GFCC

Global Federation of Competitiveness Councils

Accelerating Growth

Best Practices in Competitiveness Strategy

2011

National Competitiveness Council

The Importance of Benchmarking
National Competitiveness Council of Ireland [1]

Abstract

Ireland's *National Competitiveness Council* (NCC) reports to the Taoiseach (Prime Minister) on key competitiveness issues for the Irish economy and makes recommendations on policy actions required to enhance Ireland's competitive position. This paper examines the methodology used by the NCC to benchmark international competitiveness[2]. The NCC has undertaken a competitiveness benchmarking exercise every year since 1998.

Benchmarking competitiveness performance across a range of 127 indicators against 18 important competing export countries provides a statistical basis for identifying Ireland's competitiveness strengths and challenges. Competitiveness is essentially an expression of relativity. A country's competitiveness is always articulated in terms of how it performs relative to other countries in a certain area or metric. Therefore international benchmarking is, arguably, the only effective way to measure a country's competitiveness. By isolating the various components of competitiveness, and assigning an internationally comparable metric, we can show how each country compares with others across the many facets of competitiveness.

Benchmarking also provides the NCC with the analytical underpinning for policy recommendations to maximise Ireland's international competitiveness. These recommendations are published on an annual basis in a policy document entitled *Ireland's Competitiveness Challenge*.

While each indicator in the benchmarking report is considered on its own merits, it is only by reviewing a wide range of indicators and placing them in the context of the macroeconomic environment that we can fully understand their implications for competitiveness. Over time, the indicators benchmarked have evolved to ensure that the most timely and relevant data is analysed.

1.0 Introduction to Benchmarking Competitiveness in Ireland

National competitiveness is a broad concept that encompasses a diverse range of factors and policy inputs including education and training, entrepreneurship and innovation, Ireland's economic and technological infrastructure and the taxation and regulatory framework.

For Ireland's National Competitiveness Council, the goal of national competitiveness is to provide Ireland's people with the opportunity to improve their living standards and quality of life. Improving living standards depends on, among other things, raising incomes (and providing employment). Raising incomes and delivering improved productivity performance are necessary, but in an economy with a small domestic market, this requires a healthy exporting sector to achieve economies of scale necessary for productivity gains. For a vibrant exporting sector, Ireland must maintain its national competitiveness.

In terms of assessing competitiveness performance, the NCC defines competitiveness as the ability of firms to compete in markets. Ireland's national competitiveness refers to the ability of the enterprise base in Ireland to compete in international markets.

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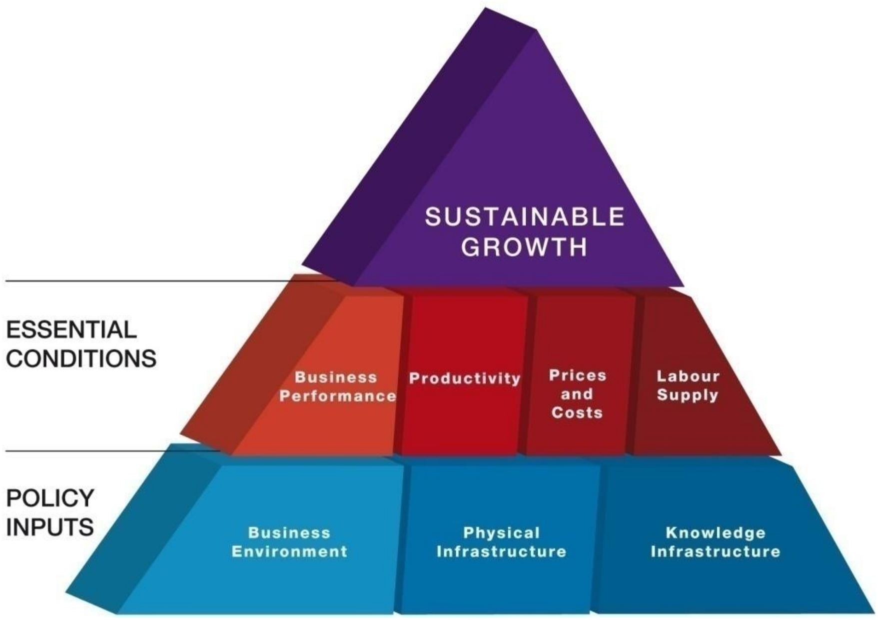
1 The National Competitiveness Council was established by Government in 1997. It reports to the Taoiseach (Prime Minister) on key competitiveness issues facing the Irish economy and offers recommendations on policy actions required to enhance Ireland's competitive position. The Department of Jobs, Enterprise and Innovation (DJEI) provides the Council with research and secretariat support.
2 The work of the NCC is underpinned by research and analysis undertaken by Forfás, Ireland's policy advisory board for enterprise, trade, science, technology and innovation.

