KHSK

Economic Consultants

Report to

Bartra Capital Property

The Socio Economic Potential of Shared Living Accommodation in Ireland

An Opportunity to Contribute to the Needs of Ireland's Housing Market

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Executive Summary

1. The market-led, purpose designed, high quality buildings that characterise modern shared accommodation developments address a range of problems and constraints being experienced in many cities and changes in consumer preferences, technology and lifestyle choices. Many of the factors driving this trend reflect important underlying changes such as longer life expectancy, urbanisation and the impact of greater mobility on social interactions.

2. These changes are impacting the lifestyle choices of younger, single, educated people towards lower requirements for private space and private possessions and a greater desire for experiences and social interaction. Shared accommodation developments seek to address this demand by offering a mix of private and communal spaces in well designed, high quality buildings through sharing with people of similar ages and with similar interests.

3. Estimates for Ireland's housing output requirements range between 25,000 and 45,000 units annually. A higher number is required in the short term to address current deficits. However, Ireland is currently producing less than 15,000 new units per annum.

4. The situation is particularly serious in the Dublin region where the population is projected to grow steadily to 2040. Estimates of Dublin's requirements range from 6,500 per annum, if the regional development strategy is successful, to 20,000 new housing units per annum with demand for 12,000 apartments. However, less than 2,300 apartments were built across the whole country in 2017.

5. Output is falling well short of requirements and the existing housing stock is no longer well suited to demand. Just 12% of households in Ireland live in apartments, well below European averages. The current mismatch means that many households are effectively being forced to fit into an existing housing stock which does not suit their needs.

6. The most important reason why apartments are not being built is that it is not commercially feasible to do so with a viability gap of 20 to 30% in urban areas. Housing in commuter belt areas is viable and, in the absence of alternatives, this is likely to continue to be the main source of new supply for Dublin with further increases in commuting.

7. To be viable, either costs of development need to fall, or prices need to rise. However, the room for price increases is already constrained as apartments are no longer affordable for most people. Only first-time buyers earning €90,000 would be able to afford a suburban apartment and even at this relatively high salary they would not be able to afford a newly built unit in a medium height or urban scheme.

8. Greater density is required to reduce costs per unit, but higher buildings would push up construction costs. The solution requires an innovative approach with a role for shared accommodation.

9. It is likely that there will be a ready market for high quality shared accommodation in Dublin. There is a population bulge in the household formation age groups, rising life expectancy, inward migration, rapid urbanisation, falling household size and a tendency for employment to be created in large companies in high skill sectors. These often create concentrated employment hubs. Young single people who are saving to buy will also provide an important source of demand.

10. Overall, the trends indicate that Dublin's population will increasingly be young, at the household formation stage, have few children, are well educated, wish to live in an urban environment, wish to remain mobile, and have moderate financial resources despite have good incomes and prospects. This is the market for shared accommodation.

11. To illustrate the economic realities of shared accommodation, outline plans for two existing sites were developed for both an apartment development and a shared living accommodation building. The shared accommodation would be affordable by persons at or just above the average earnings in Dublin, but the apartments would not be affordable for most earners. The shared

accommodation options would also provide a higher economic boost to the local area as a result of residents' higher discretionary expenditure.

12. The outcomes of the scenarios are summarised below.

	Shared Accommodation	Build to Rent
Number of Units	338	133
Maximum Number Residents	338	242
Housing Costs per Month	€1,083 - €1,300	€1,200 - €1,850 + extras
Net Incomes of Residents	€11.9 million	€7.8 million
Discretionary Expenditure	€7.4 million	€5 million

New expenditure of this size would be locally important and would support local employment. There may also be a small boost to secondary expenditure as a result of local multiplier effects.

13. The greatest impact of providing this type of housing would be its role in helping to address the potential for the current housing shortage to impact adversely on Ireland's competitiveness. The solution to the serious problem that is emerging will require housing output that is different from Ireland's housing stock to avoid inefficiency and provide the type of housing that is required. Shared accommodation offers such an opportunity.

