COUNTRY REPORT:
Ireland

Think Ahead ACCA

Professional accountants – the future:

# 50 drivers of change in the public sector

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# About ACCA

ACCA (the Association of Chartered Certified Accountants) is the global body for professional accountants, offering business-relevant, first-choice qualifications to people of application, ability and ambition around the world who seek a rewarding career in accountancy, finance and management.

ACCA supports its **198,000** members and **486,000** students in **180** countries, helping them to develop successful careers in accounting and business, with the skills required by employers. ACCA works through a network of **101** offices and centres and more than **7,291** Approved Employers worldwide, who provide high standards of employee learning and development. Through its public interest remit, ACCA promotes appropriate regulation of accounting and conducts relevant research to ensure accountancy continues to grow in reputation and influence.

Founded in 1904, ACCA has consistently held unique core values: opportunity, diversity, innovation, integrity and accountability. It believes that accountants bring value to economies in all stages of development and seek to develop capacity in the profession and encourage the adoption of global standards. ACCA's core values are aligned to the needs of employers in all sectors and it ensures that through its range of qualifications, it prepares accountants for business. ACCA seeks to open up the profession to people of all backgrounds and remove artificial barriers, innovating its qualifications and delivery to meet the diverse needs of trainee professionals and their employers.

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Part of our ground-breaking *Professional accountants – the future* series, this is one of a series of country reports, following on from our global report *50 drivers of change in the public sector*. It focuses exclusively on identifying the 50 drivers of change in Ireland that are expected to have an impact on the public sector and the likely timing of these. It also assesses how professional accountants will need to continue to play a pivotal role in the decade ahead.

ACCA would like to place on record its appreciation and thanks to the Irish Institute of Public Administration for hosting and organising the roundtable in Ireland that supports this report.

# Introduction



The public sector is as complex as it is diverse and it is not the same in any two countries; what is considered to be part of the public sector often varies from one country to another.

The global public sector is changing, with the landscape being reshaped by a combination of factors: a growing and ageing population, the need for better infrastructure and increasing concerns over sustainability and consumption. At the same time, demands are growing for greater transparency and accountability for public funds. These challenges are heightened by advances in technology and by economic and political uncertainty. As the social and economic environment shifts, all these factors will have serious consequences for public sector organisations and their finance professionals.

The public sector is as complex as it is diverse and it is not the same in any two countries; what is considered to be part of the public sector often varies from one country to another. For example, in some countries, such as the UK and Scandinavian countries, healthcare is deemed to be a public sector function, while in some others it is a hybrid between the public and private sectors.

For professional accountants working in the public sector, the challenge is twofold. First, they need to understand the key forces shaping the future and how these could affect public sector organisations and the country they serve. Secondly, they need to provide support and influence financial decisions that will ensure that public funds are deployed cost-effectively and efficiently.

To help professional accountants and leaders in the public sector prepare for an uncertain future, ACCA undertook a global study to explore which emerging drivers of change could have the biggest impact and to highlight the skills that will be required over the period to 2026.

The recently launched global report *50 drivers of change in the public sector* is part of our ground-breaking *Professional accountants – the future* series and is the first report to focus exclusively on identifying the 50 factors that will impact the public sector, the likely timing of these and how they will shape the future.

The global study draws on a survey of ACCA's global forum for the public sector, ACCA members and members of other professional accountancy bodies working in the public sector. This was complemented with a series of roundtable events held across 12 countries, from the US in the west through to China in the east, and high-level interviews with key public sector figures.

This particular report is focused specifically on the results from the global report for Ireland and also follows a recent roundtable held in the country to discuss these key issues.

In this report we explore the drivers of change that are impacting Ireland's public sector in particular. These include the level of economic growth; business leaders' responsiveness to change and disruption; big data; the workforce age structure; the evolution of corporate governance regulation and practice; non-financial and integrated reporting; and the stability of the national revenue base.

# Ireland: Perspectives on the public sector in mature economies

**Across the advanced economies, governments are grappling with the same core issues of changing demographics, threats to tax revenues, the need to find additional income sources and the impact of new technologies.**

Across the advanced economies, governments are grappling with the same core issues of changing demographics, threats to tax revenues, the need to find additional income sources and the impact of new technologies. This is true of Ireland, but equally the case in other major economies such as China, Singapore, Japan, the US, the UK and across Europe.

Demographics and the financial implications of a rapidly changing population profile represent the most severe challenges. Advances in health care mean that people are living longer. The proportion of the population aged over 100 is growing literally exponentially and now represents the fastest-growing demographic of all (Goodman 2017).

However, older life is not always healthy life. As more people live longer, so, too, more people live longer with chronic illnesses. This creates a substantial financial cost for health services. In countries where health services are paid for out of taxation, this places enormous pressure on state budgets. Health care and social care must inevitably then take an increasing share of national spending. In Ireland, life expectancy continues to grow, and currently stands at 81.4 years, exactly 10 years above the world average (AFP 2016).

In those countries where health services are paid for privately, more personal income must be allocated either to pay for care or for insurance premiums to protect against illness and disability. Where individuals fail to do this, governments must deal with the social tensions created by a large, yet marginalised, part of the population that is unable to pay for their own medical treatment and social support. Ireland has a government-funded public healthcare system which provides either full eligibility to receive a wide range of health services free of charge, providing certain criteria are met, or eligibility for receiving at a reduced cost. The budget for health care spending in Ireland for 2017 was the highest ever at €14.6bn (An Roinn Sláinte 2016a).

Improved medical interventions produce other outcomes, too. More children are born with severe health conditions, who, in previous times, would not have survived birth. This can generate high costs associated with the care of children who may have severe disabilities. Increasing numbers of those children with severe disabilities are now reaching adulthood, but many of the parents who have cared for them are themselves now in need of support, or else are dying. States will need to consider how to provide continuing support to often severely disabled adults and find the resources to do this.

Demography creates another challenging impact. As people live longer, so the non-working part of their lives increases. The result is that the proportion of people who are working and paying income taxes is decreasing, with the burden of supporting older people falling on a proportionately smaller group of workers. According to the Irish Department of Health 'the population of those aged 65 years and over has increased by 32.8% since 2007 and has been increasing at a faster rate than that of [Ireland's] EU neighbours. The numbers of people in this age group is expected to almost double in the next 20 years, with the greatest proportional increase in the 85+ age group' (An Roinn Sláinte 2016b).

Diversity is another dimension of the changing demographics in the advanced economies. People in deprived countries, particularly those in conflict, seek a better and safer life in wealthier nations. And in recent years, the advanced economies have needed the skills and work ethic of an enlarged labour force. In recent years, the number of people moving to Ireland to live and work has continued to grow, but the skills requirements of the advanced economies have also evolved – and in particular they need very high-level skills. Meanwhile, some citizens have resented the presence of people from other countries, and this has often led to political tensions.

These various challenges are being addressed through the budgetary decisions being taken across the advanced economies. The dual pressures of rapidly changing demographics and the continuing financial impact of the global financial crisis have led many governments in advanced economies to adopt policies of fiscal consolidation, also termed 'austerity'. Ireland has not been immune from this (Irish Times 2016). These policies have been portrayed by some as short-term responses to the financial crisis, yet many of the underlying spending pressures are long term. There are growing signs of popular resistance to the use of austerity as a response to budgetary

Governments are also responding to budgetary pressures by expecting citizens to pay for – or contribute more towards – public services, for example through privatisation.

pressures. Yet it is arguably inevitable that national governments will increasingly focus on the demands of health, social care and education, with other services being seen as less important and therefore becoming marginalised and possibly underfunded according to some.

Governments are also responding to budgetary pressures by expecting citizens to pay for – or contribute more towards – public services, for example through privatisation. In the short term, the objectives have included generating capital receipts and reducing costs. But privatisation, and also outsourcing, can also lead to higher consumer costs. Charges may increase and higher service standards may be on offer to those citizens willing and able to pay more.

Most governments in advanced economies (including Ireland) have also used public private partnerships (though these diminished significantly after the 2007–9 crisis). Objectives for the use of PPPs have included cost reduction and risk transfer, either by treating liabilities as off-balance sheet, or else by converting capital costs into longer-term revenue overheads. But academic evidence raises questions whether over the longer term costs are greater where PPPs are used.

There are other challenges potentially facing maturing economies today. In some advanced economies, productivity has not fully recovered from the global economic crisis. The latest development in technology, on replacing workers with machines in some vocations is likely to have an impact too. Robotisation, automation and artificial intelligence arguably have the capacity to eliminate millions of jobs across the advanced economies. Whether this will come to pass is not yet determined, but the predictions are there. As many as 38% of jobs in the US could be at risk from robots by 2030, PwC argues (Berriman 2017).

If the result of these technologies is that the advanced economies contain many more millions of people without jobs how will governments and societies respond? Tax revenues could fall dramatically, unless radical measures are adopted – as put forward by Bill Gates – that companies are taxed on job-replacing robots (Delaney 2017). But even that seems unlikely to compensate fully for lost income taxes.

And how will states pay for unemployment benefit for millions of extra people? This question might imply a major restructuring of the welfare system across the advanced economies. But there are equally important implications for the nature of society and how citizens contribute value to it. If there truly will be societies in which very large numbers of people are almost permanently unemployed, one response is likely to be a move towards promoting more volunteerism – not least to address the challenges of social disengagement faced by the ageing population.

These issues are more than financial. They go to the core of what citizens believe their government to be and what they expect their state to provide. They are questions that are philosophical and political as well as financial. Should a government act to protect its citizens, or is its role to improve markets' ability to service the needs of people as consumers? And in a period of declining tax revenues, must governments charge citizens for public services? These are conversations to be held over the coming years, but they have already begun. Yet for finance professionals all these issues may also present new opportunities to add value to their organisations in their careers. Particularly in the public sector, there is no doubt that professional accountants will have a key role to play in many of these developments in the future.

# Ireland: Drivers of Change

**Ireland's changing economic environment, political environment and societal norms – including a growing population – affect the public sector and the level of related services required.**

Ireland's particular challenges, highlighted in this report, include dealing with the potential economic and political damage from Brexit. Almost as significant are proposed changes to the US tax system, designed to repatriate US corporations' capital and jobs from other countries – including Ireland.

These challenges sit alongside the existing difficulties of fiscal management resulting from the substantial national debt created by the rescue of Ireland's banking system during the 2007–9 global financial crisis.

