

# Benchmarking Public Spending Efficiency in Education, Health, and Infrastructure in Ireland

Yen Mooi

SIP/2025/090

IMF Selected Issues Papers are prepared by IMF staff as background documentation for periodic consultations with member countries. It is based on the information available at the time it was completed on May 20, 2025. This paper is also published separately as IMF Country Report No 25/129.

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European Department

**Benchmarking Public Spending Efficiency in Education, Health, and Infrastructure in Ireland****Prepared by Yen Mooi**

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**ABSTRACT:** The paper benchmarks Ireland's public spending efficiency to peer countries in infrastructure, health, and education using a variety of indicators and maps the efficiency frontiers in these sectors using the Data Envelopment Analysis (DEA) method. It finds that while Ireland is at the efficiency frontier for education spending, there is room for potential gains in public spending efficiency on health and infrastructure. Achieving these gains could create further fiscal space to improve Ireland's buffers for shocks in an environment of heightened global uncertainty and structural shifts.

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## SELECTED ISSUES PAPERS

# **Benchmarking Public Spending Efficiency in Education, Health, and Infrastructure in Ireland**

Ireland

Prepared by Yen Mooi<sup>1</sup>

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<sup>1</sup> The author would like to thank Santiago Previde (EUR) for excellent research assistance, and the authorities and participants of staff presentations during the Article IV consultation mission for their helpful comments and suggestions.



# IRELAND

## SELECTED ISSUES

May 20, 2025

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Prepared By Yen Mooi.

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# BENCHMARKING PUBLIC SPENDING EFFICIENCY IN EDUCATION, HEALTH, AND INFRASTRUCTURE IN IRELAND

*The paper benchmarks Ireland's public spending efficiency to peer countries in infrastructure, health, and education using a variety of indicators and maps the efficiency frontiers in these sectors using the Data Envelopment Analysis (DEA) method. It finds that while Ireland is at the efficiency frontier for education spending, there is room for potential gains in efficiency for public spending on health and infrastructure. Achieving these gains could create further fiscal space to improve Ireland's buffers for shocks in an environment of heightened global uncertainty and structural shifts.*

## A. Introduction

### 1. Enhancing public spending efficiency will help de-risk Ireland's public finances.

Ireland's strong fiscal position in recent years has been supported by a large increase in corporate income tax (CIT) revenues, which are highly concentrated and vulnerable to external policy shifts as well as firm- or sector-specific shocks. It is unclear how long the windfall CIT revenue source will last, without which Ireland's underlying fiscal position would have been considerably weaker. Enhancing public spending efficiency—by enabling the same quality of outcomes and delivery of public services with less spending, or better outcomes with a given level of spending, or a mix of the two—can help improve Ireland's fiscal buffers for shocks. Furthermore, at the current juncture of the Irish economy operating at full capacity, limiting the fiscal impulse through improved public spending efficiency would help Ireland address its urgent infrastructure and housing needs while avoiding pro-cyclical fiscal policy.

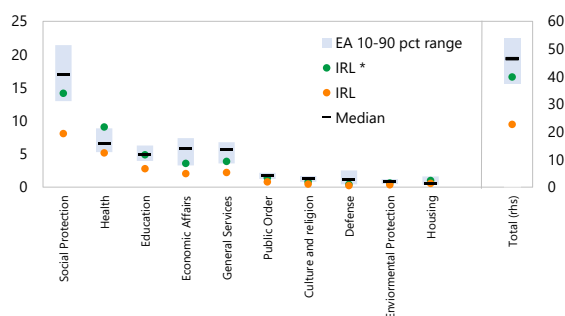
**2. The overall level of public spending in Ireland is relatively low in the euro area, with the exception for health spending.** Total public spending, at 40 percent of GNI\* in 2023, has been below the median of EU peers (Figure 1). By functional budget, most spending categories are below the euro area medians— except for health, which as a share of GNI\* is at the top range of the euro area peers, and education which is at the median (Figures 1, 2, 3).<sup>1</sup> In recent years, health spending has also consistently grown faster than total spending. Nevertheless, there are some limitations with the comparability of the health sector data due to different accounting approaches across countries—health spending is likely overstated in Ireland as it captures some social spending (Wren and Fitzpatrick, 2020).

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<sup>1</sup> Indicators for Ireland are measured as share of GNI\*, compared to other EU countries where a share of GDP is employed. The modified GNI\* is widely accepted as a more accurate measure of the Irish economy relative to GDP, given the large share of multinational activity.

**Figure 1. Ireland: Public Spending****Distribution of Public Spending, 2023**

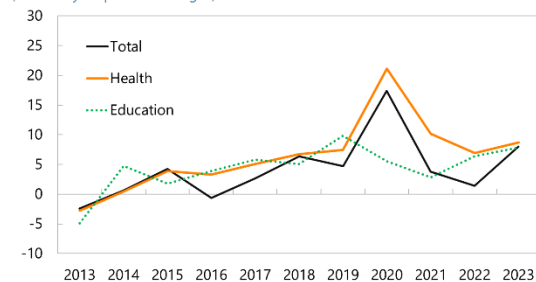
(Percent of GDP)



Sources: Eurostat, Haver Analytics, IMF staff calculations  
 Note: IRL\* represents share of GNI\*.

**Spending Growth by Category**

(Year-on-year percent changes)

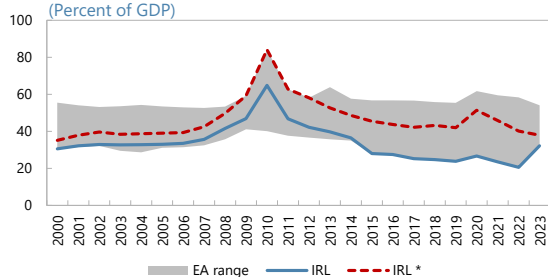


Sources: Eurostat, Haver Analytics.

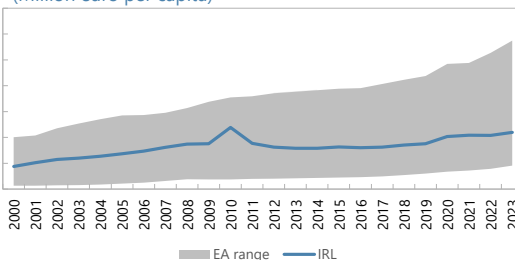
Note: The spike of health spending in 2020 reflects the impact of the COVID-19 pandemic.

