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*Economic policy issues in the Irish
housing market*



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¹ Produced by the Central Bank's Working Group on *Housing and the Macroeconomy*. Corresponding authors: Thomas Conefrey, Fergal McCann, Martin O'Brien. Group membership comprised Angelos Athanasopoulos, David Staunton, Paul Kilgarrieff, Tamanna Adhikari, Niall McNerney, Gerard Kennedy, Mudabbir Farooqi, Niall McGeever, Michael Mahony, Edward Gaffney, Rónán Hickey, Anuj Pratap Singh, Emil Bandoni. Special thanks to external stakeholders who provided input during this project: Dermot O'Leary, Aileen Gleeson, Mike Hoey, Michelle Norris, Colin Richardson, Fergus Mangan, Paul Mitchell, Eleanor Treanor. The views expressed in this Article are those of the authors and do not necessarily reflect the official position of the Central Bank of Ireland or the European System of Central Banks.

Executive Summary

The capacity of housing supply to meet underlying demographic needs is a key driver of sustainable growth in living standards. Following the Global Financial Crisis, the Irish housing market has been subject to more than a decade of under-supply. Over this period, house price and rental growth have outstripped income growth, stretching affordability. While these challenges have a global dimension, housing output as a share of national income here has been significantly below the euro area average for a prolonged period.

At its core, the underlying challenge relates to the housing system's ability to produce viable housing projects at the required scale. Viability refers to producing housing units at sale or rental prices that are consistent both with the costs of production and within the reach of Irish households, given income levels. Sustainably bridging the gap between purchaser affordability and viability for the construction sector is a priority for public policy, with increasing economic implications both now and into the future, if not achieved.

Policy has already responded to this challenge. From a fiscal perspective, the State has increased spending on housing from an estimated €1bn to €6.5bn per year over the past decade, with around three quarters now devoted to capital and one quarter to current spending. Irish government housing expenditure is now the second highest proportionately in the EU, and close to its 2007 peak. In that context, our analysis points to the need to consider how the State uses its wider policy tools, as well as its financial resources, to most efficiently enable higher housing supply.

Housing supply has increased meaningfully in recent years. In 2023, levels of housing completions were broadly in-line with previous estimates of underlying demand embedded in the Government's housing plans. However, population growth has exceeded previous expectations in recent years, meaning that previous estimates must be revised upwards. Further, the under-delivery of homes relative to underlying demand over more than a decade has meant that significant "pent-up" demand has accumulated.

Estimates of the underlying need for housing have increased. Updated estimates by Central Bank staff based on new population projections by the CSO – and taking into account the accumulated pent up demand – indicate that around 52,000 new homes could be needed per year out to the middle of the century, or a 20,000 unit increase relative to 2023 supply. Of course these estimates rely on assumptions and are subject to uncertainty, as was evident for example in the faster than expected population growth since the last set of population projections in 2018.

There are **three overlapping dimensions** that will have a bearing on construction viability and the ability of the market to deliver additional housing supply to the scale envisaged in this *Article*:

- **Planning, building regulation and serviced land:** A complex and protracted planning environment, alongside issues relating to the size and specifications of housing units, add to the costs of delivering housing. Capacity to deliver the necessary enabling infrastructure, as well as zoned land, in areas where demand is highest also remains a source of uncertainty.
- **Capacity and productivity of the construction sector:** The financial crisis has left long-lasting scars on the construction sector. Its productivity is low, both by historical and cross-country standards. In part, this relates to an over-reliance on small enterprises, not able to benefit from economies of scale and suffering from over a decade of relative under-investment in machinery, equipment and more widespread adoption of modern technologies. This leads to comparatively lower output per

worker and will pose challenges in scaling towards higher delivery requirements. It also means that the sector is less well placed to absorb higher costs of labour and more globally determined raw material inputs needed to produce housing.

- **Access to development finance:** Delivery of circa 50,000 units per annum would require sustainable access to financing of sufficient scale. Our analysis suggests that an estimated €6.5bn to €7bn of additional development finance over and above the maintenance of existing levels would be required to fund 20,000 additional homes per annum. This additional finance will require a diverse set of domestic and international sources. Our analysis suggests that key debt financing sources – including bank and non-bank lenders – have the potential capacity to extend additional financing. The ability of the construction sector to generate or attract equity capital may be more challenging however, in light of the two dimensions outlined above.

These dimensions overlap and re-enforce each other. Additional financing alone cannot rectify housing imbalances. Construction firms are more likely to achieve scale in a setting where adequate amounts of zoned and serviced land are available, in locations where the demand for housing is highest. At the same time, addressing viability challenges and improving productivity will strengthen the construction sector's ability to attract equity capital, which will in turn improve its capacity to raise debt and maintain an essential diversity of financing.

Our macroeconomic scenario analysis highlights the economic costs of prolonging the imbalance between housing demand and supply. These amount to a higher cost of living, and in turn, a higher cost of doing business in Ireland, ultimately damaging competitiveness and the sustainable growth in living standards of Irish residents over the medium-term. However, **transitioning to produce an additional 20,000 residential properties also comes with risks to the economy and public finances that need to be carefully managed.** It presents trade-offs which policy needs to actively consider, especially in the context of an economy that is operating at, or around, capacity, and also faces additional needs for broader infrastructure investment.

The analysis highlights the importance of policy interventions that **seek to close the gap between affordability and viability, through reducing the cost of housing delivery.** Further addressing the viability of housing delivery requires a multifaceted approach encompassing fiscal and non-fiscal policy interventions. In this respect, over and above the appropriate role of the State in directly meeting the housing need of those in the lower end of the income distribution, the relative balance of public policy action should focus more on enabling measures, including:

- (1) Addressing challenges and providing policy certainty in the planning and building regulation process;
- (2) Focusing additional direct capital investment on necessary infrastructure and appropriately funding the provision of more serviced land in areas of high demand;
- (3) Incentivising greater scale and productivity in the construction sector through initiatives that lead to enhanced adoption of modern construction methods, standardisation of designs, and other innovations within the procurement process;
- (4) Using policy levers to further incentivise and crowd-in private investment, in particular equity investment, into the construction sector.

1. Introduction

Housing is unique within the economy, being both an essential good for households' consumption as well as a key investment and asset class for households and financial institutions. Challenges facing the housing market can have a wide range of societal as well as economic implications, including for labour supply, inflation, competitiveness, regional reallocation, and fiscal sustainability. Broadly speaking, the market is divided into three blocks, which involve distinct forms of development and financing: the owner-occupier market, the private rental market, and social or affordable forms of housing. Given its societal importance, housing is closely connected to government policies and subject to a wider range of interventions than is common in most product markets.

The Irish housing market has undergone extraordinary volatility over more than two decades. Ireland experienced among the most amplified boom-bust cycles in housing either side of the post-2008 crisis (referred to hereon as the Global Financial Crisis, GFC). Over the period 1997 to mid-2007, the ratio of house prices to household disposable income (HPI) more than doubled, with the HPI ratio reaching 5.5.² An unsustainable loosening in credit conditions, which ultimately ended in the Irish financial crisis, drove this growth. During the 2007-2013 period of sharp credit contraction and widespread mortgage default, the HPI ratio fell sharply, with the fall in nominal house prices above 50 per cent driving close to half of all mortgage holders into negative equity.

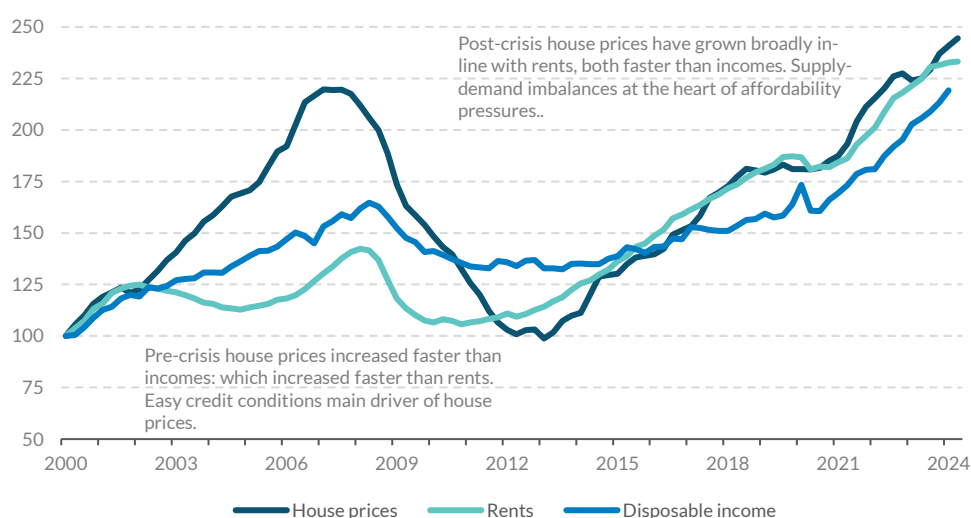
House prices and rents have steadily risen relative to incomes over the past decade, despite muted credit growth. From end-2014 to early 2024, HPI rose from 3.5 to 4.1. This growth in house prices relative to incomes over the past decade has not been driven by credit growth, which has been contained by the Central Bank of Ireland's macroprudential mortgage measures. Rather, the fundamental driver has been sluggishness in the response of housing supply to the growth in underlying demand. This imbalance, and in particular challenges relating to the supply of new housing in cities, has not been unique to Ireland, with similar experiences across the developed world over the same period. The dynamics of rents relative to incomes, another measure of affordability for households accessing housing services, also shows a similar profile since 2014 (Figure 1).

² To calculate the HPI ratio, an estimate of the average national house price, is divided by the CSO's total disposable income figure itself divided by the number of households in the State.

House prices and rents have up until very recently been volatile relative to incomes

Figure 1

House prices, rents and disposable incomes (index 2000 = 100)



Source: CSO and Central Bank of Ireland calculations.

Ireland's housing system differs from other European markets in a number of ways.

The homeownership rate in Ireland has fallen from a historical high of 79 per cent in 1991 to 66 per cent in the most recent Census, now standing at almost exactly the European average. However, certain features of the housing system in Ireland differ from many other markets across Europe. For example, Ireland has the lowest share of households living in an apartment of any European country.³ In addition, Ireland has among the highest number of persons per household in Europe. This partly reflects Ireland's high share of households with children, but is also partly explained by a long period of constrained housing supply relative to underlying demand. The estimated share of social housing in the total housing stock in Ireland is above European and OECD averages.⁴

In this Article, we highlight key issues facing the housing market for the years ahead.

After more than a decade of under-supply amid recovery from the GFC, Ireland is facing a situation where the population is growing at a faster rate than was previously

³ See, for example, <https://ec.europa.eu/eurostat/web/interactive-publications/housing-2023#environmental-impact-of-housing>

⁴ [OECD Affordable Housing Database](#). Data for 2022 show approximately 12 per cent of the housing stock in Ireland is social rental, with the equivalent for the OECD (EU) being closer to 6 (9) per cent. Social rental includes housing provided by for-profit and individual providers and non-governmental not-for-profit entities, but the cost of which is ultimately paid by central or local government. Approximately 55 per cent of Ireland's social rental housing stock was provided directly by local authorities in 2022.

expected. In this setting, it is critical to Ireland's long-term economic well-being that the housing market can supply homes to meet estimated levels of demand. The economic and societal importance of this issue is borne out in the level of public discourse and policy focus devoted to the housing market in recent years, most notably in the 2024 report of [The Housing Commission](#). In this *Article*, we focus on the macroeconomic dimensions of this challenge. In particular, we produce updated estimates of the demographic-led need for new home supply. We assess the key factors that will have a bearing on the capacity of the housing system to meet these levels of underlying demand, broadly relating to planning, productivity, and finance. Finally, we assess the macroeconomic implications of the under-supply of housing persisting, as well as the key economic trade-offs related to increasing the delivery of housing substantially in the future, in the context of the current cyclical position of the economy.

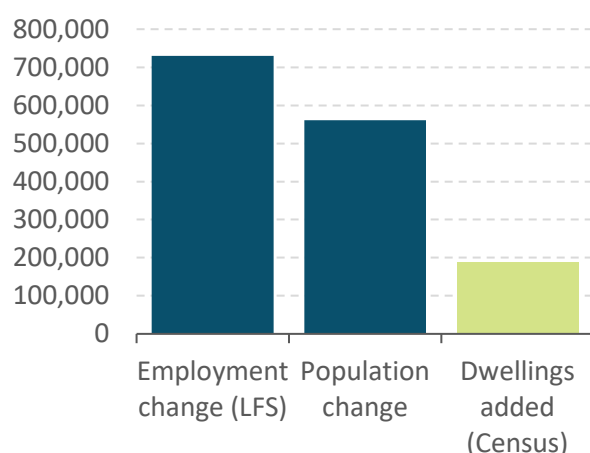
2. Recent developments in supply and demand

Housing supply has not kept up with the growth in underlying demand based on the rise in population. Previous estimates of annual housing need for the period 2020-2029 – based on CSO population projections from 2018 – ranged from 34,000 to around 45,000 units.⁵ Population growth has been faster than envisaged in the 2018 projections. Overall, the cumulative number of housing units added over the 2011 to 2022 period was far below the growth in the population and in the labour force (Figure 2). Relative to the euro area in aggregate, the extent of this period of undersupply in housing in Ireland is striking. Housing output as a share of national income remains below 5 per cent in Ireland, and has now been lower than the euro area average since 2010 (Figure 3), pointing to the persistent scars of the financial crisis on housing supply.

⁵ See, for example, [Conefrey and Staunton \(2019\)](#).

Population and employment growth far exceeded growth in housing 2011-2022

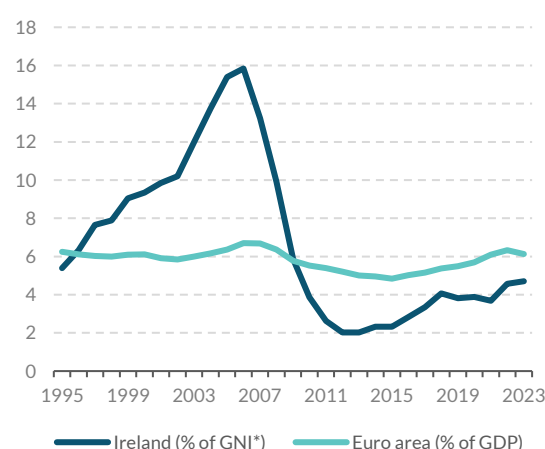
Figure 2
Number of individuals/dwellings



Source: CSO, LFS and Census.

Housing investment in 2023 was below its 1995 share of national income

Figure 3
Per cent of national income



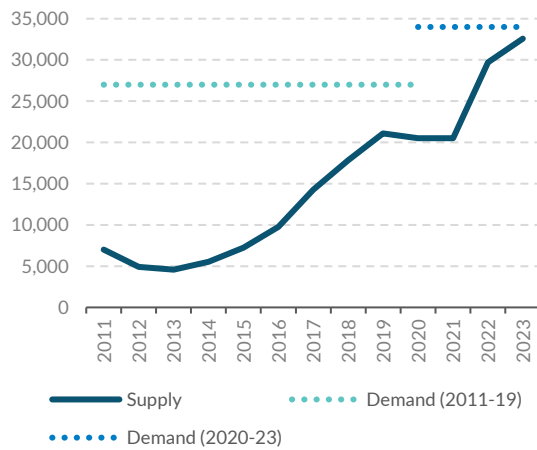
Source: CSO, Eurostat

Despite the challenges facing the sector, momentum has picked up since 2021, with supply approaching previous demand estimates. New supply increased from circa 20,000 to 21,000 per year in 2019-2021 to circa 30,000 and 32,500 in 2022 and 2023, respectively. The 2023 outturn was close to the target contained in the Government's *Housing for All* plan, based on estimates of housing demand from 2020 which have recently been updated (Figure 4). These increases occurred during a period when construction costs continued to rise. While distortions in the timing of delivery may have played a role in the specifics of year-on-year developments, the trajectory points to significant improvements in the supply capacity of the housing system, despite ongoing challenges. The enhanced role of State intervention in financing at various stages of the development or sales process, and across a range of procurement models, may also have contributed to this increase. Apartment completions have been particularly important, rising from 3,900 in 2020 to 11,600 in 2023, while scheme houses (i.e. those in multi-unit developments of two or more units) increased by 5,000 to 15,500 over the same period (Figure 5).

Housing supply in 2023 reached previous estimates of long-term demand in Government plans, now being updated

Figure 4

Units Completed



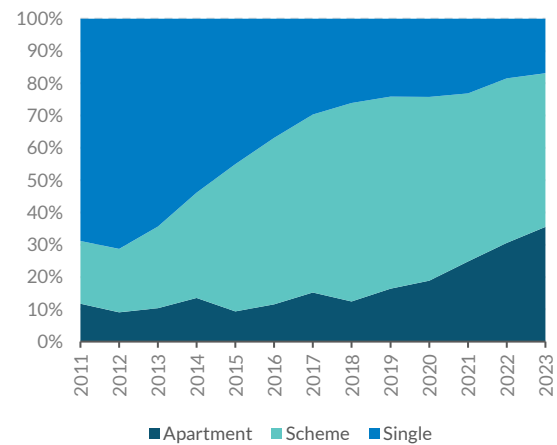
Source: CSO, table NDA02 (Supply); [Conefrey and Staunton \(2019\)](#) for estimates of demand.

