

RESILIENT ECONOMY

A policy framework for the Republic of
Ireland and Northern Ireland

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RESILIENT ECONOMY: A POLICY FRAMEWORK FOR THE REPUBLIC OF IRELAND AND NORTHERN IRELAND

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ABSTRACT

How do we create a model of economic development that is more resilient to the vagaries of a globalised world and fit for the challenges of climate change? To start we need to be clear that for growth to be resilient, it must be built on foundations of appropriate and intelligent investment in human and physical capital embedded within a supportive innovation system. From early years education to managing skills coordination, reaping the full potential of human capital requires not only funding, but also agility and persistence within our education sector. Infrastructure and innovation need to be nurtured by public capital investment and levels of research and development spending cannot be allowed to deteriorate.

Growth must be inclusive and provide agency and adequacy to its participants. We must broaden labour market opportunities by removing barriers to employment and provide voice and dignity to those in the world of work through access to collective bargaining. Living wages, income floors and universal basic services should underpin and bolster adequate living standards.

Achieving this requires a reappraisal of both fiscal policy and enterprise policies. The state must be properly resourced with revenues levels reflective of our peers and long-term fiscal sustainability, while tax expenditures and subsidies should be continuously reassessed for efficacy. The support we provide to firms must be more strategic and tied to long term goals of innovation and tackling the climate emergency. We also need a proper social safety net to underpin these changes.

The goal of this NERI Working Paper is to generate a discussion around a set of high-level policy reforms for the two economies on the island of Ireland. These policies, while inevitably incomplete, are intended to provide a framework for ongoing sustainable improvements in living standards for all groups within society.

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SECTION 1: INTRODUCTION

The standard of material well-being for the majority of people in developed economies is vastly superior in almost every respect to the living standards of even the wealthiest people alive just one hundred years ago. This is evident from a simple consideration of changes in life expectancy, general health and nutrition, education, communication, transport, and entertainment.

Yet well-being improvements have not been equivalent across different groups. Volatility in economic growth has led to reversals in some important areas. Of particular concern is the significant environmental degradation and loss of biodiversity over the last two centuries. The challenges of climate change necessitate a fundamental rethink about the desired trajectory of economic development and about the future of work. In addition, ageing demographics and the ongoing compositional shift from manufacturing to services means that annual average real economic growth per capita may well be consistently lower for advanced economies in the 21st century than it was in the 20th century (see Vollrath, 2020).

The goal of this NERI Working Paper is to generate a discussion around a set of high-level policy reforms for the two economies on the island of Ireland. These policies, while inevitably far from complete, are intended to provide a high-level starting framework to guide ongoing sustainable improvements in living standards for all groups within society. Section 2 briefly considers the types of growth compatible with inclusive and sustainable long-run economic development. In Sections 3 and 4 we turn our focus to the main contributing ingredients to

sustainable long-run growth, namely the human capital that is embodied in people as well as investments in infrastructure, research and development (R&D), and other durable productive assets. We then shift the focus with a discussion on inclusivity. In Section 5 we examine barriers to employment and labour force participation and discuss the potential for reform, while in Section 6 we look at those already in work and discuss the agency and adequacy of work and adequacy issues more generally. Each of these is fundamental to the wider discussion around improving living standards. Section 7 and Section 8 are the last of the policy chapters, wherein we consider reforms to fiscal policy and enterprise policy respectively. Finally, in Section 9 we briefly attempt to structure the policy recommendations into a coherent overall framework and then offer some concluding thoughts.

SECTION 2: LIVING STANDARDS

2.1 Why should we care about growth? – caveats and goals

Economists are often accused of being overly focused on economic growth. So why this focus? We should care about long-run growth, with certain caveats, because the enormous variation in cross-country living standards reflects long-term differences in per capita economic growth and development. The compounding impact of growth can translate into transformative improvements in living standards over time.

Of course, not all forms of growth are desirable. Most obviously, growth dependent on environmentally damaging practices comes with negative and potentially irreversible side-effects, and entails costs for current and especially future generations. Similarly, growth that is based on exploitation, that only benefits privileged groups, or that creates 'left-behinds' is equally undesirable and ultimately undermines the legitimacy and sustainability of the socio-economic and political model.

Other forms of growth are also undesirable. For example, growth based on asset price booms, particularly for non-productivity-enhancing assets such as housing, or growth based on unsustainable current account deficits or on procyclical and unfinanced fiscal policies. Such periods of growth tend to generate weaker performances over the longer term and often precipitate balance sheet recessions, underutilisation of resources, and potentially significant economic scarring.

In more recent years, a debate has begun about whether economic growth of any kind is desirable at all. The impetus for this rethink emanated chiefly out of concern for the environmental sustainability of the planet under its current growth trajectory. Proponents of this viewpoint argue that economic growth, by its nature, entails the greater and more intensive consumption of the planet's resources and that in order to arrest and reverse the damage already done to our environment we must reverse course. 'Degrowth' or 'Post growth' perspectives argue that living standards are not solely determined by economic growth, but that instead redistribution and a circular approach to production can achieve the same goals (Fearon and Barry, 2022), but crucially in a more sustainable way.

In other words, it is not growth per se that matters. So, what are we trying to achieve? One perspective is that the primary economic goal should be *sustainable* (across all dimensions) and *inclusive* growth which is capable of delivering lasting improvements in living standards for everyone. Additionally, growth that is based on sustainability and inclusivity brings resilience to our economy. Resilience in this sense can be thought as synonymous with concepts such as 'economic security' (Galbraith, 1976) whereby the model of growth is pre-programmed to face the disruptions and crises that may come.

The experience of the 2008 financial crash showed how fragile economic progress can be, while the experience of the Covid-19 pandemic showed that the capacity exists within economies to withstand existential crises. Learning from both of these experiences and looking to the challenge of resolving the climate crisis, a resilient economy is a necessary and not just desirable outcome for society as a whole. If this perspective is considered a reasonable starting point, we must next consider the policies that might achieve this goal.

2.2 Productivity

Economic growth comes from the accumulation of labour and capital inputs combined with improvements in the productivity of labour and capital inputs. Per capita output is determined by: (A) the proportion of the working-age population as a per cent of the total population, (B) the percentage of the working age population working for pay or profit, (C) the average number of hours worked per person working and, (D) the average output per unit of hour worked (i.e. labour productivity). We can shorten this to total hours worked in the economy multiplied by average labour productivity. Policies to increase output are therefore those that either increase the amount of labour inputs employed (A, B and C) or those that increase the average productivity of labour inputs (D).

For conceptual purposes we can identify two types of economic growth. These are (i) extensive growth and (ii) intensive growth. *Extensive* growth entails the accumulation and deployment of inputs such as people, land, materials, infrastructure, machinery and other capital goods. Extensive growth is most possible when barriers to the full employment of

resources have been artificially created and/or where demand for labour is too low to support potential labour supply. However, in the long run, demographic and resource limitations mean this type of growth is ultimately constrained.

On the other hand, *intensive* or productivity-based growth allows us to obtain higher levels of output using the same volume of inputs, or alternatively, to obtain the same level of output using less inputs. In other words, productivity-based growth does not rely on an ever-increasing use of resources, is potentially unconstrained in the long-run, and is therefore at least theoretically compatible with environmental sustainability.

The ultimate determinant of average living standards is output per worker for a given effort – i.e. productivity. In turn, the key to productivity gains and the ‘Lever of riches’ (Mokyr, 1992) is the production and diffusion of new knowledge and new ideas that are then applied in some economic context. These new ideas can be embodied in physical capital such as machinery or buildings, in intangible assets such as intellectual property, or they can be applied directly by people as more efficient or novel work practices.

There is also the related concept of innovations. Innovation is a catch-all-term for new ideas or combinations of existing ideas, that manifest as a new product or service, a new market, a new source of supply, or even a new organisation. The economy’s capacity to innovate helps determine its future potential productive capacity. In the following sections we discuss a range of policy reforms designed to improve the economy-wide potential for higher levels of productivity growth in the future.

SECTION 3: KNOWLEDGE, EDUCATION AND SKILLS

3.1 Human capital

Skill levels, educational attainment, and experience are all proxies, or at least aspects, of what economists call individual human capital (OECD, 1998). We can think of human capital as the knowledge, skills, experience, competences and creativity of individuals that is relevant to economic activity. Human capital development, which is a life-long process, not only enhances labour productivity but is also a necessary input for and complement to innovation and technology adoption. The level of human capital being utilised at an economy level (labour input) depends not only on individuals' human capital but also hours worked and the extent to which there is labour market mismatch or overqualification in the economy.

Public Spending on education and skills generates positive externalities for the wider economy to the extent that it represents genuine investment in human capital. The OECD (2000) found that spending on education generally results in a positive contribution to growth in output rates per person employed by enhancing the economy's human capital level. Human capital is associated with a greater capacity to identify, adopt and use new technologies. Indeed, human capital is a necessary input for, and complement to, innovation and technology diffusion (Barro and Sala-i-Martin, 2003). There is evidence that strong education systems are associated with increases in the long-run per capita growth rate (see Hanushek, Wößmann, 2007). Skill levels and cognition for the population as a whole appears to exert a positive effect on growth. In other words, it is not just the top of the achievement distribution or the production of scientists and engineers that matters. To the extent that income is correlated with human capital we can expect that population-wide improvements in human capital¹ enables more inclusive growth and less economy-wide inequality (McDonnell, 2015).

Using 2016 and 2019 data, Table 3.1 shows that the Republic of Ireland and the United Kingdom both under-spend on primary and secondary education per pupil relative to peer high-income countries in Western Europe. The Republic of Ireland also underspends at

¹ As opposed to concentrating resources on elite academic performers.

tertiary level (higher education) where spending was just 71.3 per cent of the average for the other nine countries. The Republic's primary/lower-secondary and tertiary levels of spending would need to increase by a quarter and a third respectively just to reach the peer country average.² On the other hand, the UK's under-spend is most acute at the upper-secondary and post-secondary non-tertiary levels.

Fiscal savings of this nature are likely to prove a false economy in the long run because relative lack of investment in human capital should ultimately translate into consistently lower levels of innovation and productivity growth and eventually into a weaker economy. There is, therefore, a strong economic argument that per pupil spending on education should, at minimum, be increased to the peer country average over the medium-term.