**Figure 2. Ireland: Spending Range of Selected Expenditure Categories in Ireland and the Euro Area (2023)****General Government Expenditure**

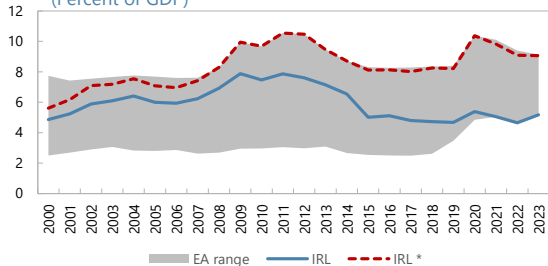
(Percent of GDP)

**Expenditure**

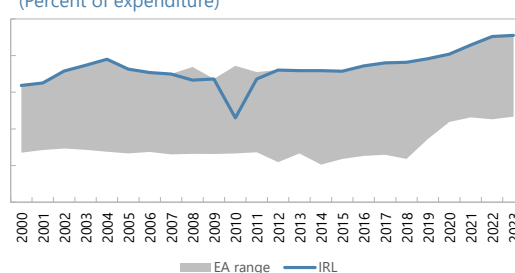
(Million euro per capita)

**Health Spending**

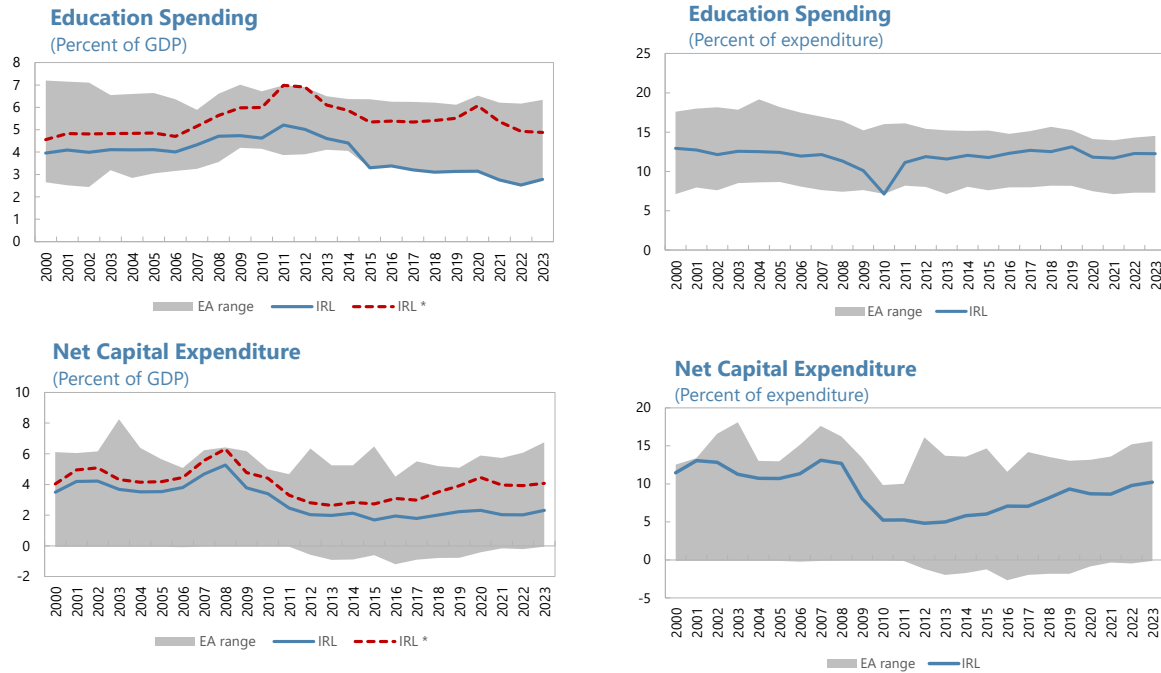
(Percent of GDP)

**Health Spending**

(Percent of expenditure)



**Figure 2. Ireland: Spending Range of Selected Expenditure Categories in Ireland and the Euro Area (2023) (concluded)**



Sources: Haver Analytics, IMF staff calculations.  
Note: IRL\* refers to the share of GNI\*.

**Figure 3. Ireland: Gap in Major Spending Categories Between Ireland and EU Peers (2023)**

Difference in share of GDP	Total expenditure	General public services				Economic affairs			Health			Education			Social protection								
		General public services	Exec & Legis. Organs, Fiscal, Financial & External affairs	Basic research	Public debt transactions	Economic affairs	General econ, commercial and labour affairs	Transport	Health	Medical products, appliances and equipment	Outpatient services	Hospital services	Education	Pre-primary and primary education	Secondary education	Tertiary education	Social protection	Sickness and disability	Old age	Survivors	Family and children	Social exclusion n.a.c.	Unemployment
Total General Government Expenditure	(9.2)	(2.0)	(0.1)	(0.5)	(0.4)	(1.8)	(0.6)	(0.5)	1.7	(0.1)	0.9	0.2	(0.2)	0.0	(0.0)	(0.0)	(5.4)	(0.9)	(4.9)	(0.4)	(0.8)	(0.1)	0.3
Compensation of Employees	(0.1)	(0.7)	(0.2)	(0.2)	-	(0.1)	(0.0)	(0.0)	1.7	-	0.7	0.7	0.3	0.3	0.1	(0.1)	(0.7)	(0.0)	(0.3)	-	(0.4)	(0.1)	(0.1)
Consumption of goods and services	0.2	(0.4)	(0.1)	(0.1)	(0.1)	(0.2)	0.0	(0.3)	1.1	(0.0)	1.0	(0.0)	(0.2)	(0.1)	(0.1)	(0.2)	0.2	0.1	(0.2)	-	(0.2)	(0.1)	(0.0)
Investment	0.1	(0.4)	(0.1)	(0.1)	-	(0.3)	0.0	(0.2)	0.4	-	0.3	0.2	(0.1)	(0.0)	0.1	(0.1)	0.5	(0.0)	(0.0)	-	(0.0)	-	-
Other Spending	(1.9)	(0.6)	0.3	(0.0)	(0.4)	(0.2)	(0.3)	0.1	(0.1)	(0.0)	(0.2)	(0.1)	0.5	(0.1)	(0.0)	0.1	(0.3)	(0.2)	(0.1)	(0.0)	(0.2)	0.4	(0.1)
Social Benefits	(6.6)	-	-	-	-	(0.0)	(0.0)	-	(1.5)	(0.1)	(0.9)	(0.5)	0.0	(0.1)	(0.1)	0.1	(5.1)	(0.8)	(4.3)	(0.4)	(0.0)	(0.2)	0.5
Subsidies	(0.9)	(0.0)	-	(0.0)	-	(1.0)	(0.3)	(0.1)	0.1	-	-	(0.1)	0.3	-	-	0.2	(0.0)	(0.0)	-	-	-	-	-

Data for Ireland is calculated using GNI\*.

Higher (+) or lower (-) than EU14 peers average in percent of Ireland expenditure category

Sources: Eurostat and IMF staff calculations.

Note: EU14 is previously EU15 excluding the U.K.

Higher by more than 25 percent  
Higher by 15-25 percent

Higher by 5-15 percent  
Higher by 0-5 percent

Lower by 0-5 percent  
Lower by 5-25 percent

Lower by more than 25 percent

Note: Outpatient services cover medical, dental and paramedical services delivered to outpatients by medical, dental and paramedical practitioners and auxiliaries. The services may be delivered at home, in individual or group consulting facilities, dispensaries or the outpatient clinics of hospitals.

