
1. Social Progress in Ireland

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a) Introduction

In 1996 we suggested that Ireland, along with other developed countries, had experienced a decoupling “between economic reality and the appearance of economic reality” (Clark and Kavanagh, 1996, p. 60). We think most would agree that the past 19 years confirms our assertion. The rise of the Celtic Tiger economy brought Ireland’s per capita income to among the highest in Europe, while Ireland’s social health felt like it remained one of Europe’s “four poor relatives.” Now more than ever, Irish citizens and policy makers need to go beyond the narrow “economic growth will solve all problems” approach that fueled the Celtic Tiger economy while distracting policy makers from the real purpose of economic policy: improving societal well-being. Sometimes economic growth is an effective means to improving people’s lives, yet sometimes it becomes decoupled from improving well-being. Economic growth can mean more incomes, more jobs, and more housing, but it can also mean more income for the very rich, more jobs that do not pay a living wage, and more debt. Rising inequality and hidden and ignored environmental and social costs can mask the reality behind the headline statistics of economic growth. Furthermore, much of the economic growth can be just a transfer from the middle to the top, and in terms of environmental impacts, from the present to the future. In any case, citizens and policy makers need more information to guide economic and social policy than GDP and Stock Market indicators.

Nearly two decades ago we proposed an additional metric to add to the mix of economic and social indicators used to inform public policy discussions. Our goal was to show that alternatives to the ‘GDP only’ approach was possible. With limited resources we were able to develop a Social Progress Index for Ireland. Compared with GDP and the ISEQ (Irish Stock Exchange Index), we argued that our SPI better reflected how the average person and family were doing in Ireland. Furthermore, it included factors that more directly reflected the quality of life. We are updating the SPI here to add to

the public discourse on Ireland's economic and social future. We have also constructed an index based on the United Nations newly developed *Sustainable Development Goal Indicators* (SDGs). While we expect the SDGs to shape policy debates on economic issues, it should be borne in mind that many SDG indicators have yet to be developed, and the overall list is still being negotiated; hence our results here are just to illustrate what might be possible. It is also worth noting that these indexes are designed and presented as an entry into the political discourse and not as the statistical "smoking gun" to end a debate. This is not a social policy version of the "index to rule them all."

Since 1996 there has been growing interest in alternative measures of economic and social well-being, as well as many efforts to construct social progress indicators: both aggregate and individual. Many countries have developed official or semi-official social progress indicators. Leading international organizations like the Organization for Economic Cooperation and Development (OECD), many think-tanks organizations, and even the *Economist* newspaper, have constructed alternative measures. The fairly comprehensive study on well-being in Ireland, *Well-being Matters: A Social Report for Ireland* (2009) by the National Economic & Social Council (NESC) also calls for the need to go beyond GDP and to make improving social health outcomes a direct goal of policy. These efforts add to public knowledge and each presents a different perspective on many important issues. Many aggregate indicators (like the *Human Development Index* or the *Economist's Quality-of-Life Index*) are designed to facilitate comparisons between countries. Such comparisons are indeed useful for benchmarking many Irish policies and outcomes. For such comparisons it is useful to follow a "dashboard of indicators" approach found in the OECD *How's Life* report. This is not the case with our indexes. Our indexes are designed to show how Ireland is doing based on how Ireland has performed in the past. Each indicator is valued based on the best Ireland has ever achieved (100), so that values under 100 tell us that Ireland has done better at some time, and could likely achieve the better performance again. However, this does not tell us how Ireland is doing relative to other countries.

b) Purpose of Indicators

All indicators are what their names suggest: they indicate information about something that is of interest. They are not the phenomena, but instead a representation that provides information we can use to evaluate the phenomena. It is useful to illustrate with an example many people have had experience with. A college student's GPA (grade point average) is an indicator of student performance. The student's GPA tells us many things about them, but it certainly doesn't tell us everything, nor even everything about their academic performance. Often a student's GPA is used as a measure of their intelligence, their work effort or how much they have learned. If one was evaluating a student, it is reasonable to include their GPA as a metric, but it would not be reasonable to only use their GPA to evaluate them. This is even more important if we were evaluating a group of students, or academic programmes. It is essential to know the limits of any indicator.

Good indicators help us to see aspects of the problems real people face. The rate of unemployment is an indicator designed to show the health of the labour market, specifically, the difficulty or ease at which people can find paid employment.¹ Difficulty with finding paid employment is a serious issue in societies where social participation is greatly determined by one's job. It is important for policy makers and citizens to have information on how many people cannot find paid employment so that they can assess the success of current policies and debate future measures. In most countries, the unemployment rate is one of the most reported and debated economic statistics.

Over the long run the unemployment rate gives important information on the 'jobs market', but it can occasionally be misleading. For many countries the unemployment rate is calculated by dividing the number of officially unemployed (people without a job but who are looking for work) by the total labour supply (the employed plus the unemployed). The unemployment rate is different from the problem of people not being able to find paid employment, because some people flow in and out of the categories and not just between employment and unemployment. It is possible that an

¹ We should remember that there is not a labour market in the sense that all workers are competing against each other, with the quantity supply and quantity demand for labour being brought into equality by a market clearing price (wage rate). This false understanding of labour, which at root is based on the view that workers are merely commodities, has led to many harmful policies.

improving situation for workers will occasionally generate an increase in the unemployment rate as more people start looking for jobs (for example, people who were previously classified as discouraged workers become more optimistic about their chances of finding a job), thus increasing the number of people who are now counted as looking for employment. Similarly a drop in the unemployment rate could be due to potential workers becoming discouraged by the lack of job prospects, deciding to stop looking for a job (they are thus no longer classified as unemployed). Changes in the unemployment rate should lead us to look closer at what is happening in the lives of the people involved. We should never treat economic statistics as if they are the reality. The final goal is not a low official unemployment rate, but real people being able to find good jobs.

Both the aggregate indexes presented here are combinations of many individual indicators. Many argue that it is better to present all the individual indicators and not to combine them into an aggregate index. We certainly do not suggest that our aggregate indexes are a substitute for the individual indicators, nor do we suggest that our aggregate indicators should be used as the final measure of the state of Irish society and economy. Rather they are designed to guide people to the individual indicators. We believe it is helpful to start our analysis with an aggregate index which acts like the body's temperature in a medical exam; as the beginning of an exam, not as the entire analysis. As an indicator of overall social health, specifically the trend in social progress, the SPI gives us the first clue as to how Ireland is doing. But just as no doctor would stop after taking a patient's temperature, no policy analyst should only use an aggregate measure (including GDP). As our indexes are designed to measure Ireland's progress based on how Ireland had performed in the past, changes in our index will reflect changes in Ireland's social health. At the risk of being repetitive, they are designed to start the diagnostic effort, not to be the culmination of it.

In measuring social progress, it would be wise to follow Pope Francis recent advice: "The number and complexity of the problems require that we possess technical instruments of verification. But this involves two risks. We can rest content with the bureaucratic exercise of drawing up long lists of good proposals – goals, objectives and statistics – or we can think that a single theoretical and aprioristic solution will provide an answer to all the challenges." (Address to UN, 2015). Too often, economic and social policy has followed the latter path, following a neoliberal economic ideology that turns

GDP into an Idol, with the faith that economic growth solves all problems. We saw this clearly as government leaders ignored the unreality of Ireland's economic boom, instead banging the drum of more economic growth, and being deaf to any evidence that this growth model was not sustainable. The former pitfall is the natural tendency of international agencies, often listing goals and indicators to please competing interests and running the risk of being detached from the people they hope to help. A common criticism of the Millennium Development Goals and the Sustainable Development Goals is that they run the risk of falling into this trap.

c) Measuring Progress

For most of human history progress has been defined and measured in terms of what benefited those with power. Furthermore, progress for one group came at the expense of other groups. From the great empires of the Ancient World to the Imperialist Empires of the 19th and 20th Centuries, progress was defined as the accumulation of riches (gold) or what produced riches (land and slaves) and such empires measured their wealth in terms of real estate captured and populations controlled. An example of this is the much quoted saying from Victorian England: “[t]he sun never sets on the British Empire.”

