RESEARCH
SERIES
NUMBER 175
JANUARY 2024

CONTRASTING HOUSING SUPPLY IN IRELAND, NORTHERN IRELAND AND THE REST OF THE UNITED KINGDOM

WENDY DISCH, PAUL EGAN, EOIN KENNY AND KIERAN MCQUINN

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RESEARCH SERIES NUMBER 175

Available to download from www.esri.ie

https://doi.org/10.26504/rs175

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ACKNOWLEDGEMENTS

This report is part of a joint research programme between the ESRI and the Shared Island Unit of the Department of the Taoiseach on The Economic and Social Opportunities from Increased Cooperation on the Shared Island and we would like to thank the Shared Island Unit for their support for this study. The authors would like to thank the Shared Island Unit in the Department of the Taoiseach, the Department of Housing, Local Government and Heritage, Paddy Gray, Professor Emeritus in housing at Ulster University, Joe Frey, Knowledge Exchange Broker for the UK Collaborative Centre for Housing Evidence (CaCHE), Ursula McAnulty head of research of Northern Ireland housing executive and Michelle Norris, director of the Geary Institute for Public Policy and Professor of Social Policy. Finally, we would like to thank the external reviewers for their comments and suggestions.

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ABBREVIATIONS

BCIS	Building Cost Information Service
CSO	Central Statistics Office
DHLGH	Department of Housing, Local Government and Heritage
ECB	European Central Bank
GFC	Global Financial Crisis
LAs	Local Authorities
LBTT	Land and Buildings Transaction Tax
LPT	Local Property Tax
LTI	Loan-to-Income
LTT	Land Transaction Tax
LTV	Loan-to-Value
MMC	Modern Methods of Construction
OECD	Organisation for Economic Co-operation and Development
ONS	Office for National Statistics
RSL	Registered Social Landlords
SDLT	Stamp Duty Land Tax
SUR	Seemingly Unrelated Regressions

EXECUTIVE SUMMARY

- This report examines the Irish, Northern Irish, Welsh, Scottish, and English residential markets with a particular focus on their capacity to increase housing supply over the short to medium term.
- Our approach compares and contrasts how differences across the housing markets, in key costs of production, the regulatory environment and economic dynamics, have impacted the supply of housing.
- The report suggests that across all housing markets, but particularly in the Irish case, the traditional financial sector does not appear to be able to provide the requisite amount of credit for the level of housing activity which has been deemed necessary to meet the underlying structural demand for housing.
- With this in mind, increased Government investment in the form of expanding the level of social and affordable stock of housing available emerges as a key finding across all markets.
- The report highlights labour shortage in the construction sector as a key challenge for the expansion of housing supply across all housing markets discussed, with particular concern noted for the Northern Irish and overall UK markets related to the implications of Brexit and the UK's withdrawal from the European Union which makes it more difficult for net immigration into the UK.
- With regard to planning systems, the report highlights strong similarities across housing markets where Local Authorities formalise development plans based on a housing strategy that is conceived at a national level. The report therefore suggests a greater degree of aggregation may be more practical in devising and implementing such development plans.
- The report highlights that the role of private developers across Ireland, Northern Ireland, Wales, Scotland and England, and how they operate in the market for land, is somewhat idiosyncratic compared to other European housing models. The report suggests that greater regulation in the provision of land for housing could help to reduce the role played by speculation in land prices, and hence lower the cost of a key factor of production.
- While the empirical section finds differing levels of relationships between supply and demand of housing across the various markets, the results presented in this report suggest that the higher the percentage increase of people employed in the construction sector, the more responsive the level of investment to a change in house prices.
- This suggests that a housing market with a greater increase in construction workers is less likely to face bottlenecks in different segments of the market in response to an increase in housing demand. This has interesting implications with regard to the construction industry's capacity to meet the observed shortfall in supply witnessed particularly in Ireland and Northern Ireland.

- Finally, the report highlights the adoption of modern methods of construction (MMCs) and the importance of training and educational schemes, across both the Irish and Northern Irish markets, as a means of improving productivity levels in the construction sector in meeting climate action targets and increasing housing delivery on the Island of Ireland.

CHAPTER 1

Introduction

In this report the provision of housing in the Irish, Northern Irish, Welsh, Scottish and English residential markets is contrasted and compared across a number of headings. The purpose of the report is to identify the capacity of the housing markets, particularly in Ireland and Northern Ireland, to meet the underlying demand for housing which exists currently, and which is likely to pertain in the future. Consequently, the research examines the structure of the respective housing markets and how variations in regulatory systems, housing market structures, demographics and socio-economic issues have impacted the level of housing supply.

The term 'regulatory systems' in this context is taken to mean the planning system, zoning and the role of local government in the supply process, while the housing market structure refers to the sensitivity of housing supply to issues such as house price movements. The contrasting role played by the public provision of housing relative to that of the private sector is also examined across the different markets.

In comparing supply levels across markets, it is also important to contrast housing supply with the level of structural demand for housing in each case. The structural demand for housing as defined by Bergin and Garcia-Rodriguez (2020)[1] is the amount of housing needed in a market consistent with the population growth in the corresponding country or region. Therefore, developments in housing supply have to be evaluated with regard to the demand for housing in different markets.

These issues will be examined in the context of the international literature. A number of studies, such as OECD (2021),[2] have noted the significant changes which have occurred in the provision of housing supply over time. This reflects the significant changes and variations which have occurred in housing markets across countries over the past 25 years. In an overview of the housing literature, Duca et al. (2021)[3] noted how significant changes across monetary, macroprudential and general economic activity have had substantial impacts on international housing markets both in terms of supply and price levels.

1 Bergin, A. and A. Garcia-Rodriguez (2020). *Regional demographics and structural housing demand at a county Level*, Research Series, Economic and Social Research Institute (ESRI), RS111.

2 OECD (2021). 'Public spending on support to social rental housing as % GDP'. Available at: https://www.oecd.org/housing/data/affordable-housing-database/housing-policies.htm.

3 Duca, J.V., J. Muellbauer and A. Murphy (2021). 'What Drives House Price Cycles? International Experience and Policy Issues', *Journal of Economic Literature*, 59 (3): 773-864.

The objectives of the research can be defined as follows:

- Establish a benchmark comparison between the provision of housing supply in the Irish and Northern Irish markets and with other regional UK markets. Provide context to the structural differences between these regions in relation to housing supply (regulatory systems, housing market structures, regional demographics, geography, etc.).
- Address differences in the housing supply/delivery chain between regions and assess the capacity of the market to meet housing supply across regions.
- Investigate how the efficiency of investment in the housing market can be improved by comparing relevant factors underpinning the supply side of the market across regions. These could include but are not confined to construction costs, the land market, the labour market, key variable inputs and planning policy.
- Assess through empirical analysis the impact of market specific characteristics on the relationship between housing supply, housing investment and prices. This will provide insight into any heterogeneity in the relationship between supply and prices across housing markets.

As part of the research, we also draw upon the result of four detailed interviews with industry and academic experts.[4] In addressing these objectives, the report is structured with chapters as follows:

Reviewing supply and demand

In this chapter actual housing supply levels across the different markets are presented along with estimates of the structural level of demand where available. This provides an important context for current supply levels. The chapter also outlines the different targets which have been set out by policymakers for housing output in the Irish, Northern Irish and other UK housing markets.

Soft costs and regulatory environment

Chapter 3 presents summary information on the tax treatments in each of the different housing markets. A guide to the different planning systems and environmental standards is also discussed. The chapter examines certain key differences which exist as far as the financial sector is concerned. This is particularly the case in terms of differences between the Irish and UK financial sector and the capacity of the respected sectors to meet the levels of mortgage and construction related credit which are required in the different markets.

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[4] These experts are Paddy Gray, Professor Emeritus in housing at Ulster University; Joe Frey, Knowledge Exchange Broker for the UK Collaborative Centre for Housing Evidence (CaCHE); Ursula McAnulty head of research of Northern Ireland housing executive; and Michelle Norris, director of the Geary Institute for Public Policy and Professor of Social Policy. We anonymise all the responses.

Costs of production

This chapter of the report presents data and information on differences in actual physical costs such as material costs and labour data across the respective housing markets. The chapter discusses the possibility of labour constraints in the different markets and the capacity of policymakers to address this issue in particular.

Dynamics of the respective housing markets

Chapter 5 conducts some empirical analysis of the different housing markets in terms of the responsiveness of housing supply to prices. This is conducted using standard time-series econometric techniques with data that are compiled from 1997 to 2019. This allows us to gauge how house prices in the different markets would respond to a change in supply.

Conclusions and policy options

The final chapter offers some concluding thoughts along with some policy options which are motivated by the findings in the main sections. In particular the varying macroeconomic conditions of the different markets are discussed in light of their implications for estimates of the structural demand. The impact of the Global Financial Crisis (GFC) of 2007/08 is also discussed, given the long-standing implications of the crisis on the financial sectors in both Ireland and the UK.

The report indicates that policymakers in all markets must recognise the need for a steady and consistent provision of social and affordable housing. This is to meet the ongoing challenge of increased housing costs which are apparent across markets generally and the difficulties that the private sector encounters in providing the requisite level of affordable housing. This in part reflects the significant changes which have occurred across financial sectors in light of the GFC.

The report outlines certain measures for dealing with labour constraints and the resulting challenges posed by Brexit for the Northern Irish and other UK housing markets. The planning systems across the different markets are compared with the Scottish model cited favourably in terms of its approach to securing local buy-in to regional development plans. The report also makes some proposals concerning the adoption of modern methods of construction (MMCs) as a means of improving productivity levels in the construction sector, and the importance of training and educational schemes across both the Irish and Northern Irish markets.

CHAPTER 2

Reviewing supply and demand

2.1 BACKGROUND TO THE IRISH AND UK HOUSING MARKETS

In this chapter the current levels of housing supply and the broader policy context around the respective housing markets are discussed. In particular the similarities between Ireland's, Northern Ireland's and the rest of the UK's housing experiences are discussed, with some of the key differences identified.

At the outset, it is important to reflect on the relative economic performance particularly of Northern Ireland and Ireland. The housing market is but one component of an overall economy and developments in a housing market are particularly impacted by general macroeconomic factors. Most of the housing literature (e.g. Duca et al., 2021; Cronin and McQuinn, 2021) specifies income levels and labour market developments, for example, as being central to housing demand in an economy. The Irish economy has experienced significant growth over the period 1995 to the present. The initial phase of the Celtic Tiger did give way to a mortgage credit-fuelled bubble and as a result the Irish economy was especially susceptible to the Global Financial Crisis of 2007/08 (Cronin and McQuinn, 2023). Consequently, the Irish economy experienced a sharp downturn in activity from 2008 to 2012; however since then, as noted in FitzGerald (2023) and Kostarakos et al. (2023), the Irish economy has grown in a persistent and sustained manner and, unlike the pre-2007 era, the present growth performance appears to be more sustainable in nature.

The relative performance of the Irish and Northern Irish economy has been dealt with in some detail by McGuinness and Bergin (2020), who note that Northern Ireland's position as one of the poorest UK regions has altered little over the 2000 to 2014 period. They also show that income levels in Northern Ireland were approximately 50 per cent lower than those in the southern and eastern regions of Ireland where 76 per cent of the population live. McGuinness and Bergin (2020) also point out that alternative living standards indicators are available which are consistent with the differences in per capita income levels. Finally, they note that in terms of future prospects, the annual average 10-year forecast (2020 to 2030) for Irish GDP growth is 2.6 per cent, which compares to 1.7 per cent for the UK, and 1.9 per cent for the OECD as a whole. And while no forecasts are available for the Northern Ireland economy, McGuinness and Bergin (2020) conclude that it is reasonable to suggest that it is likely to grow somewhat slower than the UK average over the period. In more recent work, McGuinness and Bergin (2020) also show that productivity levels in Ireland exceeded those of Northern Ireland, with productivity per worker in Ireland approximately 40 per cent higher than in Northern Ireland.

This stark contrast between the overall economic performance between the economies of Ireland and Northern Ireland is an important factor as far as the relative performance of the housing markets is concerned. Later in this chapter we will discuss the relative estimates of the structural demand for housing. Along with population movements, income levels are a key element of this demand. Indeed, population movements[5] themselves are also a function of economic performance. Therefore, the contrasting economic performance of Ireland and Northern Ireland is one key difference in terms of the respective housing sectors.

It is important to note the differing degrees of policy autonomy across the different UK housing markets with certain regions having greater local control than others. For example, since 1999, housing policy has been devolved to the Scottish Parliament in the case of Scotland, and to the Northern Ireland Assembly in NI. In that respect, Scotland and Northern Ireland differ from the Welsh market in certain policy areas: they have specific definitions on affordable housing supply; they have specific schemes such as the Right to Buy scheme; on the security of tenure; and on requirements concerning the energy efficiency of housing.[6] Additionally, regulations can be put in place for a number of reasons such as to meet environmental targets, adhere to safety standards or even to maintain the aesthetics of neighbourhoods. Often, development plans may need to include assessments to judge their fiscal or environmental impacts and public hearings and legislative issues are not uncommon.

2.2 HISTORICAL TRENDS IN HOUSING OUTPUT

At the outset, it is important to note that the present study is reviewing the performance of the different housing markets over a relatively long-term horizon. Recently, for example, COVID-19 has had significant implications for housing markets (see Allen-Coghlan et al., 2020 for a review of the effects on the Irish housing market); however we do not examine the differing implications of this on the Irish and UK housing markets.

Housing demand and supply in both Ireland and across the different regions in the UK have undergone similar developments over the past 40 years, although Ireland experienced a greater degree of volatility in key housing variables. In Ireland, the

5 'Population movements' in this context refers only to population trends. Other factors such as rates of household formation are not considered in the present study.