Table 3.1 Annual spending on education per pupil/student based on FTE, 2016/19, PPS

Country	2016			2019		
	levels 1- 2	levels 3- 4	levels 5-8	levels 1- 2	levels 3- 4	levels 5-8
Belgium	8,350	9,951	13,193	8,850	10,422	14,643
Denmark	8,585	6,720	14,748	9,131	7,285	14,989
Germany	7,518	9,840	12,720	8,396	10,970	13,618
ROI	6,634	9,038	10,271[^]	Na	Na	Na
France	6,500	10,209	11,779	7,226	10,827	12,586
Netherlands	7,466	9,449	14,183	8,144	10,507	14,356
Austria	10,371	11,330	13,309	10,107	10,634	12,304
Finland	8,214	6,073*	12,761	8,798	6,453	12,590
Sweden	8,400	8,407	17,647	9,174	9,014	18,228
UK	8,045	7,969	18,714	8,382	9,485	19,183
Norway	9,336	11,342	15,019	10,290	10,846	16,750
Average	8,304	9,656	13,929	8,902	9,662	14,452
ROI (deficit)	(1,670)	(638)	(3,658)	Na	Na	Na
Ratio %	79.9	93.6	73.7	Na	Na	Na
UK (deficit)	(259)	(1,687)	+4,785	(520)	(177)	+4,731
Ratio (%)	96.9	82.5	134.4	94.2	98.2	132.7

Source: Eurostat (2020a and 2020c), author calculations

Notes: Levels 1-2 are primary and lower secondary; levels 3-4 are upper secondary and post-secondary non-tertiary; levels 5-8 are tertiary. [^]2015. Latest data for the Republic of Ireland is 2016 (Ireland is one of just two

² Despite the relatively low levels of spending, Ireland and the UK both perform reasonably well in comparisons of reading, maths and science (Pisa score for 15-year olds in 2018). The OECD average for reading is 487, Ireland's score is 518, the UK score is 504, and the average for the nine high-income European countries shown in Table 3.1 is 498. The scores for mathematics were OECD (489), Ireland (500), UK (502), and high-income Europe (506). The scores for science were OECD (489), Ireland (496), UK (505), and high-income Europe (499) (OECD, 2022).

EU countries for which later data is not available). *2016 data is not available for Finland so the average of 2015 and 2017 is used. The group averages are unweighted and exclude Ireland and the UK

As to what to focus education spending on, Hanushek and Wößmann (2012) find that extra resources for improved buildings, formative assessment and smaller classroom sizes all have positive effects on outcomes. However, they find that it is the quality of teachers and teaching in schools that appear to be the key to better outcomes. This involves increased teacher autonomy, accountability and salaries, alongside life-long learning and training for teachers.

3.2 The early years, poverty, and human capital

Human capital is not the same thing as schooling. It is a much wider concept. Children possess powerful learning abilities, and their home environment can be as important as school from a developmental perspective. The OECD, (1998) point to parental investment of time and the fostering of learning attitudes and habits as important inputs to development. The early years are the most important for learning, and the surrounding environment and particularly the home is crucial to the development of cognitive and non-cognitive skills.

External factors such as poverty and deprivation can therefore have damaging and lasting effects on development. The potential impact on development is obviously a tragedy for the individual, but it is also a loss of potential human capital to the wider society and economy. From this perspective, we can see that policies that reduce childhood poverty should also be understood as investments in the long-term health of the economy. Family and childcare supports and in-kind public health services are effectively pro-growth policies to the extent that they decrease the risk and severity of child poverty and therefore inculcate the formation of human capital.

Policies focused on increasing the skills and learning ability of disadvantaged children may similarly provide a large potential dividend to society, both in terms of economic growth and lower levels of inequality. James Heckman (2000) goes so far as to argue that investing in learning in early childhood brings greater returns than at any other stage of life. He points out that early learning and positive learning experiences makes it easier to go on learning throughout life. In other words, early learning of creativity, problem solving, and constructive

evidence-based scepticism is likely to lead to improved learning of all kinds and is likely to be much more effective than trying to teach these abilities at tertiary level or indeed later in adulthood.

We can draw two important inferences. The first conclusion is that additional resources for education should prioritise early years learning. The second conclusion is that extra schooling resources should focus on disadvantaged families and disadvantaged areas where the probability of falling behind or of not developing to individual potential is likely to be highest.

Providing disadvantaged families and disadvantaged areas with access to quality and affordable early learning and early schooling supports should be understood as a bedrock long-term policy for enhancing the economy's productive capacity as well as being fundamental to easing the impact of poverty on young lives.

3.3 Lifelong learning, mismatch and overqualification

Human capital development is a life-long process. Arrow's (1962) learning-by-doing models emphasise the importance of life-long on the job learning for innovation and economic growth. In addition, training programmes providing market-relevant skills can generate economy-wide employment gains under conditions of skill shortages or mismatches. Well-designed and continuously evolving active labour market programmes with appropriate market linkages can help lower structural unemployment, increase participation, and boost the economy's human capital and productive capacity.

It is crucial, however, that such training programmes, and indeed the wider education system, are continuously adapting to the changing skills needed in an evolving economic environment. The green 'net zero' transition and the digital transition are two easy to predict macro changes, but there are other ongoing economic shifts that are less obvious such as the increased need for carers, as well as ongoing changes in the skills needed for existing jobs. Even the skills required for the green and digital transitions will evolve over time. There must, therefore, be willingness on the part of policymakers, administrators and educators to

continuously change the type and scale of training and education places provided, and to reduce or even end programmes and schemes that are becoming less relevant in terms of the skills currently demanded or projected to be demanded in the labour market.

Of course, even when we are successful at developing human capital we must still be careful to ensure that it is appropriately allocated within the economy. A mismatch between human capital and employment means that the individual will not be contributing to the fullest extent that they are able to contribute, particularly where the individual is overqualified for their job. Such inefficiency reduces the productivity of the individual and the output of the economy. Nugent (2022) estimates that three in ten third level graduates employed in the Republic of Ireland are working in occupations where their qualifications are unutilised or underutilised, with higher incidence among young workers and women.

One possibility is that workers are mismatched because caring, or other responsibilities or barriers (e.g. disability), make it difficult or impossible to work traditional hours and as a consequence they are working in more convenient and in some cases part-time work. A second possibility is that the education system is overproducing certain types of qualifications while under-producing others relative to the needs of the economy, and that therefore workers in oversupplied sectors or occupations must instead work in sectors or occupations that are mismatched with their qualifications. If so, there may be a case for incentivising specific subjects at third level, or indeed for incentivising the take-up of certain trades.

For example, the Republic of Ireland currently has labour supply shortages in *Construction* and in *ICT*, and it is possible to project, if imperfectly, the direction of travel for future skills needs in both the Republic and in Northern Ireland.³ Relevant subjects could be incentivised through cash payments or by the prospect of a reliable career path. More generally, direct financial and other incentives for science, technology, engineering and mathematics (STEM)

³ Goldrick-Kelly and Nugent (2019) identify the types of worker and regions most likely to be affected by the green transition. They find evidence of significant mismatch in the Republic of Ireland economy and argue for more comprehensive participation by local actors in planning for the transition.

courses and related career development could play a role in nudging human capital development in directions consistent with the long-term development of innovative capacity on both parts of the island.

However, the supply of skills is not always where the problem lies, demand also matters. In 2019, Northern Ireland recorded an output per hour level that was 83 per cent of the UK average, the lowest of any UK region. Northern Ireland also has the highest proportion of working age adults with no qualifications. 11.8 per cent of working age adults in Northern Ireland had no qualifications that met the National Vocational Qualification level 1 standard. The next highest region was Wales which had a rate of 8.3 per cent. Given these productivity and skills statistics, one would expect a high degree of under-qualification contributing to low levels of output and consequently, productivity.

However, according to the OECD Survey of Adult Skills (2019), Northern Ireland had the highest proportion of well-matched workers in terms of skills of any country or region that was sampled. Northern Ireland has proportionately fewer skills gaps or vacancies that arise because of a skills shortage. Firms feel little pressure from competitors to upskill staff and do not seek greater skills in their workforce for new investment. In this context, Mac Flynn (2017) argues that the Northern Ireland economy has become trapped in a low skills equilibrium. The underperformance in the supply of skills is likely driven by a lack of demand for skills and vice versa and that boosting the supply of skills will be ineffective unless matched with action in terms of labour demand.

Whether it is the case of under-supply and underutilisation in the Republic of Ireland, or a low skills equilibrium in Northern Ireland, both cases require a significant policy intervention. In both cases there is a strong role for government to provide an evolving coordination mechanism to match the medium-term supply and demand of skills so that the economy can reach its full potential. We expand on this further in section 8.

SECTION 4: INVESTMENT IN INFRASTRUCTURE AND R&D

4.1 Productive infrastructure

Investment in productive public infrastructure is an important component of long-run economic development. Public spending on infrastructure will raise output in the short-term because of demand effects and can therefore be an important countercyclical tool when a recession is expected or as a means of countering a fall in aggregate demand. In addition, we would expect efficient and appropriate investment in infrastructure to benefit growth in the long-run through supply effects and enhanced productive capacity. A meta-analysis of sixty-eight studies by Bom and Ligthart, (2014) found that public capital investment does indeed have a positive long run effect on output.⁴

Table 4.1 compares public investment per person in twelve high-income countries. Public capital investment tends to be lumpier than current spending as large projects start and finish. This means that annual spending can be volatile from year-to-year. As such, it is more informative to look at multi-year averages. The United Kingdom ranks 10th out of 12 high-income countries for the five-year period (2015-19) leading up to the Covid pandemic. The UK's average per person spending was slightly over €1,000, less than half of spending in top ranked Sweden, and less than 70 per cent of the unweighted average. The Republic of Ireland ranked 6th out of 12 countries. Its average per person spending was close to €1,300 and just under 90 per cent of the unweighted 10-country average (i.e. excluding ROI and UK) of €1,460. However, spending in the Republic has grown sharply in recent years and was above the 10-country average in 2019. The UK remains well behind. The UK's 5-year average deficit relative to the 10-country average was about €30 billion per annum, whereas the Republic's deficit was €774 million. The UK's consistently low rate of public investment, if maintained, is likely to produce infrastructure bottlenecks and impede the economy's growth potential.

Of course, not all investments have the same impact and there is an ongoing danger of projects being chosen for electoral reasons or operating inefficiently with soft budget constraints and weak oversight. All projects should be subjected ex ante to rigorous and

⁴ The IMF (2014) argue that the net benefits are particularly high during periods of economic slack, where the cost of borrowing is low, and where investment efficiency is high.

independent cost benefit evaluation, including evaluation of the opportunity costs. Fiscal and other support for private investment is also important, but policymakers should be careful not to distort investment decisions via favourable tax treatment for certain types of investments, in particular in relation to relatively unproductive assets such as residential and commercial property.

Table 4.1 Per capita Gross Fixed Capital Formation at current prices, €

Country	2015	2016	2017	2018	2019	Average
Belgium	923	918	940	1,059	1,088	986
Denmark	1,743	1,867	1,733	1,796	1,721	1,772
Germany	793	833	881	959	1,000	893
Rep Ireland	979	1,113	1,143	1,355	1,623	1,303
France	1,125	1,126	1,142	1,198	1,323	1,183
Netherlands	1,452	1,450	1,483	1,538	1,592	1,503
Austria	1,192	1,213	1,307	1,335	1,396	1,289
Finland	1,442	1,636	1,670	1,812	1,902	1,692
Sweden	1,983	2,056	2,197	2,250	2,257	2,169
United Kingdom	1,083	973	954	972	1,060	1,007
United States	1,743	1,784	1,815	1,816	2,010	1,834
Japan	1,155	1,308	1,268	1,266	1,419	1,283
10 country average						1,460
Rep Ireland (deficit)						(157)
United Kingdom (deficit)						(457)
Population scaled deficit (€ million)						
Rep Ireland						(774)
United Kingdom						(30,530)

Source: AMECO database (2022), CSO (2022), author's calculations

Notes: 10 country average excludes Ireland and the UK. The average falls to 1,410 if Ireland and the UK are included.

