facing challenges in terms of marine conservation.

SDG 15 'Life on land'

The only indicator that we can comment on over time for this SDG is the share of land under forestry. Some improvement is evident – there has been steady growth in the proportion of land covered by forestry. However, it remains very low by European standards with only 10.5% of land under forestry, implying there is considerable scope for improvement.

3

Ireland's Performance vs. the EU15

In this section, we present an updated and revised Sustainable Progress Index (SPI). We compare Ireland to the EU15 because such an index is most useful for comparing relative performance among countries from a similar regional or income group. 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 (Sachs et al, 2016).

We have also replaced and added several new indicators[19]. The results should therefore provide a richer and more accurate assessment of Ireland's SDG performance. However, it is critical to emphasise that because additional indictors have been added to the new index, the rankings in this report are not directly comparable to the 2017 index. Changes in country rankings over time can be influenced by both changes in data as well as progress (or not) in achieving the SDGs.

3.1 Data Selection

In so far as possible, we align our indicator set with the official UN list of indicators. We use internationally consistent data from sources, including the UN, World Bank, Eurostat,

19 Some of these reflect changes in the official SDG Indicators (UN Statistics Division, 2017). It is very important to emphasise that our analysis is based only on what can be measured.

OECD, etc. Some data is sourced from non-governmental organisations such as Transparency International. All data is for the most recent year available. However, for some of the SDGs, we replace some of the official indicators (e.g. the incidence of extreme poverty, mortality rate of under 5s), with variables that better reflect the high income countries, and also, to allow for greater variance in the data (it is important to differentiate between countries performance). We also include additional indicators that capture the themes of the SDG, but are not official SDG indicators. For example, we use household debt (SDG10) and the incidence of low pay in the population (SDG8) which we are becoming increasingly important in the context of the EU[20]. Applying these criteria, this analysis identifies 55 indicators across the 17 goals. However, data coverage across the goals is unequal[21], and for some SDGs, we have only one indicator to reflect the objectives of the goal. The environmental indicators were particularly problematic. For example, data on oceans is covered in a very limited way. We have only one indicator to capture the theme of SDG14. Similarly, only one indicator is used to capture the SDG for climate action (SG13). Table 3.1 lists the indicator set used to reflect each SDG.

Table 3.1 List of Indicators Used in the SDGs

SDG	Description	Source
1	Poverty Rate after taxes and transfers; poverty line 50% (% of population)	OECD
2	Prevalence of Obesity, BMI>30 (% of adult population)	WHO
	Cereal yield (kg/ha)	World Bank
	Sustainable Nitrogen Index	Zhang and Davidson (2016); from Sachs et al (2017)
3	Life expectancy at birth, total, years	World Bank
	Adolescent Fertility Rate (births per 1000, age15-19)	UNDP
	Subjective Wellbeing (average ladder score)	Gallup (2016); from Sachs et al (2017)
	Daily Smokers (%, aged 15+)	OECD
	Road Traffic Deaths (per 100,000)	WHO
	Health Cover Index (0-100)	GBD (2016); from Sachs et al (2017)

20 Sachs et al (2017) focus their recent report on international spill-over effects. We do not take account of these effects in our index. See Appendix for further details of the Sachs report.

21 Data gaps exist not only in developing, but also in developed countries and filling these gaps will require significant investment and effort. Currently, Eurostat estimates that only approx. 35% of the UN SDG indicators are ready to use. These are called 'tier 1' in a UNSC classification – of 3 possible 'tiers'. 'Tier 2' refers to where the methodology is agreed but the data are not widely available. 'Tier 3' – where the methodology is still not globally agreed.

	Deaths from NCDs (per 100,000)	WHO
	Suicide Rate	OECD
	Alcohol Consumption (litres per capita, age 15+)	OECD
4	Population aged 25-64 with tertiary education (%)	OECD
	PISA Score	OECD
	Expected years of schooling	UNESCO
	NEET rate (not in employment, education or training)	OECD
5	Proportion of seats held by women in national parliaments (%)	World Bank
	Proportion of women in senior management positions (%)	Eurostat
	Gender Wage Gap (% of male median wages)	OECD
	Female labour for participation (% of males)	World Bank
	Female years of education (% of males)	UN
6	Water Stress Score	Gassert et al (2013)
7	Share of renewable energy in consumption (%)	OECD
	CO2 from fuels and electricity	IEA
8	Long Term Unemployment (% of total labour force)	OECD
	GDP annual growth rate	OECD
	Low Pay (share of workers earning less than two-thirds of median wages, %)	OECD
9	R&D expenditure, % of GDP	OECD
	Internet use (%)	ITU
	Patent applications (per 100,00)	OECD
	Number of R&D researchers (per 1000 employed)	OECD
	Mobile broadband subscriptions (per 100)	ITU
10	GINI Index	OECD
	Household debt, % NDI	OECD
	Palma Index	OECD
	EU Social Justice Index	Social Inclusion Monitor Report
11	Mean annual concentration of PM2.5 in urban areas	World Bank
	Difficulty in accessing public transport (% of population)	Eurostat
12	Municipal waste generated per capita	OECD
	Non-recycled municipal solid waste (kg/person/year)	World Bank
	Waste water treated (%)	Hsu et al (2016) - from Sachs et al (2017)
13	CO2 Emissions per capita (tCO2/capita)	World Bank
14	Sufficiency of marine sites designated under the EU Habitats Directive (%)	Eurostat

15	Percentage of land covered by forestry	World Bank
	Terrestrial sites, mean protected area (%)	Hsu et al (2016) - from Sachs et al (2017)
	Red List Index	IUCN and Bird Life International (2017)
	Freshwater sites, mean protected area (%)	Hsu et al (2016) - from Sachs et al (2017)
16	Corruption Index	Transparency International
	Homicides per 100,000 population	UNDP
	Prison population per 100,000 population	UNDP
	Feel safe walking at night (%)	Gallup (2016)
17	Overseas Development Assistance (% of GNI)	OECD
	Tax Haven Score (0-5)	Oxfam (2016); from Sachs et al (2017)
	Financial Secrecy (0-100)	Tax Justice Network (2015); from Sachs et al (2017)

3.2 Our Method

There is considerable heterogeneity in the SDG data. In order to compare performance across different targets, indicators must be normalised. We use a similar method to Sachs et al (2016). The approach allows us to benchmark Ireland against its peers, at individual indicator level, SDG level and aggregate index level.

Each indicator is rescaled. The first step is to assign a percentile rank to each indicator. A percentile rank of 100 is assigned to the best performance and, and 0 to the worst performance. For clarity and ease of interpretation, all indicators are expressed in ascending order, so that a higher score on the indicator corresponds to a higher overall SDG score. The next step involves aggregating the percentile rank of each indicator to capture each SDG value for each country. This means that every country has an SDG score for each of the 17 goals.