6 Sources: Scottish Government Quarterly Housing Statistics on Affordable Housing Supply; Ministry of Housing, Communities and Local Government Live Tables on Affordable Housing (Table 1,000) in England; and Provision of Affordable Housing – Welsh Government.

State played a large role in housing in the earlier part of the twentieth century. Social housing was a common source of housing supply but the existence of many supports as well as extensive tenant purchase programmes meant much of the Irish housing stock was owner-occupied housing, with owner occupation peaking at almost 80 per cent in the 1980s. In the UK, social housing actually made up a third of the housing supply in the 1970s. This was driven by large amounts of social housing being built in the aftermath of the second world war. With the deregulation of the financial systems in both the UK and Ireland throughout the 1980s and 1990s, as well as the entrance of the Irish banking system into the European Monetary Union, credit became much more widely available. At a time when income levels in Ireland and the UK were beginning to increase persistently, this, along with key demographic trends, led to the demand for housing to rise substantially in Ireland and the UK from the 1980s into the 2000s. These dynamics were more pronounced in Ireland, with the onset of the Celtic Tiger in the mid-1990s.

However, this expansion of bank lending from the early 2000s went hand-in-hand with a loosening of credit standards in both the UK and Ireland, but particularly in Ireland. When the Global Financial Crisis (GFC) of 2007/08 emerged, Irish financial institutions were particularly vulnerable given the rapid increase in the size of their balance sheets and the sharp increase in bank borrowing from foreign credit institutions as a means of increasing their lending in the domestic market (see McCarthy and McQuinn, 2017 for more on this). After the GFC, housing demand fell significantly as peoples' incomes came under significant pressure, with many mortgages actually falling into arrears. However since the GFC, after macroeconomic and macrofinancial conditions stabilised, demand in both the UK and Ireland has recovered strongly with house prices increasing accordingly.

Across both countries, the supply side of the housing market followed a similar dynamic up until the GFC. The wide availability of credit in the late 1990s and early 2000s facilitated increased housing supply, particularly in Ireland. Continually increasing house prices from the mid-1990s onwards provided incentives for developers to increase supply and this was enabled by relatively loose credit conditions where developers were able to access high levels of debt financing for projects as a percentage of the total spend. However the GFC had a substantial impact on the supply side across both the Irish and UK markets. After the financial crash, new building halted almost entirely as house prices plummeted. By 2012, house building in Ireland had decreased by 90.9 per cent from the peak of the boom (Byrne, 2020).

The collapse in house building activity by the private sector in both the UK and Ireland came after a period when the public sector became less important in the provision of housing supply from the 1980s onwards. Therefore, after the GFC, a perfect storm encompassed the supply side of both the Irish and UK housing markets. The private sector was unable to produce sufficient levels of housing due to very difficult economic conditions and more stringent borrowing conditions in the wake of the ensuing recession after the financial crash, while public sector investment had been reduced considerably across the different British and Irish housing markets. As mentioned, this dynamic was particularly severe in Ireland.

With muted levels of output across housing markets, growing populations in both Ireland and the UK have led to higher levels of housing demand, with supply trying to catch up. This has been compounded in Ireland by the significant recovery in the general economy post the GFC. These levels of demand have seen elevated levels of homelessness, notwithstanding public policy measures in response. In Ireland, Census data from the CSO show there were 3,808 persons either sleeping rough or in emergency[7] accommodation in 2011. This increased to 6,906 people in 2016, and in July 2023 there were 12,847 people in emergency accommodation. According to the Department for Communities' Homelessness Bulletins, homelessness in Northern Ireland has increased from 4,740 in 2014 to 8,531 in 2023. However, as has been noted by Develtere (2022), the measurement of homelessness is difficult and is often underreported due to squatters, persons sleeping rough and other categories of homeless people.

The economic recovery in the absence of a revival in residential activity has also seen housing costs rise. However, costs in Ireland and Northern Ireland are comparable when controlling for income levels. Bergin and McGuinness (2021) report that housing costs account for around 20 per cent of disposable income in both Northern Ireland and Ireland. Disch and Slaymaker (2023) examine this further and note that higher proportions of young people in Ireland live in the parental home, which would suggest that average costs are lower as they are split by a larger number of household members. However, given that the share of the population of people living in the parental home is small, it is concluded that housing costs as a proportion of income are similar across the two jurisdictions.

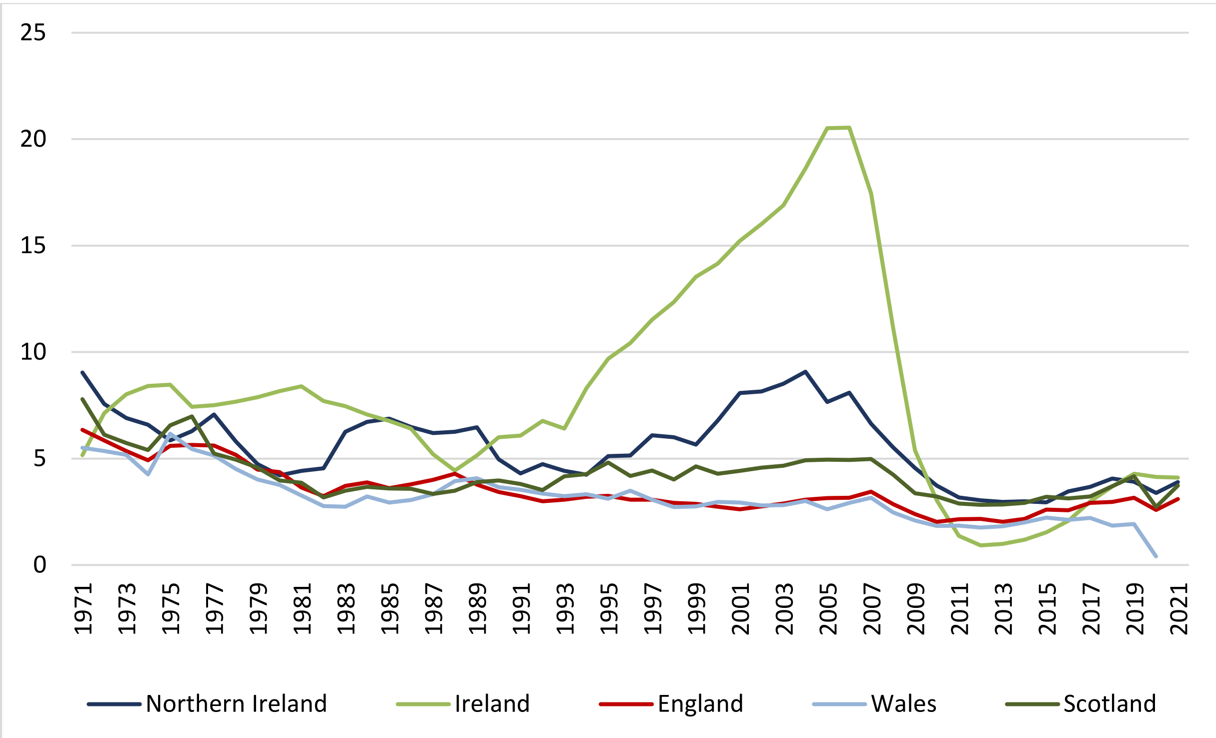
Therefore, housing markets across both Ireland and the different regions of the UK can be characterised by a boom-and-bust cycle, with the cycle being more extreme in the Irish case because of the greater volatility in Irish economic performance over the period 1995 to the present.

7 This does not include those sleeping rough.

2.3 HOUSING SUPPLY

Figure 2.1 presents a summary of total housing supply per capita (per 1,000 of the population) across the Irish, Northern Irish, English, Welsh and Scottish markets for the period 1971 to 2021. We divide total housing supply by population to allow for the different scale of population across the different markets.

FIGURE 2.1 TOTAL HOUSING SUPPLY PER CAPITA (1,000): NORTHERN IRELAND, IRELAND, ENGLAND, WALES AND SCOTLAND



Source: Office of National Statistics and the Central Statistics Office.

A number of interesting trends are apparent from Figure 2.1; firstly, housing supply per capita across all markets has been gradually declining since the early 1970s. This is somewhat obscured by the experience in the Irish market from the mid-1990s to 2008, when there was a substantial increase in housing supply during the Celtic Tiger era. Interestingly, of the UK housing markets it would appear that Northern Ireland experienced the most pronounced variability in terms of the increase and decrease of supply. The increase in housing supply in Northern Ireland in the late 1990s was similar in nature although different in scale to that happening in the Irish market. Over the period in question, the Scottish market which has experienced a relative decline since the early 1970s, has sustained the most consistent level of supply, particularly during and after the GFC. In recent years, it is notable that housing supply per capita is very similar across the Irish, Northern Irish, Scottish and English markets, however Welsh housing supply appears to be low at present.

Due to the lack of construction activity after the financial crash and subsequent recovery in housing demand, there has been significant house price inflation since the early 2010s, with many people in both countries now finding it difficult to enter homeownership due to high house prices and tighter credit conditions in terms of Loan-to-Value (LTV) and Loan-to-Income (LTI) ratios.

Declining homeownership is another issue which both Ireland and the UK have faced since the GFC. The financial crash highlighted that many households had taken out large amounts of debt that they could not then afford to service. Many homes were repossessed by banks and other financial institutions. Additionally the lower interest rates set by the European Central Bank (ECB), as well the Bank of England, in the aftermath of the GFC did not lead to increased homeownership, as many households were unable to pass the LTV and LTI ratio requirements.[8] The low interest rates and deleveraging of properties by banks offered an opportunity to larger investors and other financial institutions, who have now become major actors particularly in the Irish housing market, with some evidence that their presence is increasing in the Northern Irish market[9] and the rest of the UK.

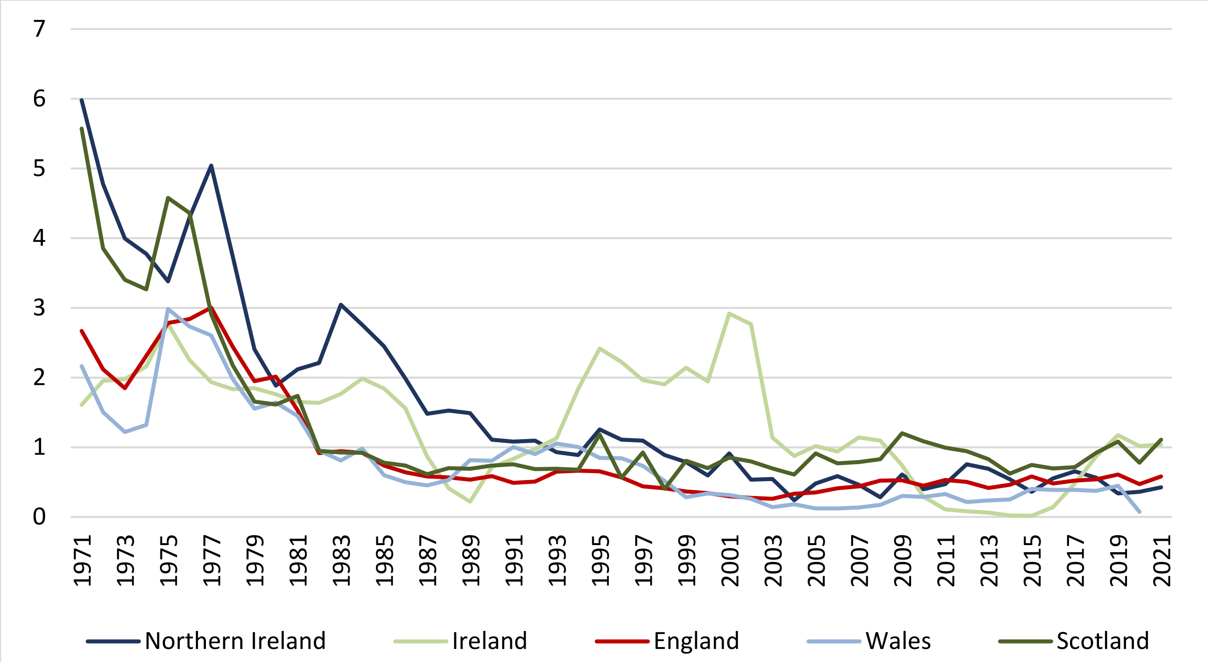
Declining homeownership, a depleted public housing stock, and the entrance of large investor landlords into the market have seen significant growth of the rental market, with these factors leading to substantial increases in demand in the rental market. With a lack of significant new supply to meet this demand, rents have increased substantially in the Irish and UK market. As noted above, the public housing stock across Ireland, Northern Ireland and the rest of the UK is at historically low levels. The amount of publicly provided housing (per capita) is shown in Figure 2.2. Again it is clear that there has been a persistent decline in public housing per capita since the early 1970s with supply levels from this source in Northern Ireland and England experiencing a particularly protracted fall. The Irish market appears to have countered this declining trend from the mid-1990s until about 2003. After that period, however, Irish public housing per capita also declined sharply and was actually at the lowest level across the different markets for the period 2011 to 2016. In recent years, Irish and Scottish public housing output levels have increased. In the same period, construction from public sources has remained relatively constant in the Northern Irish and English markets, whereas public housing per capita has declined somewhat in the Welsh market. This decline in publicly provided housing has put particular pressure on the rental market as lower income households who would traditionally reside in social housing are now given subsidised rents instead. This has been an approach

8 Census data from the CSO show that homeownership rates in Ireland have declined from 2011 to 2022, a period of historically low interest rates. Press Statement Census 2022 Results Profile 2 - Housing in Ireland - CSO - Central Statistics Office

9 See https://www.northernirelandchamber.com/member-news/investment-volumes-in-northern-ireland-real-estate-sector-doubled-in-2021-cbre/.

employed in Ireland, Northern Ireland, and the rest of the UK (Byrne and Norris, 2022).