1.1 Understanding Competitiveness

The National Competitiveness Council uses a competitiveness pyramid to outline the framework within which it assesses Ireland's competitiveness (Figure 1). This model draws from Michael Porter's *Competitive Advantage of Nations* and distinguishes between the 'inputs' to national competitiveness – over which policymakers can have greatest control – and the essential conditions for national competitiveness.

Figure 1: The NCC Competitiveness Pyramid



Source: National Competitiveness Council

1.2 Policy Inputs

The inputs (the bottom row of the competitiveness pyramid) represent the foundation stones of the economy and are the primary drivers of competitiveness. The NCC believes that it is within these particular areas that policymakers can have the greatest impact on competitiveness. It is very important to measure Ireland's competitiveness at the input level and then benchmark it in relation to Ireland's economic peer group. This allows policymakers to identify weaknesses and opportunities and thus design specific policies to address these concerns.

1.3 Essential Conditions

The second stage of the competitiveness pyramid is the 'essential conditions' stage. If the inputs are in line with best practice, this should be reflected in measurements of the essential conditions.

1.4 Sustainable Growth

The NCC's goal of promoting Ireland's national competitiveness is to further improve the quality of life for people in Ireland. To assess Ireland's quality of life, a range of national performance indicators are examined. The NCC believes that these indicators are not directly within the control of policymakers, but that Ireland's performance in these areas are directly related to the quality of previous policies instituted at the input level. Competitive gains at the lower levels of the pyramid allow growth potential to be maximised at the apex, whilst providing suitable conditions for sustainable development.

2.0 Benchmarking Competitiveness

The NCC has undertaken a competitiveness benchmarking exercise every year since 1998[3]. Benchmarking competitiveness performance across a range of over 127 indicators against a selection of important competing export countries provides a statistical basis for identifying Ireland's competitiveness strengths and challenges.

The benchmarking report which is produced as a result of this exercise is titled *Ireland's Competitiveness Scorecard*. The specific objectives of the report are to:

i. Provide a clear, authoritative, thorough, accurate and up-to-date assessment of Ireland's competitive performance;

ii. Generate agreement among stakeholders on Ireland's competitive performance;

iii. Improve awareness and understanding of the drivers of Ireland's competitiveness and growth among stakeholders, including the general public; and

iv. Provide an evidence base to highlight Ireland's competitiveness strengths and build momentum to address identified competitiveness weaknesses.

Benchmarking also provides the NCC with the analytical underpinning for policy recommendations to maximise Ireland's international competitiveness. These recommendations are published on an annual basis in the NCC's policy document entitled *Ireland's Competitiveness Challenge*.

2.1 Benchmarking Methodology

The benchmarking report is entitled *Ireland's Competitiveness Scorecard* and is structured in line with the competitiveness pyramid discussed above, with 3 main sections corresponding to the segments of the competitiveness pyramid.