During what we now recognize as the beginning of our current environmental crisis, little attention was paid to the negative effects of a development model based on exploitation and waste. Wealth was the universally recognized end that trumped any discussion of means. As so often happens in world history, conquest eventually turned into commerce. However, with no change in ends, and little change in means, the path of progress for the West, measured in accumulated property, peoples and profits, was also a path of destruction for the poor and the planet. For most of the world's poor, the difference between the Age of Exploration and the Industrial Revolution² consisted mainly in the increased efficiency of exploitation. We should remember that not only did the wealth made during the slave trade provide a key source of funding to invest in the factories and machinery of the Industrial Revolution, slavery was also necessary to provide the main input (cotton) for the key industry (textiles)

² John Maynard Keynes traced “the beginnings of British foreign investment to the treasure which Drake stole from Spain in 1580,” money which eventually funded the East India Company. See his essay “Economic Possibilities of our Grandchildren” (1930).

that propelled industrialization.³ In measuring economic and social progress, we should try to include all the costs and benefits, and not just focus on those who have a political, military or market voice.

The link between our environmental crisis and the well-being of the poor has often been missed. The World Bank has recently shown that “[e]nvironmental degradation, pollution, or overexploitation of natural resources hamper economic progress” (2012, p. 2) and that these present great challenges for efforts to eradicate extreme poverty. But we best see the link between the environmental crisis and poverty in the infamous ‘dirty industries’ memo by former Chief Economist for the World Bank, Lawrence Summers, who argued the economic benefits of moving high polluting industries from rich countries to less developed countries, stating: “I think the economic logic behind dumping a load of toxic waste in the lowest wage country is impeccable and we should face up to that.”⁴ Summer’s argument is as follows: the negative effects of pollution is loss of wages due to morbidity and mortality, thus we should move polluting industries to countries with the lowest wages to minimize the effects. It could be argued that this in fact is what has happened, and much of the lower pollution levels in rich countries has been merely the exporting of pollution to poor countries. The World Bank encouraged this transfer with their structural adjustment programmes, which forced poor countries to reduce programmes for the poor while encouraging these countries to export more of their natural resources. As the United Nations *Rethinking Poverty* report (2009, p. 134) noted: “[s]tructural adjustment programme-related reforms in Africa have deepened poverty, undermined food security and self-reliance and led to resource exploitation, environmental destruction and population displacement.”

The role of exclusion is well known in the process of transferring resources from one group to another, but we should also note its role in the environmental crisis. As Pope Francis (ibid) recently noted: “[t]he misuse and destruction of the environment are also accompanied by a relentless process of exclusion. In effect, a selfish and boundless thirst for power and material prosperity leads both to the misuse of available natural resources and to the exclusion of the weak and disadvantaged, ... Economic and social exclusion is a complete denial of human fraternity and a grave offense against human rights and the environment.”

³ The key role of slavery in the Industrial Revolution is convincingly argued in Edward E. Bishop’s *The Half has Never Been Told: Slavery and the Making of American Capitalism* (2014).

⁴ For the complete memo: <http://www.whirlledbank.org/ourwords/summers.html>

Including human rights and environmental effects a development framework entails a 'new paradigm' for development. This is what the United Nations is calling for in their *2030 Sustainable Development Agenda*. The Sustainable Development Goals (SDGs) are designed to reflect the new perspective on economic and social progress (human development) which looks to see development as consisting of Economic, Social and Environmental dimensions. Before we look at this 'new paradigm', it is helpful to briefly review the old paradigm (which still greatly influences public policy).

The Old Paradigm: GDP as King

Adam Smith (1776/1776) changed the focus as to what constituted the "wealth of nations" away from profits made in exchange (the view of the Mercantilist school) and towards production⁵. For Smith, the wealth of a nation consisted of the goods and services produced by the "annual labour of every nation" and the engine that promoted increases in this annual product (wealth creation) was provided by the "improvement in the productive powers of labour" and efficient allocation of investment, both of which were led by an "invisible hand" (competition) towards opportunities of mutually beneficial trade. Rather than riches for kings and merchants, Smith argued that "[c]onsumption is the sole end and purpose of all production; and the interest of the producer ought to be attended to, only so far as it may be necessary for promoting that of the consumer" (Ibid. 660), thus placing the standard of living for the average citizen as the measure of the wealth of nation. Smith's more inclusive understanding of economic and social progress should be seen as an improvement in thinking about development. While Smith promoted production to support consumption by the average person, he was very critical of what we would call 'consumerism'. In the *Theory of Moral Sentiments*, Smith tells the tale of "the poor man's son, whom heaven in its anger has visited with ambition" who places all his energies into accumulating money, and then "in the last dregs of life, his body wasted with toil and diseases, ... he begins at last to find that wealth and greatness are mere trinkets of frivolous utility" (1982, p. 181).⁶

⁵ He was following the path laid out by Richard Cantillon and the Physiocrats.

⁶ "This disposition to admire, and almost to worship, the rich and the powerful, and to despise, or, at least, to neglect persons of poor and mean condition, though necessary both to establish and to maintain the distinction of ranks and the order of society, is, at the same time, the great and most universal cause of the corruption of our moral sentiments. That wealth and greatness are often regarded with the respect and admiration which are due only to wisdom and virtue; and that the contempt, of which vice and folly are the only proper objects, is often most unjustly bestowed upon poverty and weakness, has been the complaint of moralists in all ages" (Smith, 1982, p. 61-62).

Economic progress always has to be at the service of human development. Economic growth for economic growth's sake is contrary to promoting well-being, and is a major threat to the planet.

With the rise of Keynesian economics, the welfare/warfare state, and the responsibility of national governments over macroeconomic outcomes, national income accounting systems were developed to measure economic performance, especially in a manner which could inform macroeconomic policy. Thus in theory and in practice, we get the ascent of Gross Domestic Product as the main proxy for how a country is progressing. While considerable attention is placed on GDP, its importance was based on what it represented: jobs, standards of living and happiness. While this is a more democratic and inclusive proxy for how a society is progressing than is gold supplies or lands conquered, its limitations soon became evident.

The case of economic growth as the solution to most, if not all, of society's economic and social ills, was seen as a way around the class struggle that Karl Marx saw as a necessary aspect of capitalist economies. Economic growth was the rising tide that lifted all boats, including those of the poor. Similarly, economic growth would provide the revenues which could fund government policies to address social problems that were not directly solved by economic growth. It was a way to provide for the aspirations of the newly enfranchised without forcing the economic aristocracy to reduce their wealth. It was all gain and no pain.

From the end of World War II to the 1970s, the link between well-being and GDP growth was rarely challenged, and public policy often reflected the primacy of growth in GDP as the main public policy goal. This primacy of GDP was reinforced by periodic recessions, when small reductions in GDP would cause significant hardship to large segments of the population via increases in unemployment and poverty rates. Increasing GDP was a marriage of self-interest and patriotism.

Beyond GDP

However useful GDP is for some purposes, it has become increasingly evident that there are many significant limitations to using GDP as a proxy for measuring social progress and the well-being of a society. We will not reiterate the case against GDP as a measure of social wellbeing, which is

presented in our original paper (Clark and Kavanagh, 1996), but instead we will just summarise the argument we and many others have made.⁷

- GDP is a measure of market transactions and there are many aspects of social well-being that exist outside of market relationships, and thus do not get captured by GDP.
- As a measure of market transactions, GDP does not distinguish between “good” and “bad” goods and services; that is goods and services which are helpful and those which are harmful.⁸
- Market failures, such as externalities, are the norm and not the exception, so the argument that market prices equate social and private costs and benefits is very weak.