**Table 1:** Ranking of the top 50 drivers of change for the public sector for Ireland

The drivers of change are categorised into eight key themes: Economy; Politics and law; Society and demographics; Business of government; Science and technology; Environment, energy and resources; The practice of accounting and The accountancy profession.

| RANK | DRIVER OF CHANGE | THEME |
|---|---|---|
| 1 | The level of economic growth | Economy |
| 2 | Business leaders' responsiveness to change and disruption | Business of government |
| 3 | Big data: the development and exploitation of large organisational databases, data mining and predictive analytics | Science and technology |
| 4 | Evolution of corporate governance regulation and practice | Business of government |
| 5 | Workforce age structure | Society and demographics |
| 6 | Non-financial information and integrated reporting | The practice of accounting |
| 7 | Stability of national revenue bases | Economy |
| 8 | Speed and duration of business cycles | Business of government |
| 9 | Scope and diversity of expectations of external stakeholders | Business of government |
| 10 | The digitisation of work | Science and technology |
| 11 | Manageability of national and international debt | Economy |
| 12 | Balance between external financial accounting and internal managerial accounting | The practice of accounting |
| 13 | Societal expectations and definitions of accounting | The accountancy profession |
| 14 | Public perception and attractiveness of the accountancy profession | The accountancy profession |
| 15 | Governance and delivery of outsourced public services | Politics and law |
| 16 | Cybersecurity challenges for government | Science and technology |
| 17 | Quality and availability of the global talent pool | Business of government |
| 18 | Experimentation with and adoption of new business models | Business of government |
| 19 | Spread of diversity in society and the workplace | Society and demographics |
| 20 | Clarity in financial reporting and defining the audit function | The practice of accounting |
| 21 | Focus of global governance institutions | Politics and law |
| 22 | Stability of the global economic infrastructure | Economy |
| 23 | Global climate change | Environment, energy and resources |
| 24 | Competition for limited natural resources | Environment, energy and resources |
| 25 | Flexibility, suitability and cost of accountancy training | The accountancy profession |
| 26 | Adoption of globally accepted accounting standards | The practice of accounting |
| 27 | Broadening measurement of public sector value and progress | Economy |
| 28 | Level of international political volatility | Politics and law |
| 29 | Cost and ease of access to higher education | Society and demographics |
| 30 | Extent of foreign direct investment in developed and developing economies | Business of government |
| 31 | Carbon tax and other environmental market mechanisms | Environment, energy and resources |

| RANK | DRIVER OF CHANGE | THEME |
|---|---|---|
| 32 | Scale of take-up of alternative energy by business | Environment, energy and resources |
| 33 | Level of investment required to maintain national physical infrastructure | Economy |
| 34 | Adoption of integrated systems thinking to manage business complexity | Business of government |
| 35 | Enterprise risk management capability | Business of government |
| 36 | Defining the scope of the accountant's role | The practice of accounting |
| 37 | Scale and distribution of global population growth | Society and demographics |
| 38 | Accounting skills capacity in transitional economies | The accountancy profession |
| 39 | Opportunities arising from adoption of global regulation | The practice of accounting |
| 40 | Level of entrepreneurial skills in the accountancy profession | The accountancy profession |
| 41 | The workplace expectations of Generations Y, Z and beyond | Society and demographics |
| 42 | Rate of democratic transition | Politics and law |
| 43 | Size and complexity of the CFO's remit | The practice of accounting |
| 44 | Use of Public Private Partnerships (PPPs) | Business of government |
| 45 | New industries and production models | Science and technology |
| 46 | Advances in genetic science, impact of nanotechnology advances and robotic science across business sectors | Science and technology |
| 47 | Crowd sourced funding for innovation: the consumer as investor | Business of government |
| 48 | Pressure to manage reputation as part of business strategy | Business of government |
| 49 | Consideration of alternative economic perspectives | Economy |
| 50 | Total scale and distribution of global inequality and unmet needs | Economy |

In the global survey, Irish respondents identified the level of economic growth as the key driver of change affecting the public sector in Ireland.

The top three (ranked) drivers of change identified by Irish respondents in the global survey for each of the eight categories identified are listed below. The narrative also identifies the reflections of the Irish roundtable participants on these survey findings.

## ECONOMY

**1** The level of economic growth

**7** Stability of national revenue bases

**11** Manageability of national and international debt

In the global survey, Irish respondents identified the level of economic growth as the key driver of change affecting the public sector in Ireland. Participants in the roundtable also considered this to be the key driver for the public sector (along with the stability of the national revenue base). Ireland has an open trading economy, with flexible labour markets, high skill levels and one of the lowest tax environments within the European Union. This combination places Ireland in a strong position to benefit from upturns in the global economy, but also means that its **level of economic growth** is dependent on global conditions. This interdependency of the Irish economy is evident from the increases and decreases in Irish GDP over the last decade, which broadly mirrored the global economy. Irish GDP grew 3.8% in 2007 (Expansión/countryeconomy.com 2007), before contracting by 4.4% in 2008 (Expansión/countryeconomy.com 2008), and 4.6% in 2009 (Expansión/countryeconomy.com 2009). Irish GDP then rose 2.0% in 2010 (Expansión/countryeconomy.com 2010), and was stable in 2011 (Expansión/countryeconomy.com 2011), before falling 1.1% in 2012 (Expansión/countryeconomy.com 2012). As the global recovery took hold, so Ireland's economy strengthened. GDP rose 1.1% in 2013 (Expansión/countryeconomy.com 2013), 8.5% in 2014 (Expansión/countryeconomy.com 2014), 26.3% in 2015 (Expansión/countryeconomy.com 2015), and 5.2% in 2016 (Expansión/countryeconomy.com 2016a). In fact, the extent of Irish dependency on foreign direct investment and the artificiality of some transactions – conducted via Ireland for tax reasons – mean that GDP figures are not necessarily always an accurate reflection of actual Irish economic conditions. The official GDP statistics for 2015 of growth of 26.3% (World Bank 2017a) were affected by the nominal transfer of intellectual property by multinationals into Ireland. This led to Nobel Prize-winning economist, Paul Krugman's reference to 'leprechaun

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economics', and subsequently the Central Statistical Office placed less emphasis on the GDP figure, moving instead to reliance on a gross national income (GNI) measure (Burke-Kennedy 2017).

The **stability of the national revenue base** is an extremely important issue for Ireland according to both survey respondents and roundtable participants. Economic performance in Ireland before and after the global financial crisis was broadly in line with the trend in global performance, but with even greater volatility (World Bank 2017a). While this in part reflected the open trading relationships of Ireland and its dependence on foreign direct investment, it was also the result of the extent to which Irish banks suffered from the global financial crisis. Asset values in Ireland plunged during and after the crisis – residential property prices fell by 54.4% in the period 2007 to 2013 (Da Silva 2016). The overall economic situation had an impact on the stability of the national revenue base with falls in tax revenues as a percentage of GDP from 2007 (Table 2). Some Irish banks such as Anglo Irish Bank were especially dependent upon international inter-bank funding (BBC News 2010), which 'effectively dried-up', in the words of the Financial Regulator (RTE 2009).

The cost to the Irish government of bailing-out its banks was €64bn (Smyth 2013), which along with the fall in tax revenues during the recession continues to weigh down the country's balance sheet and create severe difficulties for the **manageability of national debt**, which was identified as the third-highest 'economy' driver of change by roundtable participants and third-highest by the survey respondents. In 2007 Irish national debt had been less than €38bn (Pettinger 2014), but in 2017 it was around €200bn (Central Bank of Ireland n.d.). As a percentage of GDP, national debt rose from 19.5% in 2007 (Pettinger 2014) to 78.6% in 2015 (Expansión/countryeconomy.com 2017), before falling back in 2016 and 2017.

## POLITICS AND LAW

**15** Governance and delivery of outsourced public services

**21** Focus of global governance institutions

**28** Level of international political volatility

Despite the Irish government's programme of austerity, imposed as a result of the global financial crisis, successive governments have not turned to the outsourcing of public services to any great extent. Ibec, the Irish Business and Employer association, reported in its study *Delivering World-class Public Services: Working with Business* (2013a) that Ireland is one of the OECD member states that uses the least outsourcing of public services. 'Ireland ranks fourth from bottom in the OECD, just ahead of Switzerland, Greece and Mexico, in terms of using external service delivery, some way off the OECD average and less than half the rate in the Netherlands'. Ibec commented: 'There has been far too little debate about the role the private sector can play in delivering public services...There is considerable expertise in Ireland for delivering external services and there is a need for much more direct engagement with the public sector to explore the possibilities' (Ibec 2013b).

**Table 2:** Ireland tax revenue as a percentage of GDP in recent years

| YEAR | YEAR AND TAX REVENUE AS A PERCENTAGE OF GDP |
|---|---|
| 2007 | 30.4% |
| 2008 | 28.5% |
| 2009 | 27.4% |
| 2010 | 27.1% |
| 2011 | 27.1% |
| 2012 | 27.5% |
| 2013 | 28.2% |
| 2014 | 28.7% |
| 2015 | 23.6% |

The shape of Brexit will be unknown for some time – and this uncertainty itself potentially damages investment in Ireland.

It has been argued that outsource contractors have been discriminated against by having to cost their overheads fully in bids, whereas in-house public sector bidders are able to hide pension liabilities and VAT costs when presenting their costings (Public Policy.ie 2013). Given the close cultural connection between Ireland and the UK (where outsourcing is widespread), the significant use in Ireland of public private partnerships (which use the same principle of private sector provision of public services) and the continued demands for efficiency savings in public expenditure, it seems likely that there will be further debate on the **outsourcing of public services**, and on the **governance and delivery** of these. For these reasons it is perhaps understandable that survey respondents identified outsourcing as a key driver of change within the 'Politics and law' category – it was similarly identified by Irish roundtable respondents as a 'top three' driver of change within the category.

Ireland's relationships with **global governance institutions** are controversial. This was identified by Irish survey respondents as the second most important driver of change within the 'politics and law' category, with roundtable respondents identifying it the most important. Ireland was supported through its bail-out of the banks and consequent high levels of national debt by the Troika of the European Commission, the European Central Bank and the International Monetary Fund. That support was conditional on the approval of Ireland's national budget and also on senior bondholders in failed banks being recompensed. This generated significant disquiet across much of the population and criticism of successive governments for the acceptance of these conditions. The IMF later criticised the process, observing that 'many in Ireland question why Irish taxpayers should be the ones covering the cost of addressing such euro area-wide concerns. A bail-in or other solution that would have "mutualised" these costs would likely have resulted in more equitable burden sharing' (Boland 2015). Further tension in the relationship between the Irish government and the European Commission resulted from the Commission's decision that Ireland had given tax benefits to Apple in breach of the Commission's state aid rules (EC 2016). The Commission has required the Irish government to recover from Apple what the Commission regards as illegal aid – an instruction that the Irish government and Apple are challenging (RT Question More, 30 August 2016). In addition, moves by the Commission to adopt a Common Consolidated Corporate Tax Base threaten to reduce Ireland's corporate tax competitive advantage and are resisted by the Irish government (Gorringe 2017). 'Ibec has estimated that this would cost Ireland over €4bn per annum in tax revenues', said the organisation's CEO Danny McCoy (Ibec 2017). The OECD's BEPS (base erosion and profit shifting) plan might also be a threat, perhaps posing a risk to the attractions of Ireland as a location for foreign direct investment. The Irish government commented: 'The outcomes of the OECD BEPS process could have impacts on Ireland in the short, medium and long term' (An Roinn Airgeadais 2014:34). Ireland is confident that it can make the BEPS process work in its favour. 'It is clear that certain structures, with little substance, are in their winter and as such there are opportunities for Ireland to become a location of choice for groups who wish to bring their intangible assets onshore together with the relevant substance. Ireland's FDI policy has always centred on substance and as such Ireland is well positioned to compete in the global FDI market for any investment relocating as a result of the BEPS process' (An Roinn Airgeadais 2014:35).

The **level of international political volatility** is a serious threat to Ireland – it was identified third-highest as a driver of change in the category by survey respondents, and second-highest in the category by Irish roundtable participants. The global financial crisis was not just an economic event, it was also the beginning of a global process of radical political change. Two instances of this have substantial impacts on Ireland: Brexit and the election of President Trump. One of President Trump's objectives is to repatriate US capital and jobs, and to do this he is seeking approval to cut the US corporate tax rate to only a little above that of Ireland (Lynch 2017). This move could potentially remove some US foreign direct investment from Ireland, leading to a possibly significant loss of Irish jobs.

But the UK's vote to leave the EU is potentially even more damaging to Ireland. The shape of Brexit will be unknown for some time – and this uncertainty itself potentially damages investment in Ireland.