FIGURE 2.2 TOTAL PUBLICLY PROVIDED HOUSING SUPPLY PER CAPITA (1,000): NORTHERN IRELAND, IRELAND, ENGLAND, WALES AND SCOTLAND



Source: Office of National Statistics and the Central Statistics Office.

From the graph it is clear that at the onset of the early 1970s, Northern Ireland and Scotland had the highest share of housing accounted for by public provision. The Irish housing market, by contrast, had the lowest proportion at that time. Over the full period of time, all markets have experienced a significant fall-off in housing that is publicly provided; however in recent years the proportion has increased particularly in Scotland and Ireland. The decline in government investment in housing post the Global Financial Crisis is not just specific to housing markets in Ireland and the UK. For example, OECD (2021) note this trend across Western economies and highlight the decline in government investment as one of the reasons for the increase observed across Western economies in house prices and rents.

2.4 POLICY RESPONSES AND TARGET LEVELS FOR HOUSING SUPPLY

Given the difficulties around supply generally across housing markets, the response from policymakers across the housing markets in the UK and Ireland in recent years has also been quite similar, with a heavy emphasis placed on capital investment in the construction of social and affordable housing. However, some markets are more focused on the construction of social housing as opposed to affordable housing, which would be privately owned. The Scottish Parliament, for example, has committed to delivering 110,000 homes by 2032, of which at least

70 per cent will be available for social rent and 10 per cent will be in remote, rural and island communities.[10] The UK Parliament, on the other hand, has aimed for delivery of 180,000 units per year in England with a 50 per cent split between discounted rent and affordable homeownership (Cassie and Wilson, 2023). The Irish Government has aimed to produce 33,000 units per annum with 30 per cent or 9,900 units to be social housing.[11] Finally, in Northern Ireland, the Department for Communities published their Housing Supply Strategy in which it commits to the construction of over 100,000 homes from 2022-2037, 30 per cent of which are due to be social housing.[12]

TABLE 2.1 HOUSING PLANS ACROSS IRELAND AND UK

Country	Targeted Completions per year (Target/Capita)	Duration of plan	Proportion Social Housing (per cent)
Ireland	33,000 (0.0066)	2021-2030	9,900 (30 per cent)
Northern Ireland	6,667 (0.0035)	2022-2037	2,000 (30 per cent)
England	180,000 (0.0032)	2021-2028	32,000 (18 per cent)
Scotland	11,000 (0.002)	2022-2032	7,700 (70 per cent)

Source: Select Government publications.

It is clear that although all of these plans are ambitious in terms of the scale of housing supply targets, the envisaged composition of that supply is slightly different. Housing policy in Scotland is heavily focused on expanding the social housing sector of the market, whereas England's policy objectives remain more focused on homeownership and below-market rents, including (but not limited to) social housing. For example, some housing associations in England will charge up to 80 per cent of market rents, which is greater than social housing rents. Ireland and Northern Ireland also place emphasis on making homeownership more affordable, but both have also placed a target of 30 per cent of new builds for social housing, indicating a substantial commitment to increasing the social housing stock.

While the direct building of houses and apartments is the primary means of increasing housing supply, there are also short-term policies which have been introduced which attempt to provide a boost to housing supply where possible. For example, Scotland and Ireland have introduced tax measures to bring vacant housing supply onstream, with Ireland introducing a vacant homes tax and

10 Local Government and Housing Directorate, 'Affordable Housing Supply Programme' http://www.gov.scot/policies/more-homes/affordable-housing-supply/ accessed 14 August 2023.

11 Department of Housing, Local Government and Heritage, 'Housing for All - a New Housing Plan for Ireland' (Department of Housing Local Government and Heritage, 2021) https://www.gov.ie/en/publication/ef5ec-housing-for-all-a-new-housing-plan-for-ireland/#view-the-plan accessed 6 December 2022.

12 Department for Communities (2021). 'Housing Supply Strategy 2022-2037' https://www.pacni.gov.uk/sites/pacni/files/Matter%20Arising%2028.pdf.

Scotland allowing Local Authorities to increase council taxes on homes that are left vacant for a certain period of time. Ireland, England and Wales have introduced grant and credit schemes in order to aid owners of vacant houses or potential buyers of derelict houses in developing and reintroducing the properties to the market. Scotland and Northern Ireland have also put mechanisms in place for Local Authorities to take control over vacant properties or contact the owners to come to a solution. The addition of vacant housing stock would constitute a significant increase in housing supply across these countries. In Ireland, according to the 2022 Census carried out by the CSO, there are 163,433 vacant homes across the country.[13] There are 1.5 million vacant dwellings in England, 120,450 vacant dwellings in Wales, and 114,308 vacant dwellings in Scotland. No data could be found for Northern Ireland, but across the other jurisdictions, it is clear that a reduction in vacant dwellings would provide a short-term boost to housing supply.

Both Ireland and the UK have certain shared equity schemes where tenants can buy a proportion of the property they are renting. In addition to these schemes for tenants, there are also 'Help-to-Buy' schemes for first-time buyers in England and Wales, which provide a loan to the purchaser up to a certain percentage of the value of the house. The Irish scheme provides a tax refund as opposed to a loan. This had been in place in Northern Ireland and Scotland but is no longer available in these countries given the estimated inflationary impact on house prices.

Other initiatives examined across Ireland and the UK include the development of mid-market rental sectors (primarily run by Housing Associations/Approved Housing Bodies etc.) and cost rental units. Additionally, guaranteed loan schemes for Registered Social Landlords (RSLs) and Local Authorities (LAs) to produce affordable and social housing such as Scotland's National Housing Trust initiative which guarantees money borrowed by Local Authorities for housing construction.

2.5 STRUCTURAL DEMAND FOR HOUSING AND ESTIMATES OF 'BACKLOG'

The long-term policy solution to eliminate the gap between demand and supply across Ireland, Northern Ireland and the rest of the UK is large-scale development of new housing units. With regard to the government targets which have been discussed, it is important to note how these targets are calculated. They are mainly based on estimates of the structural demand for housing. As defined by Bergin and Garcia-Rodriguez (2020), the structural demand for housing in a market is the amount of housing needed consistent with population growth and the state of broad underlying economic conditions in that market. However, this demand can

[13] Central Statistics Office (2023). 'Vacant Dwellings' (27 July 2023) https://www.cso.ie/en/releasesandpublications/ep/p-cpp2/censusofpopulation2022profile2-housinginireland/vacantdwellings/ accessed 13 November 2023.

be difficult to calculate given the volatility in housing demand and house prices over the past 50 years, as well as changing demographics – population growth, household size, household formation, etc.

Updates to data can have significant changes for housing targets. In Northern Ireland, for example, projections in 2016 called for new dwellings of 5,700 per year, but in 2017 the Ministry of Housing, Communities and Local Government's Housing Symposium suggested an increase to 8,000 homes per year.[14] Targets in Northern Ireland, however, are less clear than other regions, due to the estimation of housing needs for certain parts of Northern Ireland being delegated to the relevant Local Authority. For example, Belfast City Council released its own Draft Plan Strategy in 2018 which envisaged a requirement for a total of 31,660 new homes over a 15-year period from 2020 to 2035.[15]

While meeting housing targets across all of these regions has proven challenging enough in recent years, many estimates of current demand may exclude the backlog of demand i.e. estimates of structural demand typically consist of the additional number of units needed that year to meet the new demand. It does not take into account that these targets have been missed on a recurrent historical basis. As illustrated by Figure 2.1, there was a significant reduction in the number of dwellings being built across all regions in the years following the Global Financial Crisis. This allowed for a backlog of sorts to build up which has exacerbated the gap between the supply and demand of housing. Estimates of the backlog problem tend to vary and can have a significant impact on annual housing targets. Most estimates show that annual housing completions are continuing to fall short of estimated demand.

Backlog is measured by Bramley (2018) and Dunning et al. (2020) as households being inadequately housed or homeless. A household is deemed inadequately housed if there is overcrowding, if the house is below a recognised standard, and/or if the house is not suitable to the resident(s)'s health/medical condition(s). These calculations require relatively granular data and can therefore be difficult to do. However, in the aforementioned reports, it is added to new arising housing need. New arising housing need, a similar concept to the structural demand, is based on new household formation, i.e. the number of net additional households forecast given demographic, economic and immigration trends, as well likely developments of the levels of homelessness.

14 Department for Communities (2021). *Housing Supply Strategy*.
15 Belfast City Council (2018) Belfast Local Development Plan – Draft Plan Strategy, 2035.

When backlog issues are taken into account, estimates for England in 2017 by the Ministry of Housing, Communities and Local Government report a need between 225,000 and 275,000 additions per year.[16] However, more recent reports estimate significantly greater need across England. Bramley (2018) estimates a target of 340,000 homes per annum over the next 15 years as opposed to the current target of 300,000, while the Centre for Cities (2023)[17] argues that to clear the backlog of housing demand, completions need to increase to 442,000 over 25 years. In Northern Ireland, Frey et al. (2020) estimate a need of 4,872 dwellings each year from 2018 to 2028. An upper scenario increases this to 5,472 per annum. In Scotland, the reduction of a backlog from 2016-2020 resulted in housing targets – as estimated by the Chartered Institute of Scotland – being lowered (Dunning et al., 2020). Overall, however, it is clear that all markets are not meeting the levels of housing on an annual basis.

Having reviewed actual housing supply across the different markets and the policy responses across the different jurisdictions, in the next chapter we examine differences in what we label soft costs and regulatory regimes in the different housing markets.

2.6 CHAPTER SUMMARY

Across the regions discussed, there has been a noticeable cyclicality as far as housing supply is concerned; wider access to credit in the past did lead to large increases in supply from the private sector, with the state becoming less involved in the housing market since the 1970s. This trend culminated in the 2000s with a significant credit bubble. With the Global Financial Crisis (GFC) in 2008, construction activity decreased dramatically, and the slow recovery of the sector coupled with increased demand for housing due to economic recovery and population growth has led to a shortage of supply.

The result of this has been sharp rises in both rents and house prices. Governments have become more active again in the housing markets, with many publishing housing plans outlining specific targets for housing supply. Given the significant fall-off in supply in Ireland, it is not surprising that the Irish Government has set the highest targets per capita across the regions discussed. It is also interesting to examine the type of housing that is targeted, with Scotland, for example, aiming for 70 per cent of housing in its plan to be social housing.

16 Department for Communities and Local Government (2023). 'Fixing Our Broken Housing Market' https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/590464/Fixing_our_broken_housing_market_-_print_ready_version.pdf.

17 Centre for Cities (2023). 'The Housebuilding Crisis: The UK's 4 million Missing Homes'. https://www.centreforcities.org/publication/the-housebuilding-crisis/ accessed 22 August 2023.

Most of these targets are based on structural demand estimates mainly using demographic data and assumptions concerning headship rates. These estimates usually refer to the annual increase in housing required to meet the new demand due to demographic pressures, and typically do not take into account the backlog of demand due to these targets not being met in the past.

CHAPTER 3

'Soft costs' and regulatory environment

As discussed in Chapter 2, there are significant gaps between housing output and actual demand in recent years across all housing markets in Ireland and the UK. In addition to the estimation of housing targets set by governments, it is important to understand the main factors of the housing delivery supply chain and how experiences of these vary across the different markets.

While some differences are clearly documented in published government procedures and documents, there are more subtle differences in the overall process of working through the supply chain that are better gauged by industry professionals who have worked across the different housing markets. In order to understand this experience, we consulted with a number of business professionals and researchers who work closely with the regulatory environment within or across the UK and Ireland.

The construction of housing relies not only on the costs of physical inputs such as labour and materials, but also on a series of steps that occur before building even begins. Construction may only begin once developers have obtained substantial financial resources, acquired a site, received permission to build and ensured the site is fit for construction. Before any of these steps can be taken, planners and other regulators must determine how to treat land (in terms of taxes and zoning) and agree on building regulations, both at the unit and city level. All of these steps are crucial for housing output, and delays or complications during any step may have a significant impact on overall output. This chapter discusses these steps of housing production across Ireland and the UK and highlights areas that may be contributing to increased costs or delays to housing output.

3.1 LAND USE AND TAX SYSTEMS

Before development of housing can commence, land must be available and deemed fit for residential purpose. However, land-use regulation such as zoning may be used by the central or local government to control or manage the development of housing. In Ireland, for example, Local Authorities are responsible for local area and development plans. These plans outline the use of land, creating 'zones' that are designated for residential, commercial, agricultural, or other types of uses. Therefore, generating further housing supply is in part dependent upon zoning laws and the availability of residentially zoned land.

Zoning can provide positive outcomes; Cheshire and Sheppard (2002) argue that land use regulations may prove more effective than property taxes in providing valued public goods, such as neighbourhood quality. In the UK, regulatory constraints have also had a positive impact on the house-price earnings ratio, particularly in highly urbanised areas (Hilber and Vermuelen, 2014). However these regulations may also have high net costs and lead to inequality, as benefits from the planning system favour those already on high incomes (Cheshire and Sheppard, 2002). Regarding supply, stricter land use regulation limiting land available for residential purposes is associated with a decline in housing output and higher prices (Quigley and Rosenthal, 2005; Quigley and Raphael, 2005).