Notes: The 34,000 estimated annual housing demand (lower horizontal line) was calculated from 2020-2029 using CSO's 2018 high migration scenario (M1) with unchanged headship and was published in 2019. The figure is close to the 33,000 target for annual completions out to 2030 in the Government's *Housing for All* plan. The 27,000 figure is based on a retrospective calculation of estimated housing need over the period 2011-2019 based on the observed population growth over this period.

Apartments have been the most important driver of supply growth

Figure 5

Percentage Share



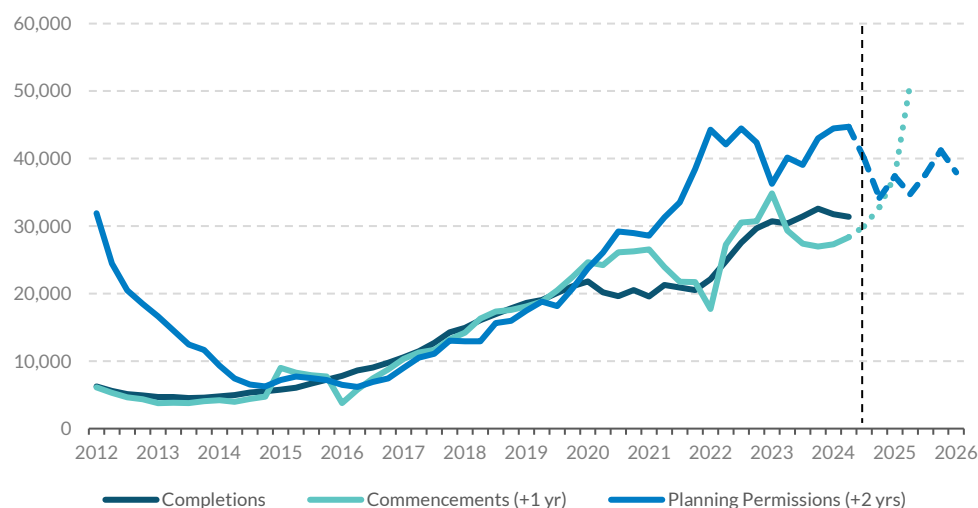
Source: CSO, Table NDA02

Traditional relationships between supply indicators have become more volatile recently. Historically, the relationship between planning permissions, commencements and completions in the Irish housing market had been relatively stable. Once planning permission for a housing project was acquired, construction tended to commence about a year later, which typically led to the delivery of housing units 12 to 18 months after that (Figure 6). A surge in planning permissions from around 29,000 units per annum in early 2019 to well over 44,000 in 2020 was not matched by a corresponding increase in the number of units completed in subsequent years. Further complicating the picture is the recent surge in commencements from around 30,000 units in 2023 to well over 50,000 by 2024Q2. The increase in commencements likely relates to an anticipated ending of the waivers on development levies and water connection charges for developers earlier this year, which were subsequently extended to the end of December and September 2024, respectively. This introduces some uncertainty into

the usual permissions-commencements-completions cycle with implications for forecasts for activity in the sector.⁶

Lagged construction indicators may have become less informative since the pandemic

Figure 6
Housing units



Source: CSO table (completions), table (commencement notices), table (planning permissions) and Central Bank of Ireland calculations

Note: Completions data are real time, commencements data are moved 1 year forward, that is, the initial observation in the series is from 2011Q1, while planning permissions data are moved 2 years forward, that is, the initial observation in the series is from 2010Q1. Latest observations 2024Q2.

A quarter of new home completions can be attributed to new-build social housing in recent years, but the State's role extends more broadly than this. An indicative breakdown of 2023 completions highlights the importance of the State within the housing system. From approximately 32,500 homes delivered last year, 8,110 can be identified as directly provided social houses. Separately, close to 3,900 social homes were provided through leasing or acquisition in 2023, although these homes were not necessarily completed in that year.⁷ The rapid build-up in State capital spending from 2015 to 2023 (from €1bn per year to €5bn per year, see Section 5) suggests that new housing supply will continue to be supported by the State over the coming years.

Owner-occupiers have purchased more than half of newly-supplied homes for most of the past decade, but this share has fallen in the past two years. Owner-occupiers can access new housing supply in two ways, either through the self-build of one-off houses, or through the purchase of newly-built homes. Using a combination of BPFI and

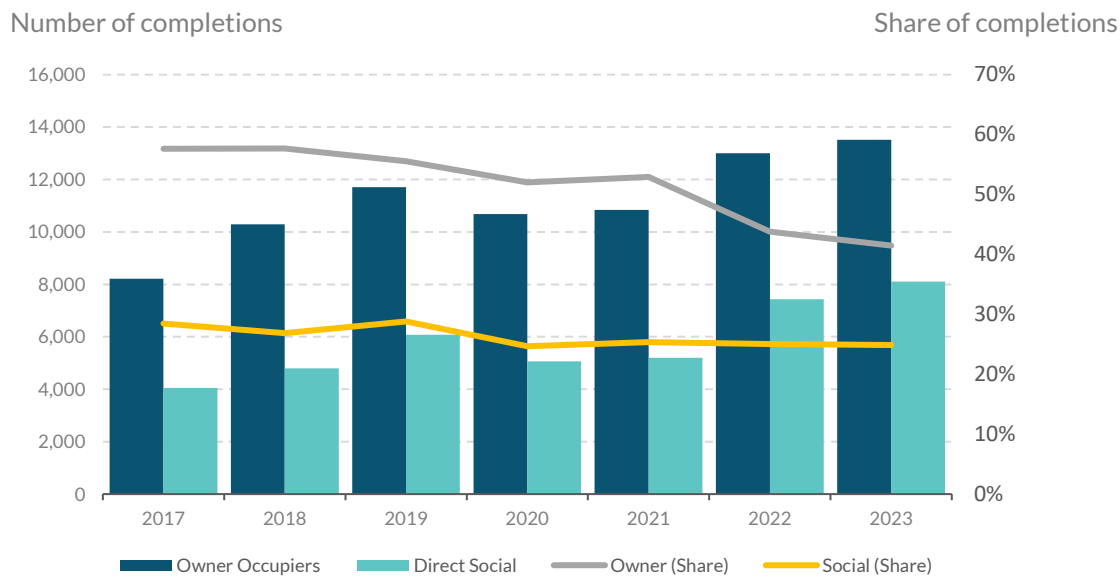
⁶ See Quarterly Bulletin 2, June 2024. "[Housing Supply: uncertainty in the delivery cycle](#)".

⁷ Department of Housing [data](#). The 11,939 total includes 8,110 new-build homes, 1,830 acquisitions and 1,999 homes through leasing programmes. On top of this, the State is also involved in the funding of cost-rental and affordable housing, which are measured and reported separately.

Central Bank of Ireland data, we provide a joint estimate of total owner-occupier purchases of newly-built homes per year since 2017. While their *volume* increased from 8k to 13k over the period 2017-2023, the *share* of owner-occupier purchase/builds in new home supply has fallen from 60 per cent to close to 45 per cent over the period. During that period, new build social housing has grown in proportion with total market-wide supply, with its share remaining close to 25 per cent.

The share of newly built homes accounted for by owner-occupiers has been falling

Figure 7



Source: BPFI, Central Bank of Ireland, CSO, Department of Housing

Notes: **Owner Occupier** combines BPFI data on mortgages for new house purchase, Central Bank granular data on New Build loans, and CSO housing completions data on One-Off housing. **Direct Social** includes new-build social housing, excluding acquisitions and leases, as reported by [Department of Housing data](#).

The private rental sector (PRS) has been a key driver of the growth in apartment delivery in particular over the past half-decade. While a direct breakdown is not available, it is likely that many of the newly-supplied homes not captured by either category in Figure 7 were for the purpose of institutional investment in the PRS. According to figures from [Hooke and McDonald](#), of the 58,000 new units completed in Dublin over the period 2016 to 2023, about 20,000 transacted in the residential investment / PRS market.⁸ Separate research from [Daly \(2023\)](#) estimates that institutional investment in new housing units averaged between 3,000 and 4,000

⁸ This figure includes more than 14,200 new units purchased by investors, in addition to over 4,000 apartments developed by entities intending to rent out these properties on their own behalf. According to Hooke and McDonald, transactions of new builds in the resident investment/PRS market have declined in recent years, from over 4,000 units in 2021, to 2,700 units in 2022 to less than 200 units in 2023, owing to a combination of global financial factors and increased uncertainty surrounding elements of domestic rental market policy.

annually between 2019 and 2021. Consistent with global patterns, transactions of new units in the PRS segment decreased sharply during 2023 and into 2024, relative to previous years, in the context of higher interest rates. While the outlook for global institutional investment in residential property is uncertain, the Dublin market continues to offer competitive yields with respect to other European locations.⁹

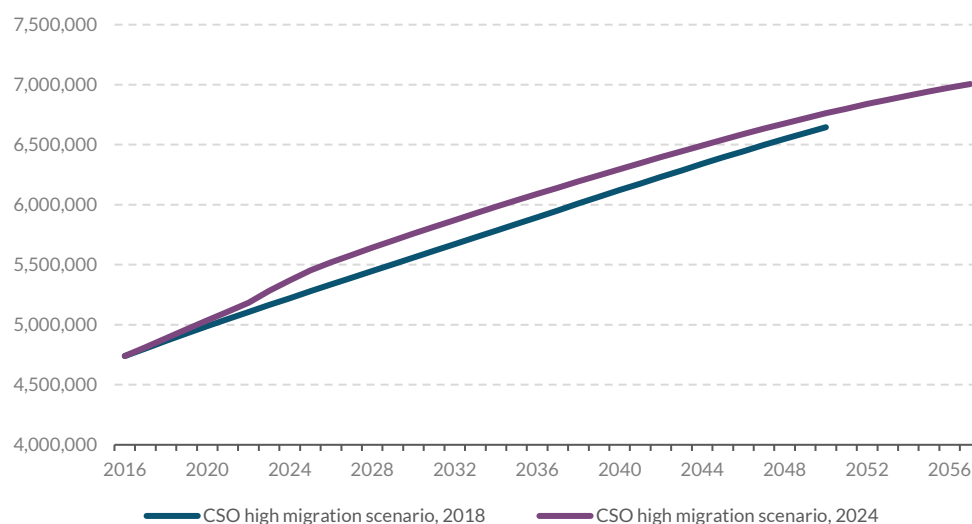
3. The demand for housing

Demographic determination of housing demand

The role of demographic change in driving housing demand is central to projections for the need for new dwellings over the medium to long term. Population growth has a direct effect on housing demand, as does the rate at which people in each age category form households (known as the “headship rate”). Since these factors are subject to a significant degree of uncertainty, we estimate scenarios for Irish housing demand under a range of assumptions for population growth and headship by age. The latest population projections from the CSO, released in July 2024, run for the thirty-five years from Census 2022 until 2057.¹⁰ These are based on assumptions for the natural increase (births minus deaths) and net migration (immigration minus emigration).

Projected population in new CSO high migration scenario (July 2024) higher than in 2018 exercise

Figure 8
Persons



Source: CSO

⁹ See for instance [Catella](#) “European Residential Market Overview”, 2023Q3, according to which prime residential yields in Dublin at the time (4.75 per cent) were 6th highest from a list of 20 European capital cities and well above the European average of 4.35 per cent. In addition, prime residential yields in Cork (5.5 per cent), rank tied-3rd highest amongst a more comprehensive list of 56 European cities.

¹⁰ [CSO population and labour force projections, 2023 -2057](#)

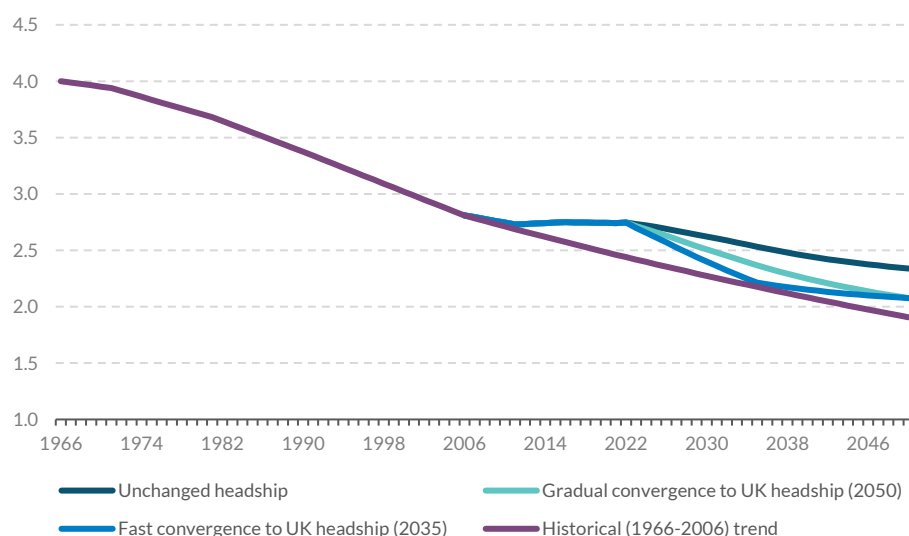
Assumptions around net migration flows have increased significantly since the 2018 projections. The 2018 population projections had a low and high fertility scenario for each of the three migration scenarios, giving six projections in total. There is just one fertility scenario used in the current projections so we present housing demand for each of the three migration scenarios. All three scenarios have net migration of 75,000 at the beginning of the projection, but vary in how net migration falls over the coming decades. In the high migration scenario, net migration declines to 45,000 per year by 2027, maintaining this rate until 2057. In this scenario, the population grows to just above 7 million people by 2057. The moderate net migration scenario also assumes net migration declines incrementally from 75,000 to 30,000 persons by 2032 and remains at this level until 2057 when the population reaches 6.4M. The low migration scenario sees net migration fall to 10,000 persons by 2032, leading to a population of 5.7M in 2057. The projected population in the high migration scenario in the updated CSO projections exceeds the highest forecast from the previous vintage of projections published in June 2018 (Figure 8).

We use the CSO population projections to generate housing demand scenarios to 2050 using the headship rate method.¹¹ Taking the new population projections from the CSO, the total housing need can be projected by allowing the housing stock to grow in line with the growth in the population in each age group, taking into account the probability of headship at each age. The headship rate refers to the proportion of individuals in an age group who are head of a household. Combining the headship rate and the projected change in the levels of the population across age groups yields a particular value for the number of persons per household (PPH). The results of the projections are summarised in Table 1 and show that between 27,000 and 42,000 new dwellings are needed annually to maintain current headship rates. While all scenarios imply a reduction in persons per household in aggregate, this does not imply that household formation has increased for all age categories. Rather, it is the result of population ageing - more of the population in 2050 will belong to the higher headship age brackets (e.g. > 65 years old). The headship rates within each category remain unchanged so younger age groups would, in these scenarios, continue to exhibit suppressed household formation as identified by the Housing Commission.

¹¹ See Pirounakis, G., N (2013) *Chapter 7: Housing Demand and Supply in Real Estate Economics: A Point-to-Point Handbook*, Routledge.

Number of persons per household is projected to decline under each scenario

Figure 9
Persons per household



Source: CSO

Notes: Persons per household is presented using the population in private households.

To account for ‘pent-up’ demand for housing, we allow the headship rate to increase at each point of the age distribution in two alternative scenarios, where Irish headship rates converge to that of the UK. Two speeds of convergence are considered.¹² One where UK headship rates are reached by 2050, and an accelerated scenario where UK headship is reached by 2035. The convergence to UK headship rates implies a significantly higher annual housing need of 52,000 dwellings. All scenarios naturally contain some frontloading due to the profile of demographic change embedded in the population projections. However, this is particularly pronounced in the fast convergence scenario, where 67,000 dwellings would need to be completed per annum to reach UK headship by 2035, with a lower estimated number needed thereafter. The scenario assuming convergence in the Irish headship rate to that of the UK, and by extraction a lower PPH, effectively incorporates an estimate of pent-up demand for housing into future housing demand projections. This implies an assumption that the current level of headship in Ireland, particularly for younger age cohorts, is artificially low due to a lack of housing supply.

¹² We use the same UK headship rates as the Housing Commission (2024) which are taken from the England and Wales census, since a single UK wide census does not exist. The increase is concentrated in the younger age brackets with the largest increase coming in the 25 to 29 age bracket, which rises from 26 per cent to nearly 38 per cent.