The non-working-age population is rising in Ireland, which also has implications for the public sector.

Customs and passport controls on the border between the Republic and Northern Ireland would reduce cross-border trade, hitting economic activity across the island of Ireland, but especially in border areas. A report from the Economic and Social Research Institute (ESRI) concluded that 'estimates from the literature suggest that Brexit is likely to significantly reduce bilateral trade flows between Ireland and the UK. The impact could be 20% or more...' (Barrett et al, 2015: v). The impact could be devastating on the agri-foods sector, much of which is organised on a cross-border basis. The Irish Farmers Association (IFA) has pointed out that 'over 50% of Irish beef exports are marketed in the UK and nearly 40% of the UK's beef exports go to the Republic of Ireland...over 40% of Northern Ireland's lambs are processed in the Republic of Ireland' (IFA 2017). If the UK adopts World Trade Organisation tariff rates, this will 'virtually wipe out' Irish agri-food trade to the UK, at an annual cost of €2bn for meat and dairy exports, the association has suggested.

## SOCIETY AND DEMOGRAPHICS

**5** Workforce age structure

**19** Spread of diversity in society and the workplace

**29** Cost and ease of access to higher education

Ireland's population was 4,761,865 as at the last census, in April 2016 (CSO 2017). The demography is changing significantly – with a big impact on the **workforce age structure**, which was identified as the greatest driver of change by survey respondents within the 'society and demographics' category, and also by the Irish roundtable respondents. The non-working-age population is rising in Ireland, which also has implications for the public sector. In 2005, 20.7% of Ireland's population was under 15: by 2015 this had increased to 22.1%. The 65 and older age group had also risen, from 11.1% in 2005 to 13.0% in 2015. But the working age population had shrunk as a proportion of the total population, from 68.2% in 2005 to 64.9% in 2015 (Eurostat 2016). The actual number of working-age people increased slightly. (The total population in 2005 was 4,340,118 and in 2015 it was 4,724,720. Given the percentage breakdown of different age groups, this means that the working-age population was 2,959,960 in 2005 and 3,066,343 in 2015.) In the process, Ireland shifted from having an above-EU-average working-age population, to a below-average working-age population. The percentage of children in Ireland as at 2015 was the highest of any EU member state and the country also had the lowest share of the elderly (Eurostat 2016). Ireland should therefore be better positioned than most EU states as regards the future working age population. In fact, Ireland had the largest net emigration rate of any EU member state in 2013 at 7.6 people emigrating per 1,000 population, a net loss of 35,000 people (Kenny 2013). This reversed the trend seen in the 'Celtic Tiger' years, in which many people from Eastern Europe arrived in Ireland to work.

Historically, Ireland has, of course, been a nation of emigration. After the famine (1845–52), the population decreased substantially – in part through mass emigration to other lands, including America and Australia. In later years, large numbers of Irish people left because of poverty, the weak Irish economy and lack of jobs. That process restarted after the global financial crash. But during the 'Celtic Tiger' years, many people from other countries – particularly from Eastern and Central Europe – moved to Ireland, attracted by work. This process has helped to change the character of Ireland, including the **spread of diversity in society and the workplace**, identified by survey respondents second-highest as a driver of change within the 'society and demographics' category, although not identified as a top driver of change within this category by roundtable respondents. The 1990s represented the first period in its history in which Ireland generated large population inflows (there had been a small net migration gain in the 1970s). 'In 1996, Ireland reached its migration "turning point", making it the last EU member state to become a country of net immigration. Rapid economic growth created an unprecedented demand for labour across a wide range of sectors, including construction, financial, information technology, and health care.

One of the major challenges for Ireland's public sector is ensuring that it is sustainable and can withstand the shocks of future financial crises, such as another global downturn, the withdrawal of US or other foreign investment, or a new Eurozone crisis.

Unemployment declined from 15.9% in 1993 to a historic low of 3.6% in 2001... Ireland experienced dramatic increases in immigration flows (which included returning Irish citizens) from the mid-1990s but most markedly after the 2004 EU enlargement' (Ruhs and Quinn 2009). Most of the EU nationals who came to Ireland did so to work and most were employed. In 2008, while 57% of adults who were Irish nationals were employed, the figure for other EU member states' nationals was 76% (Ruhs and Quinn 2009). When the recession hit, however, non-Irish EU nationals were more likely than Irish nationals to become unemployed (Ruhs and Quinn 2009). Immigration peaked in 2007, dipped in 2008 and 2009 and was followed by a period of net emigration until 2016, when again immigration was (slightly) higher than emigration (EMN 2016). During the boom years – particularly 2006 to 2008 – the majority of immigration was from new EU member states. In 2016, the largest group of immigrants was from outside the EU, with the second largest group being Irish people returning home. The 2011 Census showed that the number of non-Irish nationals living in Ireland increased by 143% to 544,357 between 2002 and 2011. The largest groups of non-Irish working in Ireland in 2014 were from the UK (39,728), Poland (27,013) Romania (22,061) Brazil (19,526), Spain (14,138) and Italy (10,542). Dublin is the main centre for migrant communities.

There is a current political debate about the **cost and ease of access to higher education** in Ireland, which was identified third-highest as a driver of change for the public sector by survey respondents within this category – presumably because there may be concerns about the future pipeline of talent into the sector. Universities have expressed concern at not being able to charge market-level tuition fees and some are considering varying admission policies to favour students from other countries who are charged commercial fees ( Ó Caollaí 2017; O'Brien 2017). Tuition fees are not charged to most Irish and other EU students, but a €3,000 registration fee is levied (Complete University Guide 2017; Top Universities 2017). These costs are cheaper than in the UK (Complete University Guide 2017), but more expensive than in some other EU member states, such as the Netherlands. Ireland has a good international reputation for its skilled workforce, including for the proportion of working age people who are university graduates, and for higher education achievement, the quality of education and meeting the needs of a competitive economy (Schwab 2015; IMD 2016). Ireland has the EU's largest percentage of those aged 30 to 34 who completed tertiary level education, at 52.6% (Eurostat 2014). Most recent graduates are in employment: of 2015 graduates, 68% were in employment according to a follow-up survey, with 57% employment in Ireland and 11% employed overseas (HEA 2017:4). But employment rates for recent graduates in Ireland are below the EU average (Eurostat 2016b). Some 6% of graduates were still seeking employment nine months after graduation (HEA 2017: 4). The majority of Irish graduates rated their qualifications as relevant to their employment.

## BUSINESS OF GOVERNMENT

**2** Business leader responsiveness to change and disruption

**4** Evolution of corporate governance regulation and practice

**8** Speed and duration of business cycles

One of the major challenges for Ireland's public sector is ensuring that it is sustainable and can withstand the shocks of future financial crises, such as another global downturn, the withdrawal of US or other foreign investment, or a new Eurozone crisis. A strategy for reducing Irish vulnerability to world events involves producing a new risk-management approach. 'A critical feature of the period leading up to Ireland's recent economic and financial crisis was a major underestimation of the risks associated with an increasingly unbalanced economy'. This requires the civil service to give more forthright advice to ministers and a more coherent, less departmental, approach across government. Ireland has been an early adopter of digital government and has responded well in digitising services. But the accelerating pace of technological development will challenge **business**

New technologies are at the heart of much of the Irish economy. Many of the world's largest and most dynamic technology companies have operations in Ireland, with IBM, Microsoft, Google, Yahoo, MSN and Adobe all investing in major data projects in the country.

**leaders' capacity to respond to change and disruption**. This was identified as the greatest driver of change within the 'business of government' category from the survey results, and ranked second-highest as a driver of change by the roundtable respondents. Deloitte's report *Waves of Distribution: The Future of Ireland's Financial Services Sector* suggests that machine learning/artificial intelligence, the robotisation of work and blockchain technology will 'fundamentally challenge traditional technology platforms' operating in Ireland. It concludes that in Ireland 'significant disruption will occur in retail banking, fund management, payments, and insurance; growth will occur in payments, RegTech, cyber and aircraft leasing; corporation tax will not be a key driver of innovation; the regulatory environment will struggle to keep pace with the rate of innovation; the number of back-office roles in Ireland will reduce; new business models will create new opportunities for Ireland'. Clearly these developments will have an impact on the public sector.

The Irish economic crisis was part of the global crisis, but was exacerbated by national circumstances and serious corporate governance failings. It is clear, specifically, that the collapse of two major financial institutions – Anglo Irish Bank and the Irish Nationwide Building Society – was related to weak corporate governance. Inevitably, these failings have provoked discussion, leading to the **evolution of corporate governance regulation and practice** in Ireland. This is true not just for large businesses – there have also been major failings in corporate governance in the charitable sector, for example at Rehab. The charitable sector's Governance Code has since been strengthened, as has the Central Bank of Ireland's corporate governance code, which applies to banks and insurers, and the Irish Stock Exchange's Corporate Governance Annex. The European Union has also imposed stronger economic governance rules on Ireland.

As an open economy that is small in size, Ireland is particularly susceptible to global events and the global business cycle – the **speed and duration of business cycles** is a major determining factor in the health of the Irish economy. With the benefit of hindsight, Ireland might have reduced the impact on its economy from global events if it had adopted stronger regulation of its banks, perhaps limiting their leverage, loans per value for mortgages and dependency on international interbank borrowing. Creating a greater capacity for separating Ireland's economy from global business cycles is an important policy objective for the country. More broadly, particularly in the face of emerging technologies and other significant changes, the public sector in Ireland must continue to adapt its structures and processes to ensure that it can offer services flexibly to support quicker and more agile decision making and delivery.

## SCIENCE AND TECHNOLOGY

**3** Big Data: large organisational databases, data mining and predictive analytics

**10** The digitisation of work

**16** Cybersecurity challenges for government

New technologies are at the heart of much of the Irish economy. Many of the world's largest and most dynamic technology companies have operations in Ireland, with IBM, Microsoft, Google, Yahoo, MSN and Adobe all investing in major data projects in the country. **Big data** is likely to be extremely important for the future of the Irish economy and survey respondents identified it as the key driver of change in the public sector within the 'science and technology' category, and third-highest as a driver overall. Roundtable respondents ranked it the second-highest in the category. The Irish Government's Action Plan for Jobs 2013 has identified "Big Data" as one of the areas where Ireland has distinct advantages compared to [sic] other countries. 'The Government believes our skills base and research capability in ICT has the potential to reap substantial benefits in terms of jobs and growth from the global expansion of the "Big Data" sector'. According to a study by Forbes, international investors regard Ireland as a good location for big data projects, with 96% seeing the country as a favourable location, because it benefits from good

Ireland imports almost 90% of its consumed energy despite a climate and geography that is well suited to greater use of wind, tidal, wave, and hydro electricity production, as well as opportunities for solar, biomass, and geothermal.

data infrastructure. Ireland has invested in research into big data and data analytics applications. Ireland's public sector is receptive to proposals for high-technology solutions to government problems, creating opportunities for the use of big data and data analytics. The Irish Revenue Commissioners successfully use data mining to identify possible tax evasion and tax avoidance.

Ireland is well placed to take advantage of **the digitisation of work** because of its high-speed broadband coverage, highly developed technology skills base and history of investment from technology companies. Again, roundtable respondents similarly identified this within the top three drivers of change within the category. Virgin Media – a leading internet service provider in Ireland – says in a report on Ireland: 'Digitisation...is closely correlated to economic growth. The rate of this contribution is at its highest in advanced economies where there is a talent base and an economic "ecosystem" that can take advantage of the digital services enabled by technology and broadband developments...we have seen real progress as Irish consumers, entrepreneurs, investors, the private and the public sector respond to the new opportunities that are presented by digital technologies...Ireland has made significant progress with regard to the delivery of high speed broadband. In fact, 30% of Irish adults now say they are signed up to speeds of 30 Mbps or more, compared to just 10% in 2012 and an EU average of 18.2%' (Amárach Research 2014). The report predicts that the increased application of digitisation in Ireland will lead to 'better delivery of education, technological literacy, enhanced employment prospects and greater access to public and commercial services'.