Once land has been zoned for residential purposes, another common issue across housing markets is how both the price and ownership of the land are determined. Settling on the value of land can be especially difficult, particularly in Ireland, which has no common register of land prices. Land speculation can also be a significant barrier. In Ireland land speculation played a significant role in driving up the cost of land, and continues to inhibit the ability of Local Authorities to access sites in urban areas and construct public housing (McSweeney, 2022). More recently, speculation has subsided somewhat as those who hold land now are more likely to build.

In the UK, land acquisition is considered throughout all stages of the planning process. The housing projections made at the national level include detailed projections by household type at the regional level, which creates the basis for local housing needs assessment, for which the Local Authority must identify land and deliver housing. In order to receive planning permission, land must be acquired first. Because of its land use planning system, supply has been found to be typically unresponsive to demand and price in the UK markets.

3.2 TAXES

Differences in the taxation of land and property are also important to consider. Land and property taxes are common and may exist in many forms, through recurring taxes or event-based taxes (such as wealth, transfer or betterment taxes). For example, transfer taxes are common across all regions when purchasing property. In England and Northern Ireland, Stamp Duty Land Tax (SDLT) is a charge on the purchase of residential property (exclusively used as a dwelling) as well as the purchase of property used for commercial purposes. Ireland also charges a Stamp Duty on the transfer of residential property, with higher rates applied to the transfer of non-residential property.[18] In Scotland, this transfer tax is referred to as the Land and Buildings Transaction Tax (LBTT), which applies different rates and

[18] See: https://www.revenue.ie/en/property/stamp-duty/property/rates.aspx.

rules than the SDLT in England and Northern Ireland.[19] In Wales, a similar tax referred to as the Land Transaction Tax (LTT) is charged if property or land over a certain price threshold is purchased.[20]

While event-based taxes are applied similarly, more significant differences can be found in how each region applies recurring taxes related to land and property. In England, Scotland and Wales, a recurring Council Tax is charged on occupiers of the home, which may be renters or owners. These taxes are set by Local Authorities and are based on the valuation of the property. Non-domestic properties also pay recurring taxes, referred to as Business Rates, as in Ireland. Some studies (Hills and Sutherland, 1991; Wyatt, 2019) have noted the regressive nature of Council Taxes, as the tax rate declines when moving from lower to higher value bands, and the tax does not account for increases in land value due to the absence of revaluations when applying the tax. In Ireland, the Local Property Tax (LPT) was introduced in 2013 and is a self-assessed tax charged on the market value of residential properties. Ireland also has a tax on vacant residential properties that are in use as a dwelling for less than 30 days in a 12-month chargeable period. Rather than charging a separate vacant tax, councils in England, Scotland and Wales may charge an extra amount of Council Tax (a 'premium') if a home has been vacant for two years or more.

More recently, the Irish Government has introduced plans for a Residential Zoned Land Tax to apply to the market value of land which is zoned for residential or mixed-use purposes and is capable of supporting residential development. It is also worth noting that UK legislation also requires increases in land value to be taxed in full.

3.3 PLANNING SYSTEMS AND BUILDING REQUIREMENTS

Another significant issue in the determination of housing output is the granting, or refusal, of planning permission. Planning permissions allow local areas to make decisions about development and where it should or should not happen and evaluate how it will affect the surrounding area. Across the UK and Ireland this process is relatively similar. In each region, the national housing strategy, if available, helps guide local areas in determining their own housing strategies, which are then used to guide the planning process. In England, for example, Local Planning Authorities are expected to create a Local Plan to address five years' worth of housing which aligns with the National Planning Policy Framework.

19 https://revenue.scot/taxes/land-buildings-transaction-tax.
20 https://www.gov.wales/land-transaction-tax-guide.

The number of authorities involved in this process can be quite substantial. For example, 31 Local Authorities are tasked with this responsibility in Ireland. In Northern Ireland there are 11 Local Authorities; there are 25 planning authorities in Wales, 34 in Scotland and over 300 in England.

Across the different markets in the UK and Ireland, proposals for development are subject to individual planning permissions, although exceptions and details may vary. Planning permission is typically required in order to develop on, in, over or under land or buildings, or when making changes to the use of existing developments. Applications are made directly to the Local/Planning Authority where the development is planned to occur. The procedure of granting approval and consulting between the Local Authority and applicant may vary across regions. In Ireland, for example, consultations may be made with the Local Authority before submitting an application, but are not required.

The organisation and effectiveness of these planning authorities can be a significant contributor to the delivery or delay in housing output. While the structure of local planning authorities across these regions are quite similar, multiple stakeholders discussed the differences involved in moving through the permit process, highlighting areas of delay in some jurisdictions compared to others.

Community engagement when creating local housing plans may be one way to avoid substantial judicial reviews or inconsistencies when individual permissions are granted later. In England local plans consist of consultations with interested parties and community members, and potentially limit the number of objections to individual permissions granted later in the process. While the planning process in England was viewed as quite administrative by stakeholders, it was also commented that the planning process overall is much smoother than in Ireland, as more consultations are held throughout the process with greater communication between parties.[21]

Changes to the planning system can also contribute to significant delays in planning or uncertainty amongst developers. In Northern Ireland for example, the 11 Local Authorities tasked with creating local planning strategies were only created as recently as 2015. Despite the publication of a Regional Development Strategy published by the Department for Infrastructure which includes estimates for housing growth indicators for each of the 11 councils, each council is expected to set its own housing strategy, but any differences between the council plan and Regional Development Strategy must be justified. In effect, this can and has led to

21 D. Duffy, IBEC, interview regarding housing systems across the UK and Ireland, 8 March, 2023.

local plans that differ significantly with the region strategy, and individual targets may be significantly misaligned. Some stakeholders noted that there is a lack of organisation and clarity in the planning process, particularly as most councils have struggled or delayed publishing local plans. Currently, Belfast City Council is the only council to have published a publicly available housing plan.[22,23]

Both the Regional Development Strategy and council plans are subject to public review in Northern Ireland, which has also impacted the timeline of publication. While public engagement may be a factor that contributes to ease later in the planning process, excessive review processes may also disrupt the output of housing developments and contribute to inconsistencies in planning decisions. Multiple stakeholders across regions voiced concerns regarding the delays that stem from appeals or reviews brought forward by third parties, some of whom may not be directly impacted by development projects.[24]

In Ireland, for example, details of a development plan will be publicly available and may be circulated to interest groups once the application is made. For a fee, anyone is then allowed to submit an observation on the planning application within five weeks of its receipt. In a review of residential planning applications made between 2012 and 2021, it was found that the average decision time was 14.1 weeks, but nearly one-third of applications took longer than 16 weeks and 15 per cent of applications were refused. In the same review, 7 per cent of applications were appealed and the average appeal decision time was 20 weeks (Reidy and Breen, 2022). Appeals are seen as a significant contributor to delays in planning and, ultimately, in output. One reason for this is the open nature of the appeals process. In Ireland appeals can be made by anyone who submitted an observation on the development plan.[25]

Judicial review cases can add between €10,000 and €20,000 to the cost of an individual home.[26] The ease with which individuals or third parties can appeal housing plans in Ireland has contributed to a significant share of homes stuck in the planning system. This does not necessarily correspond to a large number of judicial review cases, but they can delay a large number of units entering the market. Construction Information Services (CIS) estimate that as of March 2023, there were 105 judicial reviews of large-scale housing developments holding up the supply of almost 15,000 units.

22 Belfast City Council (2018). *Belfast Local Development Plan – Draft Plan Strategy, 2035*.
23 Interview with stakeholder.
24 Interview with stakeholder.
25 https://www.pleanala.ie/en-ie/what-can-i-appeal.
26 Joint Committee on Housing, Local Government and Heritage debate - Tuesday, 14 Feb 2023 (oireachtas.ie).

Therefore, while the importance of community engagement and buy-in should not be undermined, efforts must be made to reduce the frequency of these challenges, as they are cited by stakeholders as significant factors of uncertainty, risk and costs to developers.[27] Engaging communities earlier and establishing trust and buy-in, such as the process in England, may be a means of doing this. Community engagement is built into the planning process, including when planning authorities are preparing their development plans and also during the development management processes when decisions are being made about proposed developments. Additionally, when national and major developments are being proposed, prospective applicants for planning permission must carry out pre-application consultation with local communities before finalising their plans. Given delays and added costs, the planning process may indeed discourage developers from making some applications in the first place.

Current efforts to limit slowdowns caused by the planning system and judicial reviews include plans for the new Planning and Development Bill in Ireland, which aims to enforce mandatory timelines for planning decisions and incorporate stricter rules regarding judicial reviews.

3.4 ENVIRONMENTAL/BUILDING RESTRICTIONS

Regulation of building types, safety needs and environmental impacts are often significant factors in the planning process. Many stakeholders commented on Ireland’s application of stricter environmental regulations than those in Northern Ireland and England.[28] While stakeholders commented on this extra barrier to developers in terms of both cost and planning requirements, there is a sense that it is more likely that other regions will catch up to Ireland’s environmental standards, rather than revert to looser requirements.[29]

There are also differences across regions in the minimum spec expected for new developments. In a report by the Department of Housing, Local Government and Heritage in 2023, Irish developments were found to be larger, on average, than comparable developments in England. This is mainly a comparison between costs in Dublin and Birmingham.[30] There are also differences across regions in the

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27 Challenges regarding judicial review process noted in a stakeholder interview. Issues related to public engagement also noted in Frey, J., C. Leishman and S. McGreal (2020). *Micro-economics of housing supply*, UK Collaborative Centre for Housing Evidence.

28 Difference in environmental regulations between Ireland and Northern Ireland noted in a stakeholder interview. Difficulties related to stringent BER requirements for rental sector in Ireland noted in a stakeholder interview.

29 Discussion on climate targets impact on construction with Mitchell and McDermott associates, 23 March 2023. Stricter energy requirements in Ireland than UK also noted here: *Residential Construction Cost Study Report* (Department of Housing, Local Government and Heritage, 2023).

30 Department of Housing, Local Government and Heritage (2023). ‘Residential Construction Cost Study Report’. https://www.gov.ie/pdf/?file=https://assets.gov.ie/256082/afbe94c3-ebf1-4201-9a4a-a6ac9cddc69a.pdf#page=null accessed 19 August 2023.

minimum spec expected for new developments. In a report by the Department of Housing, Local Government and Heritage in 2023, Irish developments were found to be larger, on average, than comparable developments in England. This is mainly a comparison between costs in Dublin and Birmingham. Additionally, Dublin apartments have among the highest minimum floor space requirements amongst major European cities (TASC – IIP 2020), which has been linked to substantial increases in construction costs (Lyons, 2015). However, the increased costs linked to the detail of projects in Ireland is associated in part with a lack of standardisation, but also stricter requirements and higher expectations related to project design (Department of Housing, Local Government and Heritage, 2023).

Other than the financial costs associated with building regulations, developers may be impacted by delays and administrative burdens. A suggestion made during conversations with stakeholders included the need to document changes to the planning system, as updates to environmental or safety requirements happen quite frequently or on an ad hoc basis, contributing to a lack of consistency in planning requirements and further delays in delivering housing output.[31]

3.5 DEVELOPERS/INDUSTRY BARRIERS

The private sector plays a large role in the acquisition and servicing of land in the UK and Ireland in contrast to other European countries, in which these services are largely the responsibility of Local Authorities or municipalities. Therefore, the behaviour of developers, the challenges they face and the ways in which they compete for land also play a significant part in housing output.

Because of the land use planning system in the UK, the main source of competition for developers occurs when land is being acquired. The downside of this system is its contribution to slow build-out rates. Developers who successfully bid on land are often driven by expectations of higher housing prices, incentivising builders to minimise costs and build slowly, allowing for sales prices to rise (Adams et al., 2009; Frey et al., 2020). The up-front cost of land acquisition also disincentivises builders to increase output quickly and contributes to preferences towards low-risk, low rise developments (Payne, 2020).

Developers may also face significant barriers associated with infrastructure. In Ireland, it is typical of a developer to work together with the Local Authority in overcoming issues related to infrastructure and facilities (e.g. roads, surface water drainage, amenities, etc.) and any infrastructure needs are typically considered during the application process for planning permission. However, some

[31] Suggestions noted in an interview with a stakeholder.

stakeholders commented that infrastructure burdens in Northern Ireland are particularly onerous for developers, where councils are less involved in assisting with these issues.[32]

3.6 ACCESS TO FINANCE

Another increasingly important issue across all markets, particularly in the aftermath of the GFC is the issue of access to finance both on the demand and supply side of the housing market. By the demand and supply side of the market, we mean finance being available to prospective mortgage holders on the demand side and property developers on the supply side.