Now that a collection of the major economic policy and statistical agencies, including the United Nations, the OECD, and the World Bank and NESC have all pointed to the need to go beyond GDP, it would appear that the tide has turned against the ‘GDP only’ approach to measuring economic and social progress.⁹

We note that the underlying weakness of using GDP as the primary measure of economic and social well-being lies in the philosophical anthropology upon which this approach rests. The assumption that human happiness (utility) is most efficiently achieved through market transactions is central to neoclassical economic theory. This view of the human person, often called ‘homoeconomicus’ or ‘rational economic man’ reduces humans to a single dimension. The Classical economists saw humans as social animals, with social institutions playing an important role in shaping behavior. Adam Smith suggested that the differences “between a philosopher and a common street porter, ... seems to arise not so much from nature, as from habit, custom, and education” (Smith 1776, p. 28-29), and John Stuart Mill argued that human nature was “extraordinarily pliable”, greatly influenced

⁷ See Coyle (2015) for a defense of GDP and Philipsen (2015) and Sen, Stiglitz, and Fitoussi (2010) for the critique.

⁸ While some economists will argue that such a distinction is an example of ‘normative’ (value laden) economics, imposing one set of values over another person, only textbook writers take the positive/normative distinction seriously anymore.

⁹ Istanbul Declaration, Measuring the Progress of Societies: OECD World Forum on Statistics, Knowledge and Policy, Istanbul, 30 June 2007.

by historical and social context. Reacting specifically to Mill, William Stanley Jevons (who was one of the pioneers of neoclassical economics) wrote: “[h]uman nature is one of the last things which can be called ‘pliable’. Granite rocks can be more easily moulded than the poor savages that hide among them” (Jevons 1890, p. 290). Moving to the contemporary era, we see this view of human nature in the Noble Prize lecture of Maurice Allais (1990, p. 6): “I have been gradually led to a twofold conviction: human psychology remains fundamentally the same at all times and in all places; and the present is determined by the past according to invariant laws. ... The social sciences must ... be based on the search for relationships and quantities invariant in time and space.”

Real humans are multidimensional, as are the economic and social processes that make up the economy. Excluding social and historical context from economic analysis has had a poor track record. If the “present is determined by the past according to invariant laws” then the financial meltdown of 2008 and the great recession would have been easy to predict (or the stagflation of the 1970s; the reduction in both unemployment and inflation in the 1980s; the lack of runaway inflation due to the high deficits and monetary growth during the 1980s; the Clinton prosperity or the high unemployment in Europe in the 1990s; the dot com bubble; the failed design of the Euro experiment; the dangers of financial deregulation; and the failure of austerity policies to create jobs). All of these major developments in the economic history of the past 50 years were not foreseen by the vast majority of mainstream economists, mostly because they fell outside of their narrow framework. So poorly has this perspective of the economy performed that even the Queen of England has asked for an explanation (Rodriquez, 2014 p.22). While all theories necessarily look at some aspects of reality while excluding others, excluding historical and social context from economic analysis (that is taking a multidimensional perspective) means excluding what makes economic activity possible and understandable (Clark 1992).¹⁰

In *The Affluent Society* (1959) John Kenneth Galbraith presented one of the earliest challenges to GDP growth as the primary goal of economic policy, linking its prominence to both the history of ideas and vested interests. Galbraith noted that scarcity has historically been one of the central organizing concepts in economic theory, leading naturally to an emphasis

¹⁰ Most of these economic surprises’ were not a surprise for the Post Keynesian Institutional school. For a review of this history, see James Galbraith (2013).

on production and output. This centrality reinforces the preeminent position of business in society. One example is how our entertainment and news industries are both organized around promoting mass consumption (being funded by advertising). It is worth noting that the free information on the internet only exists to facilitate advertising. The imbalance between private and public production, Galbraith argued, can be traced back to the emphasis on scarcity in economic thinking; the reality is that in modern capitalist systems, economies are demand, not scarcity, constrained. Over-eating and not lack of food is systematic of the problems of modern capitalist economies.

More recently the work of economist and philosopher Amartya Sen, as well as the explosion of the field of happiness and economics, has brought considerable attention to the limitations of GDP as the primary measure of economic well-being. Economists and other social scientists investigating what promotes happiness have almost universally discovered that the link between income and well-being is quite different to what neoclassical economic theory suggests. After a certain level is reached, which is typically found to be in the middle of the income spectrum, increases in income do not lead to lasting levels of higher happiness. Furthermore, the factors that most impact the level of happiness are social and not individual factors (such as friendship, family relations).¹¹

Sen's work on capabilities, as well as the field of development economics, highlighted the important role of social and historical factors, which produced a critique of economic theories of development and poverty which ignored these factors. Furthermore, the growth-only strategy promoted by developing agencies like the World Bank and the IMF in the 1960s and 70s was far from successful, and was seen by many as merely promoting the interests of the rich countries at the expense of the world's poor. As an example, it was common for the World Bank and the IMF to force "structural adjustment" policies on poor countries, forcing them to cut their health and education budgets (as well as cutting food and energy subsidies to the poor) so that they could make loan repayments to banks in rich countries for loans that they were often forced to take. Not surprisingly, this had a negative effect on the lives of the poor, often causing riots and

¹¹ For an excellent overview of both the happiness and capabilities approaches see Bruni, Comin and Pugno, (2008).

social unrest. Furthermore, it failed to promote economic growth, thus making it harder for these countries to make their loan payments. Eventually the World Bank and IMF figured out that keeping a population sick and stupid was not a good development strategy.¹²

The failure of the ‘economic growth is all that matters’ strategy, as well as Sen’s economic and philosophical analysis and Paul VI’s call for *Integral Human Development*, lead to a change first in the language of development, and eventually to measures of development, starting with the Human Development Index in 1990 and eventually leading to the Millennium Development Goals in 2000 and the current Sustainable Development Goals (2015). The growing recognition of the impact of economic progress on the environment has led to the placing of economic and social goals in the context of the environmental crisis. As Joseph Stiglitz, Amartya Sen and Jean-Paul Fitoussi (2009, p. 10) state in their report on measuring economic and social well-being:

“We know that it is impossible for the world, as we know it, to survive if current patterns of living and production continue, and even more so if they are extended to the billions in the developing world. Yet, some, even in the richest country in the world, claim that were they to change, we would pay an economic price. Clearly, our metrics are faulty: our measures should tell us that what we are doing today is not sustainable, that current consumption is at least partly at the expense of future generations; in that sense we may be living beyond our means. Better metrics would indicate higher sustainable incomes from altering patterns of consumption and production in ways that reduce emissions.”

Green Accounting and SDGs

One effort to go beyond GDP is called ‘green accounting’ or more technically ‘Systems of Environmental-Economic Accounting’. These efforts, which are following in the tradition of the *Genuine Progress Indicator* developed by Clifford Cobb for the United States, are being pushed by various United Nations agencies, in an attempt to include the

¹² We should remember that the debates over development took place in the context of the Cold War, with many anti-communists viewing any role by the state as evidence of creeping communism, and any call for social programmes was labeled Marxist. This ideological attitude was best expressed by Archbishop Hélder Câmara’s famous aphorism “When I give food to the poor, they call me a saint. When I ask why they are poor, they call me a communist.”

environmental impacts of economic activity and thus get a more complete measure of the costs and benefits of economic activity.

The Sustainable Development Goal Indicators are designed to supplement traditional economic statistics to bring social and environmental factors into any analysis of development, viewing development as including social-environmental-economic factors, with the underlying premises that development is more than just a high GDP per capita, and many important factors in development will not be measured by traditional economic measures.