The report uses internationally comparable metrics, with the OECD, the EU, the UN, IMF and the WTO, as the sources for the majority of indicators. Indicators from specialist international competitiveness bodies (e.g. from the World Economic Forum's Global Competitiveness Report and the Institute for Management Development's World Competitiveness Yearbook) are also used. Where further depth is of required, national sources such as Forfás, the Central Bank, the CSO, and the ESRI are used.

Ireland's performance is benchmarked against 18 other countries. Countries have been chosen to provide a mix of euro area members (Finland, France, Germany, Italy, the Netherlands and Spain), other non-euro area European countries (Denmark, Sweden, Switzerland and the UK), and two newer EU member states (Hungary and Poland). Six non-European countries which are global leaders or are of a similar size or pace of development to Ireland are also included. These countries are Israel (where data is available), Japan, South Korea, New Zealand, Singapore, and the US. This

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3 The NCC publishes two annual competitiveness reports. *Ireland's Competitiveness Scorecard* (previously named *Benchmarking Ireland's Performance*) which analyses Ireland's overall competitiveness performance across a range of statistical indicators and *Ireland's Competitiveness Challenge* which identifies the national competitiveness issues of most importance to the enterprise sector and proposes a series of policy recommendations required to address these issues.
The full benchmarking report is available at www.competitiveness.ie and www.forfas.ie.

allows for a detailed comparison between Ireland and many of its closest trading partners and competitors. Ireland is also compared to a relevant peer group average – either the OECD or the euro area[4].

Benchmarking competitiveness is useful - it informs the policymaking process and raises awareness of the importance of national competitiveness to Ireland's wellbeing. Nonetheless, there are limitations to benchmarking:

- While every effort is made to ensure the timeliness of the data, there is a natural lag in collating comparable official statistics across the selected countries. There are also factors that are difficult to benchmark (e.g. the benefit of being in the GMT time zone or of speaking English fluently);
- Secondly, given the different historical contexts and economic, political and social goals of various countries, and their differing physical geographies and resource endowments, it is not realistic or even desirable for any country to seek to outperform other countries on all measures. There are no generic strategies to achieve national competitiveness; and
- Finally, it is important to note that trade and investment between countries is not a zero-sum game; economic advances by other countries can, in aggregate terms, lead to improvements in living standards for the Irish population.

2.2 Selection of Indicators

In benchmarking there can be a tendency to feel that a larger number of indicators lead to improved analysis. The NCC has found, however, that less is sometimes more. The purpose of this benchmarking exercise is to provide a general overview of performance, and to focus attention to those areas requiring intervention. The NCC, has, therefore, limited the number of indicators included in the benchmarking report.

In general a large number of indicators are analysed on an on-going basis, year after year. Over time, however, the choice of other benchmarked indicators has evolved to ensure that the most timely and relevant data is analysed. Also, the definition of success changes over time (reflecting economic and social context and understanding of issues), and so the selection of indicators must change. For example, in the middle of the last decade, the NCC accorded significant attention to the developing house price bubble in Ireland. As a result, several indicators were included to monitor house price developments. Since the onset of the global recession and the bursting of the Irish property bubble, there is less need to focus on house price indicators. Consequently, the number of indicators dedicated to such analysis has been reduced, and new indicators examining topics of more immediate relevance to today's economy have been included (i.e. expanded analysis of export performance).

Regardless of the issues being addressed, it is important that the indicators selected are the best and most appropriate indicators available. In order to ensure this is the case, the NCC engages in extensive consultation with experts in the relevant area (including those who directly influence the indicator (e.g. utility and service providers etc.) to ensure that we fully understand the various components of the indicator and to ensure that the associated commentary is fair and balanced.