Equal weight is assigned to each indicator in the SDG value (and under each goal). This follows the UN's (2015, paragraph 5) commitment to treat all SDGs equally:

> "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".

3.3 The Economy Index: How Does Ireland Compare?

Table 3.2 presents the score and country ranking for the Economy Index. Ireland ranks 10th relative to its EU peers on this dimension[22].

Table 3.2 The Economy SDG Index – Ranking by Country

Country	Index Score	Country Rank
Sweden	91.04	1
Denmark	82.66	2
Finland	74.63	3
Netherlands	58.19	4
United Kingdom	56.59	5
Germany	55.16	6
Luxembourg	54.79	7
Austria	51.94	8
Belgium	48.73	9
Ireland	46.59	10
France	43.02	11
Spain	29.62	12
Portugal	24.79	13
Italy	22.30	14
Greece	5.18	15

Source: Authors Analysis

SDG 8 'Decent work and economic growth'

Three indicators are used to compute this SDG. As is well documented elsewhere, Ireland has a high level of real GDP per capita relative to the EU15 (second highest in 2016) along with the highest rate of growth in GDP[23]. Ireland scores highly on this indicator also (ranked 2nd in latest data). Ireland's score on long-term unemployment is less impressive with a rank of 10. Sweden and Denmark have the lowest rates of LTU. The incidence of low pay is included to capture the

22 We considered both the arithmetic mean and the geomean averages as two plausible approaches. Both yield almost identical results. Our tables below present the rankings using the arithmetic mean.

23 Various measures are used in studies to capture economic activity. Eurostat use GDP per capita in their analysis (not growth rate), while Sachs et al use the annual rate of growth of GDP. We experimented with several measures, including Real GDP, GDP per capita, Gross National Income (GNI) and GNI per capita, in level and growth forms. Ireland's rank is consistently ranked in the top 2 for all measures. As the official UN indicator for this SDG is the annual growth rate of real GDP, we use it here.

theme of 'decent work'. Over 21% of all employees in Ireland are considered low-paid. Along with the Germany and Greece, this puts Ireland at the bottom of the list for this indicator (ranked 14th).

SDG 8: Rank = 10

SDG 9 'Industry, innovation and infrastructure'

Expenditure on R&D (% of GDP) is low in Ireland relative to the EU15. All the Scandinavian countries score highest on this indicator and all are above 3%. The number of patents (per 100,000) is also highest for these countries. Internet use (% of population) is also less than the best performing countries. Ireland does somewhat better on the indicator capturing the number of researchers employed. Overall however, Ireland's rank of 10 out of 15 suggests that there is still considerable scope for improvement on this SDG.

SDG 9: Rank = 10

3.4 The Society Index: How Does Ireland Compare?

The Society Index score and country ranking are presented in Table 3.3. Ireland is in 10th place.

Table 3.3 The Society SDG Index – Ranking by Country

Country	Index Score	Country Rank
Denmark	77.71	1
Sweden	71.04	2
Finland	69.70	3
Netherlands	65.27	4
Austria	54.92	5
Germany	54.28	6
Belgium	50.85	7
Luxembourg	49.83	8
France	49.61	9
Ireland	46.99	10
United Kingdom	42.96	11
Italy	39.53	12
Spain	34.95	13
Portugal	33.27	14
Greece	26.18	15

Source: Authors Analysis

SDG 1 'No poverty'

We use just one indicator to capture SDG1: poverty rates after taxes and transfers. This is also the measure used by Sachs et al (2017).

On this measure, using the latest available data, Ireland is ranked 7th. The raw data suggest the poverty rate has remained high since about 2010. Denmark and Finland score the highest on this SDG.

SDG 1: Rank = 7

SDG 2 'No hunger'

Many of the official indicators under this goal are more applicable to developing countries. We use three indicators to mirror SDG2. In addition to obesity rates in the population[24] , we used an indicator on cereal yield efficiency. We also consider it important to include the sustainable nitrogen management indicator.

Ireland performs well compared to other countries on the cereal yield indicator and the sustainable nitrogen score but continues to rank poorly on obesity as a proportion of the population. The overall SDG score gives Ireland a rank of 6 of the 15 countries.

SDG 2: Rank = 6

SDG 3 'Good health and wellbeing'

Nine indicators are used in the construction of this goal including some new indicators on deaths from chronic diseases, alcohol consumption and road traffic accidents. Data on the proportion of the population that smoke (over 15 years) has also been added as a new indicator as well as an indicator that attempts to capture universal healthcare coverage.

The SDG score for Ireland puts it in the middle of the ranking suggesting mixed support for good performance on this SDG. Sweden and Netherlands score highest on health and wellbeing.

SDG 3: Rank = 8

24 Obesity indicators replace malnutrition indicators for the developed countries (Eurostat, Sachs et al, 2017).

SDG 4 'Quality education'

Ireland continues to do well on the PISA indicator. It also performs well on the indicator representing 3rd level tertiary qualifications in the population. The expected years of schooling indicator for Ireland is also in the top 3. Relative to the other countries, Ireland continues to struggle with the NEET rate which is a concern. Overall however, Ireland does well on this SDG with a rank of 3. Denmark scores highest.

SDG 4: Rank = 3

SDG 5 'Gender equality'

We include some new indicators under this SDG to give us 5 in all for this goal. We include female education as a percentage of male education and proportion of women in senior management roles. Ireland scores at the top end for the education indicator. However, indicators for both the share of women in national parliament and in senior management roles are well below the EU average and score in the bottom 3 for both indicators. Belgium and Luxembourg score highest on the wage gap indicator, while Ireland's score puts it in 10th place. Overall, Sweden, Denmark and Finland are ranked highest on gender equality. We argue there is significant room for improvement on this SDG.

SDG 5: Rank = 12

SDG 10 'Reduced inequalities'

Four indicators are used to compute this SDG. We include the Palma Index, (one of the original indicators proposed by the UN). The Palma Index is the ratio of the richest 10% of the population's share of gross national income divided by the poorest 40%'s share, and complements the GINI.

Ireland is ranked 8 out of the 15 countries on the GINI score, using latest available data and 11th on the Palma Index. Although not an official SDG indicator, we think it is important to include an indicator on household debt as a % of net disposable income. While the absolute debt level has declined over the years, it remains high and only Denmark and the Netherlands have higher levels.

Sweden, Finland and Denmark are the top ranked countries for the social justice indicator. Ireland's performance on this indicator is poor, and its score gives it a rank of 11 of 15.

SDG 10: Rank = 12

SDG 16 'Peace, justice and strong institutions'

The combined SDG 16 employs 4 indicators. We include an indicator that captures citizens' perception of feeling safe walking at night.