**3. This paper aims to benchmark Ireland's public spending efficiency in health, education, and infrastructure with its international peers.** The analysis will focus on health and education, two key areas of the functional budget, as well as infrastructure which is an important spending priority for the government. Comparisons with a relevant peer group can be useful for

drawing examples from the experience of other countries. For this analysis, the individual country comparators used as benchmarks are Austria, Belgium, Denmark, Luxembourg, the Netherlands, and Sweden – other small, open, and high-income economies in the EU. Peer groupings that are used, subject to data availability, are the EU and the OECD. This paper does not analyze and provide recommendations on how to close any identified public spending efficiency gaps, which will require more detailed analysis.

#### **4. The public spending efficiency measures are estimated using Data Envelopment**

**Analysis (DEA).** The DEA is a non-parametric statistical technique commonly used to estimate the relative efficiency in which inputs are turned into outputs. The DEA constructs an “efficiency frontier” – the maximum possible output that can be obtained from a given input. As the DEA does not impose a functional form on the relationship between inputs and outputs, it is not equipped to provide conclusions on the expected change in outputs to any marginal changes in inputs. Rather, it informs on the relative “distance” a country is from the maximum possible output given a certain level of input, as an illustration of potential efficiency gains. As the DEA is sensitive to sample selection, the use of an EU and OECD sample helps to ensure similar institutional features and development levels for better comparability. This analysis uses various measures of public spending per capita as the input measured against relevant sectoral outputs and outcomes. For assessing health and education macro spending efficiency, outcome indicators were used instead of outputs, as the latter might not sufficiently capture the quality and effectiveness of health and education systems. Outcome measures are thus closer to the policy objectives of social spending. Nevertheless, while outcomes can be influenced by non-spending factors that are difficult to control for, the efficiency frontier can be a useful starting point in providing broad indications of how countries are performing in terms of public spending efficiency.

## **B. Infrastructure**

#### **5. Various metrics show an infrastructure gap for Ireland relative to other high-income**

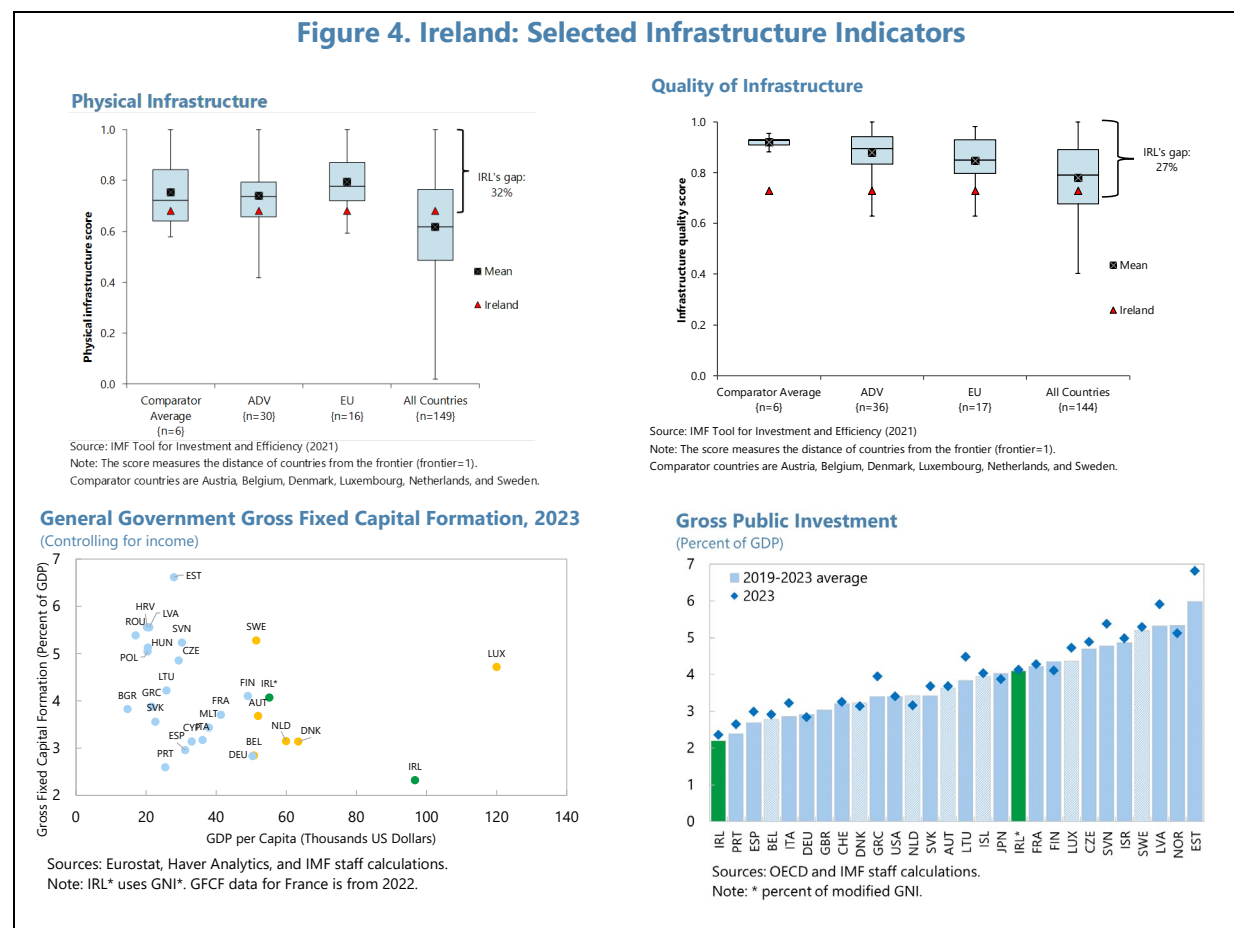
**European countries.** Indicators of infrastructure stock and quality compiled using the IMF Tool for Investment and Efficiency (2021) show Ireland lagging comparators, advanced economies, and EU peers (Figure 4).<sup>2</sup> Relative to the frontier, Ireland faces a physical infrastructure gap of 32 percent and a quality gap of 27 percent. Other findings corroborate the gap – the Irish Fiscal Advisory Council (IFAC) finds the infrastructure per capita in Ireland and capital stock to national income to be around 25 percent and 20 percent below the average for a high-income European country, respectively (IFAC, 2024). The International Institute for Management Development (IMD) World Competitiveness index 2024 also shows that despite Ireland’s overall strong performance (4<sup>th</sup> out of 67 countries, the highest in the euro area), infrastructure is a drag—ranking 17<sup>th</sup> for infrastructure

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<sup>2</sup> The physical infrastructure indicator combines variables on five core sectors: roads, electricity, water and sanitation, education infrastructure, and health infrastructure. Ireland’s gap is 32 percent relative to the frontier (compared to the global average gap of 38 percent, European Union 21 percent, peer comparators 25 percent). On quality of infrastructure, Ireland’s gap is 27 percent, above the global average gap of 22 percent, EU 15 percent, and peer comparators 8 percent.

provision, with basic infrastructure having a weaker rank (38).<sup>3</sup> While the ranking on the infrastructure sub-pillar has increased over the years, Ireland has scored consistently low in this area and it has lagged the other sub-pillars since 2014.<sup>4</sup> Finally, infrastructural deficits (notably in housing, energy, water, and wastewater) are cited by the National Competitiveness and Productivity Council (2024) as a key challenge in maintaining Ireland's competitiveness and attractiveness as an FDI destination.