Finally, a number of other changes have occurred over time as the NCC's understanding of benchmarking has evolved (see text box below). In recent reports, significantly less focus has been accorded to input indicators, and conversely, more attention has been accorded to indicators focusing on outcomes. Equally, the NCC now places less reliance on

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4 Where the sample is incomplete for the comparator group due to data availability, the countries omitted are detailed in the footnotes. OECD rankings and averages are based on a maximum of 28 countries. Turkey and Mexico are not included in the analysis, in part due to how their size and income levels affect averages and in part due to data availability. The OECD-28 countries are as follows: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Spain, Sweden, Switzerland, UK and the US. In a small number of cases, data is also included for China, where available and appropriate.

perception indicators (i.e. indicators based on executive opinion surveys, for example) and utilises hard data where possible.

Text Box 1: Evolution in Benchmarking - Themes Emerging from NCC Benchmarking

1998-2000: NCC warned that Ireland's 'competitive position not yet based on solid foundations…danger signs such as skill shortages, infrastructural bottlenecks, lack of investment in telecommunications'

2001-2005: NCC highlighted tightening of the labour market, increases in costs crowding out internationally trading activities, weakening export performance.

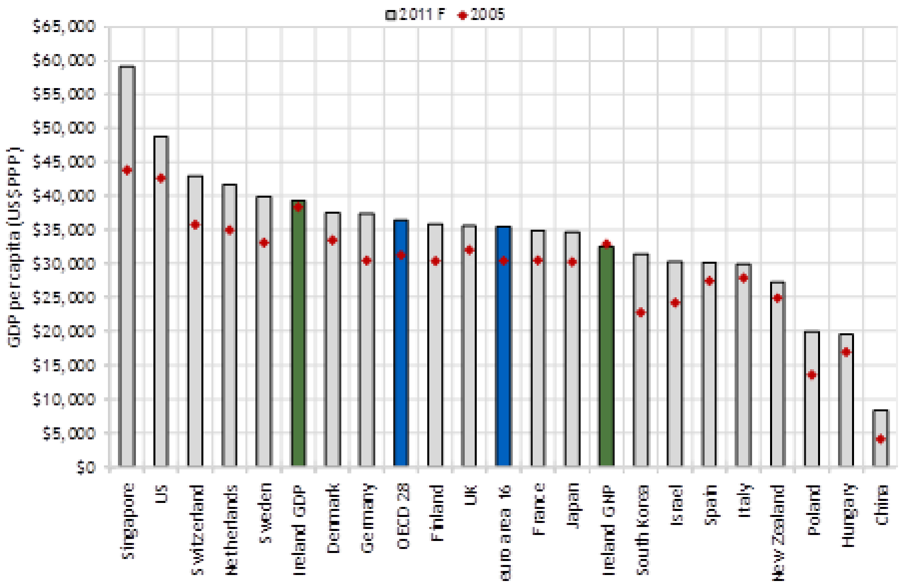
2006-2007: NCC expressed concern about the unsustainable nature of economic growth, the rapid rise in private sector debt, reliance on construction and domestic demand / property as the main drivers of growth.

2008-2010: NCC noted progress on the public finances and the banking stabilisation but focused on cost competitiveness, wage adjustment, lowering of energy costs, the need for enhanced competition policy particularly in relation to locally traded services, investment prioritisation, the need to return to productivity and export-led growth, the broadening of the tax base and the necessity of allowing the necessary adjustment to happen in the property market.

2.2 Use of Illustrations and Interpretation of the Data

In developing the benchmarking report, the NCC has found that illustrations of the data are the most effective method of communicating our message. Therefore, an in depth introductory chapter aside (which places the individual benchmarks in an overall macroeconomic context), the report tends to use relatively little text. Instead, the focus is on ensuring that all of the charts used are self-explanatory. Each chart contains a number of different pieces of data. The sample chart below is a good representation of the type of data included in the report.

Figure 2: Sample Chart - Levels of GDP per capita (US$ PPP), 2011F



In GDP terms, despite the economic downturn, Ireland appears to be one of the wealthiest countries in the OECD. in terms of GNP per capita, however, which is a more accurate measure of Irish living standards, Ireland ranks below the OECD-28 and euro area-16 average.