In both the Irish and Northern Irish property markets, access to finance has become a particularly pressing issue. For example, Frey et al. (2020) note that in the case of Northern Ireland:

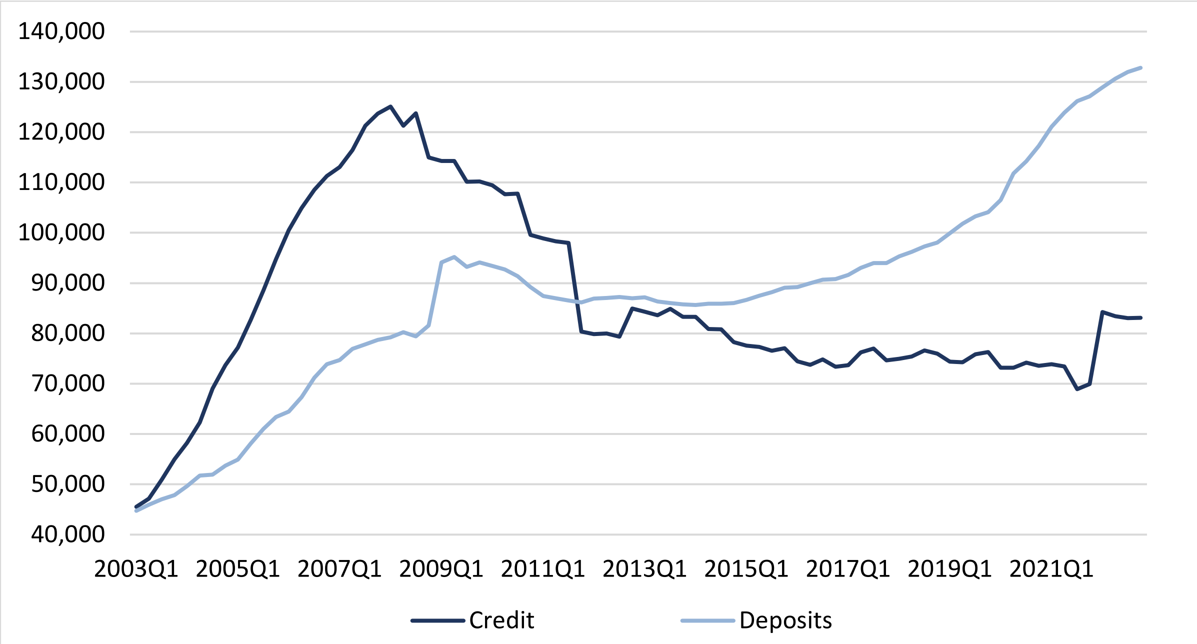
> *developers are reliant on non-traditional finance and subjected to high financing rates, which has contributed to an increase in the cost of development and hence, higher house prices. When bank funding is available, conditions are very strict and rely on full planning permission and developers profit of 15%.*

In contrast, Frey et al. (2020) argue, the shift towards larger developers in Scotland has led to less barriers in accessing finance. In the Irish market a number of commentators including McSweeney (2022) have observed that financial viability is a significant problem in the private construction sector, particularly for the construction of apartments.

The change in financing conditions in the Irish market can be witnessed from Figure 3.1.

[32] Issues regarding infrastructure projects and developers noted in a stakeholder interview.

FIGURE 3.1 TOTAL CREDIT FOR HOUSE PURCHASES ISSUED TO IRISH HOUSEHOLDS AND TOTAL DEPOSITS OF IRISH HOUSEHOLDS (€ MILLION): Q1 2003 – Q1 2023



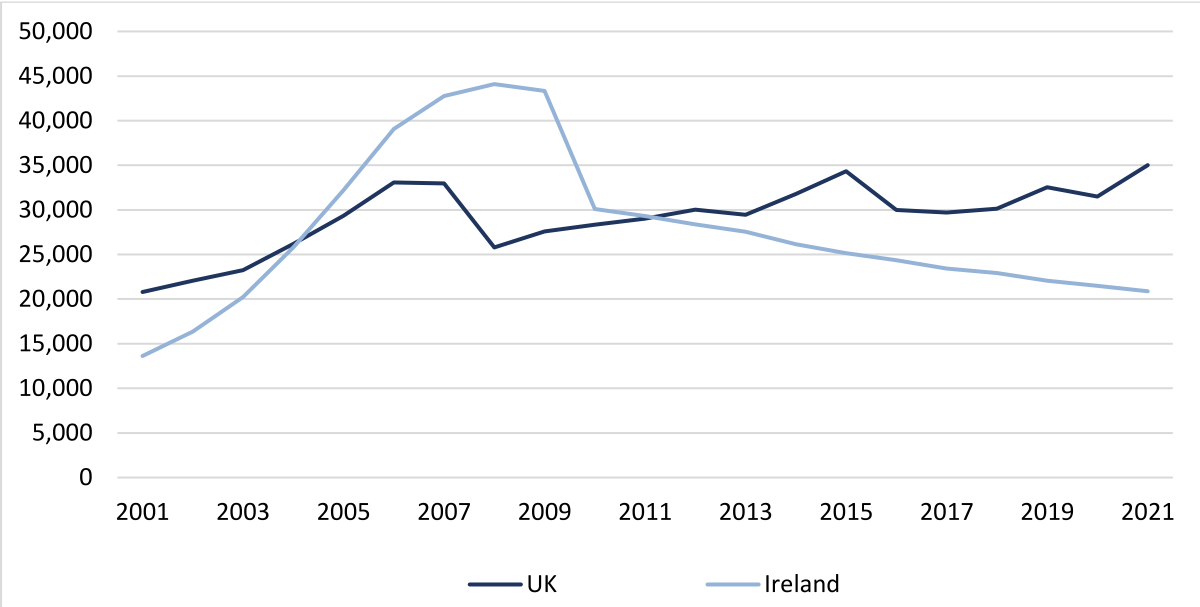
Source: Central Bank of Ireland.

Figure 3.1 presents the changing relationship between total credit issued to and deposits of Irish households over the period 2003 – 2023. In the period preceding 2007, credit for house purchases increased sharply as Irish financial institutions increased their exposure to the property market substantially. This was somewhat in excess of the existing deposit base in the Irish financial system and was mainly funded by Irish banks borrowing from foreign financial institutions.

However, after the Global Financial Crisis (GFC), there has been a sharp decline in credit extended for house purchases while deposit levels have grown. The change in regulatory conditions which have resulted in both mortgage and construction credit being relatively constrained in an Irish and European context is discussed in some detail in Egan and McQuinn (Forthcoming).

The contrasting impact of the GFC on the level of credit extended in the Irish and UK market can be observed from Figure 3.2. This plots the total amount of outstanding residential loans per capita.

FIGURE 3.2 TOTAL AMOUNT OF OUTSTANDING RESIDENTIAL LOANS PER CAPITA FOR THE IRISH AND UK MARKETS (€): 2001 – 2021



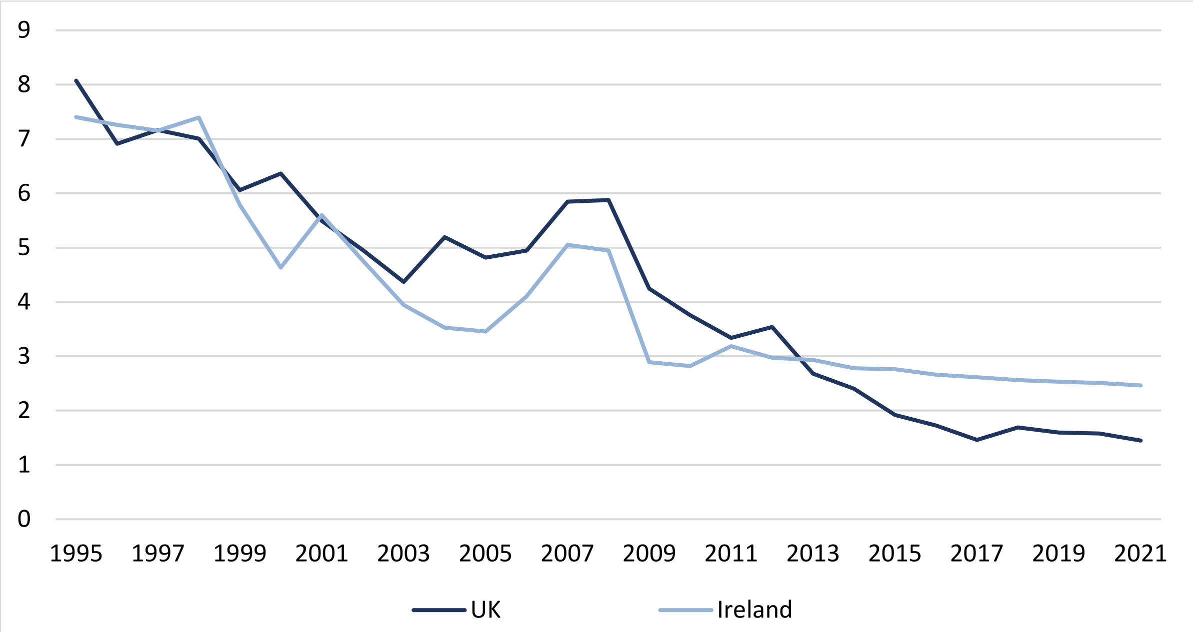
Source: Europe Mortgage Federation (EMF).

From Figure 3.2 it is clear that there was a substantial build-up of mortgage credit in the Irish market relative to the UK one in the period leading up to 2009. From 2010 onwards, it is also evident that there has been a more pronounced decline in the level of credit extended in the Irish market, while credit levels in the UK market have modestly increased over the same period. This highlights the contrasting impact of the GFC on the financial sectors in the Irish and UK market with the Irish financial system especially impacted by the global crisis.

More recently, the cost of finance as well as the quantity of finance has become a pertinent issue. One of the major consequences of inflation has been the subsequent rise of interest rates by central banks around the world, including the European Central Bank (ECB) and the Bank of England.

This has led to renewed focus on the relationship between the official euro area policy rate and the cost of finance in individual markets such as the mortgage rate. A number of studies (Goggin et al., 2012; McQuinn and Morley, 2015; and Egan and McQuinn, Forthcoming) have examined the pass-through relationship in an Irish context over the past ten years, with most noting that one of the implications of the GFC was that the pass-through relationship was somewhat impaired in the Irish market. Impaired in this context refers to a situation where changes in the policy rate do not appear to be passed on in a significant manner to individual retail rates such as the mortgage rate. For example, despite interest rates falling at a euro area level after the financial crash, interest rates remained more elevated in Ireland compared to the UK and other EU countries (Egan and McQuinn, Forthcoming). Consequently, interest rates in Ireland have tended to be somewhat higher than those across the UK. Figure 3.3 plots the representative mortgage interest rate for the Irish and UK markets from the mid-1990s onwards.

FIGURE 3.3 REPRESENTATIVE MORTGAGE INTEREST RATE FOR THE IRISH AND UK MARKETS (%): 1995 – 2021



Source: Europe Mortgage Federation (EMF).

Over the period in question, it is clear that rates across the two markets were quite similar up to 2004; thereafter, the rates in the Irish market were lower until 2013. However, since 2013 onwards there has been a growing difference between the two rates with the Irish rate consistently higher than the UK counterpart up to 2022. Consequently, changes in the manner in which credit is provided is a significant factor in impacting housing supply across the Irish and UK property markets.

3.7 CHAPTER SUMMARY

Soft costs are a significant factor in the cost of residential construction. The speed and efficiency of granting planning permission has been highlighted as a key issue across all the residential markets examined. The planning process in Ireland has recently been reformed while the process in Northern Ireland is being hampered by a lack of standardisation in planning across local areas. In potentially avoiding long and costly planning delays, the Scottish market has been identified as a possible example, where the preparation of local plans by Local Authorities place a significant emphasis on consultations with interested parties and community members.

In terms of land use, it is evident in the Irish case that greater regulation of development land is required. The Irish and UK markets are quite distinct in this regard when compared with the case in other European countries.

Other substantial soft costs are environmental and building requirements. While Irish standards are generally more onerous than those of the other markets examined, the expectation is that standards in other countries will converge upwards to be comparable to those of the Irish market.

Finally access to finance is a significant issue across all markets, with the financial sector likely to struggle to meet the credit requirements of the targets set for future housing supply levels. This underscores the need for greater State involvement in the provision of housing.

CHAPTER 4

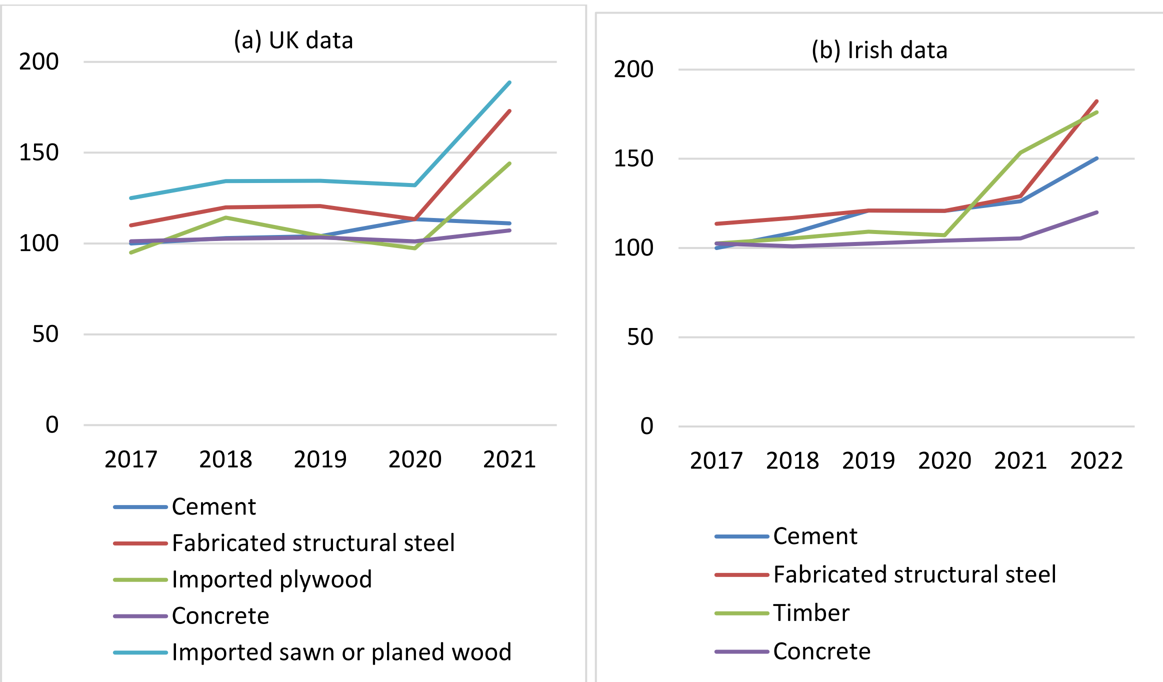
Costs of production

Having discussed the contrasting soft costs associated with housing across the different Irish and UK markets, in this chapter we analyse the differences in what we label the hard costs; these include labour and the costs of key building materials.