Ireland's corruption score is about mid-way in the rankings. The countries performing best on this indicator are Denmark, Finland and Sweden. The worst performing countries are Italy, and Greece.

Data on the prison population suggest Ireland is mid-way in the rankings relative to the other 14 countries while the lower rate of homicide helps to improve the overall ranking of this SDG. Overall, Ireland's relative ranking is 9th with Denmark and the Netherlands topping the list.

SDG 16: Rank = 9

SDG 17 'Partnership for the goals'

Ireland's performance on SDG 17 is poor. Latest data suggest the % of GNI devoted to Overseas Development Assistance (ODA) is 0.32, well below the EU average and ranked 12 of the 15 countries. Luxembourg and Sweden top the list with Greece and Portugal coming in at the bottom. If we include additional indicators on tax haven scores and financial secrecy (used by Sachs et al, 2017) the overall ranking on this goal falls to 14. Clearly, Ireland is not on target currently to achieve this SDG.

SDG 17: Rank = 14

3.5 The Environment: How Does Ireland Compare?

Country scores and rankings for the Environment Index[25] are shown in Table 3.4. Ireland's score puts it in 13th place overall.

25 We emphasise that there are fewer indicators available to us in general for each of the environment SDGs.

Table 3.4 The Environment DG Index – Ranking by Country

Country	Index Score	Country Rank
Sweden	74.82	1
Denmark	64.07	2
Portugal	61.23	3
France	59.49	4
Spain	57.01	5
Germany	55.01	6
Austria	54.14	7
United Kingdom	53.32	8
Finland	52.95	9
Belgium	49.29	10
Italy	45.38	11
Netherlands	41.47	12
Ireland	39.19	13
Greece	37.39	14
Luxembourg	26.63	15

Source: Authors Analysis

SDG 6 'Clean Water and Sanitation'

This SDG calls for universal access to safe and affordable drinking water, sanitation and hygiene. Indicators for access to improved drinking water and improved sanitation show generally that all EU15 countries do well, and there is little variability in the data. Gassert et al (2013) provide the latest available indicator on water stress, and we use it here to capture this SDG. On this measure, Ireland is ranked 10 out of the 15 countries with Austria, Denmark and Sweden achieving the highest scores. Spain and Italy are the lowest ranked countries.

SDG 6: Rank = 10

SDG 7 'Affordable and Clean Energy'

Two indicators are used to compute this SDG. Ireland's share of renewable energy, while improving over the years, is well below the best among the EU15. We combine this indicator with a measure of CO2 emissions from energy fuels combustion/elec. output (MtCO2/TWh) to arrive at the SDG score. Ireland score ranks it near the bottom.

SDG 7: Rank = 13

SDG 11 'Sustainable cities and communities'

We use 2 indicators to reflect this goal. Ireland does well on air pollution in urban areas while Sweden and Finland have the highest scores. Further, we include an indicator attempts to capture difficulty in accessing public transport (% of population). Ireland is ranked 6th overall suggesting moderate performance on this goal capturing the quality of life in our cities and communities.

SDG 11: Rank = 6

SDG 12 'Responsible consumption and production'

The three indicators used in this SDG are municipal waste generated (kg per capita), waste not treated (kg per capita), and percentage of waste water treated. Despite the raw data showing some improvement in the generation of municipal waste, when the data for all three indicators is rescaled, Ireland is ranked last on this SDG.

SDG 12: Rank = 15

SDG 13 'Climate Action'

Various indicators are used by Eurostat and the OECD to capture the objectives of this SDG, but there are still problems with data availability to capture for example, mitigation, impacts and initiatives. Given data limitations, we focus on climate mitigation. We considered both total GHG emissions per capita and CO_2 emissions as possible indicators. The data reveal that Ireland currently has the second worst performance on GHG emissions. Only Luxembourg has a worse record among the EU15. Sweden and Portugal remain the highest ranking scores using this indicator. We settle however on using the more often used $C0_2$ emissions per capita indicator, and Ireland is ranked 10th.

SDG 13 Rank = 10

SDG 14 'Life below Water'

Different indicators are again used by different bodies to reflect the objectives of this goal. Examples include protected marine sites, fish stocks, estimates of ocean health, including ocean acidity, etc. Insufficient and incomplete data remain a problem however. We decide to use the most recent available EU data on sufficiency of marine sites designated under the EU Habitats Directive as our one indicator for this SDG[26]. The data suggests Ireland is performing poorly in meeting its sustainable objectives in this area. Ireland is ranked 9th of 13 countries[27].

SDG 14 Rank = 9 (out of 13)

---

26 The indicator used in our 2017 report on protected marines from the World Bank is no longer available. Last updated was 2014.

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

SDG 15 'Life on land'

The indicator on protected terrestrial areas from the World Bank is not available since 2014. So, we settle on four indicators for this goal, two of which are taken from Hsu et al (2016), capturing the share of protected terrestrial areas and freshwater areas. Both of these indicators illustrate Ireland is doing well and is ranked among the top two for both. The third indicator reflects the share of land devoted to forestry. Latest data indicates Ireland has only 31.5% of land dedicated for forestry use, which is well below the EU peers. The overall rank on this SDG is 4.

SDG 15: Rank = 4

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

Table 3.5 shows the values and country ranking of our aggregate Sustainable Progress Index (SPI). It provides a simple and clear picture of how Ireland is currently performing on the SDGs relative to countries with similar economic development experiences. Three of the Scandinavian countries top the rankings. **Ireland's overall ranking is 11**[28]. Our results strongly suggest that Ireland faces significant challenges in meeting the development objectives enshrined in the SDGs. Further, focusing exclusively on GDP will divert policy-makers attention from action that must be taken to close the gaps in order to achieve the SDGs.

Table 3.5 The Sustainable Progress Index (SPI)

Country	Index Score	Country Rank
Sweden	78.96	1
Denmark	74.81	2
Finland	65.76	3
Netherlands	54.98	4
Germany	54.82	5
Austria	53.67	6
United Kingdom	50.96	7
France	50.71	8
Belgium	49.62	9
Ireland	44.25	10
Luxembourg	43.75	11
Spain	40.53	12
Portugal	39.76	13
Italy	35.74	14
Greece	22.92	15

Source: Authors Analysis

28 Although Sachs et al's (2017) report covers 119 countries, employs a different methodology and more extensive indicator set, a focus exclusively on the EU15 ranks Ireland also in 10th place. See Appendix A here for further details.

3.7 Summary of Ireland's Strengths and Weaknesses

Table 3.6 provides a clearer picture of how Ireland ranks on each SDG in each of the 3 dimensions; economy, society and environment.