OECD-28 ranking[5]:

GDP:10th (↓ 6)

GNP: 18th (↓ 4)

Source: IMF, World Economic Outlook, April 2011

5 OECD28 and euro area averages are not weighted according to national income.

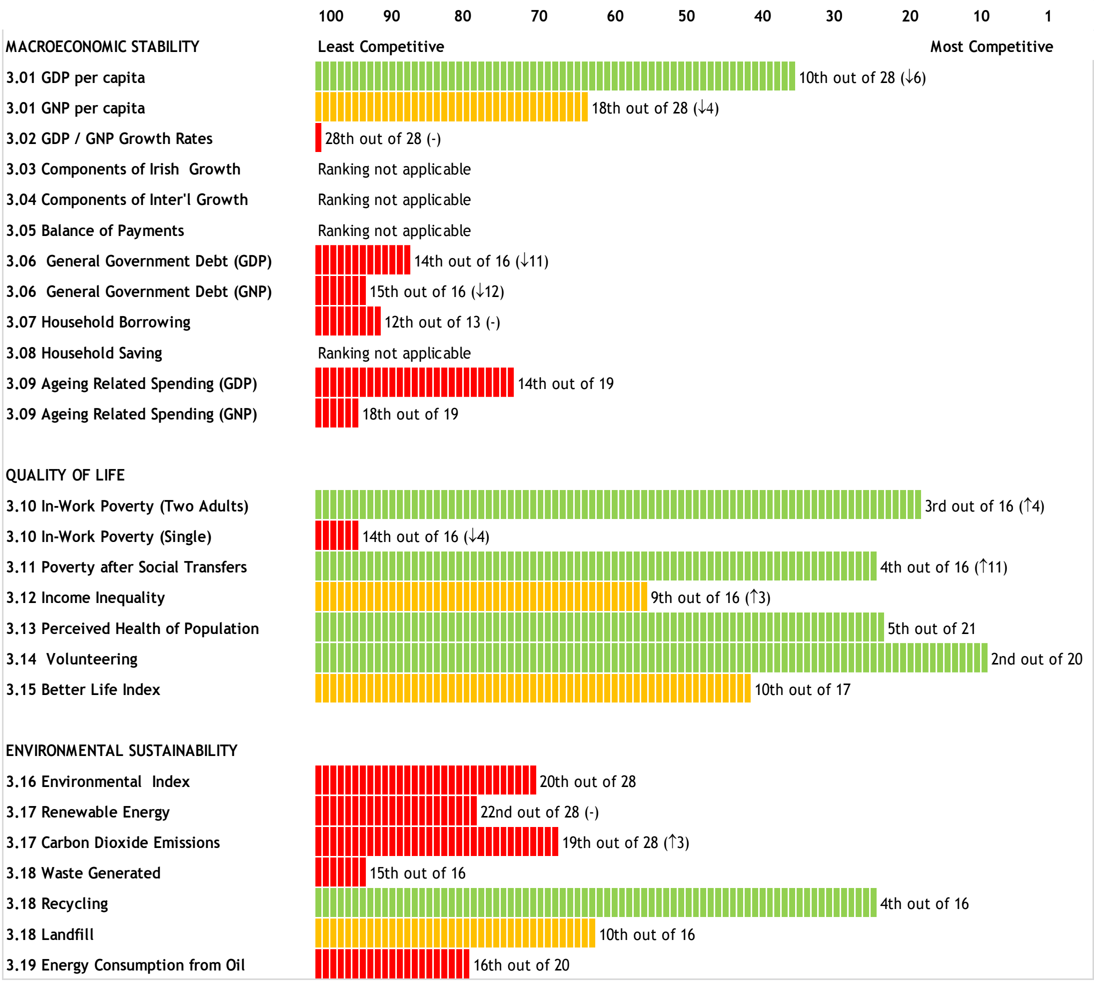
- The best performing country is located at the left of the chart (in vertical bar charts) or at the top of the chart (in horizontal charts). In a limited number of charts, it is not possible to designate a best performer.
- In charts that assess output/income or other factors relative to these, Irish figures are provided in GDP and GNP terms. GDP (national output) is significantly greater than GNP (national income) in Ireland due to the repatriation of profits and royalty payments by multinational firms based here. Other countries are assessed in GDP terms. It is also important to note that as a result of the contraction in the Irish economy over the past 2 years, indicators calculated as a proportion of GDP and GNP may appear higher than in previous years (i.e. if expenditure is reduced by less than the reduction in GDP, expenditure will appear to have increased).
- The text at the right of the chart provides additional information and commentary on Ireland's performance across each indicator.
- The majority of chart titles are given a traffic light colour, green, orange or red, in order to provide a general indication of Ireland's performance. Green indicates a strong performance (top third of OECD-28, euro area, or comparator group), orange signals an average performance, while red means that Ireland is ranking within the bottom third of the OECD-28, euro area, or comparator group. Certain indicators, which are not ranked, are also given a traffic light colour, in which case the colour is determined (somewhat subjectively) based on Ireland's performance over time. Where appropriate, charts are colour coded according to Ireland's GNP ranking.
- Rankings are provided where appropriate, but in a limited number of charts, it is not possible to designate a best performer. In charts with both GDP and GNP performance for Ireland, rankings are provided for both sets of data.
- In interpreting the ranking for each indicator, a low ranking (i.e. close to 1^{st}) implies a healthy competitiveness position, while a high ranking implies an uncompetitive position.
- Changes in rankings refer to the change in Ireland's position since either the previous year, or in the case of charts displaying more than one year of data, since the oldest data displayed. Exceptions to this are highlighted in footnotes.
- (↑) refers to an improvement in Ireland's competitive position, so ↑4 means an improvement of four places in Ireland's ranking. (-) means that there has been no change in Ireland's ranking, while (↓) refers to a fall in ranking.