**Figure 4. Ireland: Selected Infrastructure Indicators**

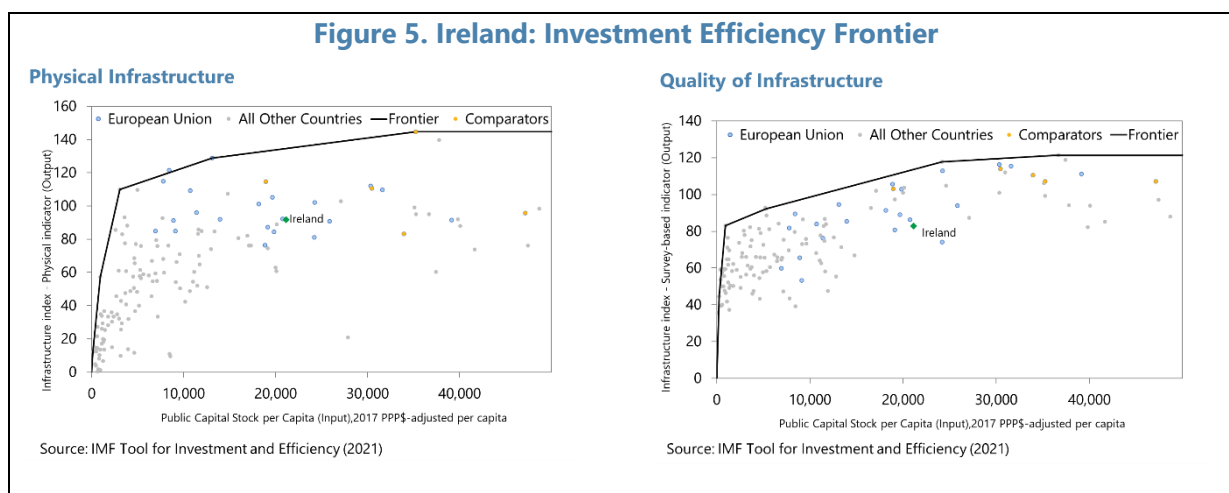


**6. Spending on infrastructure has picked up in recent years after a period of underspending post-crisis** (Figure 2). The general government spending on gross fixed capital formation is at about 4 percent of GNI\* in 2023 and is catching up to the pre-crisis average. The Irish government is prioritizing capital expenditure and have outlined their commitment of €165 billion in capital investment over the period of 2021–2030 through the National Development Plan, which is currently being updated. Significant capital allocation in the budget has been made for infrastructure, with the Programme for Government outlining priority sectors including housing, water, energy, and transport.

<sup>3</sup> Basic infrastructure comprises water infrastructure, density of road and rail networks, and energy infrastructure.

<sup>4</sup> The sub-pillars are economic performance, government efficiency, business efficiency, and infrastructure.

**7. Investment efficiency in Ireland lags advanced economy and European comparators in both stock and quality** (Figure 5). Using the physical infrastructure and quality indicators as output and mapping them against the public capital stock shows the investment efficiency frontier, which follows the path of countries that deliver the highest level of output for a given level of infrastructure investment. The position of countries relative to the frontier depicts how efficient a country is in converting infrastructure spending into infrastructure outcomes. In both measures of quality and quantity of infrastructure, Ireland sits below the frontier, suggesting potential efficiency gains. An alternate measure of quality using the Global Infrastructure Quality Index (2023) yielded similar results.



**8. While significant progress has been made since the last Public Investment Management Assessment (PIMA), several challenges remain.** Notable advancements since the 2017 PIMA include the alignment of investment and planning through the National Development Plan and Investment Framework, and enhanced planning, allocation, and project oversight through the establishment of the National Investment Office. The implementation of annual spending reviews has been beneficial to reallocate resources within current expenditures, while the introduction of the investment project tracker has played a crucial role in improving transparency and monitoring of expenditures. Nevertheless, several key challenges remain in the effective delivery of infrastructure – including planning delays, low construction productivity (including the need to utilize modern methods of construction), and labor shortages in the construction sector.

## C. Health

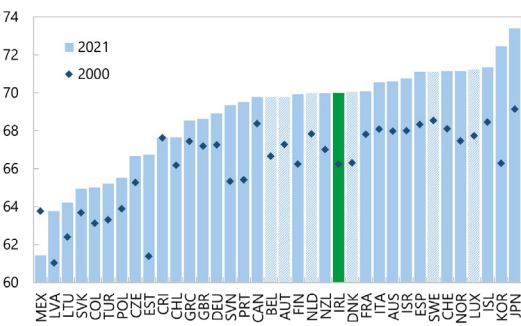
**9. The health outcomes of the Irish population are generally good and have improved over time** (Figure 6). The health-adjusted life expectancy (HALE) at birth is high at 70 years old, having increased from 66.25 in 2001, and comparable to European peers. Prior to the pandemic, Ireland's life expectancy increased by more than the EU average, and during the pandemic its decline was comparatively smaller (OECD, 2023). The overall age-adjusted mortality rates as well as those from preventable and treatable causes are also consistently lower than the EU average. The self-reported health status is the highest in the EU, and ranks favorably compared to other OECD

countries, although it belies widening differences between socio-economic groups.<sup>5</sup> In old age, both Irish men and women are likely to lead longer and healthier lives with a lower prevalence of health-related activity limitations relative to the EU average.<sup>6</sup>

**Figure 6. Ireland: Selected Health Outcomes**

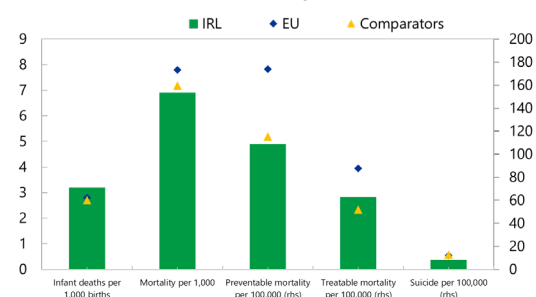
**Health-adjusted Life Expectancy (HALE) at Birth**

(Years)



Source: World Health Organization.