In all scenarios, the required completions are higher in the early years of the projection. This is due to the faster rate of demographic change implied by the high inward migration at the beginning of each demographic scenario. In addition, in the scenario where UK headship is reached by 2035, a higher number of new dwellings have to be completed in the first half of the projections.

Table 1: New dwelling scenarios under a range of demographic assumptions

	Low Migration	Moderate Migration	High Migration	High Migration - UK headship convergence (by 2050)	High Migration - fast convergence (by 2035)
Population in 2050	5.8M	6.3M	6.8M	6.8M	6.8M
Average completions 2023 - 2035	33,000	37,000	42,000	54,000	68,000
Average completions 2023 - 2050	27,000	34,000	39,000	52,000	52,000
Number of new dwellings by 2050	754,000	948,000	1,102,000	1,461,000	1,461,000
PPH in 2050	2.4	2.4	2.4	2.1	2.1

Note: Completions include obsolescence of 0.25% of 2022 stock per annum.

The headship rate method does not project actual economic demand and the projections are subject to uncertainty. It estimates the underlying need for housing based on assumptions around demographic change and household size. The level of housing actually demanded each year until 2050 will depend on a range of factors including economic growth, wage developments, and household preferences. All of these factors are co-determined and as such difficult to project over the long term. The usefulness of this approach lies in highlighting that the new CSO population projections imply a significant increase in housing need over the coming decades relative to previous projections. Of course, this estimation approach necessarily relies on assumptions and is subject to uncertainty, as was evident for example in the faster than expected growth in the population since the 2018 CSO population projections. It is, therefore, important that these assumptions are revisited on a periodic basis.

The composition of demand: housing tenure

Homeownership has traditionally been the predominant tenure type of Irish households, but this has been declining for some time. Two thirds of Irish households own their own home. However, the homeownership rate has been in decline, falling gradually from a historical maximum of 79 per cent in 1991, driven by a range of forces including changing lifestyles, family formation, job security, migration, credit availability, and the removal of purchase schemes for social housing tenants, which

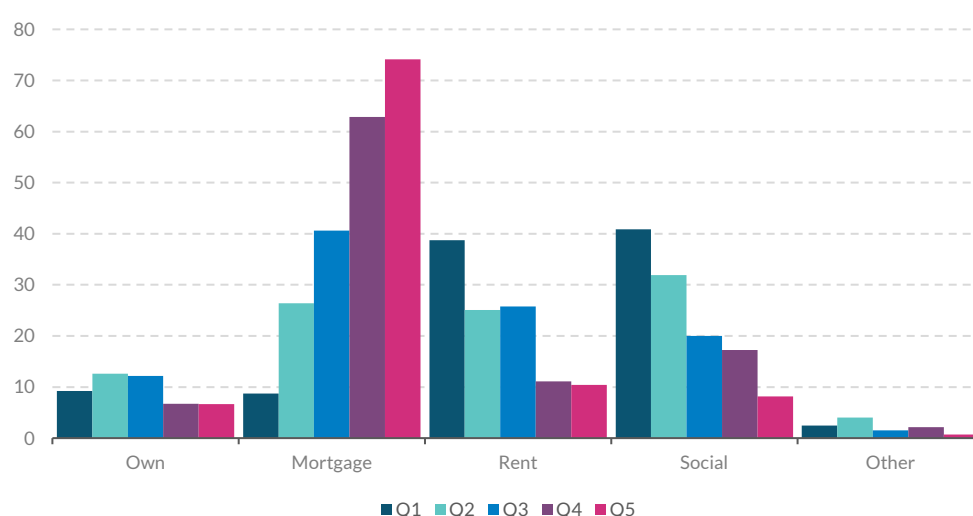
was a historic driver of high homeownership. Ireland's current homeownership is close to the European average.

Among 25-50 year olds, the homeownership rate is 52 per cent. Focussing on those aged 25 to 50, the group more likely to have demand for new housing for purchase, the homeownership rate of 52 per cent composes 9 per cent outright owners and 43 per cent owning with a mortgage. The remainder is composed of those renting privately (22 per cent) and those in social forms of housing (24 per cent).

Homeownership is much more common at higher income levels

Figure 10

Share of households (Percent)



Source: EU-SILC

Notes: households in which head of household is between 25 and 50 years old. "Own" implies outright ownership without debt, while "Mortgage" implies ownership with a mortgage.

Tenure varies widely across the income distribution. According to Central Bank analysis of SILC micro data for households aged 25-50, about 10 per cent of households in each income quintile own their home without a mortgage (Figure 10). The strong relationship between income and tenure is apparent when analysing the share of households owning with mortgages: 9 per cent of those in the bottom quintile own their home with a mortgage, compared to over 70 per cent in the top quintile. By contrast, over 40 per cent of bottom-quintile households are in the social housing system, with another 39 per cent in private rental.

The strong relationship between incomes and tenure types suggests that future housing supply will require a diverse set of property types, serving a variety of needs. The patterns in Figure 10 provide important context on the likely required composition of future new home supply. The proportion of lower-income households

that access housing via private mortgage-financed ownership has typically been small, a pattern that is likely to persist. This underlines the importance of the provision of social and affordable housing, as well as private rented accommodation, in providing housing to meet the diverse needs of different groups of the population. On the other hand, the majority of new housing provided to higher-income households is likely to continue to be for private mortgaged owner-occupation. The breadth of tenure types across the population points to the need for housing policy to ensure that supply is enabled to respond flexibly to demand across all market segments. In particular, a private development sector that can viably supply housing at price points that are affordable for broad cohorts of the population, is an essential complement to a State-supported housing sector focussed on those with lower incomes.

4. The drivers of housing supply

In this study, we identify three broad themes that will have an important bearing on the capacity of the housing market to increase supply to circa 50,000 homes per year:

- Planning, building regulation and serviced land
- Capacity and productivity of the construction sector
- Development finance.

These dimensions overlap and re-enforce each other, with improvements in one area likely to prove supportive in another. For example, enhancing productivity and capacity in the construction sector would reduce the sensitivity of supply viability to externally driven costs. At the same time, construction firms are more likely to achieve scale in a setting where adequate amounts of zoned land are available in locations where the demand for housing is highest, and the planning system operates with certainty and at reasonable pace. The larger the pool of viable projects and construction firms, the more likely it would be that development finance can be attracted sustainably. Appropriate efforts across all dimensions would be necessary for the scale of increase in housing supply considered in this report.

Planning, building regulation and serviced land

The role of delays, objections, and bottlenecks in the planning system is difficult to quantify or to compare internationally, but the evidence suggests that a more efficient system could unlock substantial housing supply. According to estimates from consultants Mitchell-McDermott, as of early 2024, over 20,000 housing units in Strategic Housing Developments were awaiting a decision at An Bord Pleanála, while

another 8,000 units were subject to delay due to Judicial Reviews.¹³ Planning decisions on these units were an average of 16 months late at the end of 2023. Delays of this nature increase the cost of construction as well as likelihood of certain residential developments not proceeding due to the expiration of the planning permissions associated with these developments.

Greater policy certainty and more efficient and rapid decision-making will have a positive impact on future housing delivery. Given the evident need for substantial private sector participation both in the development and construction process, as well as in its financing, it is important that the Irish planning and housing system becomes more streamlined, faster to make decisions, simpler to navigate, and more predictable and stable. Greater certainty about the process of appeals and objections is one of the underlying themes of the Housing Commission's recommendations. Changes that increase longer-term certainty for investors will likely support the attraction of long-term capital into the system, particularly from international sources, which will be required in order to increase supply towards 50k homes per year.

Housing supply has been most responsive in the region surrounding Dublin, but has been much weaker in the city itself and in other urban areas. The planning and regulatory environment may be incentivising the development of housing in areas of lower population density, where land is more readily available, and where objections and delays are less likely. While households' preferences for space also likely play a role, this is consistent with the evidence in Figure 11, where the administrative counties in Dublin county (outside Dublin City), and the three counties bordering Dublin, have had the highest ratio of completions to housing stock since 2016.

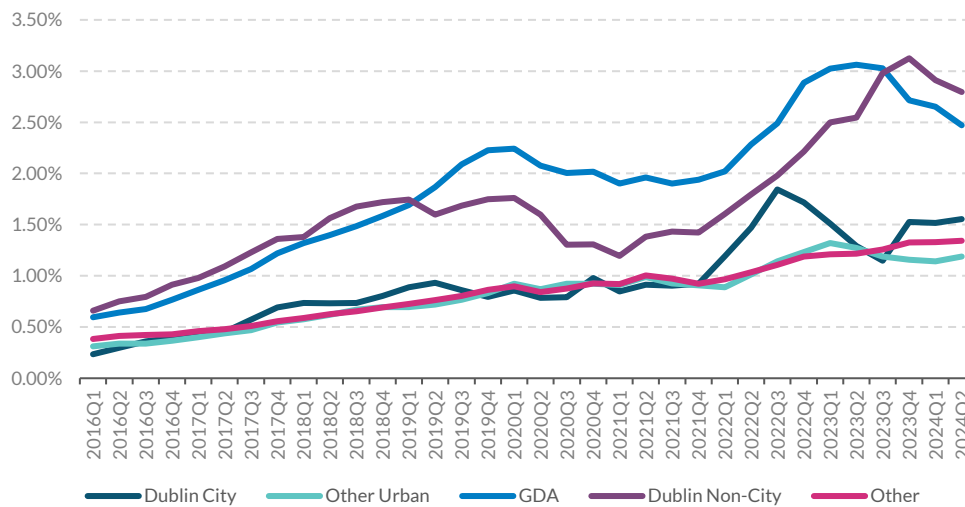
By contrast, disproportionate growth in urban areas may be required in a market delivering 50,000 new homes per year in line with broader public policy objectives. Development of higher-density housing, nearer to urban centres, is required from an environmental/climate policy perspective, as well as from an infrastructure/fiscal perspective. Figure 11 suggests a step-change relative to trends in recent years will be required in order to achieve this, including a reduction in uncertainty and timelines within the planning system, and the availability of greater volumes of zoned and serviced land in the areas where housing demand, and employment, are greatest.

¹³ A detailed assessment of these issues is outlined by [Mitchell-McDermott](#) in a 2024 press release.

Housing supply has been more responsive in commuter belts than in urban centres

Figure 11

Ratio of housing completions to housing stock by region (Percent)



Source: CSO and Central Bank of Ireland calculations

Note: Annual completions by region divided by 2022 Census estimates of households in permanent dwellings (a proxy for the housing stock). Regions defined as follows: Dublin City given as Dublin City Council area separately. Dublin Non-City (Fingal, DLR, South County); GDA (Meath, Kildare, Wicklow); Other Urban (Galway, Cork, Limerick, Waterford)

Dublin does not currently have adequate volumes of zoned land relative to its population, pointing to ongoing challenges in achieving greater density. A key barrier to residential development cited by many industry sources, particularly in Dublin, relates to the availability of adequate amounts of zoned and serviced land. Figure 12 shows that, relative to its share of the population aged 20-39, Dublin has a particularly low share of the land in Ireland currently zoned for residential development. By contrast, the Mid-East region (previously referred to as the GDA, or counties surrounding Dublin), has a particularly high ratio of zoned land relative to its population. Even when considering Dublin and the Mid-East together, there is currently a lower proportion of available zoned and serviced land in comparison to the population of household-formation age.¹⁴ This is consistent with findings from a recently published study from Goodbody, according to which there is insufficient zoned serviced land in the Eastern and Midland region (encompassing Dublin and its commuter belt) to meet updated housing targets as laid out in County/City Development Plans. The study estimates that additional residential land to supply a

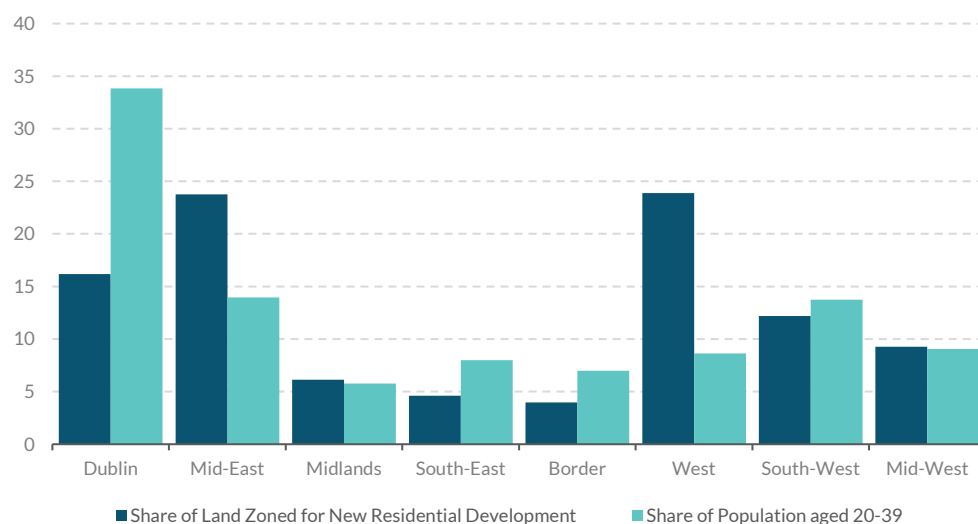
¹⁴ For instance, together the Dublin and Mid-East regions account for just under 50 per cent of the population aged 20-39, while around 40 per cent of the land currently zoned for residential development is located there.

further 40,000-70,000 housing units is required in across the Eastern and Midland region over a six-year period.¹⁵

The distribution of zoned land does not match the distribution of demand.

Figure 12

Percent



Source: RZLT Maps Dept. of Housing, Census 2022 CSO, and Central Bank staff calculations.

Note: Land zoned “New Residential”, GZT category R1 as per the Dept. of Housing and the latest published maps underpinning RZLT designation by Local Authorities. Circa 6,500 hectares of land is listed in this category in 2024. Nominally this land is both zoned for residential and serviced in order to be eligible to be charged the RZLT.

The provision of zoned and serviced land closer to major urban areas requires effective delivery of additional public infrastructure. Additional investment in supporting infrastructure in terms of water, sewerage, energy and transport are necessary to facilitate the required increase in housing delivery. From a public finance and land use perspective, sustainably funding additional levels of public investment needs to be considered carefully.¹⁶ An effective means of increasing the provision of public infrastructure is to ensure that the system of planning and building regulation does not excessively add to delays. Such delays in themselves can significantly reduce to

¹⁵ Goodbody [report](#), September 2024: Residential land availability - An assessment of residential land provision in Ireland. As well as the additional residentially zoned land required for the Eastern and Midland region, the report also calculates that additional residential land to supply an extra 1,000 to 19,000 units may be needed in the Southern region.

¹⁶ In particular, equitable land value capture measures levied across the broadest base of eligible land could contribute more sustainably to the delivery of enabling public infrastructure, reflect the benefit to existing landowners of such infrastructure, and incentivise the best use of such available land. This would build on recommendations 16 and 17 of the Housing Commission.

benefits of what is, in the most part, public investment in water, sewerage, transport and energy networks.

Recent analysis by Central Bank staff highlights the additional costs of not reducing frictions in public infrastructure delivery related to “time to plan” delays.¹⁷ An important result from this analysis is that longer delays in planning for public infrastructure investment can have a permanently negative affect on levels of private investment. A more efficient delivery of public infrastructure will be an essential foundation for the private housing investment needed to achieve circa 50,000 units per annum. The importance of issues pertaining to the delivery of enabling infrastructure needed to facilitate the construction of residential properties is also highlighted in the Housing Commission’s recommendations.

Capacity and productivity of the construction sector

Measured productivity in the Irish construction sector is low in comparison to other European markets. The level of output per hour worked in the Irish construction sector in recent years is roughly 25 per cent below the euro area average (Figure 13). In almost all comparator countries (exceptions being the Netherlands, Italy and Portugal) construction sector productivity has declined over the decade to 2022. The decline in Ireland has been the most pronounced at 2.7 per cent, approximately double the extent of decline in the euro area overall. In the absence of productivity improvements, through exploiting economies of scale, investing in technology in order to modernise methods of construction, and enhancing skills within the sector, it will be more challenging to increase supply substantially above existing levels. These issues feature prominently among the recommendations of the Report of the Housing Commission.