4.1 MATERIAL COSTS

Inflation in key cost items has been a major development in the construction sector internationally over the past 2-3 years. The fast-paced economic recovery in the aftermath of COVID-19 caused the prices of certain materials to increase sharply, as supply chains struggled to recover at the same rate as demand. However, these price increases persisted throughout 2022 as supply chains proved complex and difficult to repair, but also due to the invasion of Ukraine. The ensuing war has had substantial effects on markets in Ireland, Northern Ireland and across the UK generally. The war once again disrupted manufacturing supply chains and saw large shocks in particular to the energy sector. The construction industry is particularly susceptible to energy price shocks due to the energy intensity of manufacturing processes for materials such as steel, cement, glass, brick and block. Hence, the energy price shocks caused the prices of these materials to increase.

FIGURE 4.1 PRICES OF MATERIALS IN THE UK AND IRELAND (NOMINAL INDEX 2015 = 100)



Source: Central Statistics Office (CSO), Office of National Statistics (ONS) and Department of Business, Energy and Industrial Strategy.

Figure 4.1 plots cost indicators for key costs of production items in the construction sector for the UK and Irish property markets. Indicators are plotted for cement, concrete, fabricated structural steel and rough timber. The price of materials has stabilised, and some inputs have seen decreases, but input costs overall remain elevated compared to pre-COVID prices. However, it should be noted that materials prices in the UK had the added shock of Brexit, which caused prices in general to increase by a greater degree than in Ireland. This was due to trade barriers and economic uncertainty in the fallout of Brexit and frequent subsequent negotiations regarding future trade arrangements with the EU. This was a contributing factor as UK construction materials prices increased by 60 per cent from 2015-2022 compared to 35 per cent in the EU and 35.5 per cent in Ireland.[33]

It should be noted that the Northern Ireland market will be somewhat shielded from this Brexit effect, by virtue of the Windsor Framework. Northern Ireland was found to have the lowest costs across the UK by the BCIS (Building Cost Information Service) in 2018, as outlined in a cross-country report by the Housing Agency.[34] Nevertheless, significant material cost inflation has occurred across the globe since COVID-19, but this has been compounded in the UK by already rising prices as a result of Brexit.

Although cost inflation has been more severe in the UK, costs remain at a lower level than those in Ireland according to a cross-country report on construction costs carried out by the Department of Housing, Local Government and Heritage.[35] In their analysis, they compare construction costs in Birmingham with those in Dublin. Birmingham is found to have lower costs across a range of urban and suburban houses/apartments. However, this seems to be largely driven by soft costs such as regulation and standards which are discussed in Chapter 3, as well as local market conditions.

4.2 EARNINGS

Another significant cost for employers in the construction sector is labour earnings. Earnings in the construction industry have been rising consistently for the last 20 years, with a temporary decrease during the recession post the financial crash in 2008. There are several reasons for these increases in earnings. Firstly, the financial crash was fuelled by a housing bubble, the construction sector collapsed in 2008 and as discussed above, construction activity dropped significantly. As a result, many workers in the construction sector lost their jobs and left the sector

33 Eurostat, Central Statistics Office, Office of National Statistics, and Department of Business, Energy and Industrial Strategy.

34 The Housing Agency (2018). 'Comparison of Residential Construction Costs in Ireland to Other European Countries'. https://www.housingagency.ie/sites/default/files/publications/5.%20Comparison-of-Residential-Construction-Costs-in-Ireland-to-other-European-Countries-2018.pdf accessed 19 August 2023.

35 'Residential Construction Cost Study Report' (n. 26).

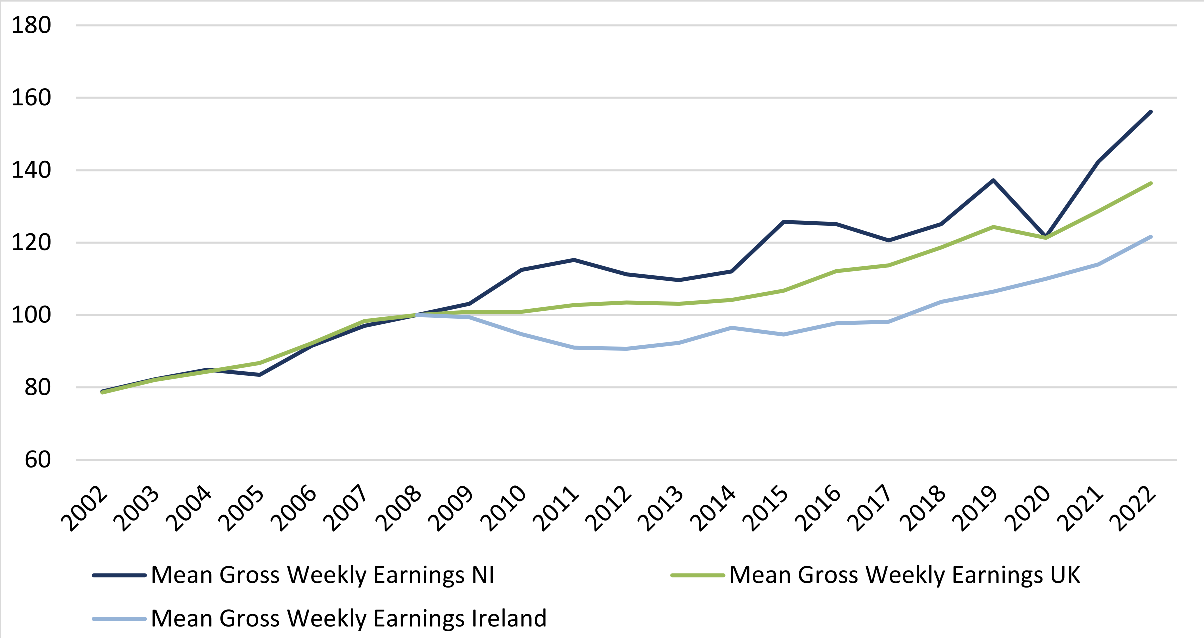
completely. Many workers also moved towards commercial building as that market, particularly in the Irish case, recovered more quickly after the GFC than the residential market. This is discussed in an Irish context by Egan et al. (2022).

However, with the recovery of the residential market and the upswing in investment from larger investment groups, demand for construction workers recovered. There is now a limited supply of these workers and hence the labour market is tightening across Ireland, Northern Ireland and the rest of the UK. There is a shortage in key trades such as carpentry, bricklaying and plastering. A tightening labour market where labour supply is becoming limited will see earnings rise.

Given the persistence of inflation and the spread of inflationary developments from core inflation to underlying items, the cost of living across Ireland, Northern Ireland, and the rest of the UK has seen substantial increases in the last two years. An inflationary environment such as this will also cause wage pressures to build across the economy, including the construction sector, as workers look to offset decreases in purchasing power.

Finally, increasing the output from the sector to the scale that has been discussed in each country will also likely lead to increased wages as demand for labour increases. In order to meet the targets for housing, outlined in Chapter 2, the construction sector in each country will have to increase its economic activity significantly, which will require additional labour. This is highlighted in Egan et al. (2022), where it is shown that increased housing supply in Ireland would lead to a decrease in unemployment and an increase in wages in the construction sector. Hence, earnings in the construction sector are likely to increase given the need for housing supply. Gross weekly earnings in the construction sector for the Irish, Northern Irish and overall UK markets are shown in Figure 4.2.

FIGURE 4.2 MEAN GROSS WEEKLY EARNINGS – CONSTRUCTION SECTOR (NOMINAL INDEX 2008 = 100)



Source: Central Statistics Office (CSO), Office of National Statistics (ONS) and Northern Ireland Statistics and Research Agency.

A similar pattern emerges when examining the cost of labour as when examining the cost of materials. The level of labour costs is lower in the UK, as outlined by the Department of Housing, Local Government and Heritage (2023) in its study on costs in Dublin and Birmingham. The UK has, however, experienced greater wage inflation in the construction sector than Ireland. Notably, while Northern Ireland was somewhat shielded from the particularly high material cost inflation in the UK, this is not the case when it comes to labour cost inflation. Those in Northern Ireland who are non-UK and/or non-Irish citizens now require a visa to work there, as in the rest of the UK. This places significant constraints on the ability of NI and the UK as a whole to increase labour supply through immigration. The effects of this in England particularly have been well documented in many sectors, with shortages of healthcare staff as well as goods transport drivers widely reported. The added friction to the movement of workers into and out of the UK has seen increased construction-sector earnings in the UK and, as shown above, Northern Ireland has seen greater increases in earnings than both Ireland and the UK as a whole.

Given these wage pressures and the materials cost inflation, labour supply and resource supply policies will be important in reaching the housing objectives of each region. The Department of Further and Higher Education, Research, Innovation and Science estimate that there is a need for over 50,000 new entrants into the construction sector by 2030 if the Government is to fulfil its objectives under Housing for All and the broader National Development Plan.[36] This type of expansion in the construction labour supply is required in Northern Ireland and the rest of the UK also.

However, the specific skills shortages do differ across the markets. Ireland, for example, has the most need for craft workers such as carpenters, plasterers, electricians, painters etc.[37] The CITB has reported that Northern Ireland's construction sector will require an additional 5,650 workers from 2022-2026, with its strongest recruitment requirements in wood trades, electrical trades, and office-based professionals.[38] They estimate that Wales will require 11,500 workers by 2026 and Scotland will require 25,250 workers by 2026. The substantial number of workers required in Scotland is due to its large public housing initiative and water development plans.[39]

Recruitment in the short term is more difficult for Northern Ireland and rest of the UK given that they are no longer members of the European Union. Ireland, being an EU member and having less restrictive migration policy will likely be able to attract construction workers from abroad. However, as discussed in Egan et al. (2022), the current shortage of housing is itself an issue in attracting immigrant workers in the short term.

4.3 CHAPTER SUMMARY

Hard costs have increased substantially over the last number of years. When it comes to both materials and labour costs, Ireland's costs are higher than those in the UK; however the rate of growth in costs in the UK has been faster. This has been exacerbated by Brexit, which has added barriers to international trade and put more restrictions on migrant workers. This is putting further upward pressure on wages and prices of materials, on top of international trends generally.

Northern Ireland is somewhat shielded from this Brexit effect when it comes to materials, as it is still able to trade freely in goods due to the Windsor framework. The same is not true when it comes to wages, as migrants now require a visa to work in Northern Ireland, as in the rest of the UK. This is a contributory factor for

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36 Department of Further and Higher Education, Research, Innovation and Science (2022). 'Report on the Analysis of Skills for Residential Construction & Retrofitting, 2023 to 2030'. https://www.gov.ie/en/publication/10ae6-report-on-the-analysis-of-skills-for-residential-construction-retrofitting-2023-to-2030/#conclusions accessed 19 August 2023.

37 ibid.

38 Construction Industry Training Board (CITB) (2022). 'Labour Market Intelligence Report. 5-Year Outlook 2022-2026.' https://www.citb.co.uk/media/3qohvnpx/northernireland-lmi-final.pdf accessed 19 August 2023.

39 Construction Industry Training Board (CITB) (2022). 'The Skills Construction Needs'. https://www.citb.co.uk/media/2nfpuwdc/csn-uk-full-report-final.pdf accessed 19 August 2023.

Northern Ireland which has seen the fastest rate of wage increases in recent years, compared to Ireland and other parts of the UK.

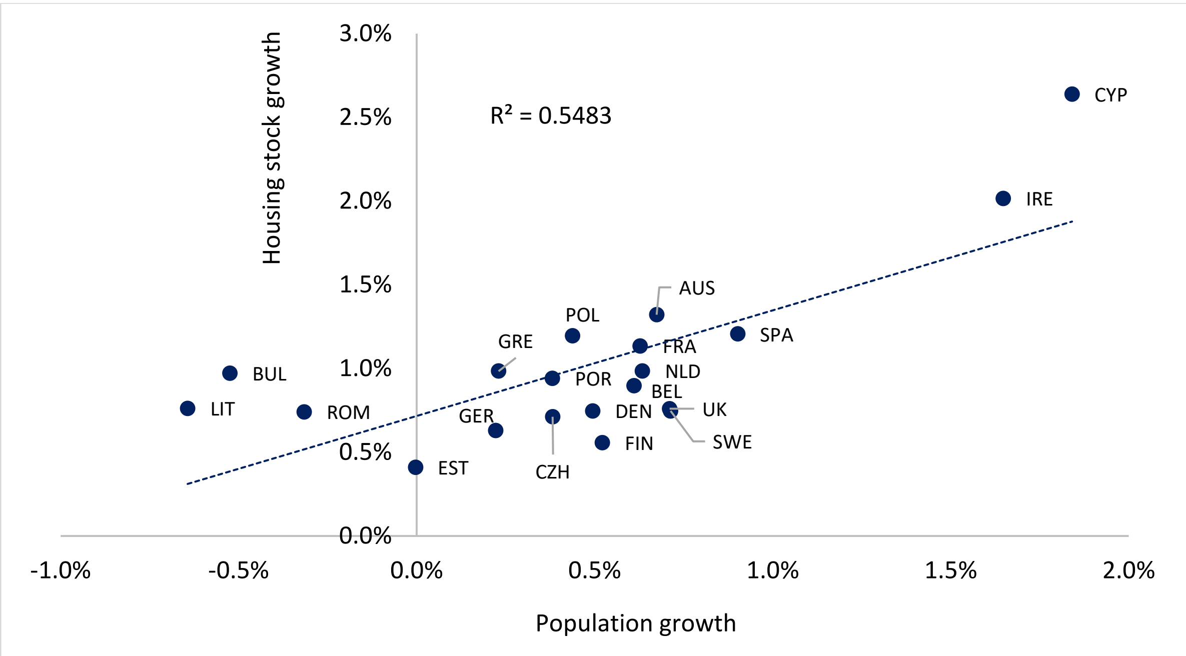
Overall, materials prices are expected to stabilise as supply chains fully recover and global conditions stabilise. Wages, however, will face upward pressures in the coming years, hence specific policies aimed at targeting greater labour supply will be important if the different housing targets outlined are to be met.