Table 3.6 Ireland's Ranking by Dimension and by SDG

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

Source: Authors analysis

Strengths: Overall, Ireland only made the top third of rankings among the EU15 in: **Quality Education** (SDG 4); and **Life on Land** (SDG 15). These findings are not surprising, especially the education SDG: Ireland's record for quality education and skilled graduates has been well documented and it is particularly important for our international competitiveness.

Weaknesses: Ireland scores in the bottom third of the EU15 group for five SDGs: **Gender Equality** (SDG 5): **Reducing Inequality** (SDG 10); **Partnerships** (SDG 17); **Affordable and Clean Energy** (SDG 7); and comes in last for **Responsible Consumption and Production** (SDG 12). The low ranking on SDG 17 is disappointing: before 2008, Ireland was making progress towards its UN commitments in this area. Ireland has been playing catch up on the environment front since it joined the EU and still has a long way to go. It is misleading to compare Ireland's record on the environment in isolation and relative to its past performance, because this suggests that Ireland has been making progress. What is clear is that when compared to our EU peers, Ireland is either only keeping up or is falling behind on the environment SDGs.

In the Middle: Ireland's ranking is in the middle for 10 SDGs. As we suggested in Section 2, much of Ireland's improvements have just taken us back to previous levels. In order to achieve the SDG targets, Ireland must strive to go beyond the best outcomes it has achieved in the past. We emphasise that our analysis is limited by data availability, and as more indicators become available, a more complete picture will emerge. Further, the indicators are an entry point into the analysis or assessment of progress towards reaching the goals. Indicators and statistics are not reality. Good statistics reflect important parts of reality, but reality is always the lived experience of people and communities. Living in poverty is much more than a statistic or indicator: it is the struggle of those who face exclusion and marginalization, each with a different story. Good statistics and indicators can capture some of the elements of these stories.

4

Conclusions and Policy Considerations

Attempting an evidence-based approach to public policy is not without its challenges. The most recent analyses of the SDGs are attempts to generate the type of evidence required to make the best 'rational' decisions to support the central aim of the 2030 Agenda: to make the world a better place for humanity.

Several difficulties arise with gathering evidence in the social sciences. First, evidence is not as 'objective' as we believe it is in the natural sciences. Economic and social statistics are social constructions, and they are all informed and shaped by social theories. Social 'facts' only actually become so when they are categorized, which must be underpinned by a theory. For example, the system of national income accounts appears to fit quite neatly with Keynesian macroeconomic theory.[29]

Second, reality is complicated. The recent development in poverty research reflects this complexity: *multidimensional poverty measures* are now replacing income thresholds in the definition of poverty used in analyses. Prior to this, poverty was measured by either setting an income threshold (often a % of median household income) or by defining a basket of commodities necessary for basic existence and setting the price of this basket of goods as the poverty line. Of course, poverty is a relative reality, based on a person's relative position. But also, poverty is an absolute reality independent of social or historical context. Amartya Sen has attempted to reconcile these two approaches with his capabilities approach. He argues that money or commodities do not provide for an individual's well-being, but instead they provide the capabilities for satisfying their needs:

29 Richard Stone, we should note, worked as an assistant to Keynes.

> "At the risk of oversimplification, I would like to say that poverty is an absolute notion in the space of capabilities but very often it will take a relative form in the space of commodities or characteristics" (Sen, 1983, p.161).

Sen's work provides much of the theoretical foundations for the SDGs (and the earlier MDGs).

Complexity and context is apparent in our analysis. Our estimate of SDG 1 is a useful example (measured at the 50% line). The results show that poverty has displayed a downward trend in recent years, falling from 30.3% in 2012 to 24.2 in 2016 (a decline of 20.1%). If we look at the trend over a longer time frame however, we see that Ireland's poverty rate is still over 20% during the period when Ireland experienced high growth rates and near full employment (two macroeconomic factors that should lead to significantly reduced poverty rates)[30]. Ireland's poverty rate is ranked 11th of the EU15, and is higher than the Euro zone average. The Social Justice Index shows a year to year improvement but remains below its 2008 score and at the lower end of EU15 rankings (11th).

The complexity (multidimensional aspect) of poverty is apparent in a recent ESRI[31] analysis of poverty rates in Europe. The report focuses on high-risk groups and examines their outcomes over an extended time period (before, during and after the recent recession). Further, countries are grouped by the type of economic/social regimes (Social Democratic; Corporatist; Liberal; and Southern) to explore if different approaches to economic policy led to different outcomes. The results indicate that people in poverty are not homogenous; some groups face more barriers than others, and different government policy regimes also lead to different outcomes. Ireland follows a Liberal regime, which relies more on markets forces, and means-tested and targeted programs. The results indicate that the more universalist approach (social democratic) tends to have better outcomes. Two high-risk groups (lone parents and disabled adults) face significant barriers to employment, and thus require greater support (such as access to affordable childcare and flexible work arrangements for lone parents).

Our motivation in this study has been to use the SDGs to analyse Ireland's performance in a way that highlights the complexity and context of 'progress' and align in so far as possible with the official process of the United Nations. There is merit in each country monitoring its own progress on the SDGs. In commenting on the Sachs et al (2017) SDG Index, Klaus Schwab,

---

30 It is important to point out that when the country experiences a recession, and there is a fall in household incomes, the 50% (or any other) threshold will likely undercount the numbers of people living in poverty, especially if the fall in incomes in greater than the fall in prices. If incomes are falling and prices remain the same, more people will be struggling, but the threshold line will decline, leading to a lower number of people below the threshold.

31 Watson et al (2018).

Chairperson of the World Economic Forum noted, "we must continually measure progress on the ground, at local, national and international levels" (Sachs et al, 2017, p. 4). Good data and analysis are critical to ensuring the SDGs become useful tools to support policy-making.

The goal of our composite SPI is not to name and shame. It is to provide an indication of the state of play, help raise awareness of the 2030 Agenda and encourage policy action. We provide a report card that track Ireland's performance: (1) over time; and (2) compared to its EU15 peers. Our results indicate that Ireland's overall position on the SDGs relative to its peers is not impressive.

One aspect underpinning Ireland's performance is the recession which was a factor in eroding years of progress. This should remind us that most social outcomes are *flow* variables. These *flows* either add to or subtract from the *stock* of capital (financial, manufactured, social and human) and it is the *stock* of capital that largely determines a country's capacity to produce outcomes. Transportation is a good example. A strong economy needs efficient transportation to move people and goods around (roads, bridges, railways, etc.). If sufficient resources are not invested in maintaining these assets, they will start to breakdown, causing disruptions in the movement of people and goods, which will eventually lower the flow of output. The interaction between 'stocks' and 'flows' creates a slow process of improvement or decline. Often, society must invest in people for many years before the positive effects of these investments affect the indicators (increased participation in the economy and society). The large *stock* of greenhouse gases, built up over two centuries of increasing *flows* of CO_2 and other greenhouse gases, will take decades of reduced flows to reduce, if the stock is to return to levels which will not harm the planet. The slow return to prerecession levels suggests that Ireland needs to invest more, especially in human and social capital.