2.3 Summary Charts

Summary charts are also placed at the start of each major section. These charts bring together all the indicators from each chapter of the report and allow readers to view Ireland's performance across a wide range of indicators in a single chart (Figure 3). Ireland's performance under each indicator is standardised - because different indicators are ranked in relation to the OECD-28, the euro area-16 or other groupings, standardisation allows all indicators to be displayed together.

Ireland's performance under each indicator is standardised out of 100 – a score of one being the most competitive, and 100 being least competitive. For example, where Ireland is ranked 3rd out of 15 countries, this gives a score of 20 (i.e. 3/15*100); where Ireland is ranked 14th out of 15, this gives a score of 93 (i.e. 14/15*100). Indicators in the summary charts are colour coded in the same manner as the traffic light system discussed above. For some indicators, such an exercise is not applicable - for example, where Irish-only data is used to generate a chart, a standardised ranking cannot be calculated.

Figure 3: Sample Chart - Summary of Standardised Sustainable Growth Indicators



3.0 Influencing Decision Makers

The membership of the NCC is a diverse group and represents a cross section of the enterprise sector.

The current membership includes:

- Representatives of the employer and trade union social partnership pillars;
- People with relevant expertise in competitiveness;
- A representative of the Department of Jobs, Enterprise and Innovation; and
- The Chief Executive of Forfás.

The members feed directly into the drafting of the report and help to ensure that the findings are disseminated widely. The wider public service is also represented on the Council. Representatives from key economic ministries including the Departments of the Taoiseach; Agriculture, Fisheries and Food; Communications, Energy & Natural Resources; Education and Skills; Environment, Community and Local Government; Public Expenditure and Reform; and Transport, Tourism and Sport, as well as a representative from InterTradeIreland[6] all offer advice to the Council and Secretariat.

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6 InterTradeIreland is a cross-border organisation which supports SMEs across the island of Ireland to develop North/South trade and business development opportunities for the mutual benefit of both economies.