Support for private investment should come, instead, via access to finance at a reasonable cost. This requires well-functioning and competitive capital markets. The establishment of a banking union in the Euro area would help improve financial market development in the small Republic of Ireland economy. In addition, the establishment of independent state or regional investment banks could address market failures in terms of access to finance for high potential start-ups. State Investment Bank (SIB) models have worked well in Germany and elsewhere (Duggan, 2013). SIBs can use state backing to centralise and leverage financing for

investment in infrastructure and in innovative capacity. Special purpose vehicles can be established within SIBs to focus on specialised sectors of the economy such as renewable energy or housing, or to focus on specific regional areas such as Northern Ireland, or the North, West and Midlands in the Republic of Ireland.

4.2 R&D inputs

Innovative capacity at its most basic refers to the economy, organisation or individual's ability to generate original ideas and knowledge and to communicate and assimilate existing innovations. Innovative capacity is a function of education and skills levels, of the cost of knowledge, of government policies that support R&D, and of the quality of capital markets, among other things.

Aghion and Howitt (2009) describe spending on R&D as a special type of investment and specifically as an investment in knowledge production. Any new knowledge produced has the potential to generate positive externalities through new technologies, or through more efficient or novel ways of using existing technologies and capital and labour resources. For this reason, it is generally assumed that higher levels of R&D spending today will be correlated with long-run productivity gains, international competitiveness and growth. Spending on R&D is itself complemented by spending on the development of the labour force's stock of human capital.

The characteristics of economically useful knowledge lead it to generate productivity gains, positive spill-overs, and increasing returns to scale and scope. However, the characteristics of knowledge also make it difficult for knowledge producers to appropriate or internalise all of the benefits of knowledge production. For example, it is difficult to prevent a new technique or product that a business has developed from being copied and exploited by other organisations and individuals. This of course reduces the private incentive to undertake R&D activity. In other words, the private returns are less than the social returns and consequently private investment in R&D will be less than the socially optimal amount of investment in knowledge production. In addition, knowledge production is an inherently uncertain activity and this further diminishes the private incentive to invest. The result is a

structural market failure that creates a justification for state intervention.

The most straightforward supports for engaging in R&D can and does come in the form of patents awarded, in government subsidies, or in tax expenditures. Support in the form of a tax expenditure can come with significant deadweight if not properly designed. Support can also come indirectly in the form of legal or insurance safeguards that protect risk takers in the event of failure. For example, a lenient bankruptcy regime that does not overly penalise failure would encourage greater risk-taking and enable serial entrepreneurs to try new models of business activity and technologies, and to apply the lessons learned in a form of learning by doing.

Table 4.2 R&D expenditure per inhabitant, €, 2019

Country	Total	Private		Public		
		Business	Non-profit	Government	Higher education	Total
Belgium	1,319	973	10	116	220	336
Denmark	1,569	982	6	46	535	581
Germany	1,325	913	-	181	231	412
Ireland	891	664	-	34	194	228
France	795	524	13	98	160	258
Netherlands	1,028	685	0	59	284	343
Austria	1,404	988	8	103	306	409
Finland	1,217	799	11	98	309	407
Sweden	1,579	1,132	2	71	374	445
UK	666	453	15	44	154	198
Norway	1,464	776	-	186	502	688
Switzerland	2,408	1,626	64	23	695	718
<i>EU average</i>	<i>699</i>	<i>466</i>	<i>4</i>	<i>79</i>	<i>149</i>	<i>228</i>
Ireland (deficit)		(287)		(232)		
UK (deficit)		(483)		(264)		
Population scaled deficit (€millions)		Private		Public		
Ireland (deficit)		(1,415)		(1,144)		
UK (deficit)						

Source: Eurostat (2022), author's calculations

Note: 2019 is used as later data for UK nor available; Deficits shown are compared to the unweighted 10-country average excluding the UK and Ireland. The 10-country average is €460 for public R&D and €951 for private R&D

States can also directly invest in R&D through the creation and support of research institutions such as universities. Ó Riain (2013) argues that government has played a critical role in the growth of successful innovation economies in countries as different as Finland, the US, Israel and Taiwan. Mazzucato (2013) argues that Germany's successful competitiveness strategy has been driven by its ability to build a strong innovation system, with patient long-term finance, strong science-industry links, and above average R&D/GDP spending.

Table 4.2 shows private and public R&D investment in the Republic of Ireland, in the UK and in a selection of other high-income Western European countries. The UK is bottom amongst this group of 12 countries in terms of per capita private investment and also in terms of per capita public investment. Both amounts are less than half of the 12 country Western European average. The UK's per capita spend is even lower than the EU average, despite having a much higher per capita income than the EU. The Republic of Ireland does somewhat better but ranks just 10th for private R&D investment and 11th for public R&D investment. The Republic's public R&D spend would need to be doubled to reach the Western European average

4.3 Inputs to intensive growth – reversing the under-spends

While there is no absolute consensus about the optimal level of spending on human capital, on public infrastructure and on R&D it seems unlikely that further investments in these areas would yield negative results in terms of growth outcomes. If sustainable economic growth is genuinely a priority of governments, then policymakers should ensure that the significant under-spends on education, infrastructure and R&D are progressively eliminated over the medium-term. These expenditure categories are essential for intensive growth – that is, sustainable economic growth premised on greater efficiency in the use of inputs. The UK's poor productivity performance in recent years is unsurprising when we consider the chronic lack of investment in these areas while the Republic of Ireland may have become over-dependent on its foreign multinational sector as a source of growth.

Finally, if development is to be associated with resource decoupling to reflect ecological

boundaries and long run environmental sustainability, then investment in all three of these areas will be critical to this transition. New capital infrastructure and new technologies will be necessary to fundamentally change economic activity in a green direction including in energy systems and transport networks.

SECTION 5: PARTICIPATION AND ACTIVITY

5.1 Labour force participation

While intensive growth is the key to achieving sustainable long-run growth, it would be mistaken to ignore the potential for gains in terms of extensive growth, particularly when the utilisation of resources has been artificially limited. Labour force participation is an important area where the full potential of the economy is being constrained. Expanding labour force participation is also about widening opportunity and laying the foundations for more inclusive growth.

Measuring labour market activity and participation is important particularly in terms of who we consider to be the population of interest. Participation in the labour market must always be voluntary and we must also acknowledge that different economies arise from different societies and the limits to participation will depend on the underlying economic context. This has important implications for the policies that are likely to have the greatest impact in driving higher levels of participation.

5.2 Relative performance

When looking at the trends for Ireland and Northern Ireland, economic inactivity or levels of labour force participation present a problem for both economies. When measured as a proportion of the adult population, the experience of economic inactivity in the Republic of Ireland looks markedly better than that of Northern Ireland. The Republic's rate of economic inactivity among the adult population is similar to that of Great Britain and well below the EU average, while Northern Ireland appears to be mid-range among its European peers (Chart 5.1). However, measuring activity against the adult population can be misleading as lower levels of activity amongst older age groups may reflect differing retirement patterns in other countries. When we adjust to examine economic inactivity in the working-age population, both the Republic and Northern Ireland fall in the rankings with Northern Ireland significantly behind European comparators (Chart 5.2).

Chart 5.1 Economic Inactivity Rate in Northern Ireland, Great Britain and the EU 2021 (age 15/16+)

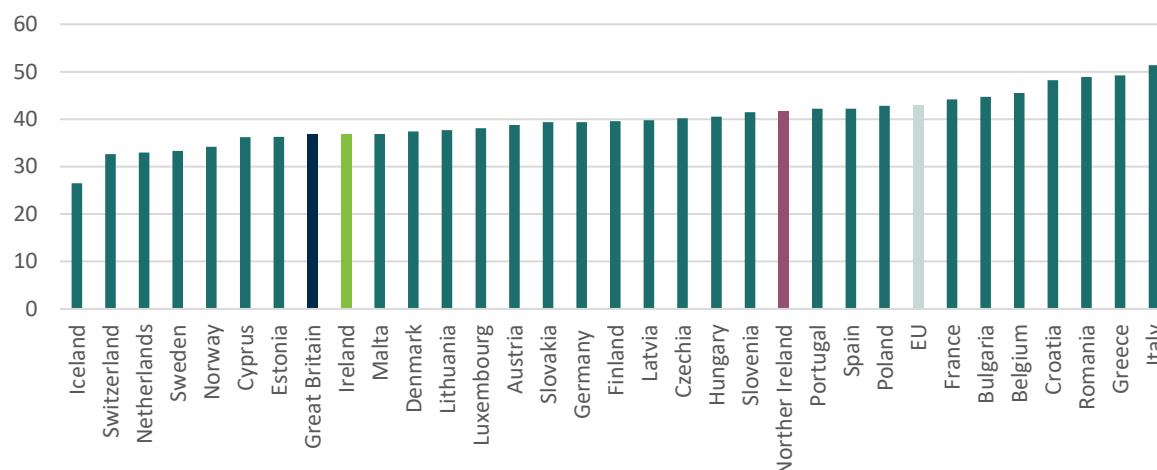
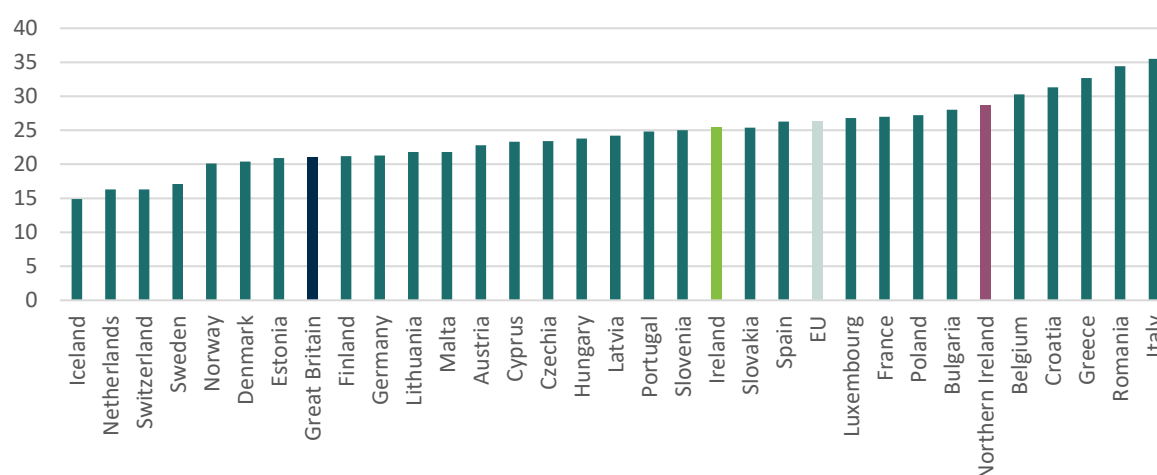