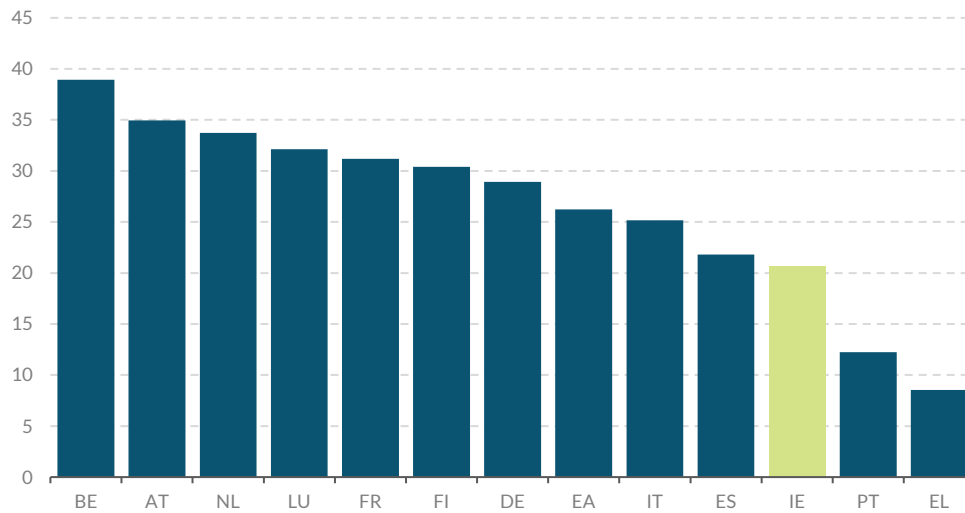
The market structure of the domestic homebuilding industry may compound the productivity challenges and could impede further expansion in output. Construction firms in Ireland are small when compared to other European markets. Only 3.2 per cent of Irish construction enterprises have 10 or more employees (Figure 14). This is significantly lower than countries of similar population size, such as Finland (5.5 per cent), or even of smaller population such as Estonia (7.2 per cent).

¹⁷ See Section 4 of “[Fiscal priorities for the short and medium term](#)”, Central Bank Quarterly Bulletin Signed Article, June 2024.

Construction sector productivity in Ireland is below comparator countries in the euro area.

Figure 13

GVA per hour worked, 2022

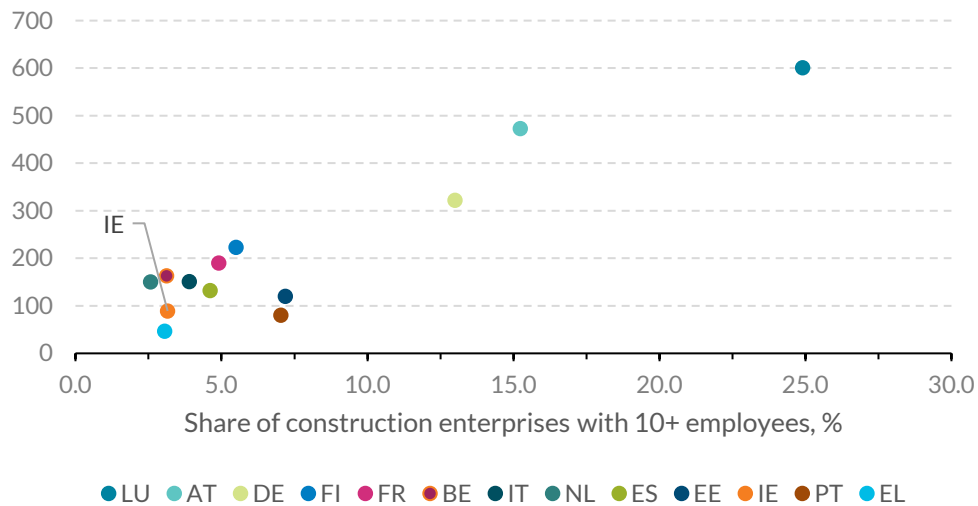


Source: Eurostat, and Central Bank staff calculations.

The construction sector in Ireland has a higher proportion of small firms.

Figure 14

GVA per hour worked, 2022

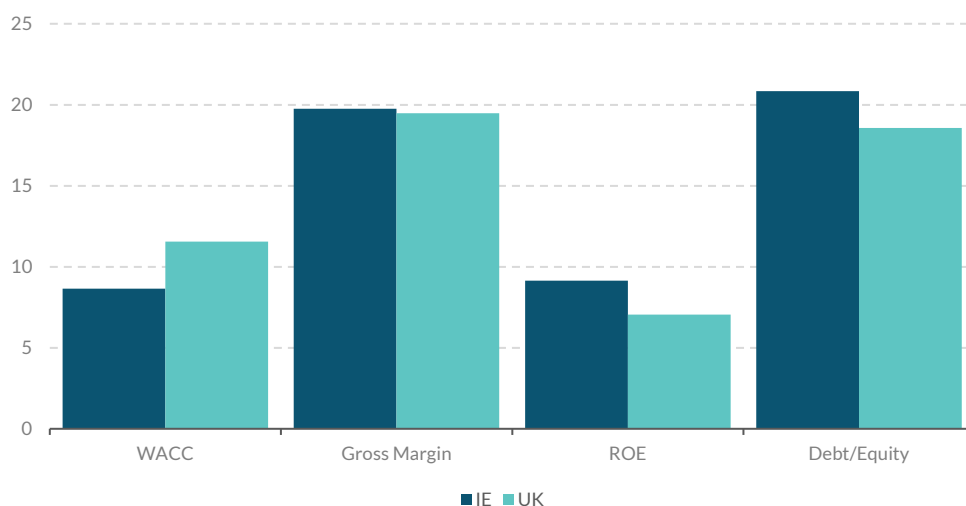


Source: Eurostat, and Central Bank staff calculations.

Despite challenges across the sector more broadly, the performance of the two listed homebuilders in Ireland is in line with UK counterparts. An analysis of key financial metrics suggests that the two largest homebuilders in Ireland, both of which are listed on the stock exchange, on average perform broadly in-line with their listed UK counterparts, and in fact have a lower weighted average cost of capital and higher return on equity last year (Figure 15). However, these listed builders only accounted for 13 percent of completions (excluding one-off houses) since 2019. Analysis by Goodbody has shown that the top ten Irish builders accounted for roughly one third of domestic RRE commencements in 2023, compared to an equivalent figure of 42 per cent in the UK.¹⁸ Achieving greater scale within the construction sector would facilitate greater output, higher productivity, and would likely prove beneficial in accessing external finance more sustainably.

The performance of Ireland's listed homebuilders is on a par with UK peers.

Figure 15
Per cent



Source: Bloomberg, Central Bank of Ireland calculations

Notes: The data consists of 2 listed Irish builders and 10 listed UK builders. WACC: weighted average cost of capital. ROE: return on equity.

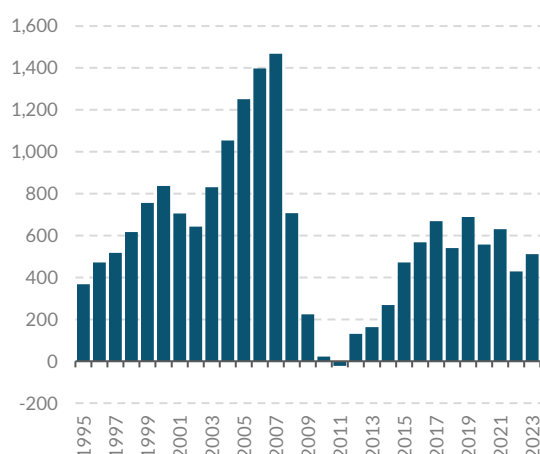
The productive capacity of the construction sector is likely curtailed by a persistently low level of investment, a 'scarring' effect of the financial crisis. A sector's capital stock includes machinery and equipment as well as the intellectual property and technologies used in the production process. The construction sector in Ireland continues to have levels of investment significantly below pre-crisis peak (Figure 16). Over time, without sufficient levels of investment, the capital stock and the productive

¹⁸ See "Who's Building in Ireland", Goodbody Analytics (February 2024).

capacity of the sector has suffered. This has been more pronounced in Ireland than in most other European countries, with the productive capital stock in the sector being about 20 per cent below what it was in 2008 at the start of this decade (Figure 17). An insufficient availability or use of modern machinery and equipment and technologies in the production process can impede the productivity of the sector.

Low levels of investment within construction since the financial crisis

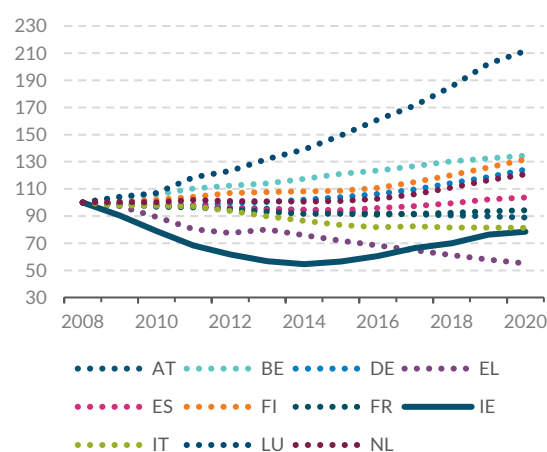
Figure 16
€ million, constant prices



Source: CSO

Leading to the capital stock being further below pre-crisis levels than peers

Figure 17
Index 2008 = 100

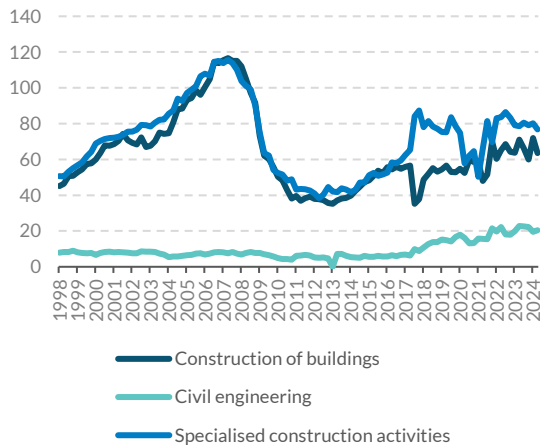


Source: Eurostat

The sector is also experiencing a relative scarcity of appropriately skilled labour, compounding productivity challenges. Employment levels in the construction sector have typically been more cyclical in Ireland than in most other European countries. Following an eventual recovery in employment levels after the financial crisis, the numbers of people working in the sector reached 170,000 by mid-2022 (Figure 18) and accounted for about 6 per cent of total employment. In that year, over 70,000 housing units were completed. Absent advances in productivity, the share of the construction sector in total employment would need to rise to facilitate required increases in output, necessitating the transition of workers from other sectors, or the entry of new workers to the labour force, or both. Challenges exist, in the context of a very low level of immediately available labour with construction sector experience (Figure 19). Inward migration of construction workers will likely be required in order to alleviate this challenge.

Employment in construction has recovered gradually...

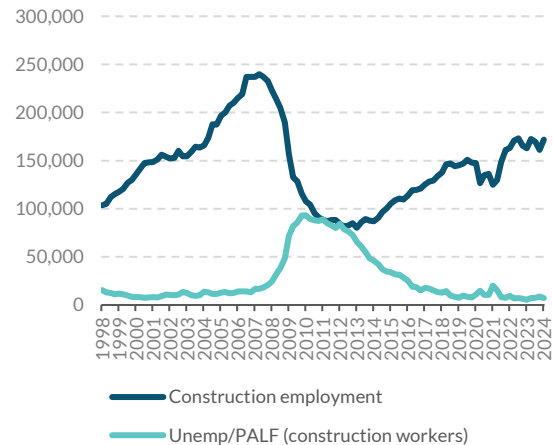
Figure 18
Thousands



Source: CSO

But immediately available labour is low

Figure 19
Thousands



Source: CSO

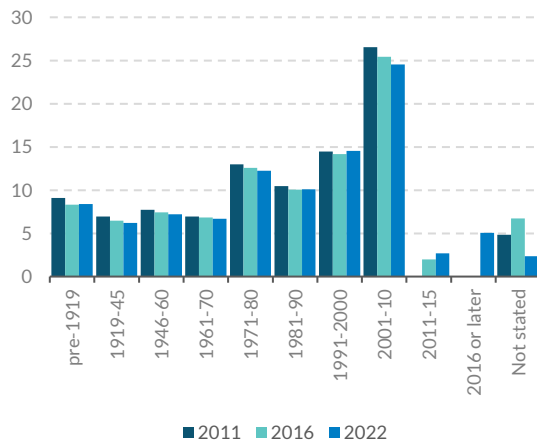
High demand for construction workers for retro-fitting and other necessary climate initiatives is also creating labour supply challenges. Government has established targets for greenhouse gas emission reduction over time, and eventual climate neutrality by 2050. Included in these targets is a necessary upgrading of the existing housing stock to improve energy efficiency. According to data on the vintage of permanently occupied housing stock from Census 2022, approximately 40 per cent of the country's housing stock was built between 1970 and 2000, and would typically have insufficiently high energy ratings by modern standards (Figure 20). Indeed, there has already been a significant rise in the level of retro-fitting and related activity. As a result, the existing labour capacity in the construction sector has had extra demand that has needed to be met, such that the share of new dwellings in total residential activity is below its long-term average (Figure 21). Achieving carbon neutrality and mitigating the already unavoidable effects of climate change will require significantly higher levels of public and private investment outside of housing. This will to some extent also draw related labour into other construction projects such as flood mitigation, transport and energy infrastructure.¹⁹

¹⁹ See Section 3.4 of "[Fiscal priorities for the short and medium term](#)", Central Bank Quarterly Bulletin Signed Article, June 2024.

The age profile of the housing stock and climate targets point to high labour demand

Figure 20

Distribution of housing stock by vintage (percent of stock)



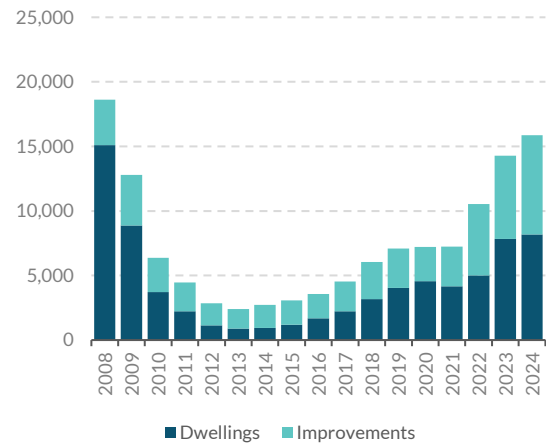
Source: CSO

Notes: Table F2006. Data refer to the vintage of housing stock occupied by usually resident private household, which in Census 2022 accounted for 87% of total housing stock.

With the share of new dwellings in building activity already below long-run average

Figure 21

Components of building activity (€m)



Source: CSO

Notes: Table NAQ05

Construction costs and viability of construction

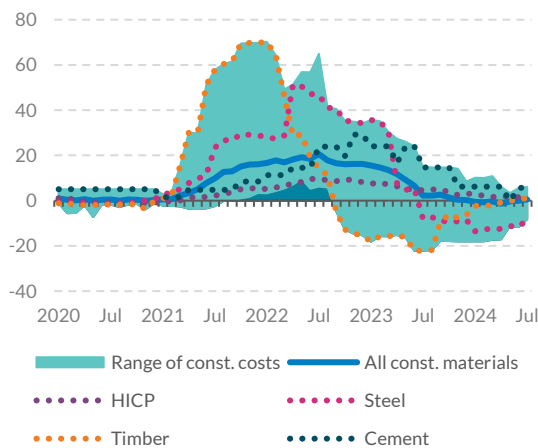
A key question within the debate on construction sector capacity relates to the cost of building homes in Ireland. According to [Günnewig-Mönert and Lyons \(2024\)](#): “just 23 homes were built per 1000 residents during the 2010s, compared to 155 in the 2000s, and an average of 75 in the 1970s, 1980s, and 1990s”. The authors formally model the housing supply process, highlighting the importance of the growth in construction costs in the most recent period: “while housing prices in 2020 were roughly 20% below their 2007 level, build costs after tax reliefs were between 70% and 90% higher in 2020 than 2007”. Their research concludes that supply has remained similarly responsive to prices over time, but was weaker over the past decade due to this sharp increase in construction costs. Their research also provides suggestive evidence that harder-to-measure features, such as restrictions on zoning, and challenges within the planning and housing regulatory system, have also played a role, as evidenced by particularly weak supply responsiveness in the Dublin area, where such issues are most pertinent.

Globally, and in Ireland, the cost of construction materials has increased rapidly since 2021. Cost inflation for construction materials increased rapidly starting in mid-2021. According to the CSO’s Wholesale Price Index, the average annual rate of inflation for building and construction materials increased from 1.2 per cent between January

2016 and December 2020, to over 15 per cent during the 2-year period from July 2021 to June 2023, peaking at a rate of over 20 per cent in mid-2022 (Figure 22). While the rate has slowed considerably in the past year, averaging just 0.5 per cent per annum in the 12 months to June 2024, building and construction material costs have cumulatively risen by more than 36 per cent from their end-2020 levels. A comparison of growth rates from Eurostat's output price index for construction of new residential buildings²⁰ across a selection of EU countries shows that developments in Ireland have closely tracked broader European trends for much of the past five years (Figure 23).