CHAPTER 5

Dynamics of the respective housing markets

As noted in Chapter 2, there is a generally acknowledged imbalance between actual supply levels and the structural demand for housing in the Irish, Northern Irish and broader UK housing markets. As also noted, the key policy initiatives in both the Irish and Northern Irish markets – the Housing for All plan and the Housing Supply Strategy respectively – have put access to good quality affordable homes as one of their key deliverables. As pointed out by Cavallari et al. (2019), housing affordability is supported by supply that is sufficiently elastic to ensure that the economy can meet demand for housing in a timely way without experiencing significant price rises. The responsiveness of housing supply to changes in prices is a crucial factor in the functioning of housing markets. It determines the extent to which the housing market responds to demand shocks with increased construction or higher prices. This has potential implications for the evolution of key housing market outcomes such as housing prices and affordability (Caldera and Johansson, 2013). While historically speaking the housing stock has adjusted in response to changes in demand, pressures such as population across OECD countries as shown in Figure 5.1 can also cause supply-side adjustments in the housing market.

FIGURE 5.1 POPULATION AND HOUSING STOCK GROWTH: 1997 – 2021



Source: OECD and Hypostat.

Given the central role that the lack of housing supply is having in Ireland, Northern Ireland and across the UK, this section of the report will examine the relationship between house prices and the level of investment in housing as well as the relationship between the level of housing stock and house prices. Finally, it will examine some factors which might impact such relationships.

Firstly, we examine the long-term elasticities of housing supply to demand in the Irish, Northern Irish, English, Scottish and Welsh markets using the econometric frameworks applied for OECD countries outlined in studies such as Cavallari et al. (2019), Geng (2018) and Caldera and Johansson (2013). A quantification of housing supply responsiveness to prices may offer an insight on housing markets in Ireland, Northern Ireland and the rest of the UK. This has the potential to provide useful information for housing policy measures targeted at reducing home price volatility and affordability difficulties such as those seen in recent years in both the Irish and Northern Irish markets. Secondly, we examine the relationship that changing levels of housing supply have had on prices across the five housing markets. Understanding the impact of housing supply on housing price inflation is a particularly important issue from a policymaker's perspective as it is critical to accurately estimate the impact of extra supply on prices when determining whether future increases would temper inflationary pressures. Finally, we assess the impact of market specific characteristics on the relationship between housing supply, housing investment and prices. This will provide insight into any heterogeneity in relationship between supply and prices across housing markets.

5.1 METHODOLOGY AND DATA

The empirical approach applied in this report is based on the work of DiPasquale and Wheaton (1994) in which the dynamics of the housing market is estimated in a system involving a supply and demand equation. This supply side of this stock-flow model of the housing market can be described as.

$$S = I(X_1, P) + (1 - \vartheta)S_{t-1} \tag{1}$$

In Equation 1, housing stock S is linked to housing investment I such that, in the long run, the housing stock depreciates slowly at rate ϑ and expands gradually with new residential investment. Housing investment in turn depends on house prices P, as well as several cost shifters such as material and labour costs, summarised in the vector of variables X_1 (Cavallari et al., 2019). For estimation purposes, real residential investment is utilised as a proxy for housing stock change, and the cost of construction materials are used to proxy cost shifts. This gives the following equation in which real residential investment is modelled as a function of house prices and construction costs.

$$I_{i,t} = \beta_0 + \beta_1 HP_{i,t} + \beta_2 CCOST_{i,t} + \epsilon_t{}^{40} \tag{2}$$

[40] All variables are in log terms unless stated otherwise.

Equation 2 suggests that residential investment, $I_{i,t}$ will be driven by real house prices $HP_{i,t}$, with higher prices leading to a greater level of investment. This increase in residential investment is due to the profitability of house building by developers. On the other hand, an increase in construction costs, $\beta_2 CCOST_{i,t}$, disincentives investors to replace existing housing stock.

On the demand side, DiPasquale and Wheaton's (1994) equation can be written as

$$D(X_2, P, U) = S \tag{3}$$

Where the demand for housing D depends on exogenous variables X_2 (which includes demographic characteristics and real permanent income), the price of real housing P and the user cost of financing that price, U. Equation 3 assumes that prices clear the market to bring demand in line with the available supply. By inverting and log-linearising Equation 3, we get an empirical specification of the price equation expressed as:

$$HP_{i,t} = \beta_0 + \beta_1 S_{i,t} + \beta_2 INC_{i,t} + \beta_3 IR_{i,t} + \beta_4 POP_{i,t} \tag{4}$$

In the above equation, house prices $HP_{i,t}$ are determined by the stock of houses $S_{i,t}$,the level of personal income $INC_{i,t}$, the cost of credit measured by the real interest rate in levels $IR_{i,t}$ and a measure of demographics, represented by the total population, $POP_{i,t}$.

Taking Equations 2 and 4, we estimate individual market coefficients for the five housing markets relating to the price elasticity of supply as well as the reaction of prices to changes in supply through jointly estimated seemingly unrelated regressions (SUR). As we are interested in examining the long-run price elasticity of supply as well as the long-run response of house prices for a given change in housing stock, both equations are estimated within the SUR framework as error correction models. The process involves first estimating a cointegration equation to establish the long-run equilibrium relationship followed by an estimation of the short-run dynamics. For the purposes of this report, the second step is more of a validation step to verify that adjustment does indeed happen to the long-term equilibrium relationship. The other estimated coefficients in the short-run equations are of lesser interest, given the focus on the long-run performance of the market, as opposed to where the emphasis would be if the objective were to produce short-term house price forecasts (Cavallari et al., 2019). Therefore, we only report long-run coefficients, but all estimations related to the error correction framework are available by request.

The data for Irish house prices, population, residential investment and income are all obtained from the CSO, while the data on interest rates are sourced from the Central Bank of Ireland. For the level of housing stock, this is compiled using the new dwelling completions data provided by the CSO as well as data from the Department of Housing, Local Government and Heritage (DHLGH). For the measure of Irish construction costs, we apply the construction cost index produced by the DHLGH up to 2016, after which the series was discontinued. From 2016 onwards, it is calculated using a simple model regressing this building cost series on three wholesale price indices (cement, fabricated metal and precast concrete) and forecasting a value post-2016 on the basis of the fitted value from the model. For Northern Ireland, England, Scotland and Wales, the majority of the data are sourced from the Office of National Statistics (ONS). This is with the exception of the interest rate which is sourced from the Bank of England and the measure of construction costs which is sourced from the Building Cost Information Service (BCIS). It should be pointed out that some variables are only available annually from 1997 and therefore interpolation techniques are used to convert the annual series to quarterly, suggesting results should be treated with caution. Full details of the interpolation techniques used are available by request. Finally, all the data are estimated up to Q4 2019 to avoid any distortions to the variables due to COVID-19.

5.2 RESULTS AND DISCUSSION

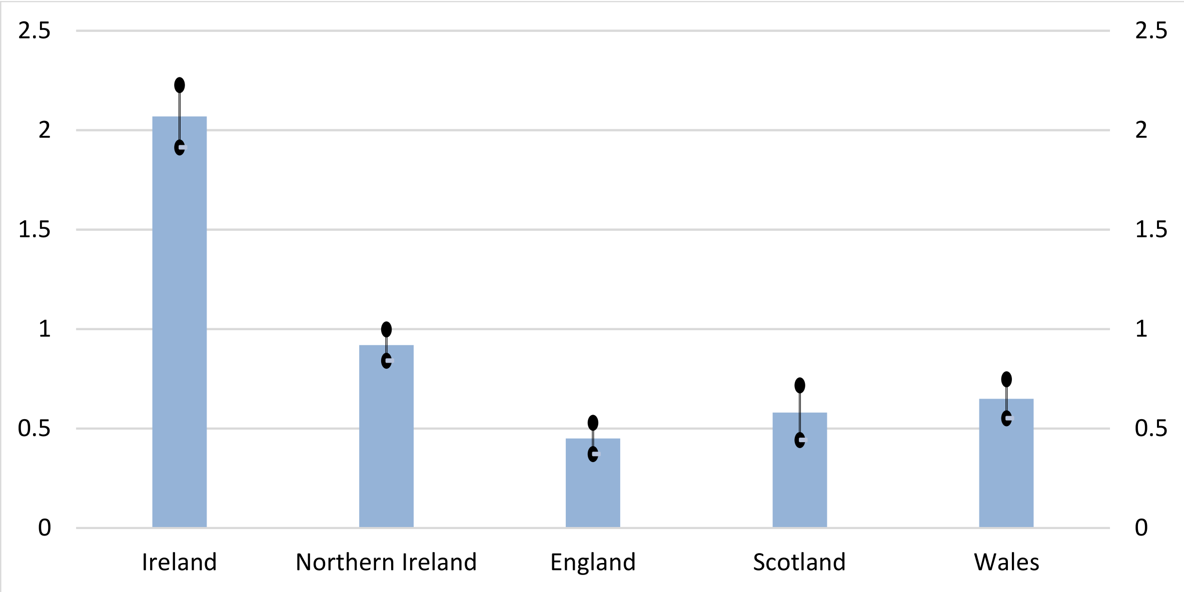
Firstly, we estimate the long-run price elasticity of new housing supply in isolation where new supply is proxied by residential investments, $I_{i,t}$. In other words, we are examining the β_1 coefficient in the supply-side equation, Equation 2. The results of the estimated coefficients across the five housing markets are found in tabular form in Table 5.1 and graphically in Figure 5.2. The results show that all elasticities are significant at least at the 1 per cent level, and range in values from 0.45 (England) to 2.1 (Ireland), while Northern Ireland is shown to have an elasticity of just below unity at 0.92. This result suggests that the level of response of housing supply to changes in the level of prices is most flexible in the Irish housing market, followed by the Northern Irish market, while England has a much more rigid supply response to a change in price. The significant variation in the responsiveness of housing supply to price changes has implications for the various housing markets, both positive and negative. As pointed out by Caldera and Johansson (2013), a responsive housing supply is important to avoid bottlenecks in different segments of the market in response to an increase in housing demand. However, the flip side is that in flexible-supply countries, housing investment adjusts more rapidly to large changes in demand. This contributes to more cyclical swings in economic growth.

TABLE 5.1 LONG-RUN ESTIMATED SUPPLY ELASTICITY: Q1 1997 – Q4 2019

	Long-Run Supply Elasticity
Ireland	2.07*** (0.08)
Northern Ireland	0.92*** (0.04)
England	0.45*** (0.04)
Scotland	0.58*** (0.07)
Wales	0.65*** (0.05)

Source: Authors' calculations.
Notes: ***, ** and * denote significance at the 1, 5 and 10 per cent level respectively. Standard errors are in parentheses.

FIGURE 5.2 ESTIMATED SUPPLY ELASTICITY AND 95 PER CENT CONFIDENCE INTERVALS



Source: Authors' calculations.

Having looked at the price elasticity of supply, Table 5.2 examines the reaction of prices to a change in the level of supply. Understanding the impact of housing supply on housing price inflation is a particularly important issue from a policymaker's perspective and a fundamental question which has arisen is whether increased housing supply may help to mitigate house price inflation. Once again, the results seem to suggest a degree of heterogeneity across the five housing markets in Ireland, Northern Ireland, England, Scotland and Wales with regard to the response of house prices to changes in the level of dwelling stock. All housing markets have the expected negative coefficient and are statistically significant with the exception of Northern Ireland. This suggests that an increase in the overall level of dwelling stock has not had a significant deflationary impact on house prices in the North over the estimation period in question. Of those markets with coefficients that are both statistically significant and possess the expected negative sign, Scottish house prices would appear to be the most responsive with a coefficient of -2.9, while Ireland has the lowest impact with a coefficient of -1.2.

In terms of house prices, the Scottish market is somewhat different to the other markets in that most properties are sold through a 'blind bidding' system. That means the seller will ask for offers over or around a minimum price. Interested buyers give sealed bids and suggest a timescale for moving in. The highest bidder gets the sale and is informed on the same day. This is arguably a more efficient manner for determining prices than in other markets.

TABLE 5.2 LONG-RUN ESTIMATED RESPONSE OF HOUSE PRICES TO SUPPLY

	Long-Run Supply Elasticity
Ireland	-1.18*** (0.60)
Northern Ireland	0.93 (2.04)
England	-1.78*** (0.39)
Scotland	-2.98*** (0.98)
Wales	-2.69*** (0.50)

Source: Authors' calculations.
Notes: ***, ** and * denote significance at the 1, 5 and 10 per cent level respectively. Standard errors are in parentheses.