There are major **cybersecurity challenges for government**, as there are in any advanced economy. Interestingly this was identified by roundtable participants as the key driver of change impacting the public sector for the 'science and technology' category. Ireland's National Cyber Security Strategy recommended the government establish the National Cyber Security Centre as an independent organisation to strengthen the capacity of major companies, digital service providers, utilities and the government from cyber-attacks. The Centre was established in 2015 and leads Ireland's response to cyber-attacks. According to Deloitte, there is significant potential for Ireland to become a global leader in cybersecurity, attracting foreign direct investment. 'Ireland is well placed to benefit from increased global investment, and has a real opportunity to position itself as a world class cyber security practices, solutions and investment hub', said Deloitte. According to Deloitte's study, skills are regarded as both the most positive and most negative factors about Ireland as a global cybersecurity location, indicating that the quality of skills is strong, but the number of people with relevant skills is too low.

## ENVIRONMENT, ENERGY AND RESOURCES

**23** Global climate change

**24** Competition for limited natural resources

**31** Carbon tax and other environmental market mechanisms

**Global climate change** is a serious concern for Ireland, identified by both Irish survey respondents as a key driver of change within the 'environment, energy and resources' category. Roundtable respondents similarly ranked it second-highest as a driver of change for the category. There has been a mean global temperature increase of 0.7 C between 1890 and 2008, with an increase of 0.4 C in the period 1980 to 2008. Six of the ten warmest recorded years in Ireland have occurred since 1990; there have been fewer days with frost; the frost season has shortened; and there has been an increase in annual rainfall in northern and western areas, with decreases or small increases in the south and east. In addition, there has been a recorded increase in ocean acidification, which is harmful to marine life. Sea levels are rising by between 2mm and 4mm per year. About 60% of Ireland's population lives within 10km of the coast and much of the soft coastline, especially in the east, is under severe threat from erosion and flooding.

> There are moves in Ireland towards more reporting of non-financial information, along with an interest in the adoption of integrated reporting.

Ireland is a fertile country with a low population density, making it well suited for its substantial agri-food industry, including dairy, meat and arable. In addition, Ireland has reserves of natural gas, peat, copper, lead, zinc, silver, barite, gypsum, limestone and dolomite. Nonetheless, Ireland is a net importer of many resources, making it vulnerable in the international **competition for limited natural resources** ranked by both survey respondents and roundtable participants as within the top three drivers of change for the category. Ireland imports almost 90% of its consumed energy despite a climate and geography that is well suited to greater use of wind, tidal, wave, and hydro electricity production, as well as opportunities for solar, biomass, and geothermal. There are also proposals to extract substantial amounts of natural gas on the Louth/Fermanagh border that covers both the Republic and Northern Ireland. A proposed new cross-border electricity grid interconnector offers the potential for increasing security of supply for both jurisdictions. There is still significant scope for Ireland to reduce its dependency on imported energy sources.

A **carbon tax** was introduced in Ireland in 2010, applying to paraffin oil, gas oil, liquid petroleum gas, fuel oil, natural gas and solid fuels. The current tax rate is €20 per tonne of CO2 emitted. Frank Convery, an economist at University College Dublin, explained: 'Ireland is a pioneer in the implementation of a carbon tax. This has allowed us to avoid (more) increases in income tax, which would have further reduced disposable income, increased labour costs and destroyed jobs. It is also facilitating us in meeting our very demanding legally binding obligations to reduce greenhouse gas emissions, and provides support for the creation of new jobs in improving energy efficiency and growing the low carbon economy'.
An OECD report commented: 'The circumstances that resulted in a carbon tax being proposed and subsequently introduced in Ireland include: leadership by the Green Party; limited public opposition; government need for the income; support for the green economy; support from the academic and wider policy population; exemptions for large emitters and agriculture; effective engagement and good planning'.

The carbon tax has been credited with reducing Ireland's greenhouse gas emissions, although by international comparison – as measured by the World Bank – the scale of the carbon tax is modest. The success of the carbon tax has encouraged Ireland to adopt other environmental impact measures, with charges imposed on some household rubbish using a pay-by-weight system and a levy on plastic bags.

## THE PRACTICE OF ACCOUNTING

**6** Non-financial information and integrated reporting

**12** Balance between external financial accounting and internal managerial accounting

**20** Clarity in financial reporting and defining the audit function

There are moves in Ireland towards more reporting of **non-financial information**, along with an interest in the adoption of **integrated reporting**. Both survey and roundtable participants identified this as the key driver of change within the public sector across the 'practice of accounting' category.

An ACCA report (2013) found 'there is strong support among investors in the UK and Ireland for integrated reporting. More than 90% of investors surveyed said it would be valuable for companies to combine financial and non-financial information into an integrated reporting model'. The Irish Stock Exchange's corporate governance code is based on the Financial Reporting Council's code for UK listed companies, which promotes strong internal controls and risk management. The demand for more meaningful information beyond core financials for public sector entities in Ireland can be expected to continue to be prioritised as stakeholders seek greater transparency and understanding of public spending, value for money initiatives, and improved service delivery.

Achieving the right **balance between external financial accounting and internal managerial accounting** is also identified as a key imperative for the sector: this is challenging and must be

> Ireland's economic crisis damaged the reputation of the financial services sector and arguably the public perception and attractiveness of the accountancy profession, which was felt by some to have failed them.

addressed by considering the different stakeholders that need to understand the reports produced by finance teams in various public entities. The range of stakeholder with vested interest in public sector organisations continues to grow – government, executives, managers, regulators, staff, customers and suppliers all have different information requirements. Finance professionals in the public sector must increasingly recognise that they must communicate financial information clearly to all these groups. The focus on internal managerial accounting is particularly relevant. There is growing demand across the Irish public sector for accountants to demonstrate value and positive influence. In the wider push for improved financial management across the sector, and recognition that internal financial discipline helps promote accountability and delivery efficiency, specific core activities such as financial planning, forecasting and, critically, decision-support and business-partnering activities are becoming increasingly important. Sound management accounting practices also contribute to increased transparency of organisation spending and value for money. Establishing the right balance between external financial accounting and internal managerial accounting was identified by both survey respondents and Irish roundtable respondents as a 'top three' driver of change for the sector within the 'practice of accounting' category.

The failures of Ireland's banking system – and specifically the collapse of the Anglo Irish Bank and the Irish Nationwide Building Society – illustrate both the need for greater **clarity in financial reporting** and for more clearly **defining the audit function** and clearly these developments have had implications for public sector finances. Within the public sector itself the discussion on the International Public Sector Accounting Standards (IPSAS) (and European Public Sector Accounting Standards (EPSAS) adoption) continues to gather pace. The benefits of IPSAS are well known, particularly in the aftermath of the sovereign debt crisis. Greater consistency in financial reporting between different governments worldwide is valuable. Better and more transparent financial reporting should improve decision-making and drive greater understanding of how money is being used and the accountability of government for its spending. However, with Ireland as an EU member state the Irish public sector also faces the possibility of adopting EPSAS, adapted from IPSAS standards but specifically tailored for EU member states. Currently, it uses accruals accounting for some areas of the public sector but cash accounting (particularly for budgeting). EPSAS adoption could dramatically alter the public sector financial reporting model in Ireland, so perhaps it is unsurprising that clarity in financial reporting and defining the audit function are identified as a key driver of change.

## THE ACCOUNTANCY PROFESSION

**13** Societal expectations and definitions of accounting

**14** Public perception and attractiveness of the accountancy profession

**25** Flexibility, suitability and cost of accountancy training

Ireland's banks made substantial mistakes during the boom years. Both Anglo Irish Bank and the Irish Nationwide Building Society were undermined by severe corporate governance weaknesses. These included large loans made by the institutions to their own directors and breaches of normal lending conditions on a discretionary basis. In addition, circular loans between Anglo Irish Bank and Permanent TSB had the effect of making the institutions look more financially robust than they were. After the extent of their financial difficulties became clear there were expressions of shock among the media and the public that the auditors had been unaware of such matters as the circular loans, the personal borrowings of directors and the weak corporate governance arrangements. These concerns have led to questions about **societal expectations and definitions of accounting**, the role of external and internal auditors and the responsibility of professional accountants within institutions in their roles as directors and in helping prepare financial reports. The public sector is clearly not immune from these developments, and we can expect the scope and nature of the role of accountants to continue to evolve as pressure intensifies for improved financial management and more effective accounting for public spending, with more transparency.

Accountancy professional bodies and recruitment consultants report significant and growing demand for accountants more generally.

Ireland's economic crisis damaged the reputation of the financial services sector and arguably the **public perception and attractiveness of the accountancy profession**, which was felt by some to have failed them. The Irish Bank Resolution Corporation (IBRC), the body created to wind up the affairs of Anglo Irish Bank and the Irish Nationwide Building Society, instigated legal action against past auditors. Similarly, some companies in Ireland – such as the insurance company RSA – have criticised auditors for not challenging executives more seriously while financial mistakes were being made. This also has implications for the perception of the profession in the public sector, and could reduce its future ability to recruit and retain top talent in the sector, particularly in an environment where compensation packages often struggle to compete with the private sector.

Despite these concerns, the accountancy profession in Ireland generally remains in demand and accountants in the public sector can expect to have significant opportunities in the future. Accountancy professional bodies and recruitment consultants report significant and growing demand for accountants more generally. Even so, both the Irish survey respondents and the Irish roundtable participants identified the **flexibility, suitability and cost of accountancy training** as a key driver of change for the future supply of finance talent to the public sector. The changing nature of the professional accountants role in the public sector will shape future education requirements. However, for more traditional entry routes into the accountancy profession, Ireland (comparatively) continues to benefit from the free fees initiative whereby student contribution fees are typically capped at €3000 per annum. New talent pipeline sources are also continuing to emerge through apprenticeships for school leavers. Although currently these typically remain restricted to industry and corporate organisations in the accountancy sector, there may well be future opportunities to develop this pipeline in the public sector too.

**Ireland's public sector's financial professionals face serious challenges. They need to recognise the challenges and the drivers of change in order to equip themselves for a constantly changing operating environment, in which their role is central to the objectives of modernising government and improving its efficiency.**

Ireland is a small country with an open economy. As such, it is vulnerable to changes in the health of the global economy. When the global financial crisis hit in 2008, Ireland was one of the world's most affected nations because of excessive lending by Ireland's core banks. Weak regulation of the banking sector led to banking bailouts and heavy national debt, which in turn caused a severe fiscal tightening.

Until the global financial crisis, Ireland had benefited massively from its membership of the European Union and the Single Market. But pressure from the European Union, the European Central Bank and the International Monetary Fund – the Troika – was central to the decisions by the Irish government both to bail out its banks and to prevent senior bondholders from losing their investments. This caused substantial pain to Ireland and its citizens. Arguably, Ireland now stands to lose again – from the decision of the UK to leave the EU.

Brexit is a major threat to Ireland. The UK is Ireland's major trading partner. Many of Ireland's core industries – but especially agri-food – could be substantially damaged by new tariffs if these are imposed as a result of Brexit. Already, investment decisions are being delayed because of uncertainty that may not be resolved for another two years.