Annual building material price growth

Figure 22
Percent

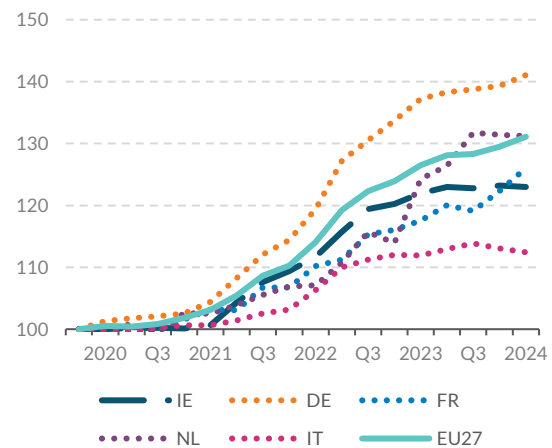


Source: CSO and Central Bank of Ireland calculations

Note: Construction input costs include: "Stone, sand and gravel, Cement", "Ready mixed mortar and concrete", "Concrete blocks and bricks", "Other concrete products", "Structural steel and reinforcing metal", "Rough timber (including plain sawn)", "Other timber", "Bituminous macadam, asphalt and bituminous emulsions", "Electrical fittings" and "All other materials". Last observation Jun 2024.

Construction costs across Europe

Figure 23
index 100 = 2019Q4



Source: Eurostat and Central Bank of Ireland calculations

Note: Figure based on data from Eurostat's "producer" or "output" price index for new residential buildings series. Last observation 2024Q1.

Cross-country comparisons of construction costs using aggregate data mask differences in building types, regulatory requirements, labour costs, and taxes across jurisdictions. Two recent reports address this issue and aim to provide new insight on how residential construction costs in Dublin compare with various locations across

²⁰ Also known as the producer price index, this series provides a measure of what building contractors pay for the input factors in residential construction, and includes materials, labour, plant and equipment, transport, energy, productivity, profit margin and other related costs. For more information, see; [Construction producer price and construction cost indices overview](#), Eurostat.

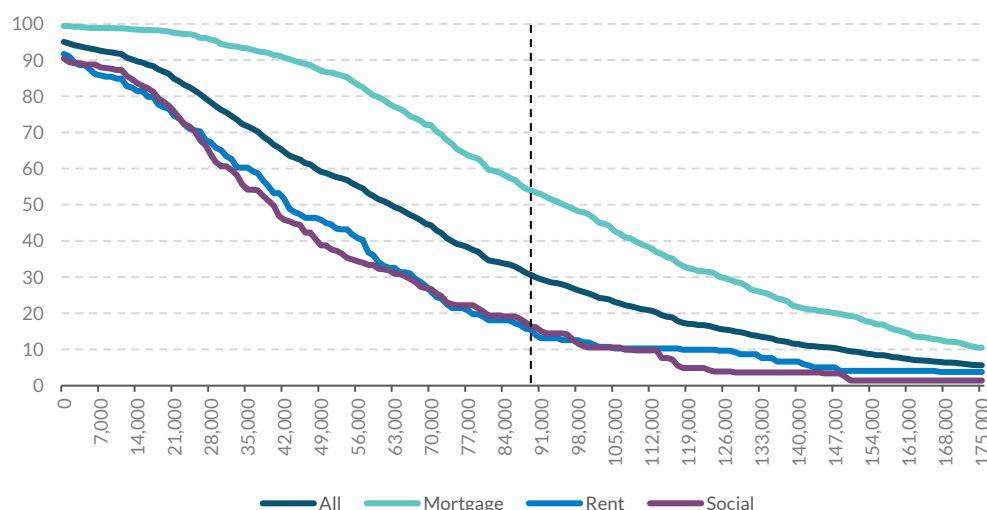
Europe, adopting methodologies that allow like-for-like comparisons. Box A summarises key findings from these reports, suggesting that costs are indeed higher in Ireland, by 15-30 per cent, than in relevant comparison locations. These differences appear more likely driven by specifications and size of units delivered to market in Ireland, rather than the observed price per square metre of key inputs.

The income profile of Irish households means many cannot purchase at current viable price points for private developers. Analysis of SILC 2022 micro data (Figure 24) shows that the median gross household income was €60k. This median household has a maximum mortgage available of €210-240k. In contrast, industry practitioners such as the SCSl estimate the average sales price to viably deliver a new 3-bed semi-detached house (once VAT and profit margin are included) ranged from €354,000 in the Northwest to €461,000 in the Greater Dublin Area (in 2023).²¹ In line with this range of estimates, Central Bank mortgage data indicate that the median purchase price for mortgage borrowers purchasing new build homes was €405,000 in 2023, with median income being €96k. These figures highlight the “viability gaps” that emerge as a result of divergence between the cost of delivering homes and the income profile of the population.

Half of Irish households have income below €60k per year, with implications for private housing viability

Figure 24

Percentile



Source: EU-SILC, Central Bank of Ireland author calculations

Notes: Vertical axis – gross annual household income percentile within each cohort. Horizontal axis: gross annual household income, €. Vertical dotted line reflects an income of €89k, consistent with a purchase of a 114m² newly built home at an LTI of 4 and LTV of 90.

²¹ See [Real Cost of New Housing Delivery](#) 2023, SCSl Report.

Government interventions have sought to reduce the “viability gap” by supporting the purchasing power of FTBs. Central Bank analysis indicates that 25 per cent of households in the pool of “potential FTBs” have sufficient income to clear the viability threshold for a semi-detached home (Table 2).²² However, the availability of the Help to Buy and First Home Schemes increases the notional viability share for the same purchase to an estimated 50 per cent. These calculations highlight the role that recent policy intervention has played in bridging gaps between underlying income fundamentals and the cost base of the construction sector. Looking at transactions using HtB in recent years, Central Bank analysis of granular mortgage data shows that borrowing households using the scheme have, compared to other FTBs, been purchasing larger homes, at higher price points. This differential reflects the nature of the scheme, which only includes newly-built homes, which are more likely to be larger than the existing stock, and therefore more likely to be purchased by borrowers with higher incomes, particularly couples.

Table 2 Help-to Buy supports borrowers purchasing larger homes at higher prices

	Dublin	GDA	ROC
Average House Price (€)			
HTB	424,236	395,353	348,072
Non-HTB	382,356	366,644	264,684
Average House Size (m2)			
HTB	116.5	126.4	158.8
Non-HTB	99.4	114.6	122.2
Average Household Income (€)			
HTB	104,541	97,159	88,988
Non-HTB	89,796	86,965	71,192
Share of couples (%)			
HTB	87	86	84
Non-HTB	72	74	65

Source: Central Bank of Ireland loan-level data

Notes: average values for FTBs using, and not using, the HtB scheme across 2022 and 2023. GDA: counties Meath, Kildare, Wicklow. ROC: all other counties

The viability gap can also be narrowed through reductions in the cost of delivering new homes. Increased productivity would mean that the construction sector is better

²² The baseline calculations are based on the SCSl national average cost for a 3-bed semi-detached house (114m²) of €397,000 (SCSl estimates). In these scenarios, the authors assume that, when borrowing at 4 times income, the potential buyers can access a mortgage deposit of 13 per cent of the purchase price (informed using Central Bank of Ireland loan-level data). Potential FTBs consist of employed adults living with their parent(s) and private rental households. The potential household reference person is aged 25-39 with a household income above the social housing support threshold (€30,000 net household income).

placed to absorb shocks to its cost base. Similarly, measures that support the construction sector in achieving scale, for example through greater standardization of unit designs, would also drive down the cost of delivery, supporting greater viability. Central Bank analysis indicates that similar viability improvements to those being delivered via the HtB and FHS could be achieved through cost reductions of around one quarter. Ultimately, the suite of measures chosen to ensure construction viability is a policy choice for government. While demand-side measures have a role to play, especially where government policy aims to affect distributional outcomes across different households, supply-side measures that contribute to improved viability through reductions in the cost of delivery have longer-term benefits from a competitiveness and fiscal perspective.

Box A: Are construction costs higher in Ireland? Insights from two recent reports

Gerard Kennedy, Fergal McCann

This Box summarises the findings of two recent reports that allow like-for-like comparison of construction costs in Ireland relative to comparator cities in Europe. The DHLGH [Residential Construction Cost Study Report](#) focused on construction costs of the direct building works and associated preliminaries only, across Dublin, Berlin, Copenhagen, Utrecht and Birmingham. Using a “travelling Box methodology”, the report compares ‘hard’ costs on a like-for-like basis across four separate types of home.²³ The Trinity/SCSI report (“[Building Homes: Apartment construction costs in Europe with a focus on Dublin](#)”) compares both ‘hard’ and some ‘soft’ costs of delivering apartments,²⁴ using the International Construction Management Standards V3 (ICMS3) framework to compare construction costs for a fixed project across ten cities in seven countries.

Apartments are more expensive to deliver in Dublin than most comparator cities, driven more by the specifications, scope and size of units delivered than the cost of inputss. The headline finding with respect to apartment construction across the two reports are as follows:

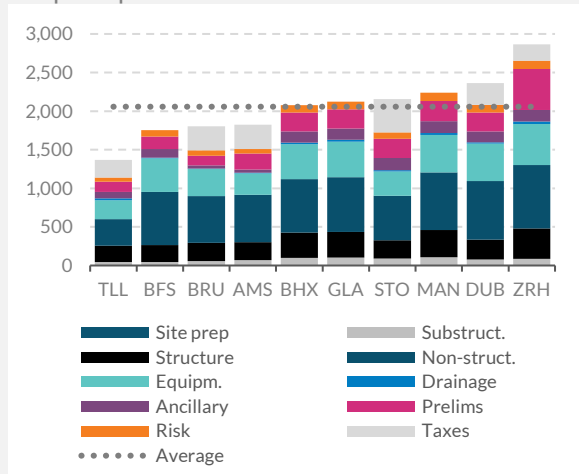
²³ The travelling box methodology measures the costs of building the same theoretical dwelling built to an Irish specification across a selection of locations.

²⁴ Costs not covered in this report include site acquisition, professional, development and connection fees, finance costs, developers’ margins, and marketing costs.

- The Trinity/SCSI report finds the construction cost for delivering an apartment block in Dublin was €2,363 per square metre (including tax), or €300 higher than the ten-city average, and second only to Zurich in the sample (Figure 25).
- The DHLGH report – focusing on hard costs only – finds that apartment construction costs, on a per square metre basis using the like-for-like “travelling box” method, were similar across locations studied.
- However, the DHLGH also notes differences in scope, size and specifications between the standard Dublin apartment and those in Copenhagen, Berlin and Utrecht. This means that the like-for-like comparison does not reflect the reality of units delivered in the market. Comparing specifications typically provided to the market, Dublin and Birmingham have delivery costs up to 30% higher than other cities studied, driven by higher specifications and larger units.²⁵

Apartment construction costs in Europe

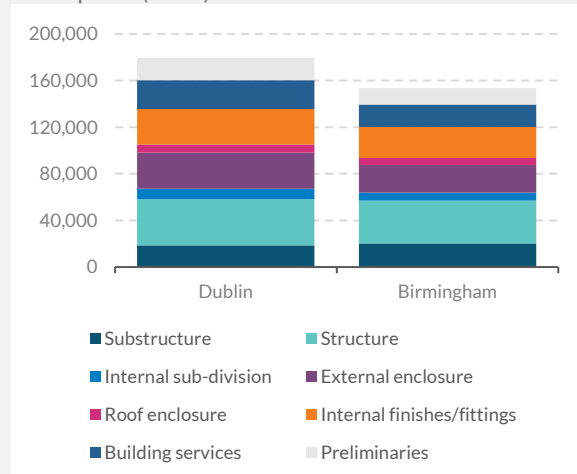
Figure 25
Cost per square metre



Source: Trinity and SCSI

Scheme home costs Dublin v Birmingham

Figure 26
House price (euro)



Source: DHLGH

Notes: Chart based on Data from Residential Constructor Report by DHLGH

For scheme house construction, Dublin appears 15 per cent more expensive than the UK on a like-for-like basis. For the scheme house studied in the DHLGH report, construction costs per square metre for the “travelling box” were approximately 15 per

²⁵ In these comparator cities (Utrecht, Copenhagen Berlin), for example, it is common for apartments listed for sale or rent to have bare ceilings, no floor finish, no fitted wardrobes, minimal or no kitchens, no light fittings, to have shared bathrooms / no en-suites, all of which lower the cost of delivery for the construction sector compared to Dublin.

cent lower in Birmingham than in Dublin (Figure 26).²⁶ The study also found significant differences in terms of the size and specifications of the typical residential units delivered in the other cities compared to the typical Dublin unit. For instance, the report found that houses being delivered in Birmingham may be up to 15 per cent smaller than in Dublin (93 sqm vs 110 sqm), meaning Birmingham is 21-29 per cent cheaper than Dublin on a per-unit basis.

The reports indicate that the cost of construction is higher in Ireland than elsewhere for conventional residential property. The economic evidence suggests these higher costs have impeded supply over the past decade or more. The reports do not provide a single “silver bullet” policy solution to these issues. However, their findings do suggest that policy measures that support the construction sector in achieving scale, for example through greater standardization of unit designs, could be particularly beneficial in driving down the cost of delivery.

Financing housing development

In order for new home supply to match refreshed demand estimates of circa 50,000 homes per year, substantial additional financing will be required. New homes must be financed from two sides: firstly, the construction and development sector must be financed to deliver the housing through a variety of procurement models, and for a variety of tenure types (social, affordable, private rented, owner-occupied). Secondly, the ownership must be financed, either through mortgage finance for new owner-occupier buyers (from banks, non-bank lenders, and credit unions), or through institutional and other private sources for private rented housing. In the case of social and affordable housing, the distinction between the financing of development and of ownership is more blurred, given the role played by the State and its agencies on all sides of these transactions.

Private financing of both development and ownership will require a combination of debt and equity, from domestic and international sources, comprising banks and non-bank intermediaries. A diverse mix of financing types and sources has been involved in the delivery of housing in Ireland over the past decade, reflecting the increased participation of a broader set of financial institutions in housing markets globally. This

²⁶ A limitation of the DHLGH report’s findings on scheme houses is its focus on the UK, using Birmingham as a comparator market, rather than having a broader comparison group. Birmingham was chosen by the study’s authors given that it is the second-largest city in the UK, similar in size to Dublin, and avoids analytical challenges involved in studying the London market, given London’s outlier characteristics as a city of global scale and reach.

diversity brings with it macro-financial benefits and will continue to be necessary in order to meet the growing needs of an estimated 50,000 new homes per year.

We estimate that an indicative €10bn of financing underpinned the delivery of housing in 2023. Before beginning to assess future financing needs and their composition, we initially attempt to identify financing flows underpinning new home delivery in 2023. Pinpointing the precise financing requirements underneath a given year's housing supply is complex, given the lack of precise data available in Ireland to connect the delivery of a specific home to a specific financing source. Further, the precise development cost of a unit itself is uncertain, given the mix of property types, locations, and specifications underlying the volume of observed homes delivered. Using an average unit development cost value of €312k (before VAT and profit margin, see Box B) in 2023 would imply an indicative total financing need of €10.2bn. Under other assumptions for higher unit prices as used by other practitioners, this estimate would be in a range up to or above €11bn.

The State, non-bank financial intermediaries, and domestic banks each contributed importantly to financing 2023 housing supply. We use a range of data sources to provide an illustration of how key sectors likely contributed to the delivery of 32.5k homes in 2023. We estimate that, on top of 5.5k one-off or self-build homes (financed with an estimated €1.7bn of own savings and private mortgages), and 8k social housing units, around 19k homes required private development financing in 2023, equating to an estimated financing need of €5.9bn. To provide illustrative estimates of the role of various sectors underpinning financing delivery last year, we impose an industry benchmark of a 60% Loan to Cost or Loan to Value ratio at origination, and apply a 65/35 ratio between bank and non-bank lending based on research from [Lambert et al. \(2024\)](#). This gives an estimate of development financing to support 2023 housing supply of €2.3bn from banks (in the form of debt financing), and €3.6bn from non-bank financial intermediaries (providing a blend of debt and equity financing). We estimate state financing of social housing in 2023 amounted to €2.5bn, based on the delivery of 8k social housing units (Table 3).²⁷

²⁷ Using a different basis, the Housing Commission estimates €3.4bn was provided by State in capital commitments in 2022. This combines direct development financing with the funding of purchases by entities such as LHAs of properties already constructed with private sector funding.