**Prevalence of Health Outcomes, 2022**

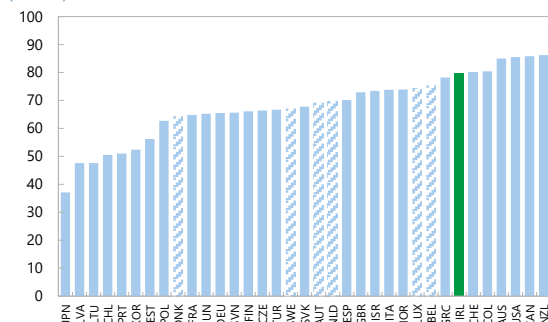


Sources: OECD, WHO.

Note: Infant and suicide mortality data is from 2021. Mortality rates are age-standardized. The EU and comparator indicators show unweighted averages.

**Adult Population With Good Self Reported Health Status**

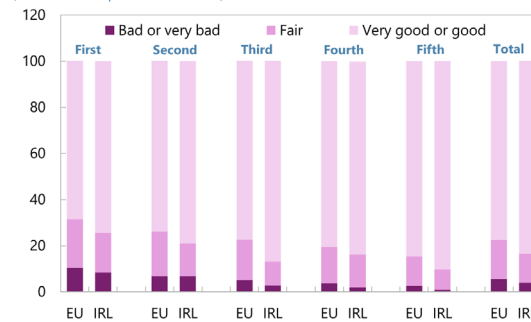
(Percent)



Source: OECD.

**Perception of Health Level by Income, 2023**

(Quintiles of equivalized income)



Source: Eurostat.

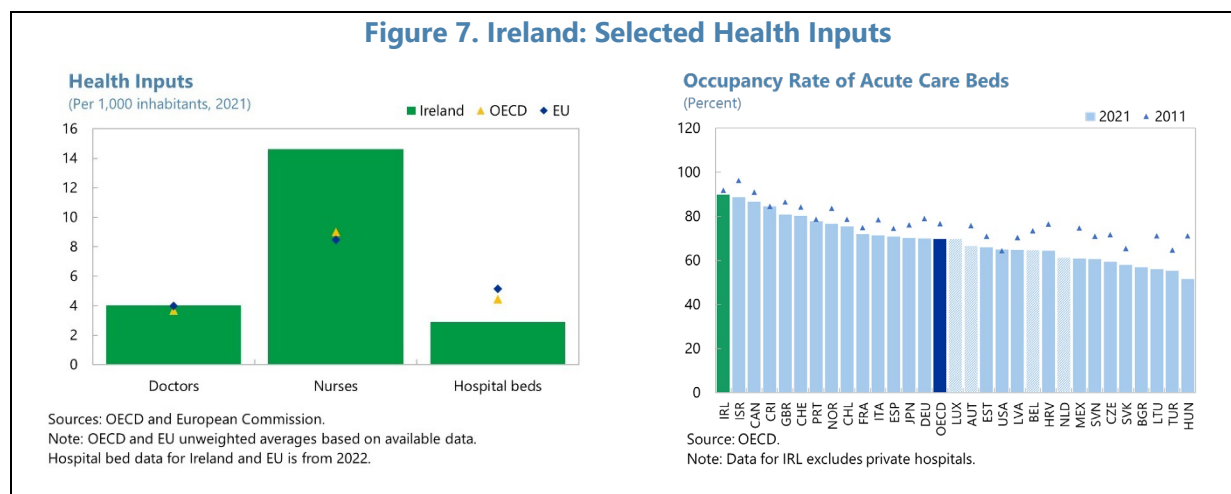
**10. The health system is facing capacity constraints.** Extensive waitlists at public hospitals are the main reason of unmet needs for medical care, compounded by the backlog from the pandemic. A deficit in bed capacity is the likely key reason for the overcrowding in public hospitals (ESRI, 2023)—internationally comparable data show that public hospital beds per capita were at undercapacity in 2022, significantly lower than the EU average, and with high occupancy rates above the recommended threshold (Figure 7).<sup>7</sup> The data does not yet reflect the increase in the number of

<sup>5</sup> In 2022, 90 percent of adults in the highest income quintile reported being in good health, relative to 66 percent in the lowest quintile. The gap is slightly larger than the EU and has increased compared to 2019, mainly due to the decline in share of people in the lowest income quintile reporting good health.

<sup>6</sup> State of Health in the EU, Ireland Country Health Profile, OECD (2023)

<sup>7</sup> Acute care hospital beds operated at 90 percent occupancy, above the recommended threshold of 85 percent for maintaining an emergency buffer (OECD, 2023).

acute beds by the government in the last few years, with further plans for expansion in the coming years.<sup>8</sup> Hospitalization rates for avoidable diseases such as chronic obstructive pulmonary disease (COPD) are relatively high in Ireland, a marker of the underdeveloped primary care system. The health system has also faced challenges in the recruitment and retention of permanent staff, particularly with doctor shortages in certain specializations despite the relatively high production of medical graduates per capita compared to the EU (OECD, 2023).



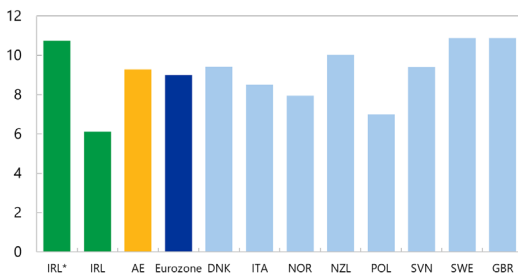
**11. Health expenditures in Ireland are high overall, considering its relatively young population.**<sup>9</sup> Across several metrics, spending on health is elevated relative to comparators, OECD and EU peers (Figure 8), although this partly reflects the inclusion of some social care components of long-term care expenditure in health spending (OECD, 2025). Public sources account for two-thirds of total health spending in Ireland. As a share of government expenditure, it has shown a steady upward trend, rising from 19.6 percent in 2019 to almost 23 percent in 2023. The elevated levels of health spending could reflect the hospital-based system, relatively out-of-date clinical infrastructure from a legacy of past underinvestment, a reliance on more costly agency staff given hiring and retention challenges, and the high general wage levels in the health sector (Sicari and Sutherland, 2023; IFAC, 2024; OECD, 2022 and 2025; Wren and Fitzpatrick, 2020).

<sup>8</sup> Since 2020, an additional 1,218 in-patient acute beds have been added. In May 2024, the government announced the Acute Inpatient Hospital Bed Expansion Plan, which aims to deliver 4,367 acute hospital in-patient beds by 2031.

<sup>9</sup> The current age structure in Ireland stands favorably relative to other EU countries—it has the highest share of population below age 20 (26 percent), the second lowest median age (38.8), and the second lowest share of population aged 65 and above (15 percent).