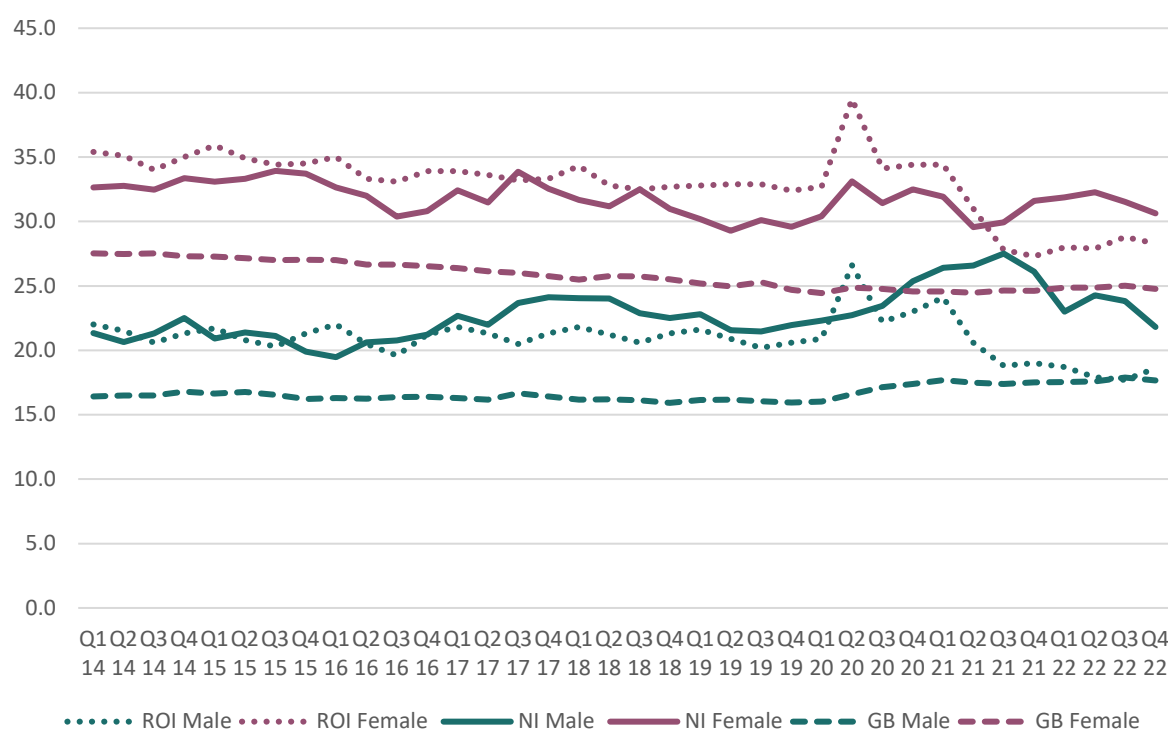
Chart 5.2 Economic Inactivity Rate in Northern Ireland, Great Britain and the EU 2021 (age 15/16-64)



Source: Labour Force Survey (Eurostat, ONS & NISRA)

The Republic's rate of economic activity in the working age population has seen significant improvement since the pandemic. This is in contrast to the experience of Northern Ireland where the rate has deteriorated from the pre-pandemic era (Chart 5.3). In the period before the pandemic, the rate was similar North and South with one jurisdiction regularly overtaking the other and vice versa. However, in the years since the onset of the pandemic a large gap has opened up. Given the suddenness of the shift in rates, it is possible that the inactivity gap will not remain as pronounced as it is in the immediate aftermath of the pandemic. The Republic now has a rate of male economic activity that is quite similar to Great Britain, while the rate of female activity is still closer to the experience of Northern Ireland.

Chart 5.3 Economic Inactivity Rate in Ireland, Northern Ireland and Great Britain by Gender 2014-22 (age 15/16-64)



Source: Labour Force Survey (CSO, ONS & NISRA)

Leaving aside the Republic's more recent improvement since the pandemic, the most striking feature about economic inactivity on the Island of Ireland is the similarity between both jurisdictions. This is surprising because, the rate of economic activity in Northern Ireland is considered to be one of the region's chief economic weaknesses and there has been much research and many policy strategies aimed at improving this. In contrast there has been scant attention paid to the level of labour force participation in the Republic even though its performance has been similar to that of Northern Ireland since the financial crash of 2008.

5.3 Barriers to participation

Barriers to participation in the labour market are present for many reasons and not all of them can be alleviated through traditional policy levers. There will always be a section of the adult population outside the labour force due to retirement or incapacity, but even among the economically active population, there will always be those who choose to remain outside the labour market to pursue other activities or work that is not monetised. From a growth accounting perspective, the focus is on those outside the labour market, who could be

brought back into it. The task is to identify where barriers to participation may exist and to set about removing them.

The very high cost of childcare is one such barrier in both Ireland and the UK. Ireland and the UK both spent less as a percentage of GDP in 2015 (GNI* for Ireland) than the OECD average on early childhood education and care (OECD, 2019). Both countries also spent less than the average on a per child basis. The ESRI (2018) find that the cost of childcare is negatively related to participation, with the effect strongest for lower income households. There is a compelling case that heavily state subsidised childcare would increase the labour force participation of second earners and lone parents in particular. This would increase the effective size and quality of the available workforce while retaining human capital within the workforce. Recent changes in funding for childcare may help explain why the recent improvement in the Republic's participation rate was larger amongst females but there is not yet enough evidence of an enduring shift in the trend.

When we look at the underperformance of male economic activity in Northern Ireland, and in particular the trend of decline over the last number of years, we also need to look at the experience of male workers in the economy over this time period. Workers who leave the labour force and re-enter are more likely to do so in non-standard employment, in particular they are more likely to engage part-time work either temporarily or in the longer term (Buddelmeyer, Mourre and Ward-Warmedinger, 2005). The effect is amplified for males. The performance of wages for part-time male employees has been particularly poor over the last number of years, falling even at times when wages were growing for all other types of workers. The quality of employment available is crucial in boosting participation in the labour market, and chronically low wages should be understood as a barrier to participation that policy can and should address.

Our view is that both economies should be aiming to move toward rates of labour market participation closer to those in Scandinavia and other Northern European countries such as Iceland and the Netherlands. The goal of full employment is certainly not a new one. As a policy, it gained much traction in Europe and the US in the immediate aftermath of the

second world war, but subsequently fell out of favour in the economic tumult of the 1970s and 80s (Wray, 2009) with inflation and price stability becoming the pre-eminent focus of macroeconomic policy. While there was a revival of interest in the aftermath of the 2008 financial crash, much of the policy initiative was overtaken by the emphasis on austerity policies focused on eliminating public finance deficits. That context is important because almost all models of full employment require the state to be able to absorb the financial burden of residual unemployment and inactivity that is not utilised by the labour market.

The 'Employer of last resort' (Mosler, 1997) and the 'Buffer Stock employment' (Mitchell and Watts, 1997) models both set out mechanisms whereby the state actively achieves full employment and maintains that level during period of economic recession. In recent times these models have become better known as the 'Job Guarantee model', where the government will create forms of employment for any inactive or unemployed person that can make themselves available for work. Many critics see this as an unjustifiable call on public resources, and such criticisms become particularly acute in times of economic recession. In reality these policy objections are no different from the more general opposition to the use of government deficits as an economic stabiliser.

The decline of full employment policies began in the late 1970s and occurred in tandem with a period of rampant speculation in national currencies and government bonds. Full employment models rely on a state with adequate fiscal resourcing and accommodative monetary policy in order to work. Of course, neither economy on the island controls its monetary policy which means that the necessary policy change would need to occur at UK and Euro area levels.

Proper design of the tax and welfare systems also matter for labour force participation (see [Commission on Tax and Welfare, 2022](#)). For example, policymakers should ensure that all working age supports are tapered gradually with income and that labour taxes are simultaneously kept low for lower-income households. This ensures low marginal effective tax rates for such groups, and therefore a strong economic incentive to take up employment or to increase hours. In contrast, cliff-edge supports should be avoided. Sharp reductions in

supports, whether based on income thresholds or for other non-income reasons such as days or hours worked, can create perverse outcomes that reduce labour force participation. In addition, the Republic of Ireland's tax system creates employment disincentives for married second earners by generating very high marginal effective tax rates. Full tax individualisation would help reduce disincentives for some second earners to take-up work.

5.4 Flexible work arrangements

Flexible work as a concept has the potential to achieve a number of positive outcomes both for individual workers and for the economy as a whole. Flexible work exists where an employee has access to structures which enable them to negotiate the amount of work they carry out, along with where and when that work is done. The exact shape of flexible work patterns will be determined by that negotiation. During the Covid-19 pandemic, the world of work experienced an upheaval in work practices of a scale not experienced in peacetime since the industrial revolution. Where before flexible work was the exception, in many industries and sectors it became the rule. It is too early to tell what the long-term legacy of that upheaval will be, but there is no doubt that it has opened up opportunities within the labour market that did not exist before.

Flexible work not only helps achieve greater participation within the labour market, for example for persons with caring responsibilities or with disabilities, it also improves the quality of life of those already in work. Flexible work can also play an important part in achieving targets for both regional development and the fight against climate change. Varying hours of work and permitting homeworking allow reduced journeys in cars and alleviates pressures on public transport at peak times. This both achieves carbon reductions from commuters but also enables people to live in locations which have historically experienced less economic development. Flexible working hours also opens up possibilities for education and re-skilling thereby enabling workers to better transition between job functions.

Notwithstanding these positive aspects, there are also dangers inherent in flexible working practices. The first danger is that the flexibility is abused and the quality of employment is degraded through an erosion of norms and practices. As the world of work changes, so too

must the regulations and laws which govern that world of work. The other key danger is subtler but it also relates to one of the key objectives of flexible working which is greater participation in the workforce. Flexible work must not be seen as an optional or exceptional extra, it must be a necessary and valued component of any employment. If flexible work becomes primarily associated with a particular type of work, it could entrench an existing barrier within the labour market.

For instance, if flexible work became a predominantly female phenomenon, it may have the unintended consequence of limiting the potential of female employment. This is a scenario whereby a request for flexible employment becomes a signal within the labour market. Such a signal may allow employers to practice discrimination that would not be possible if it were practiced on the basis of gender itself. Flexible working must be a right for every employee, but must also be encouraged in industries and sectors which have not favoured it in the past with the public sector taking the lead.