Sustainable Development: From MDGs to SDGs

The Millennium Development Goals (MDGS) have been called “the world’s biggest promise” (Hulme 2007, p. 2). They are a commitment to “reduce poverty and human deprivation at historically unprecedented rates through collaborative multilateral action” (ibid.). Neither the proposed reduction in poverty nor the called for collaborative multilateral action had any precedent. No one can claim the MDGs were not bold. By establishing goals and target indicators, the MDGS became, as Bill Gates stated, a global report card for fighting poverty (Sachs, 2012, p. 2206).

The MDGs have set the development agenda, framing the issues and establishing how success would be measured. From the United Nations and International Agencies to academia and NGOs, the MDGs are an important organizing principle for establishing and carrying out development efforts and strategies. Even though the biggest contributor to the reduction in world poverty (China) seems to have been little influenced by the MDGs, we can certainly say that they have shaped how a generation of scholars, field workers and activists understand development. One critic of the MDGs has called them the Major Distracting Gimmick (Antrobus quoted in Hulme, 2009) because in framing the discussion you both set what gets included and what gets excluded (a point which we will return to below).

The MDGs are derived from two very different intellectual traditions: on the one hand, the literature on human development and on the other hand, the ‘results-based management’ (RBM) movement in public policy (Hulme 2007). The human development tradition is a reaction to the framing of development as solely an economic growth story. As we noted above, one of its earliest formulations is the call for authentic and integral human

development in Paul VI's encyclical *Populorum Progressio* (1967).¹³ The Catholic social thought tradition's formulation of integral human development has shaped Church teachings, including Pope Francis's *Laudato Si'*, as well as the Church's extensive development efforts. Paul VI stated:

“Development cannot be limited to mere economic growth. In order to be authentic, it must be complete: integral, that is, it has to promote the good of every man and of the whole man. As an eminent specialist has very rightly and emphatically declared: we do not believe in separating the economic from the human, nor development from the civilizations in which it exists. What we hold important is man, each man and each group of men, and we even include the whole of humanity” (PP, 14).

“[E]very programme, made to increase production, has, in the last analysis, no other *raison d'être* than the service of man. Such programmes should reduce inequalities, fight discrimination, free man from various types of servitude, and enable him to be the instrument of his spiritual growth. To speak of development is in effect to show as much concern for social progress as for economic growth (PP, 34).

Particularly important for the rise of human development as a framework at the United Nations has been the work of Amartya Sen, especially his analysis of capabilities¹⁴.

Human development helped to advance “the case that development strategies needed to directly pursue the goals of development, and not just the means” and that “development and poverty and poverty reduction were multidimensional” (Hulme, 2007, p. 17). RBM gave the MDGs a Business School approach popular among politicians in the 1990s. It helped to determine what was included (specifically what the World Bank had started to measure), and it “meant the MDGs avoided potentially difficult to measure goals like human rights and participation” (Ibid., 18).

¹³ For a discussion of *Populorum Progressio* and its message for economic development see C.M.A. Clark's (2012) “From the Wealth of Nations to *Populorum Progressio*” *The American Journal of Economics and Sociology*.

¹⁴ The classic work by Sen is his *Development as Freedom* (1999) which is the culmination of theories he had been developing since the 1960s.

The post-2015 discussion was shaped by the Rio+20 preparation conferences and the United Nations push for the ‘green economy’ as the new framework for development. The developing countries resisted the “green economy” framework, which they found ambiguous at best, and pushed for poverty eradication as the core concept.

While the politics and method of RBM greatly shaped the goals and especially the indicators of the MDGs, for the SDGs these two factors were on steroids. As we see in Tables 1 and 2, the growth in goals and indicators presents citizens and policy professionals with an overwhelming amount of information. Imagine your physician giving you the numerical results of pages of blood test results. The complexity of environmental indicators makes the situation even more difficult to assess (see for example, Tables 1 and 2).

Table 1: Millennium Development Goals and Number of Indicators

Millennium Development Goal	Number of Indicators
1. Eradicate extreme poverty and hunger	9
2. Achieve universal primary education	3
3. Promote gender equality and empower women	3
4. Reduce child mortality	3
5. Improve maternal health	6
6. Combat HIV/AIDS, malaria and other diseases	10
7. Ensure environmental sustainability	10
8. Develop a global partnership for development	16
Total	60

Table 2: Sustainable Development Goals and Number of Indicators

Sustainable Development Goals	March 2015 Number of Indicators*	Sept. 2015 Number of Indicators**
Goal 1. End poverty in all its forms everywhere	11	7
Goal 2. End Hunger, achieve food security and improve nutrition, and promote sustainable agriculture	23	8
Goal 3. Ensure healthy lives and promote well-being for all at all ages	49	13
Goal 4. Ensure inclusive and equitable quality education and promote life-long learning opportunities for all	18	10
Goal 5. Achieve gender equality and empower all women and girls	12	9
Goal 6. Ensure availability and sustainable management of water and sanitation for all	14	8
Goal 7. Ensure access to affordable, reliable, sustainable, and modern energy for all	7	5
Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	13	12
Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	8	8
Goal 10. Reduce inequality within and among countries	8	10
Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable	12	10
Goal 12. Ensure sustainable consumption and production patterns	11	12
Goal 13. Take urgent action to combat climate change and its impacts	6	5
Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development	14	10
Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	14	12

Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	16	12
Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development.	16	19
Total	252	169

* Indicators and a Monitoring Framework for the Sustainable Development Goals, Leadership Council of the Sustainable Development Solutions Network, March 20, 2015

** <https://sustainabledevelopment.un.org/topics>

While the SDGs are problematic for looking at development as a whole, they can be very useful for groups and countries that are focusing on a specific aspect of development. It is unclear if they have reached the stage when we can say the SDGs are a “new paradigm” and if they will help to bring a coherent strategy for promoting development, or become, as Pope Francis warned, a “bureaucratic exercise of drawing up long lists of good proposals – goals, objectives and statistics” without achieving the goal of integral human development. The “best measure and indicator of the implementation of the new *Agenda* for development will be effective, practical and immediate access, on the part of all, to essential material and spiritual goods: housing, dignified and properly remunerated employment, adequate food and drinking water; religious freedom and, more generally, spiritual freedom and education” (Pope Francis, Address to United Nations, 2015). We present the Index of Social Progress and the SDGs Index in the hope that they can facilitate political action that can help to achieve these ends.

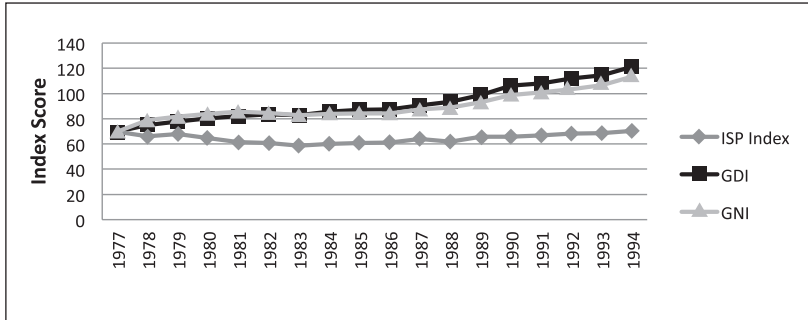
d) Index of Social Progress

We begin our analysis by developing a social progress index for Ireland. Clark and Kavanagh (1996) attempted to measure social progress in Ireland over the 1977-1994 period, by constructing an index based on the Index of Social Health (ISH) developed by the Fordham University’s Institute for Innovation and Social Policy in the United States¹⁵. The ISH is based on the Life-Cycle Approach, which emphasizes all the different stages a person

¹⁵ The Fordham index focuses on problems that affect childhood, youth, adulthood, and old age, as well as problems that affect all ages. See Table A1 in the appendix for a list of the variables used in the construction of the Fordham ISH for the US. We use similar data, where possible.

experiences in their life¹⁶. The original Index of Social Progress (ISP) is reproduced in Figure 1 below¹⁷.