4.1 Data Limitations

Part of the commitment to improving social, economic and environmental outcomes is a commitment to the collection and collation of data so that progress can be identified and tracked. While data on health and education ensures we can use at least 4 indicators per goal, data for some SDGs is covered in a very limited way. This is particularly so for SDGs relating to the environment, some of which have not been updated or have insufficient coverage for every country. While some of the SDG indicators will never be produced as regularly, as for example, labour market statistics (which are often produced monthly), Ireland should be able to match other EU countries in this regard. Ireland is not alone among the developed countries in struggling with implementing the full range of SDG indicators. The number of indicators can be a bit overwhelming, especially if breakdowns by gender and age need to be considered. All countries face challenges, even the best ranked performers in the SPI. Yet, as we argued at the beginning of this report: if it counts, we must count it.

4.2 Policy Considerations

If the moral arc of history is bent towards justice, then a good part of the gravitational force is provided by values based on the common-good and evidence-based public policy. An accurate understanding of the current reality and a vision of how to improve reality by making it more inclusive is crucial. Evidence without a vision would be pointless and depressing, for there would be no hope or direction; and a vision without evidence becomes merely a harmless day-dream or a lived nightmare. The 2030 Agenda for Sustainable Development attempts to bring together both forces: a vision of a sustainable banquet where everyone has a seat at the table and evidence-based recipes so that there is sufficient food for all. In this context, we believe the following proposals should be considered.

1. The measurement of Ireland's **economic growth** by GDP and other traditional measures is seriously problematic and provides a false picture of Ireland's reality. The economic-only approach only works if environmental costs can be ignored (or shifted elsewhere), and those who are excluded are ignored. Of course, measuring economic activity (and the National Accounts) accurately is necessary for effective macroeconomic policy-making. The CSO has recently developed a 'modified GNI' measure which sets out to correct some of the deficiencies in current measures that are particular to Ireland. However, the general issues with the National Income Accounts (not accounting for non-paid work, environmental costs, benefits of leisure, etc.) are still not addressed.
2. Sustainable development starts with a sustainable environment. There is always a temptation to be a free-rider when it comes to public goods like clean air and water, and this is more so in terms of averting climate change. Although, Ireland's share of **renewable energy** has increased, it remains well below the EU-15 average. Steps need to be taken to bridge this gap. Further, Ireland's **CO2 emissions** (per capita) rose by approx. 300% from 1960 to 2001 but have fallen by approx. 35% since. Moderate progress has been made on this indicator made but substantially more needs to be done to reach global commitments in this area.
3. Families and communities are an important part of a sustainable society. Ireland needs to recognise that it has a structural **poverty** problem which will not be fixed by economic growth alone. Ireland's anti-poverty initiatives and strategies should be firmly based on this fact.

4. A society and economy cannot reach 100% of its potential if it excludes 50% of its population for full participation solely based on their gender, or which excludes other groups. While Ireland's **gender equality** has been improving, there are still many aspects of this issue where Ireland falls well below the EU average. Eliminating the gender pay-gap should be a priority.
5. A balance on **regional development** is necessary; protection of rural communities is important and this issue must be given more consideration at policy level.
6. The **education** indicators paint Ireland in a positive light relative to the EU15. However, youths not in employment, education or training (NEET), while falling, is still a cause of concern and requires additional action.
7. Ireland's **Corruption** Perception Index score has improved slightly, falling to a score of 73 in the most recent assessment. We believe that a country like Ireland should strive to be a leader on this indicator.
8. If the MDGs were the world's biggest promise, the SDGs are its biggest commitment. It is a commitment that goes beyond boarders and national self-interest. One very public aspect of this is SDG17. However, Ireland seems to be moving away from its commitment on '**partnership for the goals**'. Significantly increasing official development assistance and committing to reaching the UN target of 0.7% by 2025 would be a strong sign that this commitment was real and central to Government policy.
9. Along with raising the level of assistance, Ireland is in a unique position to **partner with developing countries**, having experienced a long period of colonialism, survived a major famine, felt the real economic effects of migration flows and struggled to build peace through reconciliation and inclusion. Ireland has the opportunity to enter into real partnerships with developing countries, based on shared experiences and common values.
10. The SDGs underlying the 2030 Agenda require a major change in the way we view development. Developed countries need to change their behaviour as much as the poor countries, and maybe even more so. We strongly argue that Ireland needs to continue to **gather evidence and track progress** on policies that drive outcomes in order to implement the Agenda.
11. Sustainable development also means a sustainable economy. Ireland, like many countries in the world, has experienced many economic downturns. Yet we don't often learn the lessons that such experiences

can teach us. One major lesson is to ensure countries impose strict regulations on banks and financial institutions. History teaches us that without tight supervision and control, banks and financial companies will quickly use strategies to promote their own self interests. **Stricter regulation** is required**.**

12. Political leaders and citizens need to seriously take the SDGs on board and devise practical plans on how they can be achieved. This means being able to plan for now, and for the future; both short term and long term. Ireland should **integrate the 17 SDGs into all policy-making processes** and give them the priority they require if they are to be achieved in Ireland by the target date. While initial work has been done and is welcome, mechanisms and structures to ensure this work is prioritised and sustained should be agreed by Government.

In our view, it is now unlikely that the world will achieve the limitation of temperature rises stated in the Paris Climate Accord. The world has taken too much time to take meaningful action. Many of the SDG targets will have to be adjusted and we will have to quicken the pace of change. The longer we delay in responding to these challenges, the more dramatic and painful the changes will be. As John Maynard Keynes noted, the difficulty is not in learning or accepting new ideas, but in escaping from the old ideas. We argue that escaping from the market/GDP/economic growth mindset that prevents us from seeing social well-being in its totality is critical to make significant progress on the 2030 Agenda. We hope this report promote a broader understanding of the issues Ireland (and the world) faces, and we hope it will facilitate a more open and honest discourse on these issues.

5

Appendices

Appendix A: A Brief Overview of 4 Recent and Relevant Reports

The definition of sustainable development was first considered by the United Nations (UN) Commission on Environment and Development in 1987. The 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs) were adopted by the UN in 2015 to outline the global efforts made towards achieving sustainable development. This documentation is based on 169 indicators from a global indicator framework. Some recent reports published in 2017 illustrate the continued development in SDG analyses and specifically, analyses that seek to monitor country progress. Here we provide a brief overview of these recent reports which are:

- SDG Index and Dashboards (Sachs et al, 2017);
- Eurostat (2017) Sustainable development in the European Union;
- OECD (2017) Better Life Report; and,
- OECD (2017) Measuring Distance to the SDG Targets.