Many of the sectors where flexible working already exists are female dominated sectors, and therefore female workers become more attracted to those sectors because they carry out more unpaid caring duties. Male dominated sectors tend to have less flexible work structures and they also tend to have higher pay. Therefore, the lack of flexible work can act as barrier to female progression in the workforce. It also acts to prevent men from seeking to carry out more unpaid car work, because they are less likely to have access to flexible work. Therefore, the challenge is to bring flexible working to male dominated sectors to ensure that in removing the barriers to female entry into the labour market, we remove the barriers that exist within it too.

SECTION 6: INCLUSIVITY, ADEQUACY, SUSTAINABILITY

6.1 Inclusive growth

Economic growth must be inclusive if it is to genuinely translate into quality of life improvements and to lower rates of poverty, deprivation and precarity for all in society. Inclusive growth will generate higher levels of economy-wide utility than non-inclusive growth because the marginal benefit of an increase in income at the bottom of the household distribution will have a greater impact on individual well-being than an increase in income at the top of the income or wealth distribution.

A more equal distribution of economic rewards is associated with a range of quality of life and well-being benefits across the economy and society, ranging from greater social trust, to increased life expectancy and happiness, to lower levels of crime and stress (Wilkinson and Pickett, 2009). Inequality also intensifies distributional conflicts, thereby making societies more inherently unstable, and reduces aggregate demand in the economy by shifting income to savers. Importantly, there is no clear historical evidence of a trade-off between growth and redistribution. In fact, the IMF (2015) finds that redistribution is generally benign in terms of its impact on growth and that the combined direct and indirect effects of redistribution are on average pro-growth.

6.2 Collective bargaining

An economy characterised by equal levels of bargaining power between workers and employers and meaningful worker voice, for example via a high degree of trade union input, will generate more equal outcomes. Such an economy is likely to be more stable in the long-term with lower levels of social conflict and a higher standard of living for the average worker.

There has been a decline in collective bargaining coverage and trade union density in most OECD countries over the last few decades.⁵ It seems reasonable that the decline in trade union influence has diminished the relative bargaining power of those households reliant on wages as their main source of income. Indeed, the decline in coverage internationally has

⁵ Trade union density in the Republic of Ireland is close to one in four workers.

coincided with declines in the shares of income going to labour. This in turn has helped fuel an increase in inequality because labour income is more evenly distributed across the population of households than is capital income. The EU Commission recently agreed the Directive on Adequate Minimum Wages in the EU (EU Commission, 2022) which mandates member states with a collective bargaining coverage below 80 per cent to establish an action plan to promote collective bargaining.

The Republic of Ireland and Northern Ireland have 'voluntarist' systems of collective bargaining. Under such systems there is joint trade union and employer regulation of employment relations and a relative absence of legal intervention. The OECD (2019) found that the Republic's largely decentralised system with only modest examples of sectoral bargaining was producing inferior labour market performances in terms of employment, wages, working conditions, inequality and productivity compared to the more organised systems in place in Austria, Denmark, Finland, Germany, the Netherlands, Norway and Sweden. This suggests an obvious direction of travel for reform.

Visser (2015) examined wage bargaining coverage and average unemployment across the OECD over the 2000 to 2014 period. Some of the best performers had relatively powerful unions but overall there was no clear relationship. Countries with high union strength had averaged low unemployment (Spain being a notable exception) while the situation for countries with a low level of union strength was more mixed.

Overall there seems to be no clear empirical relationship between union strength and the unemployment rate. This finding is ostensibly at variance with the neoclassical assumption that unions play a role in keeping wages above the market clearing rate, where demand and supply of labour intersect. However, the concept of an optimal market clearing rate presupposes that none of the economic actors have the power to exert influence and set prices. In practice, power relations are always present in markets. In particular, there is likely to be an asymmetry in power in the labour market between business and labour (McDonnell, 2021). This asymmetry will almost invariably favour employers. If there is indeed such an asymmetry then there is nothing natural or efficient about the market clearing rate that

results, and the presence of a union or collective bargaining agreement may help to counter this power imbalance and potentially generate a more efficient outcome.

Long-run wage growth within a firm depends on the productivity of the firm. As such, it is not just firms but also trade unions that have an incentive to take steps to increase productivity, to support occupational retraining and up-skilling, and to support funding for education and R&D. Where there is a constructive relationship, employers can benefit from a more cooperative, motivated and ultimately more productive workforce. The presence of a meaningful and motivated 'worker voice' enables scope for horizontal worker-prompted innovation within the firm. Appelbaum, Gittell and Leana (2011) point to evidence that workplaces with a trade union are more likely to demonstrate higher productivity work practices. Acas (2015) found that countries with stronger participation rights, such as collective bargaining tend to perform better on a number of productivity related measures, while Dromey (2018) using OECD data, found a weak but positive relationship between collective bargaining and productivity.

Finally, by offsetting the power balance that exists in favour of employers, trade unions improve the bargaining power of labour and increase the average wage rate and the labour share of output. Bryson and Forth (2020) estimate a wage premium of 5 per cent after controlling for differences between union members and non-members. The OECD's 2019 report points to evidence from the US and UK suggesting an average union membership wage premium of between 10 per cent and 15 per cent. Mac Flynn (2020) estimated a collective bargaining premium in Northern Ireland of up to 13 per cent. The relationship between pay and collective bargaining was much stronger than that between pay and public or private sector employment.

As there is invariably greater wealth inequality than income inequality in a population we can expect that a decrease in the capital share (an increase in the labour share) will reduce economic inequality. In addition, because unions act in the interest of all the workers they represent, their presence tends to help ensure that the labour share is more fairly distributed

between the workers within the firm or the sector. Workers acting collectively will tend to vote to ameliorate existing wage disparities through wage compression.

On the other hand, with no trade union, more skilled workers acting individually will be able to leverage their more marketable skill sets into higher wages, but this might then be at the expense of other workers were aggregate wages not to increase. IMF (2015) research indicates that less prevalent trade union presence and collective bargaining is indeed associated with higher market inequality.

Beyond wage negotiations, greater collective bargaining also opens the door to greater involvement of the workforce in the missions and goals of the enterprises in which they work. Whether that is through works councils, worker directors or other such initiatives. Connecting the workforce to the investment plans and innovation strategies of firms aligns incentives and deepens cooperation. At the macro level, greater social dialogue can also bolster this dynamic by bringing trade unions, employer and governments together to agree the investment and policy changes necessary to grow industries. The latest Programme for Government in the Republic of Ireland contains a commitment to 'Sectoral Task-forces' to achieve similar aims (Department of the Taoiseach, 2020).

6.3 Adequacy, universal basic services and wage minima

Adequacy is a foundational goal of economic and social policy. Fully achieving this goal in practice would mean a total elimination of deprivation. Poverty rates and deprivation rates can, therefore, be understood as a measure of our failure to achieve this goal for either the population as a whole or for particular cohorts within the population. For context, the CSO's (2022) Survey on Income and Living Conditions tells us that 17.1 per cent of people in the Republic of Ireland were living in enforced deprivation in 2022. The groups most likely to be experiencing enforced deprivation were persons living in one-adult households with children under 18 (45.4 per cent); those unable to work due to long-standing health problems (42.7 per cent); and those living in rented or rent-free accommodation (34.1 per cent).

Wage minima such as national minimum wages, or living wages based on the cost of living, are important additional safeguards against poverty and deprivation. Wage minima compress labour income by introducing a floor on hourly earnings and act as bulwarks against exploitation. Numerous studies (e.g. Card and Krueger, 1993; Doucouliagos and Stanley, 2008) have consistently shown that minimum wages as implemented have led to higher than average wage increases for the lowest paid, with little if any evidence of adverse effects on employment or the economy.

The national minimum wage (NMW) in the Republic will be increased to 60 per cent of median earnings over a four-year period, and then subsequently to 66 per cent unless evidence of negative employment impacts can be causally demonstrated. This policy imitates the National Living Wage (NLW) which was introduced in the UK in 2016. The effect of this policy was amplified in Northern Ireland as the benchmark of UK median wages was significantly higher than if the benchmark had been applied to the median wage locally. The NLW was initially only applicable to those aged 25 and over but it is intended that it will apply to all adult cohorts and that it will reach two thirds of the median wage by 2024. Research to date indicates that the NLW has had a significant effect on raising wages at the lower end of the distribution. Furthermore, the Institute for Fiscal Studies report (Cribb et al, 2021) also found that the NLW not only increased the wages of new jobs paying the NLW, but also increased the number of jobs that paid above the NLW, by up to £1.50 per hour. This positive spill over effect assuages concerns that new wage minima simply become a new floor for wages, instead they appear to be playing a more dynamic role in raising pay more generally.

As in the UK, in Ireland the new minimum wage will also be branded as a 'living wage' even though calculation of the rate is technically unconnected to the actual cost of living. In contrast, the Living Wage Technical Group produces an annual estimate for a living wage in the Republic of Ireland based on the concept of a minimum essential standard of living (MESL). Instead of benchmarking against earnings as the national minimum wage will do, the MESL living wage effectively benchmarks against the cost of living. The MESL living wage is therefore a more meaningful measure of a genuinely 'living wage' than is the NMW living wage.

Governments can also help achieve their adequacy goals via expanded provision of universal basic services (see McDonnell, 2020). We can think of universal basic services as synonymous with the provision of free or extremely low-cost public services available to all and funded by taxation. Expanding the provision of universal basic services is one of the most structurally important policy shifts that any government could take from an economic inequality and cost of living perspective. Such a policy programme would de-facto amount to a de-commodification of the affected range of services. As such, it would diminish the importance of market-based income. Enhanced universal basic services and enhanced income supports will of course need to be funded via higher taxes and social contributions or via reduced spending elsewhere. We will discuss fiscal policy priorities and comparisons further in the next section.

SECTION 7: TAX REFORM

7.1 Tax and spend comparisons

Fiscal policy plays a crucial role in the economy's ability to sustain growth in productivity over the long-term. In particular:

- Investments in education, training and skills and in family supports to avert child poverty, support human capital and development and, therefore, the productivity and the innovative capacity of the labour force,
- Investments in productivity enhancing infrastructure, improve the physical capital stock and thus labour productivity, while
- Public investments in research and development (R&D) will enhance the production and diffusion of new ideas and intangible capital stock and, therefore, the productivity of the economy as a whole.

Public spending can also influence the employment rate, for example by removing barriers to employment such as through the provision of affordable and accessible childcare and adult-care, through well-designed family income supports that maintain low marginal effective tax rates, through supports for retraining and upskilling workers, and through the provision of available and affordable housing.

While acknowledging the uncertainty around 'optimal' growth enhancing levels of spending, relative under-spends in the aforementioned areas run the risk of being false economies in the long-run. In other words, under-spends may impact negatively on the economy's growth potential relative to peer countries. However, the potential benefits of public spending must be balanced against the potentially negative impacts of increased taxation. If tax levels are already high then there may be limited scope for increase without causing economic distortions. Attention must also be given to the composition of the tax base. Long-run growth and employment impacts can vary markedly between different types of taxes.