Ireland, however, has been extremely successful in attracting foreign direct investment, in particular from the US. Many of the US's largest corporations – including Google, Apple and Microsoft – have invested heavily in Ireland. There are concerns that tax reforms put forward by President Trump intended to repatriate capital and jobs to the US could seriously damage US investment in Ireland. Again there is uncertainty, because it is unclear whether the tax reforms will be approved and how US corporations will respond to them.

This environment of uncertainty makes it difficult for the Irish government to plan its fiscal policy. It is clear from experience in the global financial crisis that the Irish government has to adopt a fiscal strategy that is better able to withstand external events. And with a substantial national debt, Irish governments will find it hard for many years to provide the quality of public services that their citizens want. Personal taxation levels are likely to remain higher than politicians would want for several years.

This context places an additional premium on efficiency within the public sector and competence in the formation and management of budgets. High-quality finance professionals have never been as important to an Irish government as they are today. Public sector leaders have to be capable not only of the highest quality of financial management, but also of adjusting to a rapidly changing context in light of digital technology, big data, data analysis and threats to cybersecurity. Meanwhile, there is pressure on government to adopt experimental approaches to business management within the public sector, including greater outsourcing to the private sector of public services.

Ireland has the advantage of a strong accountancy profession, which is growing in size and importance. The country has become globally recognised as a centre of accountancy expertise, which serves its government, Irish companies and also other businesses around the world. The wealth of accountancy talent is an example of Ireland's high-quality skills, which itself is an important factor – alongside low tax rates – in attracting foreign direct investment.

As Ireland continues to recover from the economic crisis, it has to consider the lessons of that crisis. These include the need for stronger reporting practices by banks and other large corporations and the need to provide more context and non-financial information in corporate reports. For Ireland to make progress, both government and Irish companies must prove their financial sustainability.

## A PLATFORM FOR ENGAGEMENT

The aim for this global project is to provide a platform for engagement between Ireland's public sector organisations, professional accountants and the wider community of stakeholders. No future-oriented work of this type can ever hope to be definitive, but this report provides an important input into the development of future public sector strategy. It provides accountancy professionals, and the organisations in which they work, with a framework for preparing for, adapting to and influencing change.

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# Appendix: 50 Drivers of change definitions



| ECONOMY |
|---|
| **1. Stability of the global economic infrastructure** |
| The global economy, trade and financial flows are dependent on a complex underpinning infrastructure that comprises a range of key agreements, standards, systems, checks, balances and governance frameworks. |
| **2. The level of economic growth** |
| Growth expectations influence business confidence, consumer spending, government planning and budgeting, and management of the micro and macro economy. |
| **3. Consideration of alternative economic perspectives** |
| The financial crisis has offered a chance for nations to explore new economic perspectives and models traditionally neglected by mainstream economic thought. A serious examination of these perspectives could help reformulate the global economic system along more environmentally sustainable and equitable lines. |
| **4. Total scale and distribution of global inequality and unmet needs** |
| Higher income inequality, (as noted by OECD) within countries correlates with higher unemployment, higher crime rates, lower average health, weaker property rights, limited access to public services, lower social mobility, more social unrest, and less trust within and across the society, leading to more fragile democracies. This presents huge challenges for public sector and how it develops policies to meet these challenges. |
| **5. Broadening measurement of public sector value and progress** |
| How we assess value, progress and performance for government is expanding rapidly to take account of non-financial measures of development encompassing everything from innovation to happiness. |
| **6. Stability of national revenue bases** |
| The stability of national revenue bases is considered a prerequisite for the economic well-being of countries as it affects governments' ability to provide public services. Generally, government revenues are derived from direct taxes paid by households (mainly personal income tax) and corporations; and indirect taxes, social contributions and revenues from state owned assets and enterprises. |
| **7. Manageability of national and international debt** |
| The manageability of national and international debt is important for macroeconomic stability, business confidence and future economic development prospects. Levels of public debt also have important ramifications for citizen well-being, unemployment levels and the provision of social welfare services. Globally, the economic outlook is increasingly influenced by the views of policymakers, central bankers and financial institutions on the sustainability of sovereign debt. |
| **8. Level of investment required to maintain national physical infrastructure** |
| Physical infrastructure forms the economic backbone of all economies. The quality and resilience of a national infrastructure has a direct influence on the growth, competitiveness and attractiveness to inward investment of a nation's economy. The standard of economic infrastructure, encompassing water, waste, transport, energy and communications, affects the quality of life for citizens as well as the ability to meet objectives and commitments regarding sustainability and reducing carbon emissions. |
| **POLITICS AND LAW** |
| **9. Focus of global governance institutions** |
| A network of governance institutions such as the World Bank, IMF, World Trade Organization (WTO) and the UN could face intensifying pressure to adapt their structures to the reality of the changing world. There is, however, still a belief among developing nations – such as the G77 grouping – in particular that they need a stronger voice in the wider set of global governance institutions. |
| **10. Rate of democratic transition** |
| The rate of democratic transition is changing the global landscape. Political changes may open up the economy, attract foreign investment, create business opportunities and drive the growth of domestic segments but swift changes in power can be violent and disruptive – creating political and economic instability. |
| **11. Level of international political volatility** |
| The level of political volatility caused by popular uprisings or the actions of hostile nations and terrorists groups can pose a threat to both the physical and economic integrity of a state. Such fluctuations can affect inward investment and spending in a country thus seriously affecting the state's economic performance, and reduce confidence of global financial markets. |
| **12. Governance and delivery of outsourced public services** |
| The way in which public services are managed, funded, supplied and consumed is changing fundamentally, in line with the financial struggles that nations face. In order to meet higher demands with smaller public funds, it is likely that 21st century public services will look radically different in the future and from what was seen in the 20th century.<br>Public sector provision is increasingly moving to the private sector raising questions around governance and risk. |

## SOCIETY

### 13. Scale and distribution of global population growth

A number of key trends are shaping the world's demographic landscape. The global population is expected to continue to grow at least until 2050, forecast to reach 9.3 billion. At the same time, overall fertility levels are declining. These global trends mask marked differences at the national and regional levels. There are numerous cultural, social and economic factors that both affect and are affected by global demography.

Rapidly growing populations also present economic and capacity-building challenges for governments seeking to provide public services.

### 14. Spread of diversity in society and the workplace

Greater mobility across the globe has a great impact on the level of diversity. Cultural diversity and Increasing levels of female participation in the workforce is seen as both an important social goal and a vital way of maximising the use of available talent to maintain or bolster economic development.

### 15. Workforce age structure

A downward trend in global fertility coupled with an ageing society means that each future generation could be smaller than the previous one. Although the global population is still growing the average age is also rising.

With the abolishment of the default retirement age and workers staying in senior positions longer, organisations have to factor in increased salary and healthcare costs. As existing retirees re-enter the workforce owing to a combination of low pensions and removed barriers, organisations will have to consider how to attract, retain and integrate older talent.

### 16. The workplace expectations of Generation Y, Z and beyond

One of the biggest challenges faced by organisations today is how to understand and respond to the expectations of generations coming into the workplace.

### 17. Cost and ease of access to higher education

The economics of education is changing as public budgets shrink and institutions have to compete for funds, raise fees and cut unprofitable courses. Rising cost of higher education has important ancillary impacts for the level of personal debt for students and their equality of opportunity.

Online channels for delivering education are also changing the nature and delivery of professional development. The uptake of online learning may increase in emerging economies.

## BUSINESS

### 18. Use of Public Private Partnerships (PPPs)

Governments have been and are increasingly looking to partner with private sector to help fund large scale public infrastructure programmes. This has led to significant growth in the adoption of PPP/PFI initiatives. However the perception that any risk of failure lies with public sector and reward is with the private sector.

### 19. Business leader responsiveness to change and disruption

Momentous economic and social forces are currently reshaping the world. At the same time, disruptive advancements – often enabled by technology – are affecting everything from industry structures, through societal governance to the nature of human interaction. The ability of organisations to adapt to new challenges and opportunities created by change and transformation is becoming a key determinant of success or failure in a turbulent operating environment.

### 20. Quality and availability of the global talent pool

Access to talent at all levels is consistently identified as a critical future success factor for all organisations. The challenge of securing a suitable flow of talent is increasingly becoming a top priority for leaders who are finding growth and development ambitions hampered by talent shortages. The quality of education itself seems to be a critical talent issue.

### 21. Extent of foreign direct investment in developed and developing economies

Foreign direct investment (FDI) flows are an important source of investment and economic growth for many countries. In an uncertain and highly competitive global economy, ensuring that a destination is seen as a safe location for FDI is becoming an increasing priority for many countries and their governments.

### 22. Speed and duration of business cycles

As technologies such as the internet compress time and distance, organisations are under pressure to adapt their structures, processes and systems on an almost continuous basis. As a result, there is a growing emphasis on the need for speed, flexibility, adaptability and responsiveness. These in turn demand rapid decision making and shortening cycles for execution of change. Public sector organisations will need to factor this in policy development and implementation.

### 23. Experimentation with and adoption of new business models

In an uncertain economic climate, the pace of introduction of new business models could accelerate. These new models have the potential to disrupt and reinvent industries. As pressure on public finances increase the need to develop new models of financing and alternative revenue and pricing models.

### 24. Crowd sourced funding for innovation: the consumer as investor

The internet has facilitated the emergence of new finance models that allow organisations to fund product development and service delivery in advance via crowdsourcing using online platforms. The public sector needs to be able to respond to such rapid changes.

### 25. Adoption of integrated systems thinking to manage business complexity

The perceived shortening of business cycles is creating major challenges in terms of how we design, manage and change highly complex, globally interconnected and rapidly evolving businesses. While the timescales for action are shortening, the perceived complexity of the task of making change happen is growing.

**26. Enterprise risk management capability**

There is growing concern and increasing uncertainty over the nature and scale of risks to which organisations are – or could be – exposed. At the same time, new risks and sources or concepts of risk, such as resource wars, are emerging. The ability to effectively manage this is increasingly important.

**27. Evolution of corporate governance regulation and practice**

Traditional structures of corporate governance stem from legislation, regulation and institutional best practices. They are intended to oversee the conduct of business and the management of relationships among and between internal and external stakeholders. These governance rules should improve accountability, reduce corruption and avoid conflicts of interest. A general push for greater transparency for public spends has driven increased expectations for accountability and demonstration of robust risk-management policies.

**28. Scope and diversity of expectations of external stakeholders**

The range of stakeholders for public sector organisations and the breadth of their concerns and expectations are increasing in the wake of a period of enormous economic turbulence and systematic failures. As a result, regulatory, transparency, ethical and performance demands of this growing range of external stakeholders are expanding for the organisation, the finance function and the accountancy profession.

**29. Pressure to manage reputation as part of business strategy**

The public sector has always had challenge of corporate reputation management which has been compounded by the instantaneous nature of the internet and social media in particular. The challenge is to manage long term government priorities whilst managing short term 'shocks'.

## SCIENCE AND TECHNOLOGY

**30. The digitisation of work**

Increasing digitisation is transforming the nature of work and working practices in almost every sector. It is reasonable to assume that task automation will extend to ever-more knowledge-intensive, analytical and judgement-based work activities over the next decade and beyond.

**31. Cyber security challenges for government**

The increased reliance on computers in our daily lives and digitisation of financial services has opened up individuals and organisations to threats from cyberspace. Threats and attacks are typically conducted by groups and individuals who hack systems to attain both ideological and financial goals.