Figure 1: The Original ISP Index 1977-1994



While the analysis was limited by data availability for all the 16 indicators used in the Fordham index, the results nevertheless suggested that there had been little social progress over the time horizon.

Here, we attempt to update this measure. However, we emphasise that consistent and reliable historical data is still a limiting factor in our analysis; data on social conditions is not gathered in a consistent manner over the time period. It proved impossible to extend the original index for the period 1995 to 2012. Methods of collecting data for certain key indicators have changed. That said, we use what is available, and try to again emulate the Fordham index, using similar data in so far as possible. Table 3 illustrates the variables used in constructing our ISP for Ireland.

For the period 1995-2012, the index is constructed using 14 indicators for which data is available. Although not included in the Fordham index, we argue that net migration is important in the Irish context and should be included in a measure of progress in Ireland. Over the full period, the index rises from 32.6 in 1995 to 59.8 in 2012, an annual average change of about 3.6%. This would therefore appear to be a positive improvement in social

¹⁶ The approach recognises that opportunities must be balanced with risks and that choices must be made that contribute value to our economies, our natural environments, and our communities. Everyone, from cradle to grave, has a responsibility and a role to play. On environmental issues, the Life-Cycle Approach focuses on the full production/consumption process, from natural resource extraction to eventual product use and disposal.

¹⁷ There is a difference in Figure 1 reproduced here: we use Gross Disposable Income and Gross National Income at constant market prices.

conditions, relative at least to the earlier period 1977-1994. Although clearly the indexes are measuring different things, Figure 2 shows that the ISP is lower than GDP in every year with the equivalent score for GDP in 2012 at 72.8. This is interesting in itself, given that the period covers the Celtic Tiger era and the property boom period.

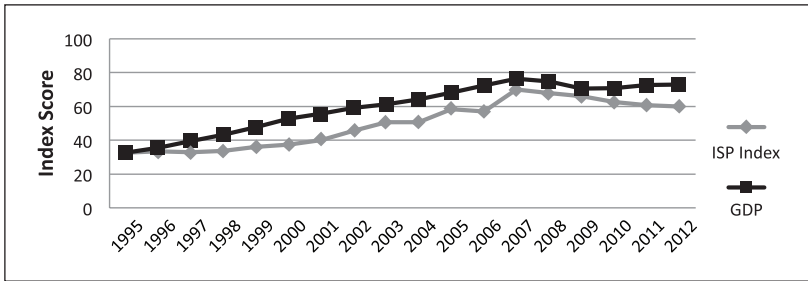
Table 3 Indicators used in the ISP

Stage of Life	Indicator
Children	Infant mortality Child poverty Children in foster care
Youth	Teenage suicide Teenage pregnancy School retention rate
Adult	Unemployment rate Average wages Alcohol consumption Drug offences
Old Aged	Poverty among the elderly Life expectancy of the over 65s
All Ages	Homicides Traffic fatalities Medical card coverage Household debt Social housing expenditure Net migration Inequality

Our ISP in Figure 2 does not include some key social indicators; child poverty, poverty among the elderly, social housing needs, and income inequality are all excluded in this period, due to lack of reliable data. It also excludes, what is probably a critical indicator for Ireland; household financial stability. House prices rose significantly over the period, impacting negatively on household debt. We argue that including some measure that attempts to capture household financial stability is imperative in any measure of progress. As a proxy measure of debt¹⁸ is available, we include it to check its impact on the index.

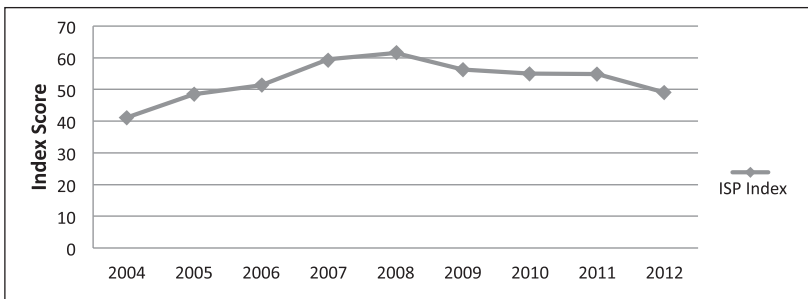
¹⁸ We use household debt as a percentage of net national income as a proxy for household debt.

Figure 2: The ISP and GDP, 1995-2012



Extending the analysis to cover these additional social indicators¹⁹ but covering a shorter time period from 2004-2012, tells an interesting story. Figure 3 shows that when we include poverty (child and elderly), low pay, drug offences, and a measure of income inequality²⁰, the social health of the country looks very different to the earlier period²¹. The index rises sharply up to 2008 and then falls from a score of just over 61 to 49 in the four years to 2012. The annual rate of growth over the shorter period using all 19 available indicators also falls to approx. 2.2%. Clearly, this is much lower than the average growth rate of GDP over the full period.

Figure 3: ISP, 2004-2012



¹⁹ We don't argue that these are the most important social indicators. Rather, they are selected on the basis of data availability and to reflect concerns of all age groups.

²⁰ We use the GINI coefficient as a measure of income inequality.

²¹ This shorter period is used for a longer list of indicators for which data is available.

Key Trends

What is driving the performance of the ISP? The performance of the indicators since 1995 shows the following pattern.

Indicators that have **improved** from 1995-2012 are as follows.

- Life expectancy of the elderly, road traffic deaths, teenage pregnancy, infant mortality, school retention rates.

Indicators that have **worsened** since 1995 are as follows.

- Children in foster care, medical card coverage, household debt.

Some indicators have a more variable pattern.

- Net migration has worsened since 2009, following the financial crisis.
- Public expenditure on social housing has fallen dramatically, from a peak year in 2007.
- Unemployment rose significantly from 2008, peaking in 2012, although it has fallen back since then.
- Teenage suicide²² and alcohol consumption show no obvious trend, but drug offences have increased dramatically since 2003, peaking in 2008.
- Although available only for the short period, the low pay indicator reached its worse year in 2012, with its best year in 2005.
- Poverty rates vary²³, generally, slightly worse for children and better for the elderly by 2012.

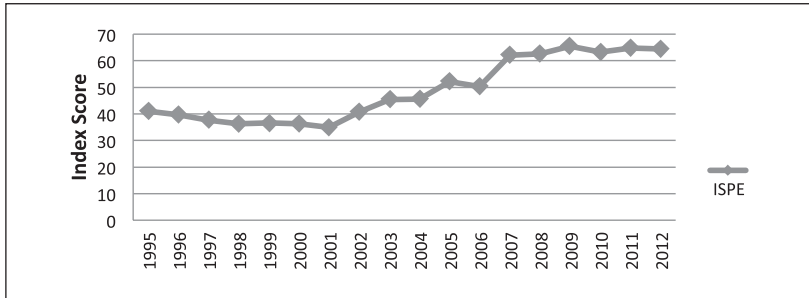
As we are interested in sustainability, we experiment with adding some key environment indicators to the ISP. Integrating environment-related data with the ISP makes the index more inclusive and permits aligning the social index with aspects of sustainable development. However, the environment is wide-ranging and covers many diverse domains; here we include measures for which some consistent data is available for the initial period, 1995-2012:

²² We experimented with using the overall suicide rate rather than just teen suicide. The change to the index was minor: including teen suicide rates rather than adult suicide rates lowers the overall ISP a little. We follow the Fordham argument and use it here as an indicator of youth social progress.