Table 3: illustrative estimate of development financing underpinning 2023 housing supply

Source	€bn	Share
Individuals (incl. personal mortgages)	1.7	17%
Bank Development Finance	2.3	23%
Non-Bank Finance (debt and equity)	3.6	35%
Direct State	2.5	25%
Total	10.2	

Source: Central Bank of Ireland calculations

Notes: “Bottom up” approach, where starting point is an average unit cost of €312,000, and 32,582 homes delivered in 2023. “Individuals” provides an estimate of the total (mortgage debt and equity) financing requirements involved in the 5,512 self-build or one-off houses supplied in 2023. These are financed with own-funds and personal mortgages, and classified outside the development financing portfolios of the financial sector for the purpose of this study. Implied Debt and Equity calculated by assuming total debt funding underpinning 18,960 homes delivered via private sector development is subject to a 60% loan to cost ratio. Non-Bank and bank shares in debt finance are imputed by imposing a 65-35 ratio onto estimates of debt financing as per Lambert et al. (2024). Due to the nature of this estimation, the imputed Bank Development Finance number of €2.3bn does not correspond directly to data reported by specific Irish banks, but is rather an indicative illustration of the role of bank lending in 2023 development. “Direct State” figure uses as a basis 8,110 directly provided social houses as per Department of Housing information.

The supply of 20,000 additional homes per year could require growth of €4.5bn-€5bn in additional private financing, over and above a continuation of 2023 levels. We

assume in this assessment that the financing mix underpinning the delivery of homes in 2023 is maintained in future scenarios, allowing the analysis to focus on the private financing needed to deliver 20,000 *additional new homes per year*. Based on assumptions outlined in Box B around construction costs, type mix, the direct role of the State and the loan-to-cost ratio, a central estimate of €3bn of additional debt financing for private development may be required, along with around €2bn in equity financing. Due to the recyclability of development financing, the estimated loan finance increase should be seen as an increase in the size of the balance sheet for lending to residential construction and development, rather than an increase in annual net flows that cumulates over time. There is a high degree of model uncertainty around these estimates, with the estimates depending on assumptions around drawdown frequency, duration of construction, debt to equity ratios, property type mix and unit costs.

Box B: Financing required to supply 20k additional homes per year

Angelos Athanasopoulos, Gordon Barham, Mudabbir Farooqi, Gerard Kennedy

We estimate the financing required to support the delivery of a given volume of housing, making assumptions about (i) the average construction cost per unit, adjusted for VAT and profit margins, (ii) the Loan to Cost (LTC) ratio for construction loans, and (iii) housing project delivery times and funding recyclability.

Our first key ingredient, the average delivery cost, has many potential sources of information available in Ireland, not all of which provide consistent answers. We begin by estimating new dwellings selling prices, using combined aggregate information on new dwellings transactions by type (scheme houses/apartments) from the CSO. We also use publicly available information on new mortgage lending from the BPFi and the Central Bank, information from annual reports of publicly listed real estate development firms, and trading statements from non-bank residential real estate specialist lenders operating in the Irish market. This is supplemented with hand-collected information on large/bulk transactions from news media reports and proprietary commercial databases. Our approach estimates the average new dwelling selling price for the unobservable mix of locations, types, and individual dwelling characteristics that was realised in housing market transactions in 2023. In our baseline, we estimate that in 2023 the average selling price of a new dwelling is approximately €425k.

To estimate average construction costs, we adjust our estimated new dwelling selling prices by deducting VAT of 13.5% and a 15% gross profit margin. In the baseline calculation, this gives an average construction cost of a new dwelling at €312k. While some information does exist for the type and location of dwellings transacted during a year, information on the characteristics of individual dwellings in terms of floor space and land plot size is generally not readily available. For this reason, we do not use construction cost estimates such as those produced by the SCSi and other commercial organisations. These estimates by design focus on the cost of specific property types and sizes, often for procurement purposes; instead we focus on the *average construction cost for the realised mix of new dwellings in the country*.

In our baseline projections, we maintain the current type supply mix of approximately 60%/40% for scheme houses and apartments respectively. We also simulate scenarios assuming a further tilt in housing production towards apartments, with apartments reaching 70% in the mix of dwellings delivered. To account for the effect of type mix, we estimate that in 2023, *in the realised mix* of homes delivered, an apartment costs

20% more to deliver than a house. Table 4 shows that under our cost assumptions, the impact of altering the mix of houses and apartments in overall delivery does not significantly alter the overall financing need.

A second important parameter in our projections is the average leverage ratio for construction loans. In our baseline estimates in this Box, we maintain the standard mix of 60% debt and 40% equity used in previous analyses and widely confirmed by industry sources. We also provide estimates with a higher 70% average debt ratio, reflecting recent offerings from lenders outside the traditional banking sector. This diversity of funding offerings, conditional on such products maintaining appropriate risk management processes, has a role to play in funding the provision of housing in Ireland and can also entail macro-financial benefits through funding diversification.

The recyclability of development funding is also an important consideration for the estimation of the funding needs of housing production. In our analysis, the construction time of a typical project, and correspondingly the duration of the loan supporting this construction activity, can vary from 12 to 36 months. In our baseline projections, we use a central estimate of 24 months, with developers drawing funds monthly in the model, but acknowledge that delays in the construction process can disrupt the redemption schedule of funding, increasing the aggregate funding need, as can funding models where developers draw down funds with less frequency.

Table 4 provides the range of estimates for the financing need associated with the delivery of an additional 20k new units per year. The estimates in the table should be interpreted as *additional* financial resources required, under the assumption that all financing provided to support the current production of 32.5k homes in 2023 is maintained on an ongoing basis in the future.

Due to the recyclability of debt financing for RRE development, the additional financing requirement should be interpreted as an addition to the size of the balance sheet of the banking and non-bank lending system, rather than a new net flow that will be required annually and lead to cumulative growth in lender balance sheets. These estimates of balance sheet growth are sensitive to a range of assumptions, for example around the frequency of drawdown of funds by the borrower.

Table 4 provides ranges of potential private funding need outcomes conditional on assumptions about the share of the public sector participation in new housing delivery and the aggregate LTC ratio in construction lending. The range for debt funding requirements across the scenarios is between €2bn and €4.9bn, while €1bn-€2.7bn of equity capital would be required across the different scenarios. Focussing on our baseline scenario for the share of apartments and the LTC ratio, €6.7bn of new funding

will be required to support the additional delivery of 20k new homes. This implies that in a scenario where the public sector did not account for any of the additional delivery of these 20k units, *private* development finance of €4bn of debt and €2.7bn of equity financing would be required. For illustrative purposes, and reflecting the likely need for the public sector to at least maintain the current *proportion* of 2023 delivery of 25% in future growth scenarios, we place more emphasis on a financing requirement of €5bn, of which €3bn of debt and €2bn of equity are required.

Table 4: Private development finance requirements for 20k new homes

Total funding needs (€m)				
Share of public sector in total delivery				
Scenarios	0%	25%	33%	50%
Baseline: 40% apartments	6,739	5,054	4,515	3,370
Alternative: 60% apartments	6,989	5,242	4,682	3,494
Debt				
Baseline apartment share and 60% leverage	4,044	3,033	2,709	2,022
70% apartments and 70% leverage	4,892	3,669	3,278	2,446
Equity				
Baseline apartment share and 60% leverage	2,696	2,022	1,806	1,348
70% apartments and 70% leverage	2,097	1,572	1,405	1,048

Source: Central Bank of Ireland calculations

Notes: The estimates in the table are based on a €312,000 construction cost, and a 1.2 ratio of apartment cost to scheme house cost estimated from the observed mix of housing delivered in 2023. Funds are drawn down monthly in the model over a 24-month construction project.

Residential development and investment loans at Irish banks have fallen by close to 90 per cent in a decade, and currently represent a small portion of domestic lending.

Currently, credit advanced from banks in Ireland for the purposes of Irish resident “Property investment/development of residential real estate” is €2.5bn, down from €19bn in 2010 and €7bn at end-2015 (Figure 27). Most of this decline was the result of a long period of post-crisis deleveraging, which included widespread borrower defaults and the transfer of large portfolios of development lending to the National Asset Management Agency. Even within this €2.5bn, not all is likely to have been devoted to the development of new housing (with the remainder supporting the purchase of existing properties for investment purposes). Based on public disclosures by AIB and Bank of Ireland, lending for the specific purpose of *residential land and development* currently is estimated to be close to €1.6bn across these two banks, or just over 1% of

total lending, although total exposures may be larger due to classification and definitional issues.²⁸

Domestic banks have balance sheet capacity to provide part of the additional debt finance required to deliver 50k homes per year. This year, the two largest domestic banks have both announced substantial increases in future commitments for financing of residential development, amounting to around €1.25bn of additional debt financing.²⁹ Separately, the nature of funding lines to residential development means there is additional funding already committed, but currently undrawn, within existing risk appetite at the main Irish banks. From a balance sheet perspective, current CET1 capital headroom at the two main domestic banks is in a range of €1.5bn to €3bn, which provides substantial balance sheet capacity to increase development financing in line with the needs estimated in this *Article*.³⁰ The ultimate allocation of banks' capital towards residential development remains a commercial matter for the banks, taking into account the risk profile of the lending and related capital costs.

²⁸ Based on AIB's [half-year report](#) for 2024, total balances for residential land and development were €1.1bn, of which €124m is attributable to the bank's UK operation. Bank of Ireland's [Interim Report](#) July 2024 reports €607m of development balances in ROI. This may be a lower bound on the likely total exposure of the sector to residential real estate development, as the funding model underpinning the development of social housing, student housing, and Private Rented Sector institutional investment means that in some cases, banks' exposures to these developments may be classified in other portfolios, therefore not included in the figures above.

²⁹ AIB announced an apartment construction fund of €500m in partnership with Activate Capital Limited, while Bank of Ireland announced an increase of €750m in its funding available for housing development, suggesting based on these announcements alone that €1.25bn of additional debt financing may be made available through the domestic banking system.

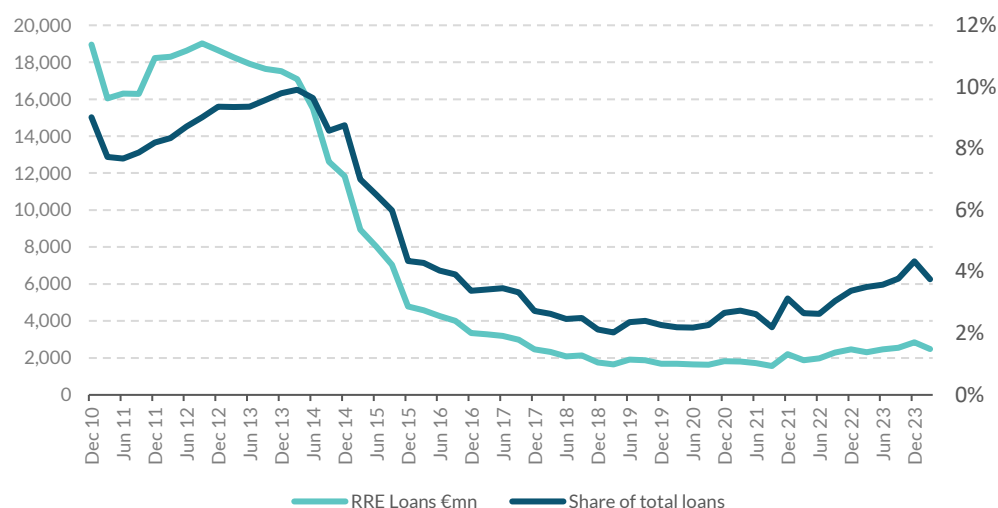
³⁰ The measurement of capital headroom depends on whether regulatory Pillar II Guidance is included, and on whether any management buffers are assumed to hold.

Lending to residential developers and investors is small relative to the past, but its share of total lending to corporations is twice as large as in 2018.

Figure 27

Outstanding loans €m

per cent



Source: Central Bank of Ireland Credit and Banking Statistics, [Table A.14](#), Credit advanced to Irish resident private sector enterprises.

Non-bank lenders are also likely to play an important role in the provision of additional debt finance. A range of non-bank lenders (NBL) are present in the Irish development finance market. Many are lenders with a branch presence in Ireland, and direct lending relationships with local developers and property investors, although direct lending from global financial institutions (for example through private credit funds) is also possible without a presence in Ireland. Individually, NBLs in Ireland are small when compared to banks, but Central Bank research suggests that collectively they account for 35 per cent of all lending to local real estate businesses ([Lambert et al., 2024](#)). These lenders typically compete with retail banks by offering higher-LTC/LTV lending, at higher interest rates. Their funding is usually sourced internationally, and is typically more volatile across the interest rate cycle than that of banks. Similar to the banking system, undrawn funding exists within the set of local non-bank lenders.

The State is also playing a growing role in lending to private developers. Alongside the NBL sector, a key player in the provision of debt financing is Home Building Finance Ireland (HBFI). This is a State-sponsored lender with a mandate to lend directly to builders and developers delivering housing in Ireland. It has grown since inception in 2019 to become an important player in the lending market, with €314m of loans outstanding at end-2023, and over €2bn of funding approved during its lifetime.³¹

³¹ HBFI Annual Report 2023 ([link](#)).

Given State commitments to support housing delivery, it is likely to be a further source of debt financing supporting growth in new home supply over the medium term.

Recent indications suggest a lack of equity in the homebuilding sector is a challenge to growth. The availability of debt and equity are inherently interrelated, with stronger equity likely to unlock greater debt volumes for developers. Stakeholder engagement suggests that the lack of equity (both from internally-generated retained earnings and from external private investment) among real estate development and construction firms is a key impediment to the financing of new home supply in Ireland. A further substantial increase beyond 2023 levels of equity could therefore prove challenging. The availability of own-equity through retained earnings would be boosted through increases in output, economies of scale, productivity and profitability, as discussed in Section 4.

Attracting additional external equity into the residential development sector may require further policy intervention. The attraction of external equity may require policy interventions to “crowd in” private investors, for example through State equity tranches participating in projects in partnership with international investors. A particular future challenge in this regard may relate to the industrial structure of the Irish homebuilding sector, in which there are many smaller businesses that are less likely to be attracted to the proposition of accepting external equity investment and ceding ownership stakes (Section 4). More broadly, international equity investment into residential development, much of which is for “build to rent” from institutional investors, will remain an important component of a long-term sustainable housing supply mix.

5. Fiscal interventions in the housing market

Having declined sharply in the period following the financial crisis, Irish government spending on housing has grown significantly in recent years. We estimate that government spending on housing has trebled in nominal terms since 2017, reaching a new high of €6.5bn last year (Figure 28).³² This has been driven by a recovery in capital

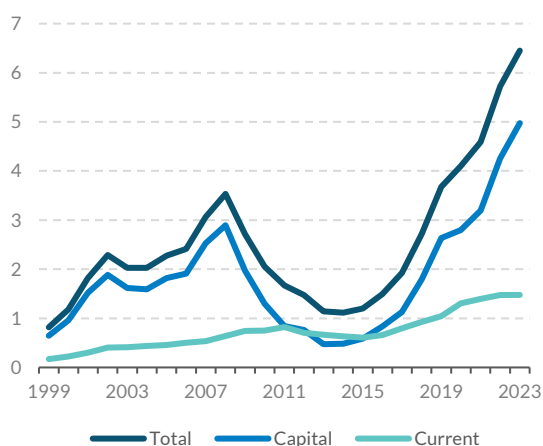
³² Government housing expenditure is calculated as the sum of: (i) Exchequer spending on housing by the Department of Housing, Local Government and Reform (source: Department of Public Expenditure and Reform Databank); (ii) Exchequer spending on rent supplement by the Department of Social Protection (source: Department of Social Protection Annual Statistic Reports); (iii) non voted spending on local authority and social housing (source: Expenditure Reports, Budgets 2012-24 and Estimates for Public Expenditure, Budgets 2000-11); (iv) investment by the Land Development Agency (source: Expenditure Report, Budgets 2020-24); (v) gross lending by the Housing Finance Agency per annum (source: Housing Finance Agency Annual Reports 1999-2022 and Corporate Plan 2023-27); (vi) new lending per annum by Home Building Finance Ireland (source: Home Building Finance Ireland year end updates) 17 See Expenditure Report, Budget 2024.

spending, as growth in Exchequer funding for the provision of social housing has increasingly been supplemented by the use of State supported agencies outside of the Exchequer. Investment and loan activity by these agencies with funding provided by or guaranteed by the State (the Land Development Agency, Housing Finance Agency and Home Building Finance Ireland) has been responsible for two-thirds of the increase in government capital spending on housing in the past five years. There have also been consistent increases in current housing spending over this period, which includes expenditure on the Housing Assistance Payments (HAP), leasing properties and accommodation for the homeless.

Relative to the overall size of the economy, housing expenditure is approaching pre-crisis highs. We estimate that government housing expenditure was just below its previous 2008 peak at 2.2 per cent of GNI* last year (Figure 29). With an increased housing budget package of €7bn announced in Budget 2024, a return to that peak is expected to occur this year. Capital spending, at €5bn, accounted for 77 per cent of total spending in 2023, with current spending accounting for 23 per cent.