**32. Big Data: the development and exploitation of large organisational databases, data mining and predictive analytics**

There is a growing interest in how organisations can exploit 'Big Data' – the large and growing databases of customer and transactional information being generated through daily activities. The challenge is to create new toolsets that enable the management and manipulation of these large datasets and to generate powerful predictive insights about future customer behaviour. As governments are usually the largest collector of data, increasing use of data mining and predictive analytics should help to spot possible future opportunities, shocks, issues and challenges.

**33. New industries and production models**

Advances in science and technology are yielding radical new industrial processes that could be the basis of major industries of the future. In many cases, these industries are also introducing new business models and distribution approaches.

**34. Advances in genetic science, Impact of nanotechnology advances and robotic science across business sectors**

Advances in science have revolutionised humankind's understanding and control over the natural world. Opportunities are being created through nanotechnology and rapid progress in robotic science has led to the development of sophisticated machines that perform a wide range of industrial and domestic tasks. In medicine, a major field of study is the development of miniature robots that can be ingested and then repair damaged cells and organs in the body. This places great pressure on governments to ensure there is regulatory rigour to address ethical concerns raised and simultaneously explore opportunities to manage better healthcare provision.

## ENVIRONMENT, ENERGY AND RESOURCES

**35. Global climate change and**

There is increasingly widespread agreement that the planet faces a real and growing risk from dangerous climate change and their impacts are unpredictable. New environmental risks – such as hereto unforeseen extreme weather events place significant pressure on public finds to manage the aftermath and develop robust preventative measures such as effective flood defences.

**36. Competition for limited natural resources**

Increasing demand for finite resources places pressures on governments to promote ethical resource consumption and maintain economic growth.

**37. Carbon tax and other environmental market mechanisms**

There is a growing move by governments to use taxation and market mechanisms to encourage more environmentally sound behaviour and provide the funds to finance environmental protection and clean-up costs.

**38. Scale of take-up in alternative energy by business**

Governments are evaluating and encouraging the greater use of alternative energy sources as one route to reducing dependency on carbon-based fuels. Increase of alternative forms of green energy, such as solar, wind and bio-gas, has given organisations a wider range of options for fulfilling their energy needs.

## THE PRACTICE OF ACCOUNTING

### 39. Defining the scope of the accountant's role

Definitions of the accountant's role vary around the world. Common features include maintaining a record of an organisation's assets, transactions and financial activities, carrying out audits and ensuring compliance with financial and tax regulations.

The evolution towards becoming a more strategic partner within a business or as an external supplier may allow accounting to become a more integrated part of organisations.

### 40. Size and complexity of the CFO's remit

Organisations face a series of threats including macro-economic instability, consumer uncertainty, market volatility and increasing administrative complexity. At the same time, rising energy prices and a reconfiguration of the global landscape towards the emerging economies also present prominent and persistent challenges. As such, the role of the CFO is changing rapidly in line with constantly evolving expectations, demands and operating contexts.

### 41. Non-financial information and integrated reporting

The challenge of providing a total picture of organisational health is driving the move to communicate both financial and non-financial performance data in an integrated reporting format. Non-financial information is increasingly recognised to be as important as financial information as a driver of business value and risk. In response to demands for a holistic picture of organisational health, the model of integrated reporting is increasingly being adopted.

### 42. Clarity in financial reporting and defining the audit function

The goal of financial reporting is to present shareholders and regulators with a clear picture of an organisation's financial health.

The role of the audit function is to ensure that the accounts have been prepared in accordance with the regulatory framework, verify that the underlying procedures are robust and that the organisation's financial position has been clearly represented

### 43. Balance between external financial accounting and internal managerial accounting

A constant challenge for accountants is striking the right balance between external financial reporting requirements and internal managerial accounting. Both are expected to become more demanding and complex over time. Furthermore, as demands grow for a more integrated and holistic approach to external accounting, so the distinction between the two may reduce.

### 44. Opportunities arising from adoption of global regulation

As business globalises beyond traditional boundaries and more economies open up to adopt global practices and norms, the need for global regulation increases. Both opportunities and challenges arise from the implementation of global regulatory systems.

There are a number of significant factors for governments, firms and accountancy practitioners trying to implement global regulations. These include the rate of change, the distance between practitioners and those defining and implementing legislation, the operational context, and the complexity of regulations required to deal with the range of issues.

### 45. Adoption of globally accepted accounting standards

The introduction and global adoption of international accounting standards is seen by many as a desirable but unachievable goal. Others argue it is an essential prerequisite of true globalisation. In accountancy, steps towards global norms have been achieved with the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) and International Public Sector Accounting Standards (IPSASs) that are being aligned to IFRSs to ensure greater comparability between public and private sector financial reporting.

## THE ACCOUNTANCY PROFESSION

### 46. Societal expectations and definitions of accounting

One of the big long-term questions for the profession is the extent to which the definition of what accounting is, and what it entails, may change over the next decade or more. The evolving scope and nature of accounting and the role of the accountant are being shaped by changes in multiple influencing factors. These include how the global economy is regulated, political motivations, disruptive technology developments and evolving business expectations.

### 47. Flexibility, suitability and cost of accountancy training

In a changing world, the spotlight inevitably falls on the capability of the education system to respond to the continuously evolving training needs of businesses and the professions. Economic changes, new business models and evolving regulatory demands will continue to create new and additional strategic, accounting, compliance and reporting requirements. The profession must demonstrate its ability to operate in a state of 'continuous evolution'.

### 48. Accounting skills capacity in transitional economies

Many developing economies are now producing significant numbers of well-trained professional accountants. Others, however, may have to undergo a fundamental transformation of their accountancy education system. Such a transformation process would include bolstering higher education course design and teaching methods.

### 49. Level of entrepreneurial skills in the accountancy profession

CFOs are increasingly expected to adopt a broader strategic and entrepreneurial role across the organisation. A greater emphasis on basic entrepreneurial skills such as business leadership, creativity, team-building, communication, negotiation and sales literacy could be integrated into accountancy training and continuous professional development.

### 50. Public perception and attractiveness of the accountancy profession

The public standing of and trust in accountants are critical to the effective functioning and attractiveness of the accountancy profession. Any issues could hamper the ability to recruit and retain top talent to the profession. Another key consideration for would-be entrants is the level of remuneration a big issue for the public sector where salary tends to be lower.

# References



ACCA (2013), *Understanding Investors: Directions for Corporate Reporting* <http://www.accaglobal.com/content/dam/acca/global/PDF-technical/financial-reporting/pol-afb-ui02.pdf>, accessed 26 July 2017.

AFP (2016), 'Global Life Expectancy Has Increased by Five Years since the Start of the Century', theJournal.ie [online article], 19 May <http://www.thejournal.ie/life-expectancy-2779087-May2016/>, accessed 26 July 2017.

Amárach Research (2014), *The Second UPC Report on Ireland's Digital Future* <https://www.virginmedia.ie/pdf/UPC_2014_report.pdf>, accessed 26 July 2017.

An Roinn Airgeadais (Department of Finance) (2014), *OECD BASE Erosion and Profit Shifting Project in an Irish Context: Part of the Economic Impact Assessment of Ireland's Corporation Tax Policy*, October <http://www.budget.gov.ie/Budgets/2015/Documents/OECD_BEPS_Project_Irish_Context.pdf>, accessed 27 July 2017.

An Roinn Airgeadais (2015), 'Shareholding Management Unit' [website article], 20 July <http://www.finance.gov.ie/what-we-do/banking-financial-services/shareholding-management-unit/shareholding-management-unit>, accessed 27 July 2017.

An Roinn Airgeadais (n.d.), 'Irish Bank Resolution Corporation' [website article] <http://www.finance.gov.ie/what-we-do/banking-financial-services/shareholding-management-unit/irish-bank-resolution-corporation>, accessed 27 July 2017.

An Roinn Sláinte (Department of Health) (2016a), 'Press Release: Ministers Welcome €14.6 billion Health Budget', 11 October <http://health.gov.ie/blog/press-release/ministers-welcome-e14-6-billion-health-budget-2/>, accessed 26 July 2017.

An Roinn Sláinte (2016b), 'Publications: Health in Ireland Key Trends 2016', 21 December <http://health.gov.ie/blog/publications/health-in-ireland-key-trends-2016/>, accessed 26 July 2017.

Ask About Ireland (n.d.), 'How Does it Affect Me?' [website article] <http://www.askaboutireland.ie/enfo/irelands-environment/Change/impacts-of-climate-change/>, accessed 27 July 2017.

Barrett, A., Bergin, A., FitzGerald, J., Lambert, D., MacCoy, D., Morgenroth, E., Siedschlag, J. and Studnicka, Z. (2015), *Scoping the Possible Economic Implications of Brexit on Ireland* <http://www.esri.ie/pubs/RS48.pdf>, accessed 27 July 2017.

BBC News (2010), 'Anglo Irish Bank in £6.7bn Loss' [website article] 31 August <http://www.bbc.co.uk/news/mobile/uk-northern-ireland-11139906>, accessed 27 July 2017.

Berriman, R. 2017), *Will Robots Steal our Jobs? The Potential Impact of Automation on the UK and other Major Economies, UK Economic Outlook*, March, PwC <https://www.pwc.co.uk/economic-services/ukeo/pwcukeo-section-4-automation-march-2017-v2.pdf>, accessed 26 July 2017.

Boland, V. (2015), 'IMF points to failures in Ireland bank bailout', *Financial Times*, [online article], 29 January <https://www.ft.com/content/5f3131a4-a7ca-11e4-8e78-00144feab7de>, accessed 28 July 2017.

Burke-Kennedy, E. (2016), 'Collapse in Irish Property Prices more Severe than Thought' *Irish Times* [online article], 21 September <http://www.irishtimes.com/business/economy/collapse-in-irish-property-prices-more-severe-than-thought-1.2799482>, accessed 27 July 2017.

Burke-Kennedy, E. (2017), 'CSO to Remove "Leprechaun" from Economic Statistics' *Irish Times* [online article], 3 February <http://www.irishtimes.com/business/economy/cso-to-remove-leprechaun-from-economic-statistics-1.2962243>, accessed 27 July 2017.

Carolan, M. (2014), 'Judge Gives Deadline for KPMG Co-defendant Issue', *Irish Times* [online article], 29 July <http://www.irishtimes.com/business/financial-services/judge-gives-deadline-for-kpmg-co-defendant-issue-1.1880939>, accessed 27 July 2017.

Carswell, S. (2010), 'Fingleton's Successor Says Events at INBS an Outrage', *Irish Times* [online article], 20 April <https://www.irishtimes.com/news/fingleton-s-successor-says-events-at-inbs-an-outrage-1.654244>, accessed 27 July 2017.

Carswell, S. (2012), 'IBRC Suing Anglo Irish Auditors', *Irish Times* [online article], 29 November <https://www.irishtimes.com/news/ibrc-suing-anglo-irish-auditors-1.751793>, accessed 27 July 2017.

Central Bank of Ireland (2013), *Corporate Governance Code for Credit Institutions and Insurance Undertakings 2013* <https://www.centralbank.ie/docs/default-source/Regulation/how-we-regulate/codes/gns-4-1-7-2013corgov-credinstits-insunds.pdf>, accessed 27 July 2017

Central Bank of Ireland (n.d.), 'Gross National Debt' [downloadable Excel sheet] <https://www.centralbank.ie/statistics/data-and-analysis/competitiveness-reserves-and-national-debt/gross-national-debt>, accessed 27 July 2017.

Citizens' Information (2014), 'Plastic Bag Environmental Levy' [webpage], 2 December <http://www.citizensinformation.ie/en/environment/waste_management_and_recycling/plastic_bag_environmental_levy.html>, accessed 27 July 2017.