The cross-country differences we have seen in both the supply response to price and the price response to supply are likely to be caused by a number of different factors including structural and institutional differences across housing markets, such as some of those discussed in Chapter 3. Hard data related to these measures for the five housing markets are very limited. However, it would be interesting to examine possible factors that might impact the level of responses witnessed in Table 5.1 and Table 5.2. Based on available data, we look at differences in the labour market as well as differences of public versus privately supplied dwellings. We can do so by estimating versions of Equations 2 and 4 separately in a panel framework and interact a measure of labour capacity with house prices in the supply equation and a measure of private versus public housing stock with the level of supply in the price equation.

In the supply equation, we examine capacity constraints related to available labour as a barrier to the response of housing investment to a change in the price level. We do so by estimating Equation 5.

$$I_{i,t} = \beta_0 + \beta_1 HP_{i,t} + \beta_2 CCOST_{i,t} + \beta_3 HP\ x\ Labour_{i,t} \qquad (5)$$

where $Labour_{i,t}$ is a measure of constraint in the labour market proxied by the annual change the number of people employed in the construction sector. The issue of capacity constraints in the Irish construction sector have been discussed by Egan et al. (2022) in the Irish case, and in the UK by Nazir et al. (2021). The results related to Equation 5 can be seen in Table 5.3.

TABLE 5.3 THE IMPACT OF CHANGE IN CONSTRUCTION EMPLOYMENT ON SUPPLY ELASTICITY

Dependent Variable: Residential Investment	(1)	(2)
House Prices, lagged $HP_{i,t-1}$	2.15*** (0.16)	2.26*** (0.17)
Construction Costs $CCOST_{i,t}$	-0.99*** (0.22)	-0.75*** (0.24)
House Prices, lagged $HP_{i,t}$ x Δ Construction Employment		0.89** (0.37)
R^2	0.29	0.31
F-Statistic	94.5	63.7
Observations	455	435
Economies	5	5

Source: Authors' calculations.
Notes: ***, ** and * denote significance at the 1, 5 and 10 per cent level respectively. Standard errors are in parentheses.

The positive coefficient on HP x $Labour_{i,t}$ suggests that the higher the percentage increase of people employed in the construction sector, the more responsive the level of investment to a change in price. This makes intuitive sense as it suggests that a housing market with a greater increase in construction workers is less likely to face bottlenecks in different segments of the market in response to an increase in housing demand. This has interesting implications with regard to the construction industry's capacity to meet the observed shortfall in supply witnessed in Ireland and Northern Ireland as discussed in Chapter 2.

Related to our discussion on social housing provision in Chapter 2, we also examine the impact that the provision of private versus social housing has played on the relationship between supply and house prices. We do so by estimating Equation 6.

$$HP_{i,t} = \beta_0 + \beta_1 S_{i,t}\ x\ \%Public + \beta_2 INC_{i,t} + \beta_3 IR_{i,t} + \beta_4 POP_{i,t} \qquad (6)$$

Where $\%Public$ represents the percentage of public housing which comprises the total dwelling stock across the five housing markets considered. Table 5.4 provides the results of the estimations. The negative coefficient on $S_{i,t}$ x $\%Public$ suggests that the higher the percentage of public housing, the lower reaction that prices have to a change in supply. Again, this would appear to make intuitive sense as additional housing provided publicly would consist of units which would be assigned for social, affordable or cost rental housing and are therefore assumed to be ‘non-market’ dwellings which would not have the same price impact as houses coming onto the market through private channels.

TABLE 5.4 THE IMPACT OF PUBLIC AND PRIVATE HOUSING ON PRICE RESPONSE TO SUPPLY

Dependent Variable: House Prices $HP_{i,t}$	(1)	(2)
Dwelling stock $S_{i,t}$	-1.13*** (0.27)	-0.52** (0.3)
Personal income $INC_{i,t}$	0.82*** (0.05)	0.74*** (0.05)
Real Interest Rate $IR_{i,t}$	-0.05*** (0.01)	-0.06*** (0.01)
Population $POP_{i,t}$	1.18*** (0.27)	0.51** (0.27)
Dwelling stock $S_{i,t}$ **x % Public**		-0.08*** (0.01)
R^2	0.51	0.55
F-Statistic	117.9	112.1
Observations	460	460
Economies	5	5

Source: Authors’ calculations.
Notes: ***, ** and * denote significance at the 1, 5 and 10 per cent level respectively. Standard errors are in parentheses.

5.3 CHAPTER SUMMARY

Several important distinctions between different regions are identified in this analysis. Irish housing supply tends to be the most responsive to changes in house prices, followed by Northern Ireland, while England is less elastic in its supply responsiveness. This is expected given the volatility in Irish housing supply over the last 30 years. The Irish market has been more susceptible to cyclical swings in the economy.

Across all regions, increases in housing supply sees house prices decrease, although the result is quite small in Northern Ireland. Scottish house prices are the most responsive to changes in housing supply.

When it comes to construction investment, increased house prices result in higher levels of investment, particularly when there is a larger proportion of the labour force employed in the construction sector. This makes sense, as having a larger proportion of people working in the sector indicates a greater scope for expansion of activity.

CHAPTER 6

Conclusions and policy options

In reviewing the housing markets across Ireland, Northern Ireland the rest of the United Kingdom some notable similarities and differences are evident. It is clear that comparing the different markets does present certain opportunities to learn from best practice in certain markets. However, there are also more general issues which confront all the housing markets in these islands. In this chapter we seek to highlight the differences between housing markets and to identify policy issues which arise from the comparison. We label the key finding below and highlight the relevant policy measure where appropriate.

6.1 DIFFERENCES IN MACROECONOMIC CONDITIONS

One of the biggest differences particularly between the Irish and the Northern Irish property markets is the set of macroeconomic conditions in the different economies. It is clear that the Irish economy has been experiencing an exceptional growth performance since the mid-1990s. This has particular implications for housing demand. The higher level of demand means the need for increased housing supply in Ireland is greater than Northern Ireland, and indeed than the rest of the United Kingdom, with the exception of certain English cities. This means that while actual supply levels in Ireland on a per capita basis may be favourably compared with Northern Ireland and the rest of the United Kingdom, there is greater demand for housing in Ireland at present. Given economic forecasts, this is unlikely to change going forward.

6.2 THE PERSISTENT IMPACT OF THE GLOBAL FINANCIAL CRISIS

One of the common issues which arises across housing markets in Ireland and the United Kingdom is the persistence of the impact of the Global Financial Crisis (GFC). This is particularly the case for the Irish property market. Given the scale of the housing related credit bubble which existed in Ireland prior to 2007, the impact of the financial crisis was especially pronounced in the Irish financial and construction sectors. Changes in financial regulation both in the UK and Europe after the GFC meant that both mortgage and construction credit is not as readily available as was the case prior to 2007. In the Irish market, mainly owing to the relatively high presence of impaired loans on the balance sheets of financial institutions, this tightening of credit conditions was more pronounced. While this impacts the quantity of credit available in the market, it also has implications for the cost of credit as noted by Egan and McQuinn (forthcoming).

6.3 THE DECLINING ROLE OF THE STATE

Therefore, across all housing markets and particularly in the Irish case, there is a need to recognise that the traditional financial sector does not appear to be able to provide the requisite level of credit for the level of housing activity which has been deemed necessary to meet the structural demand for housing in the different markets. This is particularly relevant in the context of the next general point which is observable across the Irish, Northern Irish and other UK housing markets; that is the long-run decline in the presence of the State in providing social and affordable housing. This trend is clear from the data presented where a pronounced decline in per capita terms in the stock of social and affordable housing since the early 1970s is evident. The trend was actually exacerbated by the GFC owing to the fiscal pressures that the Irish and UK Governments were under from 2007 onwards. This prompted a general decline in government investment. It is not an issue specific to the Irish and UK housing markets. OECD (2021) notes the decline in housing investment by governments across Western economies. From different policy initiatives proposed, it is now generally recognised that greater public investment in the provision of social and affordable housing is essential if the acknowledged imbalance between supply and demand across housing markets is to be bridged. A certain amount of government investment is required on an ongoing basis to endure that there is a specific number of units added each year to the social and affordable stock of housing available. **Therefore, to a certain extent, increased government investment is one way of alleviating some of the issues generated by the changes in the provision of credit by financial institutions post the financial crisis.**

6.4 LABOUR MARKET CONSTRAINTS

Attracting the requisite labour for the construction sector is going to be a challenge for housing markets across the UK and Ireland. However the situation is particularly acute for the UK and Northern Irish markets, related to the implications of Brexit and the UK's withdrawal from the European Union, which does make it more difficult for net immigration into the UK. Traditionally over the past 25 years, housing markets in Ireland and the UK have sourced a significant amount of labour from the European Union. By definition, this is now more difficult for the UK and the Northern Ireland markets. **Also, it is clear that both the UK and Ireland will have to adapt recruitment methods. This includes hiring trainees and apprenticeships to allow young workers to learn on the job. It may also involve attracting skilled workers who have the left industry to return, whether they be in a new industry or inactive.**

6.5 GREATER AGGREGATION IN THE PREPARATION OF DEVELOPMENT PLANS

From a planning perspective, it is clear that while there are some differences across the different housing markets, the basic model is quite similar. Local Authorities tend to formalise local area development plans based on a housing strategy that is conceived at a national level. One issue which arises here is the efficiency of such a structure. There is a significant number of Local Authorities across Ireland and the UK and each is required individually to formalise their plans. **Would a greater degree of aggregation be more practical in devising and implementing such development plans? This would appear to be particularly attractive in the case of the Irish and Northern Irish markets where there is a relatively large number of authorities given the population.**

From the point of view of the Irish housing market, it would appear that the manner in which the Scottish authorities secure local buy-in to housing development plans has considerable merit. This seems to result in a greater sense of participation amongst the general public in the plan. It may also reduce the need for the Irish system to enable third party bodies to participate in the planning system in the manner in which they do. This does appear to be an outlier even across the broader European housing market.

6.6 GREATER REGULATION OF LAND MARKETS

Across the different markets, it would also appear that the role of private developers in terms of how the land market operates would also seem to be somewhat idiosyncratic compared to European housing models. This is particularly an issue in the Irish housing market where a considerable amount of discussion has focussed on the role played by speculation in the land market in impacting land prices and hence the finished price of a house. **One clear requirement in the case of the Irish market is the need for an official land price series; this would clearly enable land values to be tracked and compared over time and on a regional basis. Overall, greater regulation in the provision of land for housing could help to reduce the role played by speculation in land prices and hence lower the cost of a key factor of production.**

6.7 IMPROVE PRODUCTIVITY IN THE CONSTRUCTION SECTOR

Use of modern methods of construction (MMC)[41] will be increasingly important for construction sectors generally and particularly in the case of those in Ireland and the UK. This is because, as noted previously, Irish markets have been particularly

41 MMC refers to a range of innovative construction processes to deliver quality and compliant housing. Often times it is referring to methods such as off-site manufacturing, modular construction panels or light steel framing, structural insulated panels, or cross-laminated timber.

scarred by the after-effects of the Global Financial Crisis, with supply especially adversely impacted. **Measures which can improve productivity within the respective construction sectors will be increasingly important and especially measures which can facilitate the construction sector meeting targets set in the Climate Action plan**.[42] Some of these targets for 2030 include retrofitting 500,000 dwellings to BER B2 rating, putting heat pumps into 400,000 existing and 280,000 new dwellings, and decreasing embodied carbon in construction materials produced and used in Ireland by at least 30 per cent. These are ambitious targets which will require much of the same resources as the construction of new residential units. This further highlights the importance of expanding labour supply and increasing productivity in the construction sector.[43]

6.8 ENHANCED ROLE OF EDUCATIONAL AND TRAINING SCHEMES

Another area where improvements in labour supply across both the Irish and Northern Irish labour market could be achieved is in terms of educational policy. In reviewing education and training systems in Ireland and Northern Ireland, Smyth et al. (2022) highlight the importance of greater cooperation and coordination across the two different sets of training and educational programmes. This is especially the case given the common issues faced in both jurisdictions.

6.9 IRISH SUPPLY MORE RESPONSIVE TO PRICE MOVEMENTS

The results of the empirical section have yielded some interesting results particularly in terms of the dynamics of the different housing markets. First, the results of the estimation show that there are some significant differences between Ireland and Northern Ireland's housing markets in terms of the relationship between housing investment, supply and prices. Firstly, the estimations showed that Ireland has a much stronger long-run price elasticity of housing supply. This suggests that investment in the Irish housing market responds more strongly to an increase in house prices than in Northern Ireland. These results may be impacted by the substantial increase in housing supply in the Irish market prior to 2007. This was enabled by the significant increase in credit provided at the time. Interestingly, the response in Northern Ireland appears to be higher than in England, Scotland and Wales, however.

42 *Climate Action Plan 2023*: 94a5673c-163c-476a-921f-7399cdf3c8f5.pdf (www.gov.ie).

43 The Department of Housing, Local Government and Heritage and Department of Enterprise, Trade and Employment (2023) published a report examining the use of modern methods of construction (MMC) in the delivery of public housing. Amongst other issues assessed the report focusses on the role that public procurement can play in enabling greater use of MMC in public housing delivery.

6.10 BIGGER IMPACT ON IRISH HOUSE PRICES DUE TO AN INCREASE IN SUPPLY

In terms of the reaction of house prices to the level of housing stock, Irish house prices have a significant negative relationship with housing stock, suggesting an increase in dwelling completions will have a deflationary impact on house prices. The impact is weaker than its UK counterparts in the England, Scotland and Wales markets. Northern Ireland does not have the same significant and negative relationship, which suggests that increases in dwellings do not have the same deflationary impact.

Our empirical analysis also implies that the greater the increase in construction employment, the greater the response of housing investment to a change in the price of housing. Finally, the results of our estimations suggest that the greater the percentage of social housing stock brought to market, the weaker the response of house prices to changes in supply.

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