Significant increase in Government housing expenditure in recent years, driven by higher capital spending

Figure 28
Government Expenditure (€bn)

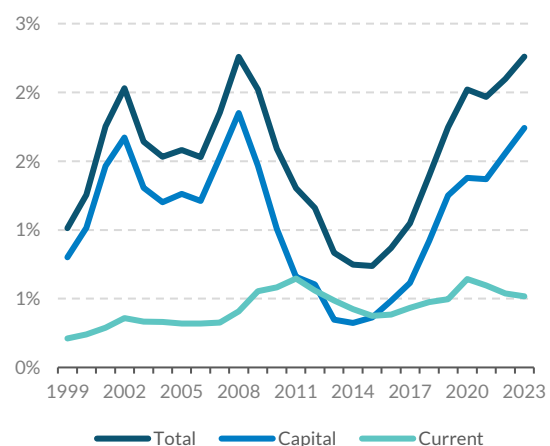


Source: Authors' calculations.

Notes: see footnote 31 for details

Spending now at previous peak levels relative to the size of the economy

Figure 29
Proportion of GNI* (per cent)



Source: Authors' calculations

Notes: see footnote 31 for details

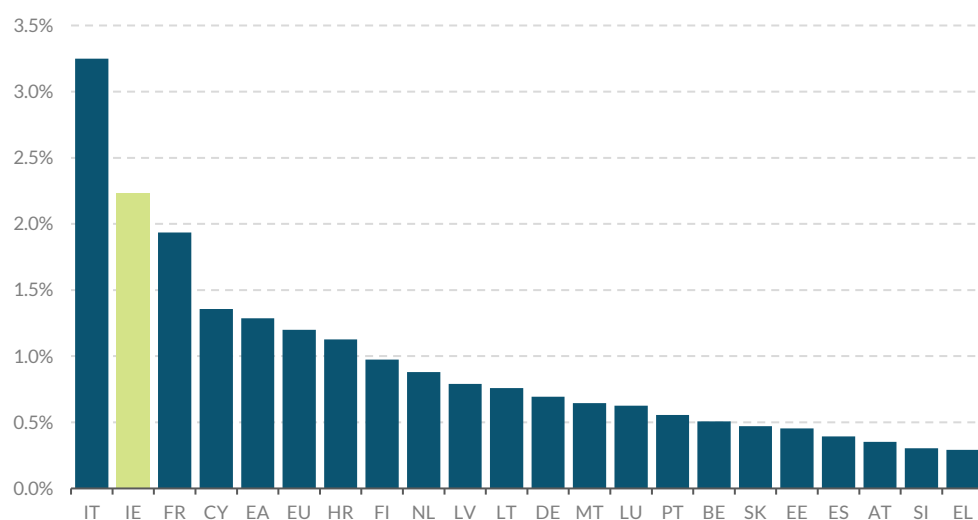
Relative to the European average, Irish government expenditure on housing in 2023 is particularly high. Eurostat's COFOG (classification of functions of government) data

series allows comparison of government housing spending across the euro area on a general government basis. This shows that Ireland recorded the second highest housing expenditure in the region in 2022, the latest year that data are available (Figure 30). Excluding Italy, housing expenditure in Ireland was twice that in the euro area in 2022 (2.2 per cent of GNI* compared to 1.0 per cent of GDP).³³

The government also provides support to the housing market through tax expenditures and reliefs. We estimate that these measures – which affect the fiscal position by reducing government revenue – cost €960m last year. This includes local authority home loans, rent tax credits and the Help to Buy scheme. When these measures are included, the total cost of government housing intervention increases to 2.5 per cent of GNI* in 2023, 0.3 percentage points below the previous 2008 peak when mortgage interest relief dominated tax measures. We estimate that 80 per cent of government housing measures represent supply side measures, with the remaining 20 per cent aimed at supporting demand.

Irish government housing expenditure is high relative to the rest of the euro area

Figure 30
Percent of GDP



Source: Eurostat, CSO

Note: Irish figure is shown as a per cent of GNI*

Private mortgage purchases are supported by the State through two headline schemes. The Help to Buy (HtB) scheme has supported around 44,000 purchases since introduction in 2017, providing an up-front deposit subsidy to eligible FTBs, with a

³³ The only country to surpass Irish expenditure was Italy, where the introduction of the 'Superbonus' tax credit scheme has seen a surge in housing related capital transfers (Italian housing spending increased from 0.4 per cent of GDP in 2019 to 3.2 per cent of GDP in 2022 highlighting its impact).

total spend of €250m in 2023. Over seven thousand mortgages (from a total of 25,591 FTB mortgages) included a HtB claim in 2023. Separately, the First Home Scheme provides an equity tranche to eligible FTBs, which can substantially increase the total purchase price for those borrowing at the mortgage measures' LTI limit.³⁴ The FHS initially had a total funding allocation over 2022-2025 of €400m. Section 4 provides estimates of the role these schemes are playing in supporting viability currently, and considers the potential for viability to be achieved through cost-reduction, rather than the boosting of purchasing power.

6. Housing in the wider macroeconomy

Developments in the housing market have implications across the wider Irish economy. We use the Central Bank's semi-structural model of the Irish economy to analyse the impact of the housing demand scenarios outlined in Section 3. In particular, we examine the macro-financial and macro-fiscal effects of the CSO's high migration population scenario, assuming that the Irish headship rate converges to the UK rate by 2050.³⁵ In this scenario, around 52,000 new homes could be needed per year out to the middle of the century, or a 20,000 unit increase relative to 2023 supply (see Section 3).

Macroeconomic impact of unmet housing demand

Higher housing costs can feed through directly to workers' wage demands, damaging the competitiveness of the economy if not accompanied by higher productivity growth. Moreover, a scarcity of housing acts as a deterrent to inward migration, impairing the ability of firms to expand, reducing labour supply and placing further upward pressure on wages. In some instances, the shortage of housing has led firms in the private sector to enter the housing market by directly purchasing dwellings for use by their employees. As noted by the National Competitiveness Council, this has a number of potential negative implications including increasing these firms' operating costs, the reallocation of scarce capital into non-core business areas and it could also impair labour mobility.³⁶

³⁴ The State's role is less direct in the FHS when compared to HtB. The FHS is operated by a Special Purpose Vehicle that is jointly funded by the State and participating mortgage lending banks.

³⁵ For expository reasons, we focus on the M1-UK scenario in this section. Results showing the macroeconomic impact of the scenario assuming faster convergence to UK headship by 2035 (M1-Fast) are available from the authors on request.

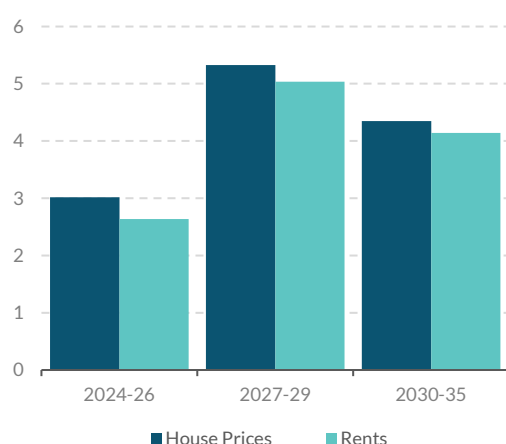
³⁶ See https://www.competitiveness.ie/media/d2nhry3o/icc_2024_final_version.pdf and <https://www.competitiveness.ie/media/u5nbmtq1/bulletin-24-3-competitiveness-and-the-housing-market-in-ireland.pdf>

To illustrate the economic effects of persistent unmet housing demand, we impose an increase in the share of 25 to 39 year olds in the population to match the higher levels of structural demand in the CSO high migration scenario, with convergence to UK headship by 2050 (see Section 3). This proportion of the population in the 25-39 age group is a key driver of housing demand in the model, along with personal income, the user cost of capital and credit conditions.³⁷ We simulate the model over the period 2024 to 2035 with the additional population-driven demand but holding housing completions at their baseline level.

In the absence of an increase in housing supply, house prices in this scenario rise by over five per cent above baseline at peak (Figure 31). The increase in house prices leads to higher household consumption for existing homeowners through the housing wealth effect. Higher housing demand, however, also leads to higher rents, which rise along with house prices to restore equilibrium in the housing market.

House Prices and Rent

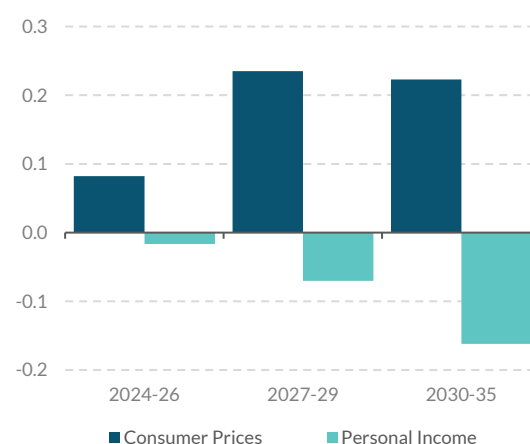
Figure 31
Deviation from baseline (Percent)



Source: Central Bank of Ireland calculations

Consumer Prices and real Income

Figure 32
Deviation from baseline (Percent)



Source: Central Bank of Ireland calculations.

The increase in rents feeds into higher consumer prices, which reduce real household income and thus consumption. The level of consumer prices rises by over 0.2 per cent over the medium to long run (Figure 32). Although wages increase slightly as workers try to restore their consumption wage through bargaining, it is insufficient to prevent a persistent decline in real personal income over time. The net impact on consumption of

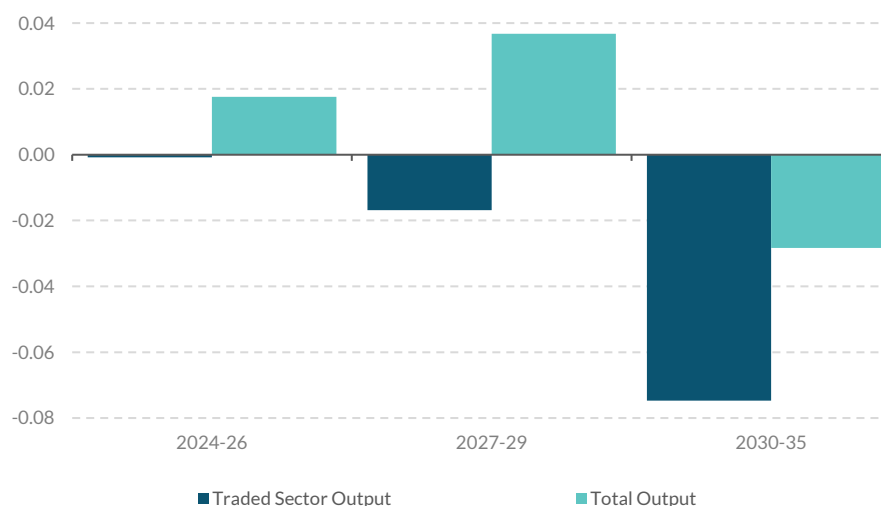
³⁷ See [McInerney \(2020\)](#) for details on the macro-financial component of the semi-structural model.

higher housing wealth but lower real incomes is a small rise in consumption above baseline of approximately 0.1 percent in the long run (not shown).

From an aggregate demand perspective, however, the increase in consumption is largely offset by a fall in external demand for Irish exports. Figure 33 illustrates the impact of the shock on traded sector and total output. The negative impact of the shock on traded output is mainly driven by the rise in prices, which increases the price of Irish exports relative to trading partners. While the precise quantification of the impact of the shock on competitiveness is not the main objective of our analysis, these results do illustrate the channels through which not dealing with higher housing demand could affect living standards and the broader economy. Moreover, it should also be noted that additional channels that incorporate the impact of higher house prices and rents on the ability of firms to attract labour and new FDI investment may not be fully captured in the model. In overall terms, while the net effect of the housing demand shock on the economy is small, total output falls below baseline in the long run.

Traded Sector and Total Output

Figure 33
per cent deviation from baseline



Source: Central Bank of Ireland calculations

Macroeconomic impact of increasing housing supply to meet estimated demand

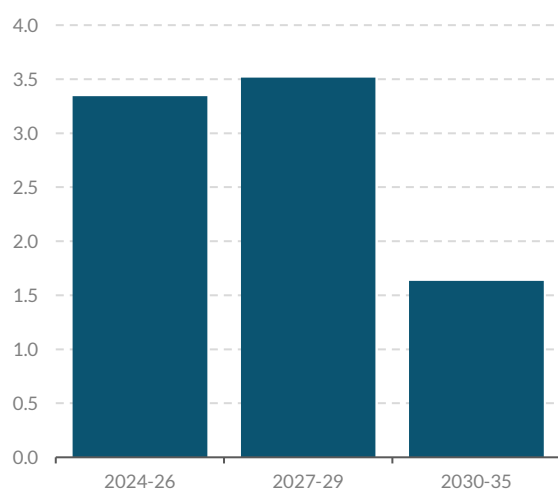
Increasing housing output to levels consistent with meeting long-run demand would provide a significant stimulus to domestic demand and require a large increase in construction employment. We now examine the macro-financial impact of assuming that construction firms raise production to meet the required higher level of completions in

each year in the CSO high migration scenario, with convergence to UK headship by 2050. The scenario assumes that the government's financing of construction is capped at its current level of over €4 billion. The results of these simulations for selected real and nominal variables are presented in Figures 34 through 37.

Figure 34 shows the response of house prices when we combine increased housing demand with the increase in housing supply needed to satisfy this demand. Perhaps surprisingly, we find house prices initially actually rise more above baseline, when the supply and demand shocks are combined. This is mainly due to the stimulative effects on domestic demand of higher residential investment, which acts to further boost housing demand through the household income channel. Over time however, the dampening effect of higher housing supply on house prices dominates, so that by the end of the scenario horizon, the latter are around one third of their level in the demand-only scenario that was shown in Figure 31 above.

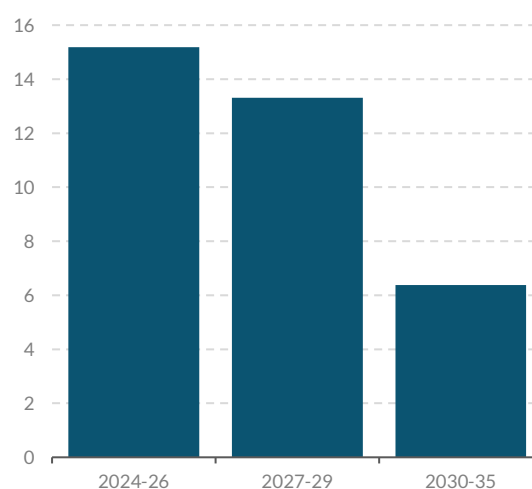
House Prices

Figure 34
Deviation from baseline (per cent)



Construction Employment

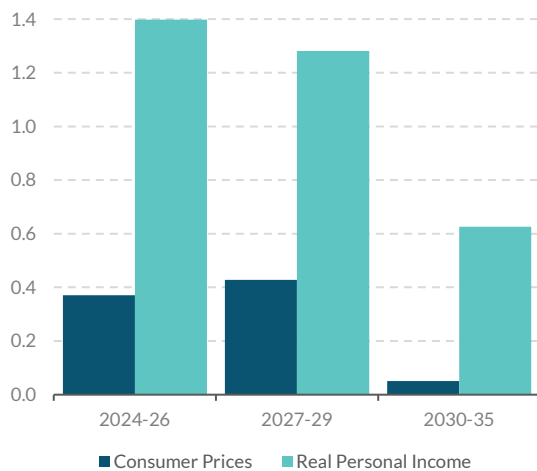
Figure 35
Deviation from baseline (per cent)



Source: Central Bank of Ireland calculations

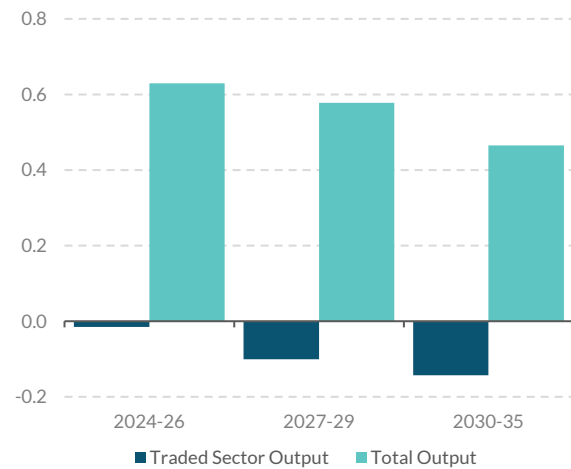
Consumer Prices and Real Income

Figure 36
Deviation from baseline (per cent)



Traded Sector and Total Output

Figure 37
Deviation from baseline (per cent)



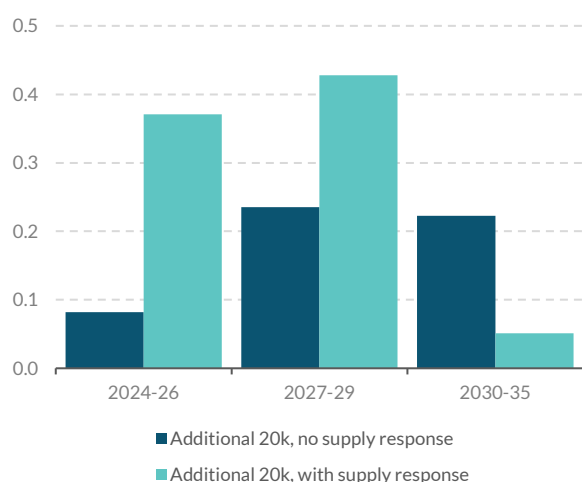
Source: Central Bank of Ireland calculations

The increase in domestic demand mainly follows from the impulse to residential investment. Figure 35 shows that the rise in the required level of completions leads to a substantial increase in the derived demand for construction workers, with construction employment increasing by over 15 per cent in the short run (around 26,000 workers). Such an increase in employment would see the number at work in the sector return to the level observed in 2005. Both the direct increase in residential investment and the wider stimulus to aggregate demand spur an increase in total employment, which rises by 1.2 per cent above baseline in the long run (not shown).