Citizens' Information (2017), 'Household Waste Services' [web page], 29 June <http://www.citizensinformation.ie/en/environment/waste_management_and_recycling/domestic_refuse.html>, accessed 27 July 2017.

Cleary, D. (2011), 'Predictive Analytics in the Public Sector: Using Data Mining to Assist Better Target Selection for Audit', *Electronic Journal of e-Government* 9 (2): 132–40 <www.ejeg.com/issue/download.html?idArticle=232>, accessed 27 July 2017.

Complete University Guide (2017a), 'Tuition Fees in Ireland' [webpage] <https://www.thecompleteuniversityguide.co.uk/international/europe/ireland/tuition-fees-in-ireland/>, accessed 27 July 2017.

Complete University Guide (2017b), 'Studying in the UK: Tuition Fees' [webpage] <https://www.thecompleteuniversityguide.co.uk/international/studying-in-the-uk/tuition-fees/>, accessed 27 July 2017.

Complete University Guide (2017c), 'Studying in the Netherlands' [webpage] <https://www.thecompleteuniversityguide.co.uk/international/europe/netherlands/>, accessed 27 July 2017.

Convery, F., L. Dunne and D. Joyce (2013), 'Ireland's Carbon Tax and the Fiscal Crisis: Issues in Fiscal Adjustment, Environmental Effectiveness, Competitiveness, Leakage and Equity Implications', OECD Environment Working Papers, No. 59, <http://www.oecd-ilibrary.org/environment-and-sustainable-development/ireland-s-carbon-tax-and-the-fiscal-crisis_5k3z11j3w0bw-en>, accessed 27 July 2017.

CPA Ireland (Certified Public Accountants) (2014), 'Demand for Accountants Has Never Been Higher as Employment Continues to Grow in the Profession – CPA Ireland President' [website article] <http://www.cpaireland.ie/media-publications/institute-news/2013/12/08/demand-for-accountants-has-never-been-higher-as-employment-continues-to-grow-in-the-profession-cpa-ireland-president>, accessed 27 July 2017.

CSO (Central Statistics Office/ An Phríomh-Oifig Staidrimh) (2017), 'Census 2016 Summary Results – Part 1' [online press release], 6 April <http://www.cso.ie/en/media/csoie/newsevents/documents/pressreleases/2017/prCensussummarypart1.pdf>, accessed 27 July 2017.

CTC (Carbon Tax Center) (2017), 'Where Carbon is Taxed' [website article] <https://www.carbontax.org/where-carbon-is-taxed/>, accessed 27 July 2017.

Da Silva, M. (2016), 'Ireland at risk of new banking crisis', Property Investory Today [website article], 8 October <https://www.propertyinvestortoday.co.uk/breaking-news/2016/10/ireland-at-risk-of-new-banking-crisis?>, accessed 5 August 2017.

DBS (Dublin Business School) (2017), 'Springboard + Diploma for Big Data in Business' [website article] <http://www.dbs.ie/course/springboard/diploma-in-big-data-for-business>, accessed 27 July 2017.

Delaney, K.J. (2017), 'Bill Gates: The Robot that Takes Your Job Should Pay Taxes', Quartz [website article], 17 February <https://qz.com/911968/bill-gates-the-robot-that-takes-your-job-should-pay-taxes/>, accessed 26 July 2017.

Deloitte (2016), 'Waves of Disruption: The Future of Ireland's Financial Services Sector' <https://www2.deloitte.com/ie/en/pages/consulting/articles/waves-of-disruption.html>, accessed 27 July 2017.

Deloitte (2017), 'Significant Potential for Ireland to Become a Global FDI Leader in Cyber Security' [online press release] <https://www2.deloitte.com/ie/en/pages/about-deloitte/articles/ireland-cyber-security-cluster.html>, accessed 27 July 2017.

Department of Communications, Energy and Natural Resources (n.d.), *National Cyber Security Strategy 2015–2017: Securing our Digital Future* <https://www.itu.int/en/ITU-D/Cybersecurity/Documents/National_Strategies_Repository/Ireland_2015_NationalCyberSecurityStrategy20152017.pdf>, accessed 27 July 2017.

EC (European Commission Press Release Database) (2016), 'State Aid: Ireland Gave Illegal Tax Benefits to Apple Worth up to €13 Billion' [website archive press release], 30 August <http://europa.eu/rapid/press-release_IP-16-2923_en.htm>, accessed 27 July 2017.

EC (European Commission) (2017a), 'EU Economic Governance: Monitoring, Prevention, Correction' [webpage] <https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/eu-economic-governance-monitoring-prevention-correction_en>, accessed 27 July 2017.

EC (European Commission: Representation in Ireland) (2017b) 'The Economy' [website article] <http://ec.europa.eu/ireland/news/key-eu-policy-areas/economy_en>, accessed 27 July 2017.

Edwards, E. (2017), 'Brexit Could Have "Frightening" Impact on Irish Foods Sector', Irish Times [online article], 18 May <http://www.irishtimes.com/news/politics/brexit-could-have-frightening-impact-on-irish-agri-food-sector-1.3088174>, accessed 27 July 2017.

EMN (European Migration Network) (2016), 'Population and Migration Estmates' [website article] <http://www.emn.ie/emn/statistics>, accessed 26 July 2017.

Enterprise Ireland (2009), Public Sector <https://www.enterprise-ireland.com/en/Source-a-Product-or-Service-from-Ireland/Sector-and-Company-Directories/Public-Sector-Profile.pdf>, accessed 27 July 2017.

Enterprise Ireland (2015), 'Innovation Partnership – Big Data: Collaborative Research: Big Data – Background to the Opportunity for Companies' <https://www.enterprise-ireland.com/en/funding-supports/Company/Esetablish-SME-Funding/IPP-Big-Data.html>, accessed 27 July 2017.

EPA (Environmental Protection Agency) (2017), 'What Impact Will Climate Change Have for Ireland?' <https://www.epa.ie/climate/communicatingclimatescience/whatisclimatechange/whatimpactwillclimatechangehaveforireland/>, accessed 27 July 2017.

Eurostat (2014), 'Share of Young Adults Having Completed Tertiary Education up to 37%' [online news release], 11 April <http://ec.europa.eu/eurostat/documents/2995521/5178598/3-11042014-AP-EN.PDF/4e01669e-2c2e-4c0e-a16b-487753183826>, accessed 27 July 2017.

Eurostat (2016a), 'File: Population Age Structure by Major Age Groups, 2005 and 2015 (% of the Total Population) YB16.png' [website page], 4 August <http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Population_age_structure_by_major_age_groups,_2005_and_2015_(%25_of_the_total_population)_YB16.png>, accessed 27 July 2017.

Eurostat (2016b), 'File: Employment Rates of Recent Graduates (Aged 20–24) Not in Education or Training 2015 (%)' [webpage] <http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Employment_rates_of_recent_graduates_(aged_20%E2%80%9334)_not_in_education_and_training,_2015_(%C2%B9)_(%25).png>, accessed 27 July 2017.

Expansión/countryeconomy.com (2007), 'Ireland GDP: Gross Domestic Product' [website data] <http://countryeconomy.com/gdp/ireland?year=2007>, accessed 26 July 2017.

Expansión/countryeconomy.com (2008), 'Ireland GDP: Gross Domestic Product' [website data] <http://countryeconomy.com/gdp/ireland?year=2007>, accessed 26 July 2017.

Expansión/countryeconomy.com (2009), 'Ireland GDP: Gross Domestic Product' [website data] <http://countryeconomy.com/gdp/ireland?year=2007>, accessed 26 July 2017.

Expansión/countryeconomy.com (2010), 'Ireland GDP: Gross Domestic Product' [website data] <http://countryeconomy.com/gdp/ireland?year=2007>, accessed 26 July 2017.

Expansión/countryeconomy.com (2011), 'Ireland GDP: Gross Domestic Product' [website data] <http://countryeconomy.com/gdp/ireland?year=2007>, accessed 26 July 2017.

Expansión/countryeconomy.com (2012), 'Ireland GDP: Gross Domestic Product' [website data] <http://countryeconomy.com/gdp/ireland?year=2007>, accessed 26 July 2017.

Expansión/countryeconomy.com (2013), 'Ireland GDP: Gross Domestic Product' [website data] <http://countryeconomy.com/gdp/ireland?year=2007>, accessed 26 July 2017.

Expansión/countryeconomy.com (2014), 'Ireland GDP: Gross Domestic Product' [website data] <http://countryeconomy.com/gdp/ireland?year=2007>, accessed 26 July 2017.

Expansión/countryeconomy.com (2015), 'Ireland GDP: Gross Domestic Product' [website data] <http://countryeconomy.com/gdp/ireland?year=2007>, accessed 26 July 2017.

Expansión/countryeconomy.com (2016a), 'Ireland GDP: Gross Domestic Product' [website data] <http://countryeconomy.com/gdp/ireland?year=2007>, accessed 26 July 2017.

Expansión/countryeconomy.com (2016b), 'Ireland – Population: Increases in Irish Population' [website data] <http://countryeconomy.com/demography/population/ireland>, accessed 27 July 2017.

Expansión/countryeconomy.com (2017), 'Public Debt Rise in Ireland in First Quarter' [website data] <http://countryeconomy.com/national-debt/ireland>, accessed 27 July 2017.

Gallagher, C. (2017), 'Anglo Director Pat Wheeler Fined €3000 for Failing to Record Loan', Irish Times [online article], 16 January <http://www.irishtimes.com/business/financial-services/anglo-director-pat-whelan-fined-3-000-for-failing-to-record-loan-1.2938953>, accessed 27 July 2017.

Geothermal Association of Ireland (2017), website <http://geothermalassociation.ie/about/>, accessed 27 July 2017.

Gibson, G. (2017), 'US Companies Push Hard for Lower Tax Rate on Offshore Profits' [website article] 15 May <http://www.reuters.com/article/us-usa-tax-repatriation-idUSKCN18B13Q>, accessed 27 July 2017.

Goodman, S. (2017), 'How Many People Live to 100 Across the Globe?', *The Centenarian* [website article], 1 June <http://www.thecentenarian.co.uk/how-many-people-live-to-hundred-across-the-globe.html>, accessed 26 July 2017.

Gorringe, J. (2017), 'Noonan Outlines Ireland's Objections to CCCTB', Tax News: Global Tax News [website article], 25 January <http://www.tax-news.com/news/Noonan_Outlines_Irelands_Objections_To_CCCTB____73303.html>, accessed 27 July 2017.

Governance Code Working Group (2016), 'The Governance Code: Downloads and Resources' <http://www.governancecode.ie/resources.html>, accessed 27 July 2017.

Heath, S. (2010), 'Anglo Irish Auditors Face Barrage of Law Suits', John Heath Insurance Brokers [website article], 14 May <https://www.johnheath.com/news/anglo-irish-bank-auditors-face-barrage-of-lawsuits/#.WUGYDoWcF9A>, accessed 27 July 2017.

Helm, J. (2003), 'Ireland Passes Population Milestone', BBC News [website article], 31 December <http://news.bbc.co.uk/1/hi/world/europe/3359733.stm>, accessed 26 July 2017.

HEA (Higher Education Authority) (2017), *What do Graduates do? The Class of 2015: An Analysis of the First Destination of University Graduates* <http://hea.ie/assets/uploads/2017/04/What-do-Graduates-do-2015.pdf>, accessed 2 August 2017.