²³ We use consistent poverty rates in our index here to reflect the most serious aspect of poverty among the respective age groups.

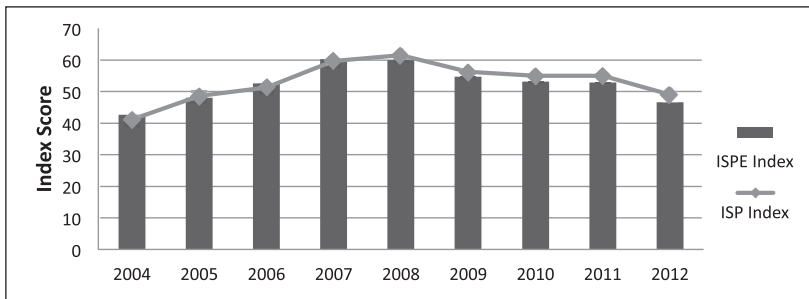
greenhouse gas emissions, energy consumption and waste generation per capita. Inclusion of these indicators impacts on the results, as can be seen in Figure 4. The value of the ISPE (the ISP with environment indicators) shows an upward trend (but is lower than GDP) and appears to stagnate from about 2007; the value of the index increases from 62 in 2007 to reach 64.4 in 2012.

Figure 4: ISPE, 1995-2012



As a final experiment, we include all 22 indicators for which data is available to construct an ISPE for 2004-2012. Although a shorter time period, the index is perhaps a better more rounded measure of progress incorporating both social and environmental indicators. Figure 5 shows the ISPE over the period is generally lower than the ISP. The index value falls to just 46.5 by 2012, indicating a lower average annual growth rate of 1.1% over the 8 year period. This in itself indicates the unusual relationship between GDP and the ISPE constructed here.

Figure 5: ISP and ISPE, 2004-2012



e) SDG Index for Ireland

The SDG Index is an average across three dimensions: the economy, environment and society weighted equally. Each index is made up of a number of indicators, scored from 0 to 100. Just like the ISP, higher scores mean higher progress, and lower the reverse. The scaling of the index allows the tracking of absolute performance compared across time, rather than using abstract relative measures. The index is not meant to compare performance across countries.

Three caveats to the construction of our SDG index here are worth mentioning.

- In constructing our measure of an SDG index, we use data from the lead agencies suggested by the UN²⁴. One could argue (as many indeed have) that more (or even alternative) indicators should be part of an SDG. But for now, we draw on what has been suggested by the UN.
- We only use data that is available for either the 1995-2012 period, or for the shorter period, 2004-2012. For example, clearly indicators such as the gender wage gap, and a measure of corruption should be included in a measure of progress, but lack of a data series for Ireland prevents them being included here.
- Although we construct an SDG for the shorter time period, these results must be viewed with caution. Measures of progress, by their nature, require a relatively long time period in order to track change; an 8 year period, while having the benefit of allowing us to include more indicators, will only reflect changes over that short time horizon.
- Some of the indicators could arguably feature in either the economy index or the society index.

The Economy Index

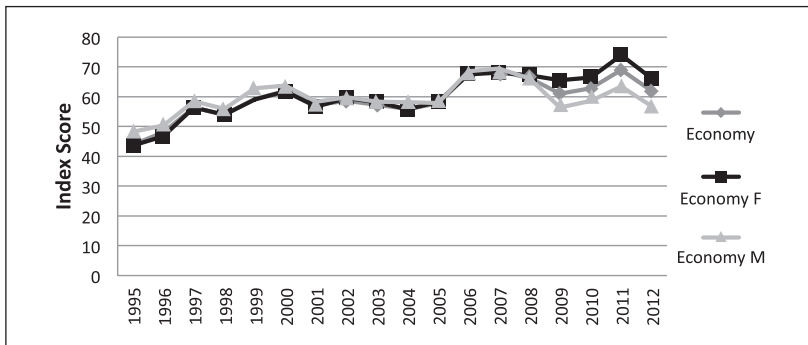
For the period 1995 to 2012, the economy index includes a combination of 9 indicators to reflect economic activity. Figure 6 shows the trend in the economy index for the total population, males only and females only. The

²⁴ UN, (2015) *Indicators and a Monitoring Framework for the Sustainable Development Goals*, Leadership Council of the Sustainable Development Solutions Network, March 20, 2015

value of the index rises throughout the period, from approx. 43.8 to 62 for the total population. It is interesting to see that males appear to have fared worse than females, particularly since 2009; the index value for males reaches 56.8 by 2012 while for females, it is 66.2. Key trends in the index are as follows.

- The risk of poverty measure reached its peak year in 2001 and has declined steadily since.
- Youth unemployment has increased significantly over the period 2008 to 2012.
- The employment rate has fallen relative to its peak in 2007
- GNI increased year on year to 2008 but has seen a fall to 2012.
- NET ODI increased up to its peak year of 2008, but has fallen back since then.
- GDP spent on R&D has hovered at between 1% and 1.5% of GDP, reaching its lowest year in 2001 and although it has recovered, it is still below the EU average.
- ICT investment as a proportion of Gross Fixed Capital Formation has fluctuated throughout the period, but reached its best year in 2012.

Figure 6: The Economy Index, 1995-2012



The Environment Story

Our environment index for 1995-2012 is constructed using 8 indicators for which data is available. The overall pattern is one of improvement in many of these indicators.

- Greenhouse gas emissions peaked in 2001 but have fallen since then, although at least some of the improvement is obviously due to the fall in production since the recession²⁵.
- There is little evidence of change in both the water and sanitation measures²⁶, reflecting the fact that Ireland already scores high on these indicators.
- Indicators for both the proportion of land covered by forestry²⁷ (%) and protected terrestrial and marine areas (%) also observed rises over the period.
- The indicator capturing energy use peaked in 2001, remaining at a similarly high level for many years, but has fallen since 2007.
- The amount of municipal waste generated per capita increased up to its peak year of 2006, and has fallen every year since.
- Renewable energy consumption (% of total final energy consumption) has improved since 2004.

The Society Index

10 indicators are used to construct the society index for the period 1995-2012. There are improvements seen in many of the indicators. One indicator that is not included in this time period is *not in employment education or training (NEET)*, important particularly for the 19-24 age group. It could be argued also that some measure of low-pay should be included, but consistent data for the entire period is not available²⁸.

²⁵ It is worth noting, however, that despite this improvement, in 2012, Ireland was still 2.1 million tonnes CO₂ eq. above the five years average limit set by the Kyoto Protocol (CSO, 2014)

²⁶ These are: improved water sources (% of population with access) and improved sanitation facilities (% of population with access).

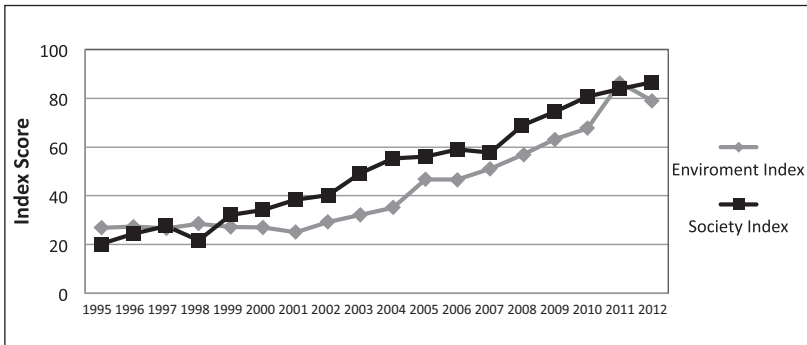
²⁷ Although by 2010, Ireland still had the second lowest proportion of forest cover in the EU.

²⁸ The NEET indicator and low-pay indicators are included in the 2004-2012 index.