With the economy already at full employment, careful macroeconomic management would be needed to ensure a ramp up in housing output does not create excessive overheating pressures. The stimulus to domestic demand puts upwards pressure on both wages and prices, with the latter also increasing due to the impact of the housing demand shock on rents. At the household level, the boost to incomes from higher wages and employment more than offsets the increase in prices thereby increasing real household income (Figure 36). The rise in wages levels in domestically-oriented sectors attracts workers away from the traded sector, with the increase in the price level generating a real exchange rate appreciation. As Figure 37 shows, this results in a fall in traded sector output of 0.14 per cent below baseline in the long run. Figure 37 also illustrates the overall impact on the total output of the economy. The growth in domestic demand significantly outweighs the fall in exports arising from lower external demand, resulting in a sizeable increase in total output.

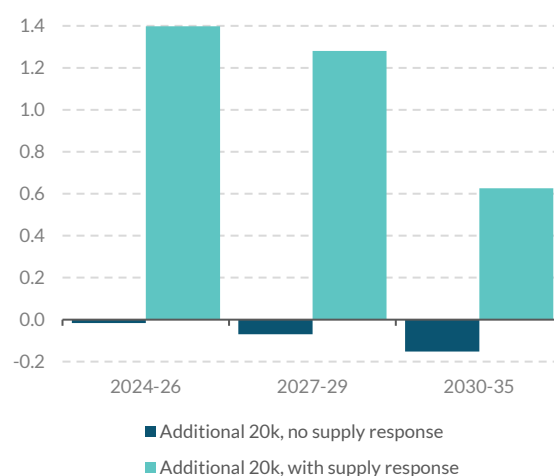
Consumer Prices

Figure 38
Deviation from baseline (per cent)



Real Personal Income

Figure 39
Deviation from baseline (per cent)



Source: Central Bank of Ireland calculations

Although there would be challenges in managing the economy while housing output is increasing, overall outcomes are more favourable than in a scenario with persistent unmet need. Relative to the housing demand scenario presented in the previous section where there is no supply response, it is notable how the responses of prices and real incomes differ when housing supply is calibrated to respond fully to the increase in housing demand. In the scenario with only the demand shock, prices continue to rise over the scenario horizon, while in the scenario that combines higher demand and supply, prices are close to baseline by the end of the simulation as housing supply meets the rise in demand (Figure 38). Real incomes are higher throughout the simulation when the shocks are combined, compared to a persistent decline below baseline when demand increases with no supply response (Figure 39).

Impact of higher productivity in construction

One of the constraints to achieving Ireland's housing targets is the availability of skilled construction workers ([Housing Commission, 2024](#)). In the absence of significant expansion in the pool of workers, higher levels of innovation or productivity among existing workers could partially substitute for higher labour input in terms of boosting the capacity of the sector. This could include, for example, the deployment of modular construction methods, which generally are less labour-intensive and less costly than traditional methods, and enable production at greater scale ([DoHLGH, 2023](#), [CIOB/TASC, 2024](#)).³⁸

³⁸ Modular methods can deliver a 20 to 40 percent reduction in construction costs and over a 70 percent reduction in onsite labour requirements (DoHLGH, 2023).

Improving construction sector productivity would enable housing output to rise in a manner that reduces overheating pressures. We consider the macroeconomic impact of an increase in labour productivity in the construction sector.³⁹ The results of this scenario are reported in Figures 40 through 45 (Additional 20k, with supply response *and higher productivity*) and are presented alongside those for the scenario outlined in the previous section for comparison (Additional 20k demand, with supply response). The main impact of the shock is to significantly reduce the demand for construction labour relative to the latter scenario, as firms are now able to produce the same quantity of output with a smaller worker-hour input (Figure 40). In the long run, the increase in construction employment is around one third of that generated in the housing supply scenario that keeps labour-augmenting technology at its baseline level. The increase in total employment is considerably lower than that generated by the latter scenario, which is mainly due to lower employment growth in both the construction sector and the non-traded sector more broadly (Figure 41).

The relatively lower demand for workers due also dampens wage growth with the two effects combining to generate a significantly smaller increase in total compensation above baseline over the scenario horizon (Figure 42). As unit labour costs are now lower, firms face relatively weaker pricing pressures in order to maintain markups and accordingly, the housing shock is less inflationary than it is in the absence of higher labour productivity (Figure 43).

By minimising wage and price inflationary pressures while housing output is increasing, improvements in productivity benefit the traded sector. In terms of output, while the impact of the housing shocks on total output is almost identical with and without the additional productivity shock, the composition of output is quite different (Figures 44 and 45). Higher productivity and concomitant lower levels of inflation result in a smaller output loss relative to baseline in the traded sector in the short and medium run, and a larger increase in output in the long run. The negligible difference in the response of total output in both scenarios is due to the productivity shock reducing compensation growth, which dampens the increase in consumption (not shown) and offsets the relative improvement in competitiveness.

³⁹ In the Bank's semi-structural model, technology is assumed to be labour-augmenting so that an increase in that variable expands the effective quantity of the labour input for a given level of employment. The scenario is calibrated as a permanent 10 per cent increase in labour-augmenting technology that is layered on the scenario outlined above with 20k additional units and a supply response.

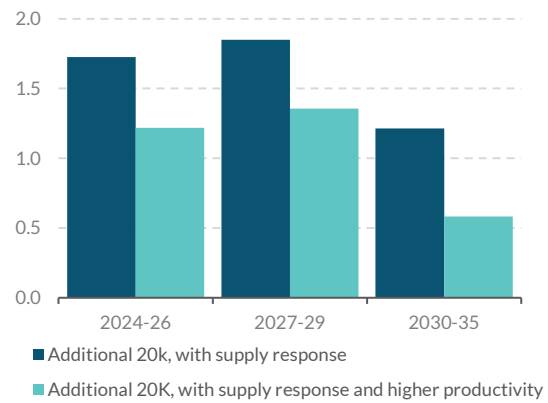
Construction Employment

Figure 40
Deviation from baseline (per cent)



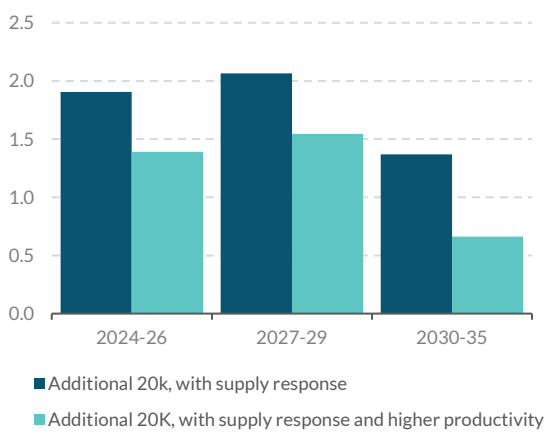
Total Employment

Figure 41
Deviation from baseline (per cent)



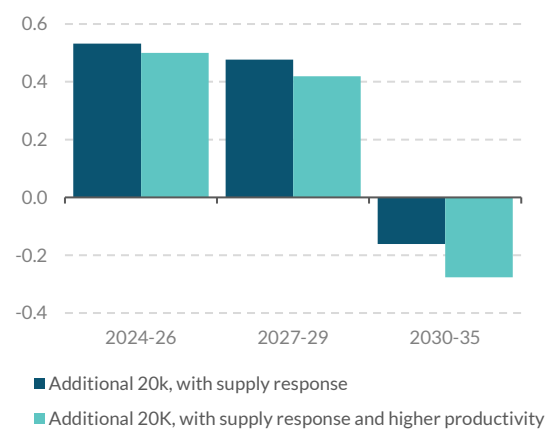
Total Compensation

Figure 42
Deviation from baseline (Percent)



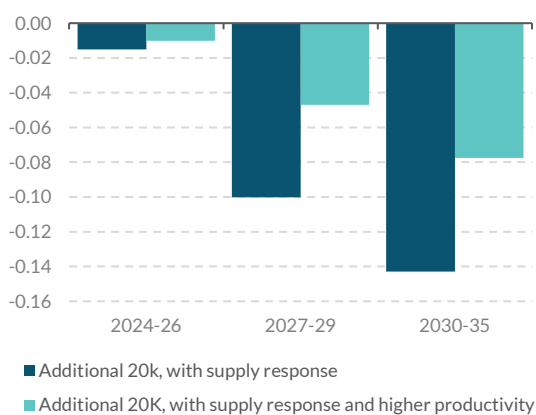
Producer Prices

Figure 43
Deviation from baseline (Percent)



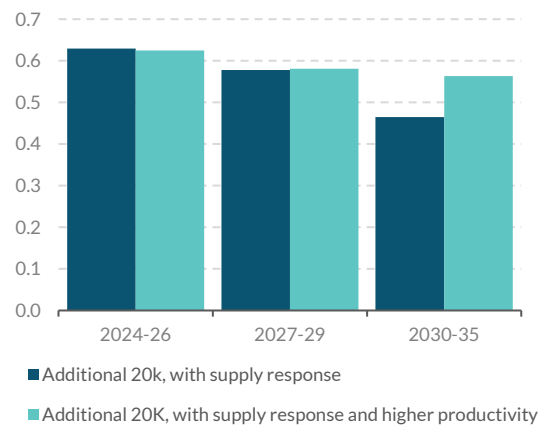
Traded Sector Output

Figure 44
Deviation from baseline (Percent)



Total Output

Figure 45
Deviation from baseline (Percent)



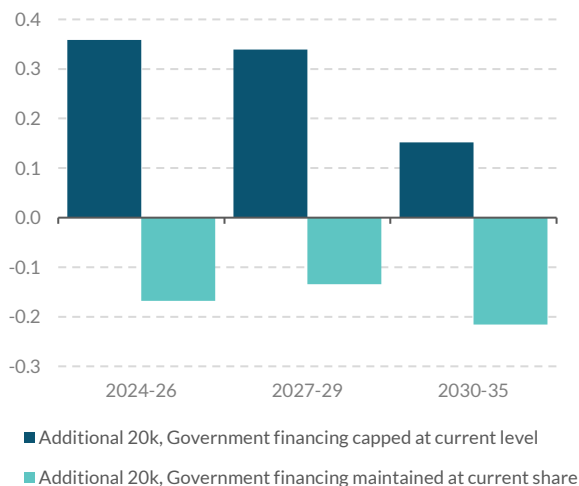
Source: Central Bank of Ireland calculations.

Public share of financing

Increasing public financing of residential investment from its current level would result in a deterioration in the budget balance and modestly higher government debt. The scenarios above assumed that government financing of residential construction is capped at its current level of over four billion euro per annum. We now consider a scenario in which the current *share* of construction finance provided by the Exchequer is maintained over the medium to long term. Specifically, for illustrative purposes, we assume that the government provides approximately half of the additional financing for the construction of an additional 20,000 housing units each year, with the remaining half provided by the banking sector.

Budget Balance Ratio

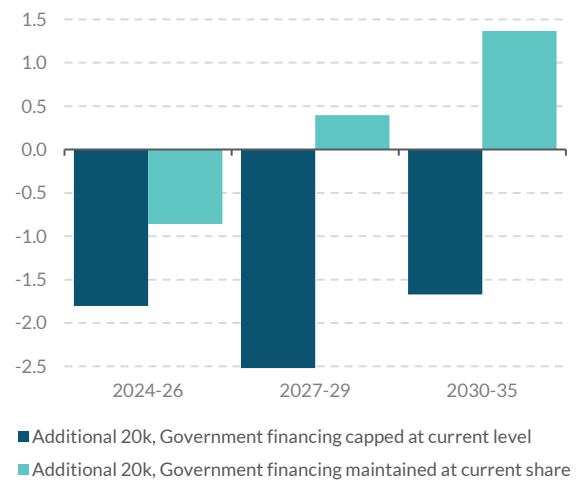
Figure 46
Deviation from baseline



Source: Central Bank of Ireland calculations.

Public Debt Ratio

Figure 47
Deviation from baseline



Source: Central Bank of Ireland calculations.

The results of this scenario are shown in Figures 46 and 47. With the macroeconomic impact broadly unchanged, the main impact of changing the funding mix is, intuitively, on the fiscal position and on the size of banks' balance sheets. As the government is now required to finance a higher share of residential construction relative to the capped funding scenario, the budget balance ratio deteriorates continuously over the scenario horizon. The long run effect of maintaining the 50 per cent funding share is to lower the budget balance ratio by around 0.2 percentage points relative to baseline (Figures 5a and 5b).

Assuming static policy, the deterioration in budgetary balances accumulate into higher levels of public debt. In terms of the public debt ratio, the growth in output dominates in the short term resulting in a fall in the ratio relative to baseline. However, the ratio

increases modestly in the medium to long term as debt, rising 1.4 percentage points above baseline by the first half of the next decade. This contrasts sharply with the dynamics of public debt in the capped funding scenario, wherein the debt ratio is 1.6 percentage points below baseline by 2035.

7. Conclusions

The Irish housing market has undergone more than two decades of volatility, dominated by the boom-bust cycle either side of the Global Financial Crisis. For over a decade after the crisis, supply of new homes was below estimates of underlying demographic demand from population growth and migration, creating pent-up demand that remains to be met. Despite these challenges, housing supply has risen substantially, by close to 50 per cent since 2021.

In this *Article*, we update the Central Bank's estimates of underlying demographic demand to around 50,000 homes per year from now until the middle of this century, driven both by unmet demand and population growth that has proven faster than was previously expected. These 50,000 homes per year will need to be delivered across a range of property types, locations, procurement and financing methods, involving the State, banks, and both local and global non-bank financial intermediaries.

We highlight three broad themes that will determine whether these new requirements for new home supply are likely to be met.

Firstly, the system of planning, building regulation, and zoned land availability must ensure that supply can come on stream in the areas where demand for new homes is most pressing. The State will have a key role to play both in terms of reforms of the planning and regulatory system itself, as well as in the provision of enabling infrastructure at necessary scale and speed. Our analysis suggests that, up to now, urban centres have seen disproportionately low levels of new home supply, and will need to be a focus for new development if environmental sustainability targets are to be met. Urban development will also require a renewed focus on the planning system, to ensure investment can occur without undue delays and bottlenecks.

Secondly, the productivity and capacity of the construction sector itself is weak in a historic and international context. Smaller businesses, benefitting less from economies of scale, are more common in Ireland than in many other jurisdictions. Policymakers can enable the sector to operate at greater scale by ensuring that ample land is zoned, serviced and available for development, particularly near urban centres, and that regulations are consistent and do not contribute to undue uncertainty levels among developers. Other measures to facilitate greater scale in the sector could include an

increased focus on standardisation of building designs to facilitate more modern methods of production at large scale.

Thirdly, our analysis of the development financing landscape suggests that, rather than being a key barrier to development itself, it is likely that greater financing will be unlocked if challenges in the previous two areas are resolved. A diverse mix of State, bank and non-bank sources will be required to facilitate the supply of 20,000 *additional* new homes per year beyond 2023 levels. Our analysis suggests that, if development barriers in areas such as planning and zoning can be unlocked, capacity likely exists on the balance sheets of key actors to facilitate growth in housing output. Our assessment is that access to equity may be the more pervasive financing challenge, and may require State intervention to “crowd in” additional external investment to support increased supply.

The persistent under-supply of housing has increasingly negative macroeconomic effects, in addition to the challenges clearly being faced by individuals, families and communities across the country. Our analysis highlights the economic costs in terms of higher cost of living and doing business, ultimately damaging Ireland’s competitiveness and attractiveness as a place to live and work. However transitioning to significantly higher housing output also comes with risks to the economy and public finances which need to be managed carefully. Without complementary measures that focus on enhancing productivity, providing supporting infrastructure and ensuring sufficient zoned and serviced land is available, bridging the underlying gap between affordability and viability will be more difficult to achieve sustainably.

T: +353 (0)1 224 5800
E: enquiries@centralbank.ie
www.centralbank.ie



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