A1. SDG Index and Dashboards

As previously mentioned, the UN adopted the 2030 Agenda and 17 SDGs in 2015. The UN Statistics Commission has over 230 official indicators but data is not available for all indicators in every UN member state. Therefore, the Sustainable Development Solutions Network (SDSN) and Bertelsmann Stiftung focus on the data available and in 2016, published the 1st unofficial SDG Index and Dashboards. In November 2017, the SDG Index was updated and revised and country specific dashboards were developed. The report includes new indicators, new data and updated methodology. For the first time, it has incorporated countries' global responsibilities and international spill over effects in achieving the SDGs. The spill over effects from the production and consumption of goods and services by one country can have a positive or negative impact on another country. Economists refer to these spill over effects as externalities. The difficulty

with these externalities is getting an accurate measurement which has yet to be fully completed. Therefore, focus is now being placed on identifying how these externalities can be internalised in an economy. Besides adding spill over indicators, it also considers the 'global commons' which include the monitoring of common areas such as high seas, oceans and the atmosphere. It aims to reduce the misuses of these global commons. Due to adding new data and indicators, the 2017 scores and rankings are not comparable with the 2016 results (Sachs et al, 2017, p.9).

In terms of the country dashboard, Ireland's SDG Index score is 77.9 (100 being the best outcome) with an SDG global rank of 19 out of 157 countries. Ireland scores highly on GDP per capita (7/153 countries) and the Human Development Index 2016 (8/157 countries) when compared with other economies. Ireland performs relatively well on SDG 1 and SDG 3 (some of the indicators are more appropriate to the developing countries) as indicated in Figure A1. 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, 2017).

In Table A1, we rank the EU15 countries by the SDG scores from this report. There is little difference between the arithmetic mean and the geometric mean ranking. Ireland's overall ranking is 10 out of the 15 European countries.

Figure A1 Ireland's SDG Dashboard

Source: Sachs et al, (2017, p. 102).

Table A1 OECD SDG Dashboard - Country Rank

Country	SDG Index RANK (Arithmetic Mean)	SDG Index RANK (Geo Mean)
Sweden	1	1
Denmark	2	3
Finland	3	2
Germany	4	5
Austria	5	4
France	6	6
Belgium	7	7
Netherlands	8	8
United Kingdom	9	9
Ireland	10	10
Spain	11	11
Portugal	12	13
Italy	13	12
Luxembourg	14	14
Greece	15	15

Source: Extracted from Sachs et al (2017), Table 1.5.

A2. Sustainable Development in the European Union - Eurostat Report

The European Union (EU) has adopted the first statistical overview of trends relating to the SDGs in the EU. Eurostat published *Sustainable development in the European Union – 2017 monitoring report of the progress towards the SDGs in an EU context*. This report is the "first edition of Eurostat's future series of monitoring reports on sustainable development, which provide a quantitative assessment of progress of the EU towards the SDGs in an EU context" (Eurostat, 2017). While other reports have preceded it, this report has been a key development in terms of SDG reporting and analysis with focus placed solely on the EU. Each of the 28 Member States within the EU are responsible for implementing this framework and working towards the objective of each SDG.

The EU report adopts the 17 SDGs incorporating 100 indicators with 41 multi – purpose indicators being used within more than one theme. The indicator trends are described on the basis of a set of specific quantitative rules. All indicators are analysed accordingly to the direction and speed of change. Arrows are used to present the direction of the indicator on whether it has

moved in the desired direction or away from the sustainable development objective, as well as the speed of the movement.

Two time frames are considered: the short-term (which reviews progress over the past five years) and the long-term (depending on data availability, which reviews trends over the last fifteen years). Overall, the report concludes that the EU has made progress towards the 17 SDGs over the past five years. The improvement of goals has occurred at different paces for each SDG, ranging from moderate to significant progress. Table A2 shows the subthemes that are considered under each SDG along with the progress made by each goal towards the objective, again, over the last 5 years. The goals are ranked in terms of significant progress made, (5 SDGs) and moderate progress (8 SDGs). Progress on 4 goals was unable to be calculated due to incomplete data. It is important to emphasise that the report states that progress in a specific goal is not necessarily satisfactory for the EU (Figure A2).

Table A2 List of Indicators Included in Report

Goal	SDG	Classification of Progress
12	Responsible Consumption and Production	Significant
	- Decoupling environmental impacts from economic growth, - Energy consumption, - Waste generation and management	
7	Affordable and Clean Energy	Significant
	- Energy consumption - Energy Supply - Access to affordable energy	
15	Life on Land	Significant
	- Ecosystem status - Land degradation - Biodiversity	
11	Sustainable Cities and Communities	Significant
	- Quality of life in cities and communities - Sustainable transport - Adverse environmental impacts	
3	Good Health and Wellbeing	Significant
	- Health lives - Health determinants - Causes of death - Access to healthcare	
17	Partnership for the Goals	Moderate Progress
	- Global Partnership - Financial governance within the EU	
4	Quality Education	Moderate Progress

	- Basic education - Tertiary education - Adult education	
9	Industry, Innovation and Infrastructure	Moderate Progress
	- R&D and innovation - Sustainable transport	
5	Gender Equality	Moderate Progress
	- Gender- based violence - Education - Employment - Leadership positions	
8	Decent Work and Economic Growth	Moderate Progress
	- Sustainable economic growth - Employment - Decent work	
1	No Poverty	Moderate Progress
	- Multidimensional poverty - Basic needs	
2	Zero Hunger	Moderate Progress
	- Malnutrition - Sustainable agricultural production - Adverse impacts	
10	Reduced Inequalities	Moderate Progress
	- Inequalities by countries - Inequalities within countries - Migration and social inclusion	
6	Clean Water and Sanitation	Trend cannot be calculated
	- Sanitation - Water quality - Water use efficiency	
13	Climate Action	Trend cannot be calculated
	- Climate Mitigation - Climate Impacts - Climate initiatives	
14	Life below Water	Trend cannot be calculated
	- Marine Conservation - Sustainable fishery - Ocean health	
16	Peace, Justice and strong institutions	Trend cannot be calculated
	- Peace and personal security - Access to justice - Trust in institutions	

Source: Eurostat (2017)

Figure A2 EU progress towards the 17 SDGs

Source: Eurostat (2017)

A3. Measuring Distance to the SDG Targets - OECD

The OECD report *Measuring Distance to SDGs Targets* was updated in June 2017, and analyses the distance of 35 OECD countries from individual targets based on various indicators available in OECD databases. There are 131 indicators covering 98 targets crossing all 17 goals. The purpose of this study is to aid government planning through the development and implementation of national policies. This paper is based on an initial Pilot Study that was conducted by OECD in July 2016 but it incorporates a wider range of indicators to analyse and assess the distance of each target. The report attempts to evaluate the distance that the OECD countries need to travel to meet the sustainable objective under each goal. It concludes that on average, OECD countries are closest to reaching targets related to water, climate, biodiversity, cities, poverty and oceans. The greatest distance to travel is in terms of gender equality, education, the economy and jobs and institutions. (OECD, 2017b) However, it is important to note that due to the constraints of data availability, "the assessment indicators selected enabled only 57% of all SGD targets to be evaluated". (OECDb, 2017:11) It is recommended that in meeting the 2030 Agenda targets, countries will need to focus on additional country level indicators to meet objectives. Several countries were selected for individual analysis. Ireland was not a selected country so there are no results specific to Ireland's performance on the SDGs in the report.