As well as reporting directly to the Taoiseach, the NCC also reports to the Minister for Jobs, Enterprise and Innovation – the primary advocate for enterprise at the Cabinet table. Prior to publication, the final report is also circulated to all of the members of the Cabinet for information. This ensures that the findings of the report are brought to the attention of key decision makers.

Finally, the report is also circulated to a range of economic commentators in both the media and academia, along with a range of accompanying communications tools (e.g. press release, email alerts, PowerPoint presentations).

The benchmarking report serves many different purposes – it provides a valuable reference document for many, is used as an input into official policy documents, and is regularly used in the media when Ireland's competitiveness is being discussed.

Conclusion

While each indicator in the benchmarking report is considered on its own merits, it is only by reviewing a wide range of indicators and placing them in the context of the macroeconomic environment that we can fully understand their implications for competitiveness.

Benchmarking is the first step in evidence based policy formulation. The NCC report, therefore, represents an important contribution to Ireland's policy making process. Since the publication of the first report in 1998, the NCC's annual benchmarking exercise has become a valuable and widely used resource.

Appendix 1: Summary of Findings of Ireland's Competitiveness Scorecard Rankings 2011[7]

Sustainable Growth

Macroeconomic Sustainability

Rankings: Levels of GDP per capita 10/28; Average Annual Growth Rates in GDP per capita 28/28; General Government Consolidated Debt as % of GDP 14/16; Household Borrowing per capita 12/13; Projected Changes in Ageing - Related Public Spending 14/19.

Quality of Life

In-Work at-Risk-of-Poverty (single 14/16; two or more adults with children 3/16); At-Risk-of-Poverty after Social Transfers 4/16; Inequality of Income Distribution 9/16; Percentage of Population with Perceived Good Health 5/21; Participation Rates in Volunteering 2/20; OECD Better Life Index 10/17.

Environmental Sustainability

Environmental Protection Index 20/28; Percentage of Energy from Renewable Sources and Carbon Dioxide Emissions from Fuel Combustion 22/28 and 19/28 respectively; Municipal Waste Generated 15/16; Components of Energy Consumption 16/20.

Business Performance

Business Investment

Gross Fixed Capital Formation 16/16; FDI Inward Stock 5/28; Number of Greenfield Projects 1/28; Rate of Return to US-owned Companies on Investments in Foreign Countries 1/12; FDI Outward Stock as a Percentage of GDP 7/28.

Trade

Exports of Goods, intra-EU and extra 5/15; Percentage of Firms' Total Turnover from e-commerce 1/13; Exports to Emerging Markets 8/16.

Productivity

Productivity

Productivity levels 6/28; Annual Average Growth in Output per Hour Worked 4/28; Growth in Multi-Factor Productivity 9/20.

Innovation

Summary Innovation Index 5/16; Percentage of Firms Engaged in Innovative Activity 6/15; Percentage of Turnover attributed to Innovative Activity (New to Firm 10/15, New to Market 9/15).

Prices and Costs

Price Level 2005 (15/17) and Inflation 2010 (1/17)

Non-Pay Costs

Cost to Construct a Prime Industrial Site 11/13; Cost to Rent a Prime Industrial Site 9/14; Cost to Construct a Prime Office Space 10/13; Cost to Rent a Prime Office Space 6/16; Industrial Electricity Prices 6/15; Mobile Telephone Costs 9/14; Fastest Business Connection 10/ 11; Annual Cost of Business Connection 8/11; Negotiable Landfill Gate Fees 7/9, Water Costs per Metre Cubed 9/16; Legal Fees, Cost of Enforcing a

7 Rankings for Ireland are provided in GDP terms and where no ranking is applicable it has not been included in the summary table.

Business Contract 16/19; Non-Life Insurance Density, Premiums per Capita 12/19.