Horton, J. (2017), 'The Dynamics of Managerial Entrenchment: The Corporate Governance Failure in Anglo-Irish Bank', Harvard Law School Forum on Corporate Governance and Financial Regulation [website article], 18 May <https://corpgov.law.harvard.edu/2017/05/18/the-dynamics-of-managerial-entrenchment-the-corporate-governance-failure-in-anglo-irish-bank/>, accessed 27 July 2017.

Ibec (2013a), *Delivering World-Class Public Services: Working with Business* <https://www.ibec.ie/IBEC/DFB.nsf/vPages/Public_services~Policy_positions~external-service-delivery-24-01-2011/$file/Delivering_for_the_citizen_2013%20(final).pdf>, accessed 27 July 2017.

Ibec (2013b), 'External Service Delivery' [website article] <https://www.ibec.ie/IBEC/DFB.nsf/vPages/Public_services~Policy_positions~external-service-delivery-24-01-2011?OpenDocument#.WT_EzYWcG74>, accessed 27 July 2017.

Ibec (2017), 'Policies on Future of Europe Must Support Business Substance' [website article], 7 June <https://www.ibec.ie/IBEC/Press/PressPublicationsdoclib3.nsf/vPages/Newsroom~policies-on-future-of-europe-must-support-business-substance-07-06-2017?OpenDocument?OpenDocument>, accessed 27 July 2017.

IDA Ireland (2016), *Facts about Ireland,* September <http://www.idaireland.com/docs/publications/Facts_about_Ireland_2016>, accessed 27 July 2017.

IFA (Irish Farmers' Association) (2017), 'IFA and NFU – Free Trade Must Be Maintained in Brexit' [website article], 23 May <https://www.ifa.ie/ifa-and-nfu-free-trade-must-be-maintained-in-brexit/#.WT_pAYWcG74>, accessed 27 July 2017.

IMD (International Institute for Management Development) (2016), *Competitiveness Yearbook 2016*, Lausanne: IMD.

*Irish Times* (2016), 'Budget 2017: Reactions Range from Surprise to "Continued Austerity"' [online article], 11 October < https://www.irishtimes.com/news/ireland/irish-news/budget-2017-reactions-range-from-surprise-to-continued-austerity-1.2825483>, accessed 26 July 2017.

ISE (Irish Stock Exchange) (n.d.), *Corporate Governance Annex* <http://www.ise.ie/Products-Services/Sponsors-and-Advisors/Irish-Corporate-Governance-Annex.pdf>, accessed 27 July 2017.

Kennedy, J. (2016), 'Big Data Country: Ireland among Top European Locations for Investment' [website article], 16 November <https://www.siliconrepublic.com/enterprise/big-data-country-ireland-forbes-william-fry>, accessed 27 July 2017.

Kenny, C. (2013), 'Ireland Has Highest Net Emigration Level in Europe', *Irish Times* [online article], 21 November <http://www.irishtimes.com/news/social-affairs/ireland-has-highest-net-emigration-level-in-europe-1.1601685>, accessed 27 July 2017.

Lynch, S. (2015), 'Troika to Return to Ireland as Part of Post-Bailout Review', *Irish Times* [online article], 10 October <http://www.irishtimes.com/news/ireland/irish-news/troika-to-return-to-ireland-as-part-of-post-bailout-review-1.2392041>, accessed 27 July 2017.

Lynch, S. (2017), 'Investment in Ireland at Risk as Trump Plans to Slash Tax', *Irish Times* [online article], 27 April <https://www.irishtimes.com/business/economy/investment-in-ireland-at-risk-as-trump-plans-to-slash-tax-1.3062653?mode=amp>, accessed 27 July 2017.

Lyons, T. (2014), 'Lessons from the Irish Nationwide Building Society Debacle', *Irish Times* [online article], 9 December <http://www.irishtimes.com/business/companies/lessons-from-the-irish-nationwide-building-society-debacle-1.2030347>, accessed 27 July 2017.

McDonald, D. and Sheahan, S. (2014), 'Rehab Used Charity Cash to Pay for their Staff Cars', Independent.ie [website article], 24 January <http://www.independent.ie/irish-news/rehab-used-charity-cash-to-pay-for-their-staff-cars-29945871.html>, accessed 27 July 2017.

McGee, H. (2015), 'Ireland's Energy Crisis', *The Irish Times* [online article], 21 February <http://www.irishtimes.com/news/environment/ireland-s-energy-crisis-1.2111299>, accessed 27 July 2017.

McHugh, M. (ed) (2010), *Wind Energy in Ireland*, Enterprise Europe Network, 13 June <http://www.een-ireland.ie/eei/assets/documents/uploaded/general/Wind%20Energy%20Fact%20sheet.pdf>, accessed 27 July 2017.

Murphy, N., Solan, D. and Breslin, J. (2014), 'Central Bank of Ireland Revised Corporate Governance Code', Maples [website article] <https://www.maplesandcalder.com/simplified-chinese/news/article/central-bank-of-ireland-revised-corporate-governance-code-691/>, accessed 26 July 2017.

Murray, B. (2010), 'Banks to be restructured as part of bail-out', *Financial Times* [online article], 21 November <https://www.ft.com/content/98b8e0e8-f5c2-11df-99d6-00144feab49a>, accessed 3 August 2017.

Ó Caollaí, E. (2017), 'USI Echoes UCD Warning on Places for Irish Students', *Irish Times* [online article], 8 June <http://www.irishtimes.com/news/education/usi-echoes-ucd-warning-on-places-for-irish-students-1.3112740>, accessed 27 July 2017.

O'Brien, C. (2017), 'Trinity and UCD Climb in Latest World University Rankings', *Irish Times* [online article], 8 June <http://www.irishtimes.com/news/education/trinity-and-ucd-climb-in-latest-world-university-rankings-1.3111158?mode=sample&auth-failed=1&pw-origin=http%3A%2F%2Fwww.irishtimes.com%2Fnews%2Feducation%2Ftrinity-and-ucd-climb-in-latest-world-university-rankings-1.3111158>, accessed 27 July 2017.

O'Sullivan, V. (n.d.), *Financial Regulation and the Irish Banking Crisis* <http://stephenkinsella.net/WordPress/wp-content/uploads/2011/02/Lecture-2_Regulatory-Failure_VOS.pdf/>, accessed 27 July 2017.

OceanEnergy (2014), 'Home '[website homepage] <http://oceanenergy.ie/>, accessed 27 July 2017.

Pettinger, T. (2014), 'Irish National Debt', Economics.Help [website/blog article], 23 March <http://www.economicshelp.org/blog/3118/economics/ireland-national-debt/>, accessed 27 July 2017.

Public Policy.ie (2013), 'Barriers to Outsourcing in the Public Service' [website article], 9 January <http://www.publicpolicy.ie/barriers-to-outsourcing-in-the-public-service/>, accessed 27 July 2017.

Public Policy.ie (2016), *Never Again? – Averting Another Crisis* <http://www.publicpolicy.ie/wp-content/uploads/Never-Again_Averting-Another-Crisis.docx-2.pdf>, accessed 27 July 2017.

Quinn, E. (2015), 'Auditors Cleared of Blame for Bank Collapse' *Irish Examiner* [online article] 20 September <http://www.irishexaminer.com/ireland/auditors-cleared-of-blame-for-bank-collapse-354757.html>, accessed 27 July 2017.

Reuters (2016), 'Two Anglo Irish Bank Executives Convicted of Fraud' [website article], 1 June <https://uk.finance.yahoo.com/news/two-ex-anglo-irish-bank-163146591.html>, accessed 27 July 2017.

Revenue (Irish Tax and Customs) (n.d.a), 'Natural Gas Carbon Tax (NCGT)' <http://www.revenue.ie/en/companies-and-charities/excise-and-licences/energy-taxes/natural-gas-carbon-tax/rate-of-tax.aspx>, accessed 27 July 2017.

Revenue (Irish Tax and Customs) (n.d.b), 'Solid Fuel Carbon Tax (SFCT)' <http://www.revenue.ie/en/companies-and-charities/excise-and-licences/energy-taxes/solid-fuel-carbon-tax/rate-of-tax.aspx>, accessed 27 July 2017.

Rosenthal, E. (2012), Carbon Taxes Make Ireland Even Greener', *New York Times* [online article], 27 December <http://www.nytimes.com/2012/12/28/science/earth/in-ireland-carbon-taxes-pay-off.html>, accessed 27 July 2017.

RT Question More (2016), 'Irish Govt & Apple to Challenge Multibillion EU Tax Demand' [website article], 19 December <https://www.rt.com/business/370726-apple-ireland-challenge-ec-ruling/>, accessed 27 July 2017.

RTE (2009), 'Statement by the Financial Regulator' [website article], 13 February <https://www.rte.ie/news/special-reports/2009/0213/113978-financialregulator/>, accessed 27 July 2017.

Ruhs, M. and Quinn, E. (2009), 'Ireland: From Rapid Immigration to Recession' [website article] <http://www.migrationpolicy.org/article/ireland-rapid-immigration-recession/>, accessed 26 July 2017

Ryan, P. (2014), 'Public Sector Outsourcing in Ireland: Practical Law, January 2014' [website article], 17 January <http://www.arthurcox.com/publications/public-sector-outsourcing-in-ireland-practical-law-january-2014/>, accessed 27 July 2017.

Schwab, K. (2015), *Global Competitiveness Report 2015–2016, World Economic Forum* <http://www3.weforum.org/docs/gcr/2015-2016/Global_Competitiveness_Report_2015-2016.pdf>, accessed 2 August 2017.

SEAI (Sustainable Energy Authority of Ireland) (n.d. a ), 'Small Hydro Power Developments' [website article] <http://www.seai.ie/Renewables/Hydro_Energy/>, accessed 27 July 2017.

SEAI (Sustainable Energy Authority of Ireland) (n.d. b), *Achieving Ireland's 2020 Renewable Heat Target* <https://www.seai.ie/Publications/Statistics_Publications/Energy_Modelling_Group_Publications/Achieving-Ireland-s-2020-Renewable-Heat-Target.pdf>, accessed 27 July 2017.

Solar Electric (2017), 'Solar Electric' [website] <http://www.solarelectric.ie/>, accessed 27 July 2017.

SONI (2012), 'Tyrone to Cavan Interconnecter' [website article] <http://www.soni.ltd.uk/TransmissionProjects/Tyrone-CavanInterconnector/>, accessed 27 July 2017.

Smyth, J. (2013), 'Anglo Irish still offering insight into banks' crisis', *Financial Times*, [online article] 24 June <https://www.ft.com/content/23430a28-dcec-11e2-9700-00144feab7de>, accessed 04 August 2017.

Tamboran (2014), '€7bn Gas Investment Could Create 600 Full Time Jobs and Deliver Security of Energy Supply in Ireland for up to 40 Years' [online press release] <http://www.tamboran.com/wp-content/uploads/2014/01/7-billion-gas-investment.pdf>, accessed 27 July 2017.

Telegraph (2015), 'Ireland Pushed into Bailout' [online article] 18 June <http://www.telegraph.co.uk/finance/economics/11683995/Ireland-pushed-into-bailout.html>, accessed 27 July 2017.

Top Universities (2017), 'Country Guides: Study in Ireland' [webpage] <https://www.topuniversities.com/where-to-study/europe/ireland/guide>, accessed 27 July 2017.

World Atlas (2017), 'Ireland Geography' [website article] <http://www.worldatlas.com/geography/irelandgeography.htm>, accessed 27 July 2017.

World Bank (2017a), 'GDP Growth (Annual %)' [online data: Ireland] <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=IE>, accessed 27 July 2017.

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