Table 7.1 compares aggregate UK and Republic of Ireland taxes and social contributions in 2019⁶ with that of the EU average. Both countries have low revenue yields relative to the EU average with most of the difference in revenue explained by low overall social contributions from employers. Tax wedges for average earning households are relatively low by EU standards in both jurisdictions (Table 7.2)

Table 7.1: Aggregate Tax and Social Contributions as % GDP (GNI* for Ireland)

	2018	2019	Rank (out of 28)
All			
EU-27	40.1	40.1	
Ireland	37.9	37.4	13
UK	33.8	33.8	22
Consumption			
EU-27	11.2	11.1	
Ireland	11.6	11.5	17
UK	11.1	11.1	23
Environmental			
EU-27	2.4	2.4	
Ireland	2.7	2.4	16
UK	2.3	2.3	18
Capital (all)			
EU-27	8.2	8.2	
Ireland	10.1	9.6	7
UK	9.9	9.7	6
Capital (corp inc)			
EU-27	2.8	2.8	
Ireland	5.4	5.2	4
UK	2.7	2.4	16
Self-Emp Income			
EU-27	2.1	2.1	
Ireland	1.3	1.2	11
UK	1.1	1.1	13
Capital (stock)			
EU-27	2.4	2.4	
Ireland	2.4	2.2	9
UK	4.4	4.3	1
Immovable Property (recurrent)			
EU-27	1.2	1.2	
Ireland	1.0	0.8	8

⁶ Fiscal data in 2020 and 2021 is distorted by the impact of the pandemic. 2019 is also the last year for which the EU Commission includes comparative UK data.

UK	3.1	3.1	1
Labour (all)			
EU-27	20.7	20.7	
Ireland	16.2	16.3	18
UK	12.8	13.0	25
Labour (employers)			
EU-27	8.3	8.2	
Ireland	4.2	4.4	23
UK	3.9	3.9	24

Source: European Commission Data on Taxation;

Notes: Ireland's 2019 GNI* was €210.7 billion. The 2019 revenue gap between Ireland (GNI*) and the EU27 is €5.7 billion; 2019 revenue gap between the UK and the EU27 is £144 billion. **Rankings:** Highest revenue yield = 1, lowest revenue yield = 28

Table 7.2: Total tax wedge, % of labour costs, 2020

Country	Single	Single	Single	Single	Married
	no chd	no chd	no chd	2 chd	2 chd
	67% AW	100% AW	167% AW	67% AW	100%-0% AW
EU-22	37.1	41.5	45.9	18.7	29.6
Ireland	24.9	33.7	42.2	6.0	18.5
UK	26.0	30.9	37.2	9.4	26.4

Source: OECD Taxing Wages 2020

Note: AW is average wage; 'no chd' means no children; EU-22 are the 22 EU countries in the OECD.

The Republic of Ireland has relatively low taxes on employer social contributions, on taxes on immovable property, and on self-employed income. Ireland's overall implicit tax rate on consumption (a proxy for the economy-wide effective tax rate) is above the EU average (Table 7.3), whereas the implicit tax rates (ITR) on capital and labour are relatively low. The UK also has relatively low taxes on employer social contributions and self-employed income. Employee taxes on wages are lower than the EU average, although the UK has relatively high taxes on immovable property. The UK has a relatively high ITR on capital and relatively low ITRs on labour and on consumption. Both countries are extremely centralised from a revenue raising perspective leading to weak local government in both jurisdictions (Table 7.4).

Would structural increases in taxation as a percentage of national income act as an impediment to growth? The rate of economic growth is not a monotonic function of the tax rate. In general, as Jones and Manuelli (2005) point out, there will be no long-run growth when taxes are too low (not enough public goods are provided) or too high (the private

returns to capital accumulation are too low). Gale and Samwick (2014) argue that the net impact on growth of tax levels is ambiguous theoretically and they point to estimates showing the actual effect is small. The LSE Growth Commission (2013) points out that there is no reliable evidence that the growth potential of an economy is limited by the size of the government over the wide range seen in the OECD.

Table 7.3: Implicit Tax Rates (aggregate effective tax rates by type of activity)

	2008	2018	2019	2019
Consumption				
EU-27	16.5	17.3	17.4	
Ireland	19.6	19.4	19.7	
UK	13.4	15.1	15.2	
Capital				
EU (median)			27.1	
Ireland			14.1	
UK			31.5	
Labour				
EU-27	37.5	38.2	38.1	
Employee				21.1
Employer				17.0
Ireland	25.6	33.0	33.5	
Employee				24.3
Employer				9.2
UK	26.3	25.7	25.7	
Employee				17.8
Employer				8.0

Source: European Commission Data on Taxation;

Note: 2019 data on ITR capital is missing for Malta; ITR on labour for employees is personal income tax plus employee social security contributions (SSC); ITR on labour for employers' is employer SSC plus payroll taxes.

Table 7.4 Taxes by level of government as % of total taxation, 2019

	Central	State	Local	Social security fund	EU Institutions
EU-27	45.9	7.4	10.2	35.8	0.5
Ireland	97.5	0	2.0	0	0.6
UK	94.3	0	5.3	0	0.5

Source: European Commission Data on Taxation;

More significant is the composition of spending and the composition of government revenue raising. For example, Gale and Samwick (2014) point out that a revenue neutral shift towards base broadening (i.e. eliminating tax expenditures and using the additional resources to

reduce headline rates) would be beneficial to economic growth. Compositional shifts in revenue raising can also achieve other public policy goals. For example, a compositional shift within consumption taxes towards taxing environmentally damaging products and activities could help achieve climate and biodiversity targets without increasing the overall tax charge on low income households.

7.2 Inclusive-growth friendly tax reform

Reforms to the structure of the tax system can yield significant benefits in terms of economic growth, equity and/or environmental sustainability. Three⁷ areas with promise for reform include:

- (A) A systematic broadening of the tax base by eliminating or significantly reducing the generosity and impact of tax expenditures,
- (B) An increase in the yield from capital, and in particular capital stocks and capital transfers, as a percentage of overall government revenue, and
- (C) An increase in the yield from taxes on polluting activities as a percentage of the yield from taxes on consumption.

Tax expenditures are a form of public spending that benefits particular interest groups by treating certain activities or groups in a preferential way for tax purposes. Each tax break will have its own costs and benefits and these will not be uniform across the population. Tax expenditures undermine the principle that individuals should pay tax in proportion to their ability to pay, reduce the progressivity and equity of the tax system, and to do so in a way that is less transparent than direct public spending (Combat Poverty, 2005; Poterba, 2010).

Because tax expenditures narrow the tax base, it then becomes necessary to set average tax rates higher than they would otherwise have to be for any desired level of public spending. Tax breaks on capital stocks and stock-generated income are likely to be particularly regressive given the unequal distribution of wealth in the population. Tax breaks such as

⁷ A fourth area of reform for government revenue – social insurance – is considered at the end of the section.

those related to capital gains, inheritances and estates taxes are, therefore, particularly difficult to justify from an equity perspective.

Tax expenditures related to non-productive sectors such as property can divert capital resources away from investment in more productive assets. There is also often a deadweight loss associated with tax expenditures to the extent they subsidise economic activity that would have happened anyway in the absence of the preferential tax treatment. This applies not just to capital tax breaks but also to tax breaks related to consumption, such as preferential VAT rates.

In addition, tax expenditures distort the incentive structure for households and firms. These distortions can drive suboptimal and potentially destabilising development outcomes as evidenced by the prominent role played by property related tax breaks in fuelling the asset price boom-bust and subsequent bank bailout that occurred in the Republic of Ireland in the late-2000s. Overall, tax breaks can negatively affect growth by distorting investment incentives, by creating or encouraging inefficiencies in production and consumption, and by diverting economic activity toward rent-seeking behaviour.⁸

A second area of potential reform relates to the taxation of capital stocks and capital transfers. Such taxes tend to be more growth-friendly than most other forms of tax, and in the Republic of Ireland in particular there appears to be scope to increase taxes in these areas. With regard to capital stocks, McDonnell (2019) estimates that the Republic of Ireland collects about €1.5 billion less than the EU average as a proportion of economic output (GNI* basis). Most of this deficit relates to recurrent (e.g. annual) taxes on immovable property. On the other hand, the UK has one of the highest property tax yields (Stamp Duty and the Council Tax) in the OECD when measured on a GDP basis. Nevertheless, there is still likely to be some

⁸ Well targeted tax breaks can have beneficial impacts to the extent they reduce negative externalities such as pollution, or to the extent they encourage activities such as basic research that generate positive externalities. However, even where there is a clear public policy case, there still needs to be a rigorous and ongoing social cost benefit analysis of the overall effect of the proposed tax expenditure.

scope for a revenue neutral shift within the UK to greater taxation of capital stocks and transfers.

The OECD (2010) examined the impacts of various taxes from an economic efficiency perspective and found that recurrent taxes on immovable property are the least damaging (i.e. most beneficial) to long-run per capita GDP growth prospects. McDonnell (2019) points to strong theoretical arguments in favour of recurrent taxes on property (which includes taxes on land).

- They are shown empirically to have a minimal negative impact on output;
- They are difficult to avoid or evade,
- They are relatively stable across the economic cycle,
- They do not penalise productive activity,
- Other factors of production (e.g. labour and financial assets) are more mobile making land and property taxes particularly suitable in the context of increasing globalisation,
- They do not create a barrier to labour mobility (unlike transaction taxes),
- They encourage investment in more productive assets,
- They can be progressive if properly designed,
- They recoup state investment for the costs of public infrastructure provision through the increased and (unearned) value accruing to local housing and land.

As property taxes are taxes on the ownership of property, they will tend to fall disproportionately on wealthier households. Overall, there appears to be a strong case for the Republic of Ireland and the UK to meaningfully increase the amount of tax revenues as a proportion of national incomes that are annually flowing from taxes on property including land.

Arguably the most important fiscal tools for redistributing wealth are taxes on inheritances and gifts. This is because unearned inheritances and endowments explain a significant proportion of wealth inequality. In practice, a slew of generous exemptions, reliefs, and high thresholds undermine horizontal equity between taxpayers, enable the tax-free transfer of

substantial amounts of assets across generations and perpetuate intergenerational wealth inequality.⁹

It is also not clear why retaining medium-size businesses across generations is beneficial to the economy in the long-run. Indeed, the intergenerational transfer of such assets may actually harm the long-run efficiency and development of the economy via inferior management practices and lack of dynamism and by reducing productivity generating churn. Overall, there is a strong case for policymakers in both jurisdictions to meaningfully scale back the generosity of such reliefs given their regressive nature and weak policy rationale, as per the recommendations of the Commission on Tax and Welfare (2022).