The trends are as follows.

- Under 5 mortality rates, deaths due to chronic diseases, teenage pregnancy and road traffic deaths, all improved and reached their best year in 2012.
- Other indicators that improved are the education indicators (both at second and third level). Female legislators, senior officials and managers (as% of total) also improved.
- Proportion of seats held by women in national parliament peaked in 2010.
- The number of homicides reached its highest value in 2007 but has fallen steadily since then to 2012.

Figure 7: The Environment and Society Indexes 1995-2012

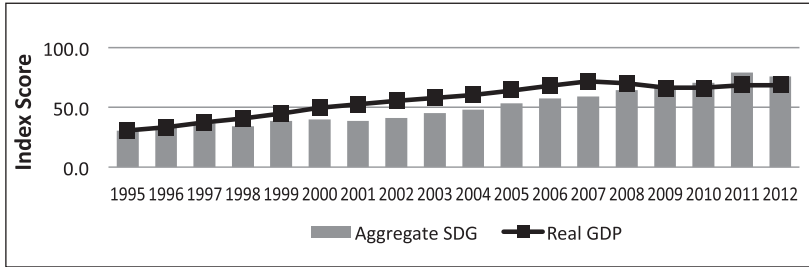


The Aggregate SDG Index

Combining all three indexes into an aggregate SDG allows us one way to track the progress of the country. It is illustrative to compare the aggregate SDG with real GDP. Although the two lines in Figure 8 do not purport to portray the same things, the difference in the shape of the curves is important. GDP increased from during the 2001-2007 period, and has fallen thereafter to 2012. The diverging relationship between economic growth and our index is evident during this period. The trend in the SDG is more stable, rising much more slowly over the period. The sharp rise in the SDG index in the last few years is driven primarily by significant improvements

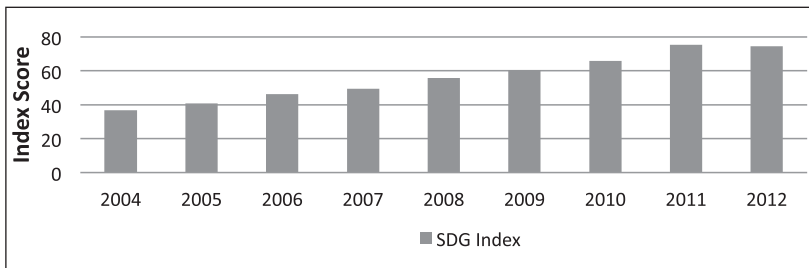
in the environment index, along with improvements in at least some of the indicators making up the society index.

Figure 8: Aggregate SDG and GDP 1995-2012



Finally, we estimate the SDG index for the shorter time period, which allows us to include some additional important indicators. We add an indicator of low-pay, and a NEET indicator (to the society index), an indicator for income inequality (to the economy index) and an indicator for air quality and resource productivity (to the environment index)²⁹. Figure 9 shows that adding these indicators into the mix lowers the value of the aggregate SDG index; this is more apparent in the earlier years.

Figure 9: Aggregate SDG Index 2004-2012



²⁹ Air quality, resource productivity and the income inequality indicator have all improved during the 8 year period. The low pay indicator and NEET have worsened since 2004.

f) Conclusions

Our purpose has been to provide tools for informing the public discourse on issues affecting well-being in Ireland. The indexes we have developed should promote a more robust discussion on Ireland's economic and social progress towards issues that often get overlooked, or at least under appreciated. We fully recognize that our analysis is incomplete. Part of this incompleteness comes from data limitations. One issue for public policy is: should Ireland devote more resources to measuring social and environmental factors. However, another factor in the incompleteness of our analysis comes from the incompleteness in understanding humans and their reality. The great economist/sociologist Werner Stark noted that the predicting man is more than human and predicted man is less than human. Uncertainty and incompleteness are part of all social analysis; they are essential aspects of human life. John Maynard Keynes once said that economists should strive to be humble. On this issue, that is good advice.

Our analysis highlights the fact that progress in the economy, society and the environment can be very different, and progress in one area can be at the expense of another. Some of the progress found in our environmental SDG index is due to Ireland's improved environment policies, but some we expect comes from the fact that during a recession, less production often leads to less pollution. Balancing these areas will require Ireland, and all rich countries, to find focus on minimizing resource inputs rather than maximizing output. It will mean that we must create wealth through the synergies of inclusion rather than the old practice of capturing wealth by exclusion.

In our original study social health seemed immune from economic growth. As we see in Figure 1, from the late 1970s to the middle 1990s, economic growth did not appear to have much of a 'trickle-down' effect on social health. This, we suspect, was the historic norm for Ireland, partly due to Ireland being on the periphery of the developed capitalist economies. The rapid growth of the 'Celtic Tiger' economy brought Ireland closer into the developed economies orbit, with more multi-national companies locating in Ireland, and greater trade. The EU investment in Ireland's infrastructure and the social partnership model played a key role in promoting and spreading progress. We see in Figure 2 that the rapid economic growth is accompanied with improving social health. As is often seen in transitional economies, social health improves with rapid economic growth, after a long

lag. Part of this spread effect is the benefits of a growing economy on incomes and employment. This cannot be denied. This is the argument in favour of economic growth made by economists for 250 years. But experience has shown that the spreading of the benefits of economic growth requires policies that push the benefits down to workers and the poor. Some of this is achieved by tight labor markets, but nowhere is this done without active political action.

The financial meltdown and recession of 2007/8 has shown that the economic growth model was not sustainable on economic grounds. Ireland could not continue to promote growth based on endless housing and hotel construction. The political response has been austerity, imposed economic hardship and a cut in the policies that spread the benefits of economic progress. Figures 2, 3 and 4 suggest that since 2007, the social health of Ireland has declined and continues to decline even as GDP stabilizes. Given the IMF view that Ireland's unemployment rate will remain high for the foreseeable future, we fear that Ireland is returning to the old norm. Furthermore, given the imposition of austerity across the Eurozone, Ireland's old norm is becoming the norm for many Europeans.

We think that our analysis shows that the narrow economic growth model has many limitations: socially it doesn't capture how people's lives are improving (or not improving) and ecologically it does not capture all of the costs of our current economic activity. The first issue is important because the purpose of public policy in a democracy has to reflect societal well-being. Relying only on GDP growth as the major public policy metric means many perspectives are missed and these perspectives are important if Ireland's public policy hopes to help all people in Ireland. The second issue is the possibility that our current economic activities are not sustainable and are causing real problems for many people now, and threaten the future well-being of all people. We hope that our indexes can help make these policy discussions evidence-based, and not just ideological posturing.

The deeper issue of a 'new paradigm' of progress and development, however, cannot be ignored. Public policy debates always involve 'values' and 'paradigms'. They shape how we understand the reality around us and they inform the reality we create. Economic growth, and GDP as a measure of economic growth, represents one aspect of our lives. We are economic beings, we make and consume goods and services. But that is not all we are,

and that is not all that promotes our well-being and happiness. GDP excludes many of the factors that promote human flourishing and it excludes the costs that threaten our common home. This approach is clearly not sustainable.

Developing a new paradigm for progress and development needs to start with a broad understanding of the human person, especially the inherent dignity of each and every person, and their unalienable rights as members of the human family. People are the ends of public policy and not merely the means to someone else's end. Furthermore, collectively we must protect the marginalized and excluded as our first task of public policy, to help those who can least help themselves. This is the necessary starting point for public policy (collective action), not the protection of the private property of the rich and powerful.