Labour Supply

Employment and Unemployment

Unemployment, Standardised Rates 26/28; Youth Unemployment 12/16

Labour Supply

Number of Persons of Working-Age per Dependent 11/28

Business Environment

Taxation

Total General Government Deficit 16/16; Central Government Corporate Income Tax Rate 2/28; Corporation Tax Receipts as % of GDP 18/28; Total Tax on Labour (as a % of Average Earnings (Married, 2 CD, 167% AW) 6/28; Total Tax on Labour (as a % of Average Earnings, Single, no CD, 167% AW), 11/28; Value Added Tax, Standard Rate 18/27; Recurrent and Total Property Tax Receipts as % of Total Tax Revenue (Recurrent 7/28, Total 6/28).

Finance

Venture Capital Investment as a % of GDP 7/26; Private Equity Investment as a % of GDP 5/15; Total Value of EIB Funding for Credit Lines to Enterprise 2006-2010 as a % Average GDP 2006-2010 15/16.

Regulation and Competition

Cost of Starting a Business (3/34) and Number of Procedures Involved (8/34); Cost of Registering a Property (17/34) and Number of Procedures Involved (29/34); Product Market Regulation 3/28; Barriers to Entrepreneurship 9/28; Time to Comply with Tax Payments 2/28; Average Payment Duration for Settling an Invoice (Public Authorities: 4/13) (Business to Business: 8/13); Labour Market Regulation 7/28.

Physical and Economic Infrastructure

Physical Infrastructure

Perception of Overall Infrastructure Quality 27/28.

Transport, Energy and Environmental Infrastructure

Perception of Quality of Distribution, Air Transport, Water Transport and Energy Infrastructure (Distribution: 21/28; Air: 22/28; Water: 13/28; Energy: 21/28); Green City Index, Transport Score 30/30; Natural Gas Storage Capacity as a Percentage of Annual Consumption 9/10; Green City Index, Water Score 16/30.

Information and Communication Technology Infrastructure

ICT expenditure as a % of GDP 4/14; Fibre Connections as a Percentage of Total Broadband Connections 18/28; e-Government Availability (1/16) and Usage (3/16); Use of ePayments: Value of Cash Withdrawals 13/16.

Knowledge Infrastructure

Overview of Education

Educational Attainment of Population aged 25-64 10/28; Annual Expenditure on Educational Institutions-per student (Pre-primary: 5/27; Primary: 13/27; Secondary: 6/27; Tertiary: 16/27); Participation of 3 year olds in education 14/15; Average Annual Hours of Tuition to 9-11 Year Olds (Maths hours: 19/19; Science hours: 19/19; Total hours: 2/19).

Secondary Education

Percentage of the Population Aged 25-34 (14/28) & 25-64 (21/28) with at least Upper Secondary Level Education; Early School Leavers (as % of Population aged 18-24) 9/16; Scientific, Mathematical and Reading Literacy of 15 Year Olds (Reading: 17/34; Maths: 26/34; Science: 14/34); Average Annual Hours of Tuition to 12-14 year-olds, by Subject (Maths hours: 10/19; Science hours: 16/19; Total hours: 14/19); Students Use of ICT for programmes and software (Educational Software: 11/24; Computer Program: 19/24; Spreadsheets: 19/24; Graphics: 16/24; Word: 22/24; Internet: 22/24; Email: 22/24); Ratio of students to teaching staff in educational institutions (Primary 17/24; Secondary 15/26);

Tertiary Education

Population Age 25-34 that has at Least Third Level Education 6/28; Score of Leading Institution by Country 76/200; Maths, Science and Computing Graduates as a % of the total graduates 4/14; International Students as a % of all Students in Tertiary Education 13/26; Life- Long Learning as a % of 25-64 year olds, 10/16;

Research and Development Infrastructure

Expenditure on R&D as % GDP (BERD: 15/28; HERD: 12/28; GovERD: 27/28; GERD: 18/28); Total researchers per thousand total employment 14/24; PhD Students per 1, 000 of the population 8/23; Triadic Patents per million population 16/28; EU Research Funding € per applicant (8/16) and success rate 4/16)