Green taxes have an important role to play in addressing the climate crisis by changing behaviour and by driving the decarbonisation of the economy. In particular, carbon and other greenhouse gases (GHGs) should be priced to discourage consumption and, over time, to internalise and fully capture the environmental and social cost of the emissions.¹⁰ In addition, all fossil fuel subsidies should be abolished as a matter of urgency as these subsidies run counter to environmental policy objectives by de-facto incentivising polluting activities.¹¹ The various excise duties on mineral fuels distort GHG pricing mechanisms such as the carbon tax and should ultimately be replaced by a more robust system of GHG taxes (not just on carbon) that fully reflects the social and environmental cost of emissions. The CSO (2022) estimates that fossil fuel subsidies in the form of tax expenditures cost the Republic of Ireland exchequer €2.1 billion in revenue foregone in 2020. Other products and services with negative environmental externalities, for example once-off plastics and non-residential car

⁹ In addition to a threshold (Group A) of €320,000 and a series of exemptions, the Republic of Ireland has highly generous agricultural and business property reliefs which reduce liability by 90 per cent and have no ceiling. Thus, a person could inherit up to €3.2 million (not counting other exemptions and reliefs) without attracting an inheritance or gift tax liability. €3.2 million is close to 100 times the average wage.

¹⁰ GHG emissions in the Republic of Ireland declined by just 12 per cent, between 2005 and 2021 (EPA, 2021). The average annual decline of 1 per cent per annum is well below the Irish government's target of 7 per cent emissions reductions per annum.

¹¹ Sequencing is important for political economy, social consensus, and just transition reasons. Increasing taxes on GHGs and abolishing fuel subsidies should, where feasible, be accompanied by measures to provide households and businesses with non-polluting alternatives. Provision of affordable alternatives will require significant targeted interventions by government in a range of areas, for example retrofitting of homes, the roll-out of public transport, and supports for climate and biodiversity sustainable farming. Also required is significant government support for and investment in green R&D, in renewable energy infrastructure, and in the retraining and upskilling of workers in affected sectors.

parking spaces, should also be taxed at higher rates in order to disincentivise provision and use.¹²

Of concern will be the potentially regressive impact of increasing taxes on consumption. Even where applied to the producer, the incidence will often fall on the end user. The Republic's ITR (economy-wide effective tax rate) on consumption is already above the EU average (Table 7.3) although the UK has a below-average ITR on consumption suggesting somewhat greater scope for increases in this area. One potential solution would be for higher taxes on polluting activities to be partially offset through cuts to other taxes on consumption, for example the higher rate of VAT.¹³

In the long run, taxes on pollution will fall close to zero if countries are successful in achieving their net zero and biodiversity targets. This suggests that policymakers should not treat green sources of revenue as sustainable over the longer-term, and, therefore, should not use them to pay for ongoing current expenditure. Instead, there is a case for explicitly linking 'green' revenue yields to the temporary public spending measures specifically designed to facilitate the net zero transition. One way to do this would be through the establishment of dedicated green investment funds.

Finally, we would note a fourth area where there is scope for significant reform to government revenue raising, and that is social security contributions. We have seen that the large gap in revenue raising in the Republic of Ireland and in the UK is mainly if not entirely explained by a relative lack of social contributions. In other states, these payments fund a range of benefits including sick pay, unemployment and pensions that protect a significant amount of former income up to a certain threshold. Raising employer taxes in the Republic of Ireland to comparator averages would more than close its revenue shortfall relative to the rest of Western Europe. Raising employer taxes could similarly help rectify gaps in the UK.

¹² On the other hand, given the positive externalities, there is a case for policy to temporarily incentivise investment in green technology and infrastructure via subsidies or reduced tax rates.

¹³ Alternatively, lower income households could be protected via reforms to adequately benchmark welfare payments, and through policies to reduce the cost of living and increase real wages for low paid workers.

Any serious attempt to address the revenue shortfall in either state will almost certainly need to include significant reforms to the social insurance system.

7.3 Devolution of taxation in Northern Ireland

Devolution has dramatically altered the political and economic makeup of the United Kingdom over the last 20 years. In more recent times, greater fiscal powers for devolved regions have become a key policy goal to achieving more balanced regional development in the UK. Both Scotland and Wales have sought and gained increased powers over both taxation and spending powers over the last two decades. Northern Ireland's devolution settlement has remained largely unchanged and in 2022 the Independent Northern Ireland Fiscal Commission reported on proposals for tax devolution.

The Fiscal Commission (2022) recommended the partial devolution of Income Tax to Northern Ireland. They noted the substantial risks inherent in such a policy and the potential for a deterioration in the fiscal position as was the case with Scotland following similar reforms. The report was less prescriptive about the possible devolution of corporation tax to Northern Ireland. It called attention to the limits of revenue feedback that would arise from any cuts in a proposed Northern Ireland corporate profits tax. This points to one of the most significant elements missing from the Fiscal Commission report and from the wider fiscal devolution debate, expenditure.

Mac Flynn (2020b) notes the current devolution settlement in Northern Ireland incentivises poor expenditure decisions and policymaking particularly as it relates to economic affairs. In particular, the devolution to Northern Ireland of spending on social transfers without full policy autonomy has never been reconciled. The current devolution structure was not built to sustain broad devolution of taxation powers. If fiscal devolution is to take place, policy would be better focused on reforming the entirety of the current revenue and expenditure system across the UK as a whole and to design one more appropriate for the political situation that now exists.

There needs to be a realistic assessment of the economic dividend that would arise from devolving new fiscal powers. Concurrently there needs to be a risk-assessment for the public finances and any policy would need to satisfy the basic principle of benefit over cost.

SECTION 8: ENTERPRISE POLICY

8.1 High-level rationale for and types of support

The justification for enterprise policy is that a society's overall well-being is enhanced by a fast but sustainable rate of inclusive economic growth over the longer term, and that properly designed enterprise policies can potentially facilitate such growth and use it as a tool to tackle societal challenges. A particular policy support for enterprise can be justified to the extent that the society-wide benefits outweigh the deadweight, opportunity, and other costs of providing that support.

As discussed in previous sections, sustainable economic growth comes from the accumulation and use of labour and capital inputs (i.e. investments in people, technology, and infrastructure, as well as more hours worked) combined with improvements in the productivity of labour and capital arising from a variety of sources including on-going scientific progress and technological change and diffusion.

Sustainable growth in output per hour worked depends on improving labour productivity and the economy's productive capacity, which in turn depends at least in part on innovative capacity. This is because the level of innovation and the rate of technology diffusion in the economy is a function of its innovative capacity. The greater the spread or diffusion of economically useful ideas and technologies, the greater will be the economy-wide benefits.

A country's innovative capacity is, itself, a function of:

- (A) People's education, skills, experience and contacts (human capital);
- (B) Prior investments in infrastructure, machinery and intangible assets, and in public and private research (R&D);
- (C) The cost of, and capacity for, knowledge production, diffusion and use, and
- (D) The quality and diversity of private capital markets and the enterprise structure

We can better understand the potential barriers to technology adoption by framing the individual or organisation's technology adoption 'decision' through a series of questions (see Table 8.1).

Table 8.1 Questions underpinning the technology adoption decision

Category	Question	Factors of relevance
A	Is the individual or organisation 'aware' of the technology	Education, experience, physical location, contact with existing users
B	Does the individual or organisation have the 'opportunity' to acquire the technology?	Technological constraints, infrastructure constraints, market constraints, legal constraints, physical location
C	Does the individual or organisation have the 'capacity' to acquire the technology?	Income and wealth, access to affordable finance, education and skill-set, social contacts
D	What is the individual/organisation's anticipated level of 'utility' from the technology?	Personal preferences, perceived relative advantage, familiarity with similar technology

Our view is that enterprise policy should focus on this wider picture of maximising the economy's overall innovative capacity. Most obviously, governments could increase public funding for both basic and commercially driven research in order to increase the production, diffusion and use of new ideas. Ideally, this would be accompanied by the establishment of more attractive and secure career paths for researchers and by the establishment of deeper collaborative linkages between government, firms and universities.

In addition, governments should continuously examine the scope for reforms to education policy in order to ensure it is aligned with the developmental needs of the economy and to ensure that it does not leave certain cohorts behind. Related to this is the need to meaningfully increase investment in education, and in personal development and skills, particularly for those disadvantaged cohorts that are most at risk of falling behind. Development policy should take a particular focus on early years learning and on measures to eliminate childhood poverty. Eliminating child poverty is not just a moral necessity but also an economic imperative.

Where capital markets are not well-functioning there is a case for some form of state support to provide patient long-term finance in order to support innovative effort and technology diffusion. Crucially, the concept of the state as an investor entails equity stakes in speculative high-risk and high-potential start-ups with an additional but less important secondary

function of providing conditional¹⁴ low-cost loans for private enterprise. Mazzucato (2013) describes the notion of the entrepreneurial state. The state is seen as primarily an ‘innovative mission-oriented investor of last resort’ not a ‘lender of last resort’ and as a ‘sharer in risk-taking’ and not just a ‘reactive fixer of market failures’. For example, she emphasises the need for a mission-oriented approach to the enormous but necessary economy-wide transition to net zero, and she notes the unique ability of the state to provide the patient, long-term, strategic, committed finance necessary to make that transition.

8.2 Suitable policy interventions

In general, and as noted in the previous section, the use of tax expenditures as a tool of public policy should be minimised. Similarly, subsidies for business (including agriculture) can be deleterious to long-run growth to the extent that they skew incentives and distort resource allocation. Given the various downsides (e.g. perverse incentives, market distortions, deadweight, negative distributional effects, rent-seeking, complexity), tax expenditures are only justifiable where there is clear evidence of inherent structural market failure.

Specifically, tax expenditures for SMEs/entrepreneurs are only justified if they pass a number of tests:

- A) There must be a clear and defined market failure
- B) The market failure cannot be adequately remedied through regulatory reform or otherwise through direct government intervention
- C) Direct government subsidies or other interventions are unlikely to end or sufficiently ameliorate the market failure, or could only end the market failure at a higher fiscal cost than via tax expenditure.

Even when these criteria are fulfilled, the rationale for the tax expenditure should be assessed on an ongoing basis to establish its effectiveness at ameliorating the market failure, the scale of the deadweight loss, any unintended consequences, the distributional impact,

¹⁴ For example, conditions related to minimum environmental and labour standards. Follow-up loans could additionally be conditional on factors such as export performance.

and the opportunity costs including the cost to the exchequer and the policy options foregone. Finally, sunset clauses and caps should always form part of tax relief design.

Fiscal supports should generally be restricted to export-oriented sectors, and evaluation of particular enterprise policies should be based on the broader long-run 'societal' impacts, including the opportunity costs, and not just on the private firm impact. For example, the characteristics of knowledge and the potential for gains from knowledge spill-overs suggests that 'new ideas' will be produced by markets at a level below the socially optimal rate. Therefore, there is a justification for government intervention to encourage R&D activities either through direct provision, through subsidies or through tax expenditures. A similar positive case can be made for firms seeking to invest in green technologies.

There are at least three main areas where appropriate government intervention could potentially enhance the long-run productive capacity of the economy via supports for enterprise. These areas are:

- 1. Increasing the economy-wide rate of generation of high potential start-ups (HPSUs) and raising equity finance for HPSUs*

Relevant supports to inculcate HPSUs include meaningfully increasing public spending on R&D including funding for basic research, as well as meaningfully increasing funding generally for Science, Technology and Innovation (STI) courses and activities, for the career progression of STEM researchers, and for administrative and information related supports aimed at facilitating establishment of HPSUs.