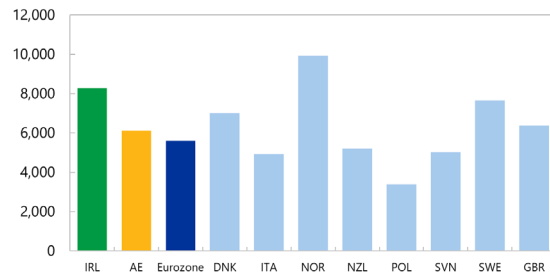
**Figure 8. Ireland: Health Spending 1/**

**Current Health Spending**  
(Percent of GDP)



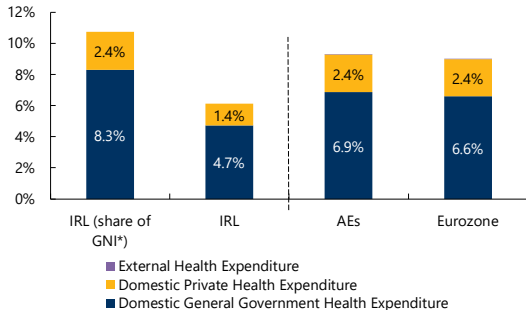
Source: WHO GHQ.  
Note: Includes public, private, and external expenditures. IRL\* refers to share of GNI\*. Comparison countries are those in the cluster of similar health systems in OECD, 2025.

**Current Health Spending Per Capita**  
(PPP)



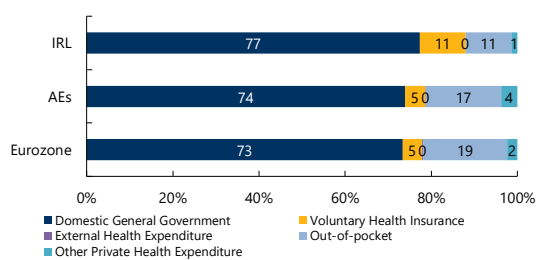
Source: WHO GHQ.  
Note: Includes public, private, and external expenditures. Comparison countries are those in the cluster of similar health systems in OECD, 2025.

**Total Current Health Expenditure Disaggregated by Source (Percent of GDP)**



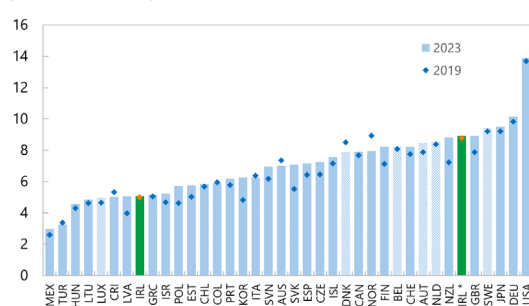
Source: WHO Global Health Expenditure Database (GHED).  
Note: Estimates of current health expenditures include healthcare goods and services consumed during each year. This indicator does not include capital health expenditures.

**Healthcare Funding Source as a Percent of Health Spending**  
(Percent of Current Health Expenditure)



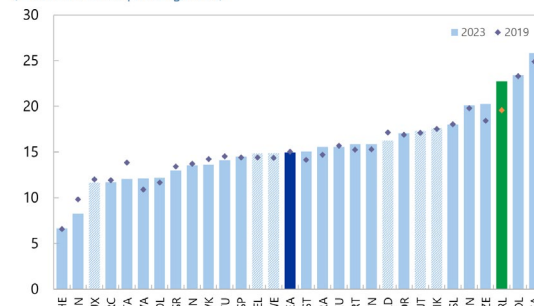
Source: WHO GHED

**Government Health Spending**  
(Percent of GDP, 2023)



Sources: OECD, and IMF staff calculations.  
Note: IRL\* represents percentage of GNI\*

**Government Health Spending**  
(Percent of total spending, 2023)



Sources: OECD, and IMF Staff Calculations.

1/ Health spending is not adjusted for population age structure

## 12. Expenditure overruns in health spending have been a chronic feature in recent years.

Between 2016 to 2022, all acute hospitals exceeded their annual budget and costs rose disproportionately—the inflation-adjusted rise in costs was 45 percent relative to a 3.8 percent increase in activity (IGEES, 2024).<sup>10</sup> The wage bill accounted for two-thirds the rise of total

<sup>10</sup> The total nominal increase of expenditure was 68 percent in 2016–2022, with an average budget variance of 10.8 percent in the acute hospitals. The “composite” activity metric captures different types of activity (inpatient, day-case, outpatient, emergency department) to enable the comparison of activity as a single value across hospitals.

expenditure, reflecting pay increases, an expanded workforce, a higher share of consultants, and more use of agency staff and overtime.<sup>11</sup> Non-pay expenditure has also risen, particularly from increases in non-clinical expenditure that were out of line with general trends. The overruns in health spending could also reflect inadequate forecasting within the budget, notwithstanding a two-year expenditure agreement to boost the budget for the health sector.<sup>12</sup>

**13. Potential efficiency gains could be reaped in health spending.** Using HALE as an output and current health expenditure per capita in PPP terms as an input, the efficiency frontier suggests that there is room for substantial efficiency gains (Figure 9).<sup>13</sup> The results are consistent when using an alternative measure of age-adjusted mortality rates, and with total and government current health spending per capita as inputs, as well as comparing with other countries with similar health systems.<sup>14</sup> An OECD study (Sicari and Sutherland, 2023) also suggests that estimated potential efficiency gains could be as large as 15 percent on the input dimension (saving up to 15 percent of current health expenditures, while maintaining unchanged life expectancy) and 1 percent on the output dimension (increase life expectancy by around 1 percent while keeping level of spending constant, but adjusting composition to OECD best practice).

**14. Improvements in health spending efficiency will help to ensure the continued delivery of quality healthcare in the face of growing demands.** The healthcare system in Ireland will need to confront future demands from population growth and aging, and pharmaceutical cost pressures. The European Commission projects aging costs to rise substantially in Ireland, with baseline public expenditure health costs projected to grow by 1.5 percentage points of GDP between 2022 and 2070, the second largest increase at the EU level.<sup>15</sup> Under a risk scenario, the projected rise is 2.5 percentage points of GDP.

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<sup>11</sup> Staffing in acute services increased by 33 percent between 2016 to 2022, alongside pay increases that were influenced by public sector pay deal agreements. The use of locum and agency staff and overtime has also increased despite the significant expansion of staff levels, raising questions on control management and expenditure compliance. (Government of Ireland Analytical Note, 2024).

<sup>12</sup> Forecasts for health system spending do not sufficiently account for costs of maintaining the existing level of service delivery, resulting in below-adequate allocations that could have been anticipated in advance (IFAC, 2023).

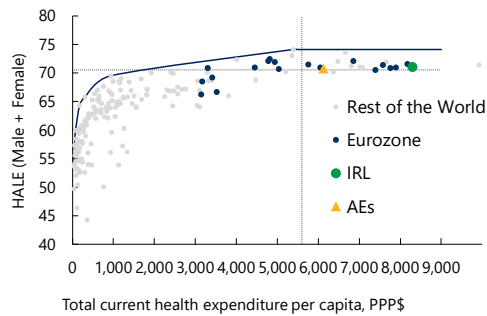
<sup>13</sup> For comparisons across countries, life expectancy is a common variable used in the literature for data availability reasons.