A new paradigm must also call for rethinking many of our economic categories. All our economic indicators reflect the primary purpose of a capitalist economy, which is for money to be transformed into more money. While this is beneficial to those who have money, and it can create processes and products that can be very beneficial to society as a whole, many of the limitations of our indicators flow from the limitations of this view of the purpose of the economy. Economic activity is not merely profit seeking; it is humans cooperating with other humans, working collectively towards common goals. As a human activity, the means employed is inseparable from the ends sought. A broader understanding of economic activity as a human and social activity is necessary. Furthermore, since we are natural beings, part of a natural environment, our part in nature also has to be part of our analysis.

An example of what a new paradigm can provide will be helpful. One of the key economic variables in a capitalist economy is debt. This is even more obvious in an Irish context, as the bubble led to unsustainable levels of household debt, and the government policy in reaction to the financial crisis has resulted in many Irish people being burdened with massive amounts of debt. The issue of who owes what debts and how they will be paid is central to human history. Like the Irish debt, often debts are imposed on one group, with coercion used to pay them off.³⁰ Debt has always been

³⁰ See Graeber (2011) for an excellent history of debt.

an instrument of social control. Yet financial debt is not the only type of IOU. As Andrew Simms (2009) has noted, there is a very large, and growing, “ecological debt” that the rich countries have been accumulating. This debt comes from using resources, and creating pollution, at an unsustainable rate. It is using up the futures resources, with the blind hope that technology will make up the difference. However, it is also adding to climate change, as well as other environmental problems, that will make the planet less liveable in the future. In *Laudato Si’* Pope Francis notes that there are other debts that have accumulated in the past 300 years of capitalist development that are coming due and need to be addressed. Francis notes there is “a grave social debt” (30) owed to the poor by the rich countries, based on the benefit to the rich countries of having excluded the poor from the benefits of economic progress and for having shifted many of the costs of this progress on to the world’s poor. Furthermore, he writes that there is an “ecological debt”; the global north owe the global south based on the “disproportionate use of natural resources by certain countries over long periods of time” (51) that have negatively affected the environment. Which debts are collected and which are not is determined by power, but that does not mean that these debts are not real. It is a recognition that part of the progress of the rich countries has been due to it taking the benefits and shifting the costs on to others. A ‘new paradigm’ needs to do a full accounting of all the costs and benefits and develop a framework for an equitable settling of all debts (which includes an accounting of who really incurred them and thus who should pay them).

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Appendix 1.1 – DATA

The Index of Social Health (ISH) developed by the Institute for Innovation in Social Policy of Fordham University attempts to monitor the social well-being in the United States by examining the progress on a number of social problems cumulatively over time. It is argued that the aggregate index tracks the nation’s social performance.

Table A1 below lists the set of socio-economic indicators covering 16 social issues dealing with health, mortality, inequality and access to services, and covering all stages of life, that are used in the construction of the index.

Table A1: List of Indicators in the Fordham ISH

Stage of Life	Indicator
Children	Infant mortality Child poverty Child abuse
Youth	Teenage suicide Teenage drug use High school drop-outs
Adult	Unemployment Weekly wages Health insurance coverage
Old Aged	Poverty, ages 65 and over Out of pocket health costs, age 65 and over
All Ages	Homicides Traffic fatalities Food insecurity Affordable housing Income inequality

Table A2: List of Indicators in the ISP

Stage of Life	Indicator	Data Source
Children	Infant mortality Child poverty Children in foster care	OECD CSO HSE
Youth	Teenage suicide rate Teenage pregnancy School retention rate	OECD OECD Department of Education and Skills
Adult	Unemployment rate Average wages Alcohol consumption Drug offences	Eurostat Eurostat OECD An Garda Siochana
Old Aged	Poverty among the elderly Life expectancy of the over 65s	CSO Eurostat
All Ages	Homicides Traffic fatalities Medical card coverage Household debt (% of NI) Social housing expenditure (% of GDP) Net migration Inequality (GINI)	An Garda Siochana and CSO An Garda Siochana and CSO HSE OECD CSO CSO Eurostat

Table A3: List of Indicators in the SDG

Our SDG measures the country's performance across three dimensions and aggregates them into one overall index. The table below illustrates the indicators used under each of the three areas, the corresponding SDG indicator number by the UN, and the sources of data. Data availability indicators influenced the indicators chosen for each of the three dimensions. However, we tried to be consistent in our choice, choosing the indicators that might best reflect change under the 3 key areas.

Dimension	Indicator	SDG Number	Data Source	
Environment	Total GHG emission (tCO2e)	62	OECD	
	Renewable energy consumption (% of total final energy consumption)	7.3	World Bank and Eurostat	
	Improved water source (% of population with access)	45	World Bank	
	Improved sanitation facilities (% of population with access)	46	World Bank	
	Air Pollution Particulates < 10µm	69	OECD	
	Resource productivity Euro per Kilogram Chain Linked (2010)	53	Eurostat	
	Energy use (kg of oil equivalent per capita)	73		
	Terrestrial and marine areas protected to total territorial area, percentage	81	World Bank	
	Municipal waste, Generation and Treatment (tonnes, thousands)	71	OECD	
	Proportion of land area covered by forest, percentage	84	World Bank	
	Society	Population undernourished, percentage	8	World Bank
		Under 5 mortality	18	World Bank
		Death rate due to chronic diseases per 100,000 (proxy for probability of dying from age 30-70)	23	Eurostat
Road traffic deaths		25	CSO	
Female legislators, senior officials and managers (% of total)		5.2	World Bank	

	Proportion of seats held by women in national parliament	43	MDG
	Adolescent fertility rate (births per 1,000 women ages 15-19)	5.4	World Bank
	Homicides per hundred thousand inhabitants	88	CSO
	Average Tariffs imposed on Agriculture, 17.7 textiles and clothing by LDCs (MFN)	UN MDG-	Trade.org
	Upper secondary or tertiary educational attainment, age group 25-64 by sex	35	Eurostat
	Tertiary enrollment girls and boys	37	OECD
	NEET (not in employment, training or education)	8.8	OECD
	Low Pay (% share earning less than two thirds of median earnings)	8.8	ILO
Economy	Proportion of population below \$1.25 (PPP) per day	1	World Bank
	GNI per capita	54	World Bank
	Growth rate of GDP per person employed, percentage	8.1	
	GINI coefficient (measure of inequality)	64	OECD
	Net ODA as percentage of OECD/DAC donors GNI	10.4	OECD
	At risk of poverty rate (cut-off point: 60% of median equivalised income after social transfers)		
	Youth Unemployment Rate	56	ILO
	Employment to population ratio, 15+, total (%) (modeled ILO estimate)	8.5	World Bank
	Investment in ICT (as proxy for Index of ICT maturity)	60	OECD
	GDP % spend on R&D	17.4	OECD

Table A4: The ISP and ISPE Values, 1995-2012

Year	ISP	ISPE	GDP
1995	32.64	40.96	32.64
1996	33.36	39.67	35.67
1997	32.78	37.68	39.66
1998	33.70	36.24	43.19
1999	36.07	36.56	47.84
2000	37.32	36.30	52.73
2001	39.99	34.90	55.81
2002	45.67	40.67	59.12
2003	50.61	45.41	61.39
2004	50.76	45.47	64.10
2005	58.36	52.20	68.16
2006	57.12	50.22	72.46
2007	70.11	62.06	76.47
2008	67.87	62.65	74.82
2009	66.16	65.46	70.60
2010	62.56	63.17	70.88
2011	60.66	64.74	72.72
2012	59.84	64.49	72.83

Table A5: The SDG Values, 1995-2012

Year	Aggregate SDG
1995	30.7
1996	33.5
1997	36.7
1998	34.3
1999	38.7
2000	39.7
2001	38.8
2002	41.3
2003	45.1
2004	48.1
2005	53.3
2006	57.4
2007	59.0
2008	64.4
2009	66.9
2010	70.7
2011	79.0
2012	75.8