In addition, governments could consider establishing independent state investment banks (SIBs) focused on investment in potential and existing HPSUs via a combination of equity stakes and low interest loans. Nascent firms often have difficulty securing finance due to their lack of a track record. Investment banks of this nature could use their size and wider societal remit to focus on radical high risk and high reward activities that might otherwise struggle to receive private financing.

2. Incentivising in research, development and innovation

Enterprise policy should seek to incentivise experimentation by firms in new ideas, in technology adoption, and in new business models and practices. Tax credits for R&D make sense in this context. They should be accompanied by administrative supports to reduce the burden and uncertainty around the use of these types of supports. However, direct subsidies for innovation are likely to be of much greater significance and value for early stage companies than tax expenditures and are likely to carry less deadweight loss. Subsidies should therefore form the main component of R&D related fiscal incentives for early stage firms. The appropriate nature and design of government supports targeted at increasing technology diffusion will depend on the reasons underlying the diffusion failure (see Table 8.1).

In addition, governments should seek to better develop their regional or national systems of innovation (NSIs) in order to cultivate and widen innovative capacity. This would entail deeper and more systemic collaboration between firms, academia, think-tanks and government including via access to researchers, secondments and demonstrations, and information campaigns. Small and new firms would particularly benefit from access to the human and technical capital embodied within university and government connections.

Finally, R&D carries significant upfront costs and has a high probability of failure. The small sizes of the Republic of Ireland and Northern Ireland mean that they must both inevitably specialise in a limited selection of technologies and activities. Policymakers should explore how best to establish collaborative linkages between the key actors in their respective NSI's as well as the key NSI actors in other countries. Cost sharing, improved scale and cross-fertilisation of ideas between countries and regions opens up additional possibilities for frontier innovation and facilitates technology diffusion.

3. Attracting and retaining human capital and diffusing technology to laggards

The ability of an SME to become aware of and exploit new ideas is called its 'absorptive capacity'. Human capital is the most important element of absorptive capacity. There is, therefore, some merit in considering fiscal supports such as tax reliefs on share-based

remuneration to incentivise key employees to join or stay with an SME or would-be HPSU. Arguably, such reliefs should only be available to early stage firms.

An unintended consequence of the Republic of Ireland's successful FDI strategy may have been a 'golden cage effect' whereby human capital is diverted away from the domestic economy and indigenous companies by the attractive opportunities and career prospects offered by foreign multinationals. This effect may be contributing to weaker technology diffusion outside of these multinationals by reducing absorptive capacity outside of these firms.

Impediments to labour supply and skills bottlenecks can also retard technology diffusion and absorptive capacity. Significant impediments to employment include the cost and/or lack of availability of childcare and adult care, as well as barriers to internal labour market mobility and inward migration such as housing costs and availability. Greater funding could also be made available to incentivise firms to invest in the human capital of their workforce and to incentivise engagement with academics and business networks.

8.3 Social Insurance and risk-taking

A social insurance system based on income replacements would enable a better allocation and more efficient use of human capital by facilitating a more considered and better match of skill-set and job function and therefore, a reduced probability of skills mismatch and overqualification. The UK and Republic of Ireland stand apart from most other EU countries in operating unemployment schemes that issue flat rate payments. Nearly all EU countries operate some form of unemployment insurance with varying degrees of coverage and a wide variation in terms of replacement rate of previous income.

Rather than seeing social insurance as a constraint on growth, we should see it as a driver of labour market efficiency and a significant lever of productivity growth. The key transmission mechanisms for this are via the reduction in risk aversion and increased entrepreneurship and via pushing people towards newer and better jobs. Jobs in newer areas of economic

activity may not seem as secure and workers may be unsure about moving to such jobs, irrespective of higher potential salaries.

This is crucial when we consider the kind of shift in jobs that will be necessary to tackle climate change. Many of these jobs will be with new firms and the jobs themselves may be unknown to most people. Unemployment insurance removes this risk and enables workers to take a chance on one of these new jobs. More broadly, unemployment insurance can encourage entrepreneurship, as starting or expanding a business requires taking a significant risk with an individual's income. Without unemployment insurance, that risk can be too high for many households. Therefore, unemployment insurance also has the benefit of boosting economic performance even if it never has cause to pay out any significant amount.

8.4 Facilitating churn

It is also worth considering what enterprise policy should not do. Supports for the continuation of existing businesses have little merit in terms of generating new ideas and new innovations, or in terms of promoting a vibrant churn of business entry and exit. A high rate of Schumpeterian business churn is an important element in the ongoing process of generating innovation and technology diffusion.

For example, the Republic of Ireland's enormously generous reliefs for Capital Acquisitions Tax (CAT)¹⁵ business and agriculture relief, alongside related CGT tax reliefs, have little or no evident economic justification. The opportunity costs of these fiscal supports for business continuation means fewer fiscal resources are available to target more usefully at HPSUs. Policies that prolong inefficient firms, such as tax reliefs that facilitate intergenerational wealth transfers, should be discontinued. Instead, policymakers should seek to avoid trapping resources in underperforming or even 'zombie' firms with unviable business models or weak management practices.

Policy should also seek to reduce financial and administrative barriers to firm entry and exit, and to avoid economic 'lock-in' to particular activities or outdated technologies. Examples of

¹⁵ CAT is a tax on inheritances and gifts.

good policy include generous and expeditious bankruptcy laws that do not penalise failure and that encourage young firms to exit the market quickly and entrepreneurs to 'learn and try again' differently.

Finally, a greater acceptance of churn necessitates generous and ongoing supports for life-long learning and education in order to enable workers to learn new skills and adapt to new technologies. Such supports will facilitate workers transitioning to employment or entrepreneurship in growing sectors of the economy. This is essential from a just transition and, therefore, political economy perspective but also makes sense from a productive and innovative capacity perspective.

SECTION 9: PIECING IT TOGETHER: CONCLUDING THOUGHTS

9.1 The necessity of resilience

In the first section of this paper we outlined the case for growth as the key determinant in the growth of living standards over the last century. However, the condition of the world that we inhabit today shows that the quality of economic growth matters just as much as the quantum. The boom and bust that we experienced in the first decade of this century exposed how hollow a seemingly healthy economy can be. More recently, the Covid-19 pandemic showed, once again, how quickly an entire economic system can be unwound.

What these two episodes should tell us is that it isn't just enough to 'go for growth' or even to achieve it, it matters whether such economic growth is inclusive and sustainable. In a globalised world economy, it is not possible to remove all risks or prevent all crises, but we can make efforts to build economies that are better able to withstand such turbulence. The challenges that are posed by the climate crisis present a danger to our existing prosperity, but also offer an opportunity to reimagine our economic model. The policies we set out below are where we think that work should start, but certainly not where it should end.

9.2 A policy framework

- 1) Human capital is the greatest resource available to any economy, but its full potential can only be realised with proper investment.
 - a) The UK and the Republic of Ireland must bring their spending on education up to the average of our peer economies. For the Republic this will require an increase of over one quarter in per pupil expenditure on primary and lower secondary and of one third on tertiary education. The UK needs to increase spending on non-tertiary education.
 - b) Both the Republic of Ireland and Northern Ireland need to increase the focus of resources on to disadvantaged schools and students and prioritise a system of early childhood education which is fit for purpose.
 - c) The state must engage in a process of skills coordination so that investment in education is rewarded and utilised appropriately in the labour market.

- 2) Gaps in investment in physical capital as a result of constrained government expenditure represent a litany of lost opportunities.
 - a) Public investment in the UK has fallen to a dangerously low level and this is impacting both the depth and quality of productivity-based growth it is able to achieve. While the Republic has made significant recent strides, years of underinvestment still constrain economic capacity.
 - b) Per capita levels of spending on public R&D must be raised to that of Western European peers and better career paths need to be established for R&D workers.
 - c) Beyond increased public investment we must guide private investment in research and development by removing unnecessary barriers such as the high cost of borrowing. Public R&D levels need to be increased to Western European norms.
- 3) We must reimagine our labour market and remove the last remaining barriers to all those who wish to participate.
 - a) Public provision and effective subsidisation of childcare in both Northern Ireland and the Republic of Ireland is necessary to raise female participation in the labour market.
 - b) We must move toward a full employment policy that provides job guarantees to all that wish to work.
 - c) We must eliminate cliff edges and perverse incentives in the tax and social transfer systems to support people's relationships with work and labour market transitions.
 - d) Flexible working should be promoted but it must be the custom and practice of the majority of workers and not a niche for a subset of workers.
- 4) The world of work must change and this must involve democratisation. Workers who feel safe and empowered are the key to productivity and resilience.
 - a) Collective bargaining should be incentivised and the state should take an active part in that effort. Boosting collective bargaining coverage to 80 per cent as envisaged by the European Commission directive, should be the goal for both economies on the island.
 - b) Public services help to de-commodify human needs and remove sources of instability in people's lives and in our economy. A system of universal basic services is necessary to underpin any successful, productive economy.

- c) Minimum wages should be based on minimum income standards. However, wage minima alone cannot be enough and must be combined with collective bargaining and appropriate state income supports.
- 5) In order to make many of these reforms we also have to make reforms to the state and how it interacts with our economy.
- a) We must close gaps in taxation. Both the UK and the Republic show significant gaps in taxation on employers and the self-employed.
 - b) The Republic also has significant shortfalls on the taxation of immoveable wealth. For both the UK and the Republic, there should be a move toward a system that taxes property and land based on its value and utility.
 - c) Social contributions represent a gap in taxation in both the UK and the Republic, and the majority of this shortfall is to be found in employer contributions. These rates must be raised gradually to bring us into line with our peers.
 - d) Green taxes are necessary to change consumer behaviour and behaviours in certain industries and they should be utilised fully. However, any such taxes will by their nature give rise to transitory revenues and so this revenue should be used to fund investments in the net zero transition.
- 6) How we support businesses must also change. Limited support must be prioritised for innovation and future prosperity rather than fostering the status quo.
- a) Government must take a more active role in partnering with firms carrying out high value R&D. This should be more than financial partnership, but a collaboration which involves education, public capital investment and skills policy.
 - b) State investment vehicles can be utilised to help younger firms with high potential.
 - c) Tax expenditures to firms represent a significant amount of forgone revenue and must be minimised.
 - d) We must create linkages between innovative firms and the education sector and research community and build an environment where industries collaborate.
 - e) Having a robust social safety net helps the economy to make the technological and sectoral shifts that are necessary for sustainable growth. A system of unemployment insurance that protects workers and not jobs will facilitate the multiple transitions our economy must make.

- f) The same is true for firms. Not all businesses will succeed, and failure is a part of the innovation cycle. Supports should not be used to prop up zombie firms or to support intergenerational transfer of assets.

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