<sup>14</sup> Using cluster analysis, countries' health systems are grouped based on similar characteristics such as governance, financing methods, service delivery, resources, and coverage. Ireland is part of a cluster that consists of heavily regulated public health systems with an ample choice of providers. This cluster also includes Denmark and Sweden, Italy, New Zealand, Norway, Poland, Slovenia, and the United Kingdom. The analysis shows that there no single health system design is associated with the highest efficiency (OECD, 2025).

<sup>15</sup> The share of population aged 65 and older is projected to almost double from 15 percent in 2022 to 29 percent in 2070, with the old-age dependency ratio similarly set to more than double to 56 percent in 2070 from 26 percent in 2022 (Ageing Report for Ireland, European Commission, 2024).

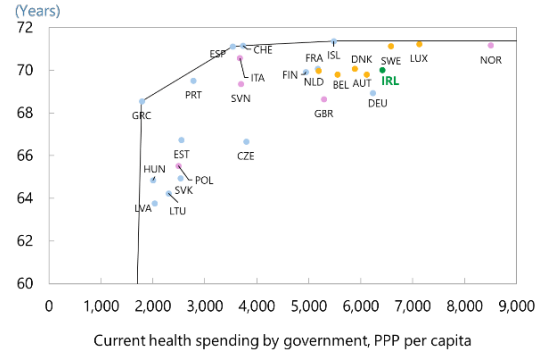
**Figure 9. Ireland: Efficiency Frontier of Health Spending**

**Health Efficiency Frontier, Latest Value Available**



Source: WHO GHO.  
Note: Includes both public, private, and external expenditures.

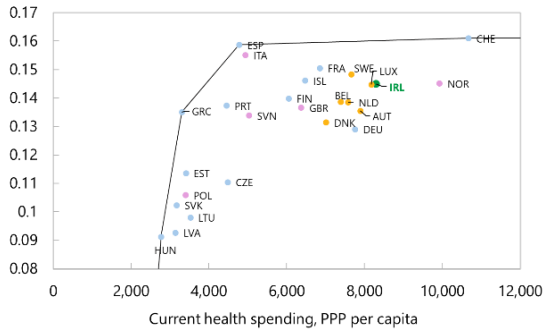
**Health Adjusted Life Expectancy**



Sources: WHO, IMF staff calculations

**Age-Adjusted Mortality, 2019**

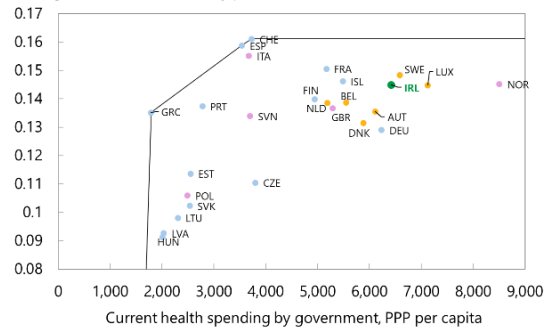
(1/age-standardized mortality per 1,000 inhabitants)



Sources: OECD, WHO, IMF staff calculations

**Age-Adjusted Mortality, 2019**

(1/age-standardized mortality per 1,000 inhabitants)



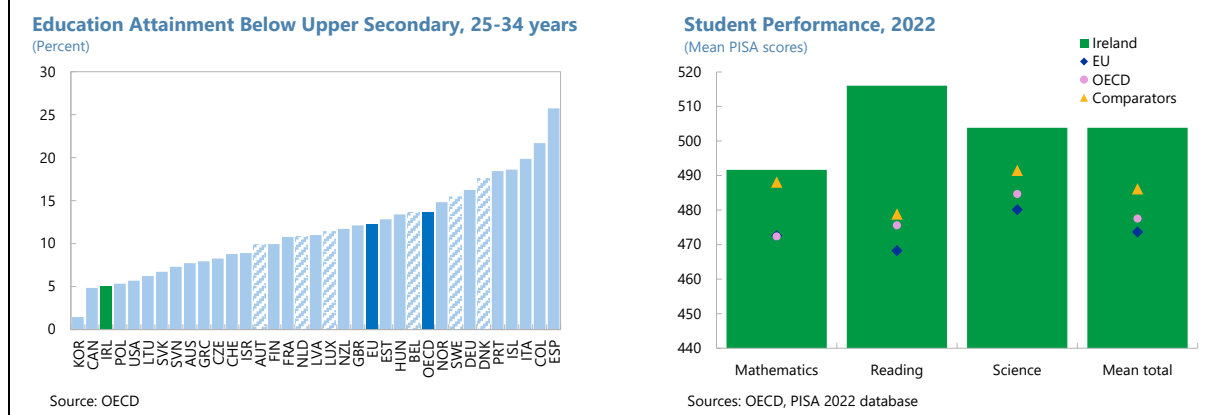
Sources: OECD, WHO, IMF staff calculations

## D. Education

**15. Ireland has strong educational outcome indicators relative to peers.** School enrollment rates are high, with near-universal enrollment for 5–14-year-olds.<sup>16</sup> The share of 25–34-year-olds without upper secondary educational attainment is 5 percent, below the OECD average by a large margin. Student performance as measured by PISA scores have increased over time in Reading and Science and are higher than comparators, as well as EU and OECD averages, across all categories (Figure 10).

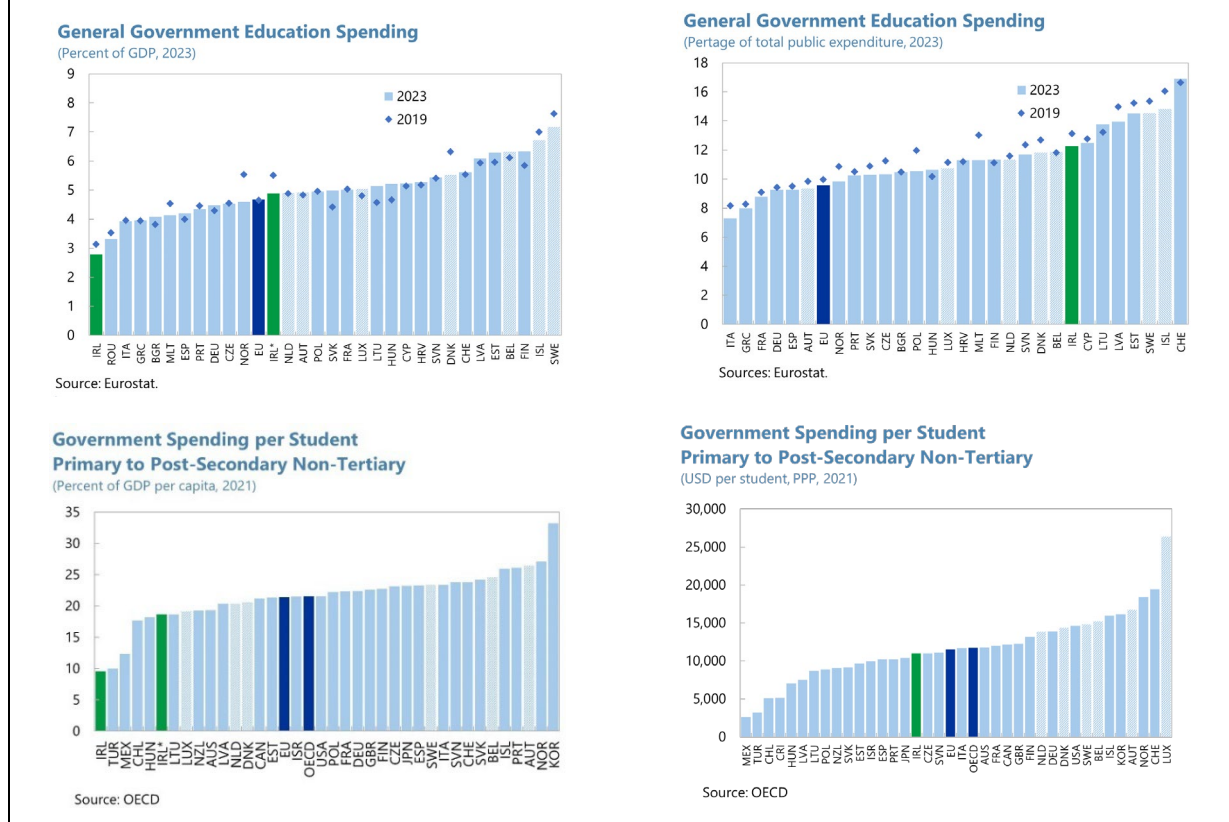
<sup>16</sup> Compulsory education in Ireland is from the age of 6 to 16.