A4. Better Life Report - OECD

The *How's Life? 2017* report was published in November 2017 as part of the OECD Better Life Initiative. This report analyses people's quality of life and social aspects in 35 OECD economies and 6 partner countries. It includes 50 indicators to analyse people's well-being, changes that have occurred since 2005 and resources for future well-being. These indicators are not specifically related to the 17 SDGs but there are some similarities to indicators used in the other reports and we feel it is important to comment here on the findings. Overall, since 2005 there has been progress made in improving the quality of people's life across OECD countries with an increase in life expectancy, and a rise in the average annual earnings but this is reflected more in some OECD economies than in others. The economic crisis of 2008 has left scars that have yet to be healed for many individuals and economies alike. The report identifies two key issues of concern: job insecurity and long term unemployment. Job insecurity has risen by a third since first measured in 2007 and long term unemployment remains higher than in 2005 (OECDa, 2017). The report notes that there is a divide in education with third level educated males having a longer life expectancy than males who did not complete education beyond upper post primary education; however educational attainment has increased over the years.

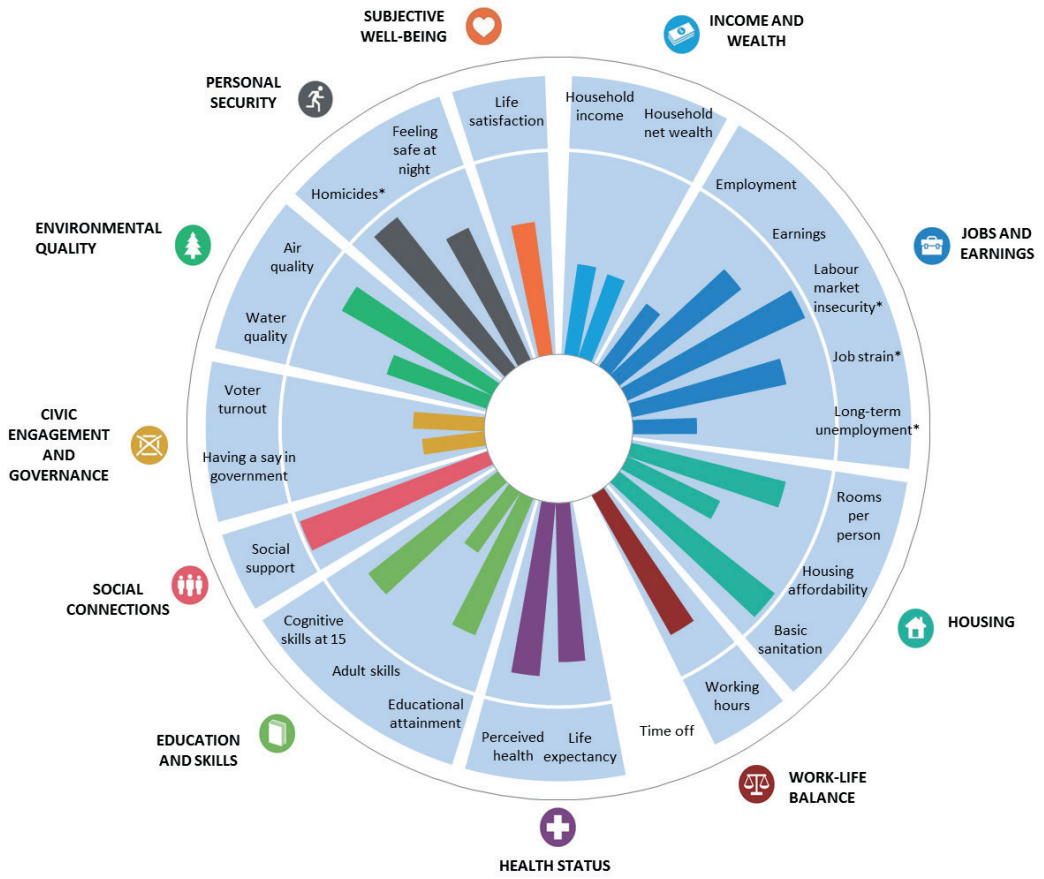
In addition, the report provides a country-by-country perspective, inclusive of Ireland and examines the strengths, challenges and changes over time. Ireland's performance spanning the different well-being dimensions is considered mixed. Social support is a main area of strength for the economy as it above the EU average and its trend over the last ten years reflects little or no change. Income and wealth have changed over the last decade but since 2014, income is improving with average earnings being among the highest in the OECD by 2015 ($52,000 in Ireland as opposed to an EU average of $44,000), as similarly mentioned in the OECD Dashboard and Eurostat reports. Housing conditions, health status, personal security and environmental quality are considered as generally good while, in contrast, civic engagement and governance is an area of relative weakness. Over the last decade, civic engagement has deteriorated with voter turnout falling by 2.4% (OECDa, 2017: 251). Similar to the OECD countries, Ireland's educational attainment since 2014 has improved. Figure A3 provides an overview of Ireland's current well- being performance.

Ireland's future well-being was reviewed under four resources and numerous indicators: natural capital, human capital, economic capital and social capital. The human resource indicator is considered to be performing in the top OECD tier, due to young education attainment improving over time, educational expectancy and cognitive skills at the age of 15, while in contrast, adult skills and long-term unemployment is deteriorating over time.

In terms of economic capital, there has been an improvement in gross fixed capital investment and investment in R&D. Social capital performs in the top OECD tier in terms of trust in the

police and the government while, natural capital is predominantly in the middle OECD tier due to renewable freshwater, forest area, and environmental factors.

Figure A3 Ireland's Average Level of Wellbeing



Source: OECD (2017a, p. 250)

6

References

Bruni, L. and P. L. Porta (2005), *Economics and Happiness: Framing the Analysis*, Oxford: Oxford University Press.