Figure 10. Ireland: Education Outcomes



16. These outcomes have been achieved with public expenditure on education that is comparable to or lower than peer averages across different metrics (Figure 11). In particular, government spending per student is lower than comparator peers across all levels of education.<sup>17</sup>

Figure 11. Ireland: Education Spending

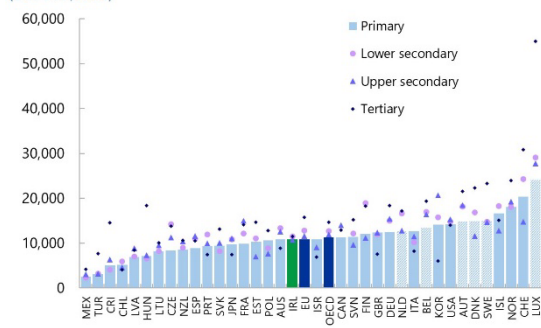


<sup>17</sup> This is despite the slightly lower share of public financing in education in Ireland relative to peers.

**Figure 11. Ireland: Education Spending (concluded)**

**Government Expenditure per Student**

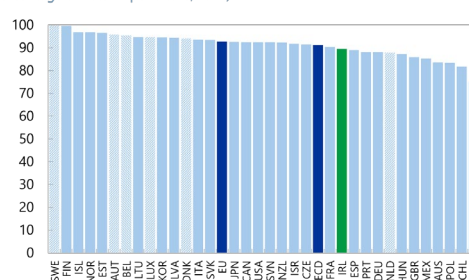
(USD PPP, 2021)



Source: OECD

**Government Expenditure on Education  
Primary to Post-Secondary Non-Tertiary**

(Percentage of Total Expenditure, 2021)



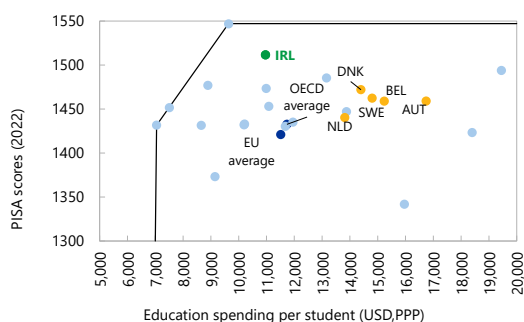
Source: OECD

**17. Public spending efficiency on education is at or close to the frontier.** Mapping PISA scores and education spending per student, measured in terms of PPP or as a share of GNI\* per capita, Ireland has been able to attain satisfactory outcomes at relative cost-effectiveness (Figure 12). These results hold across different levels of education. In general, the average level of education in Ireland is high, a result of previous investment which has paid off handsomely—the skilled labor force is a key pillar of Ireland’s competitiveness. Continued investment in the sector is key to maintain Ireland’s competitiveness. Nevertheless, while the general education system is excellent, there are issues related to the disconnect of tertiary education with labor market needs, such as skill mismatches in the labor market, high rates of overqualification, and the lack of digital and science, technology, engineering, and mathematics (STEM) skills (OECD Survey of Adult Skills, 2023; OECD Skills Strategy Ireland, 2023).

**Figure 12. Ireland: Efficiency Frontier of Education Spending**

**PISA Scores and Education Spending**

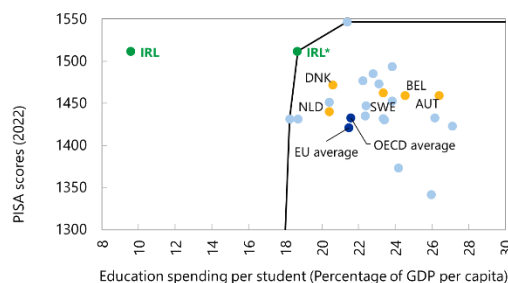
(Primary to post-secondary non-tertiary education)



Source: OECD

**PISA Scores and Education Spending**

(Primary to post-secondary non-tertiary education)



Sources: OECD, IMF Staff calculations.

Note: IRL\* represents percentage of GNI\* per capita.

## E. Concluding Remarks

### 18. There is room for efficiency gains in public spending in Ireland:

- *Infrastructure:* Gaps remain in both stock and quality output indicators, as well as investment efficiency. Continued efforts are warranted to address concerns on the planning process, project prioritization, construction sector productivity, and labor shortages in the sector.
- *Health:* While outcomes are positive and have improved over time, there are challenges with long waitlists, high occupancy rates and staff recruitment and retention. High levels of spending and persistent budget overruns point to potential gains in spending efficiency.
- *Education:* Outcome indicators are strong and outperform peers, and public spending efficiency is at or close to the frontier. While in general the education system is excellent, there are some issues related to the disconnect of the tertiary sector with the labor market, including skill mismatches, overqualification, and a shortage of digital and STEM skills.

**19. In the current environment of high global economic uncertainty, spending efficiency improvements could help improve Ireland's fiscal buffers for shocks.** Significant downside risks and challenges in the global economic landscape raise uncertainties of future revenue streams in Ireland. Thus, improved public spending efficiency could create additional fiscal space to increase capital expenditure to meet Ireland's infrastructure needs. More efficient spending in health will also help to enable continued high levels of service delivery in the face of growing demands. Meanwhile, staying at the frontier for education spending is critical as a highly skilled labor force has been a strong foundation of the Irish economic model and competitiveness.

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