Clark, C.M.A. and C. Kavanagh, (1996), "Progress, Values and Economic Indicators" *Progress, Values and Public Policy*, , pp. 60-92, edited by B. Reynolds and S. Healy, Dublin: CORI.

Clark, C.M.A. and C. Kavanagh (2017) *Sustainable Progress Index 2017,* Dublin: Social Justice Ireland.

Clarke, N. (2001), *The One and the Many*, South Bend, IN: University of Notre Dame Press

Danner, P. J. (1974), "Personal Values and the Anguish of Affluence", *Review of Social Economy*, Vol. 32, No. 1, April, pp. 16-31.

Douglas, M. and B. Isherwood (1979), *The World of Goods,* London: Routledge.

Eurostat (2017), *Sustainable Development in the European Union: Overview of Progress Towards the SDGs in and EU Context*, Luxembourg: European Union.

Eurostat. Data accessed at http://ec.europa.eu/eurostat/data/database

Gassert, F. Reig, P., Luo, T., and Maddocks, A. (2013), Aqueduct Country and River Basin Rankings: a Weighted Aggregate of Spatially Distinct Hydrological Indicators, Working Paper, Washington DC: World Resources Institute.

Fortune Magazine, 2017, http://fortune.com/2017/11/17/richest-country-in-the-world/

Galbraith, J. K. (1958), *The Affluent Society*, Boston: Houghton Mifflin.

Gallup, (2016), *Gallup World Poll*, Gallup.

GBD, (2016), Measuring the Health Related Sustainable Development Goals in 188 Countries: a Baseline Analysis from the Global Burden of Disease Study, 2015, available at: http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(16)31467-2/abstract

Hsu, A, et al, (2016), *The 2016 Environmental Performance Index*, New Haven: Yale Centre for Environmental Law and Policy.

IEA (2016), *CO_2 Emissions from Fuel Combustion*, Paris: International Energy Agency.

ITU (2017), World Telecommunications/ICT Indicators, https://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx

Keating, W. 2000, "Measuring the Economy - Problems and Prospects", *Journal of the Statistical and Social Inquiry Society of Ireland,* Vol. XXX.

Keynes, J. M. (1936), *The General Theory of Employment Interest and Money,* New York: Harcourt, Brace and World.

Lane, R. E. (2001), *The Loss of Happiness in Market Democracies*, New Haven: Yale University Press.

Lebow, V. (1955), 'Price Competition in 1955', *Journal of Retailing*, Spring.

Maddion Historical Statistics: https://www.rug.nl/ggdc/historicaldevelopment/maddison/

Nordhaus, W. and Tobin, J. (1972), *Is Growth Obsolete?* Cambridge, M.A.: National Bureau of Economic Research.

Okun, A. (1974), *Equality and Efficiency: The Big Trade-off*, Washington: Brookings.

OECD, Data accessed at https://data.oecd.org/

OECD, (2001), *The Well-being of Nations: The Role of Human and Social Capital*, Paris: OECD.

OECD, (2017a). *Better Life Report,* Paris: OECD.

OECD, (2017b). *Measuring Distance to the SDGs Targets: A Pilot Assessment of where OECD Countries Stand,* Paris: OECD.

Oxfam, (2016), Tax Battles: *The Dangerous Global Race to the Bottom on Corporation Tax*, Oxford: Oxfam.

Sachs, J. S. et al (2016), *SDG Index and Dashboards Global Report,* New York: Bertelsmann Stiftung and Sustainable Development Solutions Network (SDSN).

Sachs, J. S. et al (2017), *SDG Index and Dashboards Global Report,* New York: Bertelsmann Stiftung and Sustainable Development Solutions Network (SDSN).

Schraad-Tischeler, D. and Schiller, D. (2017), *Social Justice Index Report: Social Inclusion Monitor Europe,* Berlin: Bertelsmann Stiftung.

Scitovsky, T. (1992) [1976]. *The Joyless Economy,* Oxford: Oxford University Press.

Social Inclusion Monitor Report (2016), https://www.bertelsmann-stiftung.de/en/publications/publication/did/social-justice-in-the-eu-index-report-2016/

Sustainable Development Solutions Network, (2016), *Preliminary Sustainable Development (SDG) Index and Dashboard*, Working Paper, February 15: available at http://unsdsn.org/resources/publications/sdg-index/

Segarra, L. M. (2017), "These are the Richest Countries in the World" *Fortune*, November 17, http://fortune.com/2017/11/17/richest-country-in-the-world/

Smith, A. (1976) [1776], *An Inquiry into the Nature and Causes of the Wealth of Nations*, Oxford: Oxford University Press.

Stapleford, T. (2009), *The Cost of Living in America: A Political History of Economic Statistics, 1880-2000,* New York: Cambridge University Press.

Stiglitz, J. E., Sen, A. and Fitoussi, JP. (2009), *Report by the Commission on the measurement of economic performance and social progress*, Paris: OECD.

Tax Justice Network (2015), *Financial Secrecy Index 2015*, London: Tax Justice Network.

Transparency International (2016), *Corruption Perception Index,* Berlin: Transparency International.

UNDP. Data accessed at http://hdr.undp.org/en/data

UN, (2008), SNA, 2008, New York: United Nations.

UN, (1993), SNA, 1993 New York: United Nations.

UN, (1953), SNA, 1953, New York: United Nations.

UN Statistics Division (2017), SDG Indicators and Targets, available at http://unstats.un.org/sdgs/indicators/indicators-list/

Veblen, T. (1899), *The Theory of the Leisure Class,* New York: Macmillan.

Watson, D. et al (2018*), Poverty Dynamics of Social Risk Groups in the EU: An Analysis of the EU Statistics on Income and Living Conditions, 2005 to 2014*, Dublin: Economic and Social Research Institute.

WHO. Data accessed at http://www.who.int/gho/database/en/

Wiedmann, T. O. et al. (2015), "The Material Footprint of Nations", *Proceedings of the National Academy of Sciences,* 112 (20), pp. 6271-6276.

Wilkinson, R. and Pickett, K. (2009), *The Spirit Level*: *Why More Equal Societies Almost Always Do Better*, Penguin.

World Bank. Data accessed at http://data.worldbank.org/

Zhang Q. and Davidson, E. (2016), *Sustainable Nitrogen Management Index* (SNMI), University of Maryland Centre for Enviromental Science.

SOCIAL JUSTICE IRELAND

working to build a just society

Social Justice Ireland
Arena House
Arena Road
Sandyford
Dublin D18 V8P6
Ireland
www.socialjustice.ie
Tel: 01- 2130724
e-mail: secretary@socialjustice.ie

€15

ISBN 978-1-907501-20-3

9 781907 501203 >