1. Introduction

1.1 Background and Context

This report has been prepared by KHSK Economic Consultants and examines the potential for shared living accommodation in Ireland. Shared living accommodation refers to the provision of what might be considered to be a non-conventional type of housing where private suites in a purpose-built development are provided for rent on medium term leases, usually from a couple of months up to two years, with tenants entitled to the full use of shared communal and amenity spaces within the development. These spaces will typically include food preparation and dining areas, laundry facilities, work areas, and general leisure spaces. Depending on the scale of the development they may also include exercise areas, a cinema, storage facilities and reserved areas for residents to receive visitors. The overall development remains in single ownership and is fully managed by a single entity.

Shared accommodation developments are typically targeted at younger professionals who wish to live in a particular area, possibly for a defined period of time, who may wish to share with people at a similar stage of their lives or who work in a similar industry, or who have not yet developed either the wish or the resources to purchase a permanent home. Consequently, they are addressing a specific segment of the market that is not well served by more conventional types of residential development. With ongoing urbanisation, demographic trends, the need to counter the growth of commuting, and the emergence of the sharing economy, this form of housing is perceived to have a role to play in addressing the housing requirements of developed countries.

This is the case irrespective of the balance of supply and demand on the housing market. However, the role is greatly strengthened in Ireland by the current and ongoing under-supply of residential accommodation. This has resulted in rapidly rising prices and rents. There has been considerable commentary on this market imbalance and addressing it has been to the fore in Government policy and initiatives in recent years. However, as discussed further below, the under-supply appears likely to persist for a number of years.

Addressing this market imbalance will require that a range of housing types are developed with a greater concentration on the provision of apartments. Along with other recent policy initiatives, this recognition prompted the revision of existing official guidelines for new apartments[1]. The overall objective of the revised Guidelines is to introduce greater flexibility and promote increased development of the required accommodation. Specifically, the Guidelines seek to

- Enable a mix of apartment types to reflect housing demand in urban areas;
- Provide for refurbishment and infill schemes;
- Provide guidelines for build to rent and shared accommodation developments; and
- Remove, where appropriate, the need to provide car parking spaces.

This is the first time that official guidelines have been published for build-to-rent and shared accommodation developments in Ireland. Along with the ongoing housing market imbalance, these Guidelines are an important element of the background and context for the preparation of this report

1.2 Structure of the Report

Chapter 2 of the report looks in more detail at shared living as a concept and the factors that have been driving its emergence and growth as a desired form of housing. It also examines it in practice with examples of recent developments outside Ireland.

Chapter 3 provides an analysis of housing demand in Ireland, concentrating on the market in Dublin. It also examines projections for future demand. This market analysis is extended in Chapter 4 which looks at the ability of the sector to provide the housing to meet this demand. Two issues in particular are addressed: the space that is required to provide the required housing and the commercial and affordability barriers that exist. This is set against the existence of an alternative to addressing these problems, namely, the ongoing growth of the commuter belt around Dublin.

Chapter 5 examines the potential for shared accommodation developments to play a role in meeting the demand for housing in Ireland and to reduce current and long term housing market pressures. Having identified this role, Chapter 6 examines the potential economic impact of developing shared accommodation. This is done by analysis of hypothetical development scenarios for two existing sites. The chapter extends this analysis by examining the important interface between the housing market and

[1] Department of Housing, Planning and Local Government (March 2018) *Sustainable Urban Housing: Design Standards for New Apartments. Guidelines for Planning Authorities*.

economic competitiveness. This is important in the short to medium term given the current inability of the market to provide adequate supply to meet demand, but there is also an important longer term aspect as the market needs to provide the range of types of housing that are required rather than providing a specified type of housing and forcing demand to 'fit' into this offering. The final chapter summarises the main finding of the report.

2. The Emergence of Shared Living

2.1 Economic Development and Lifestyles

The emergence of shared accommodation is largely an urban phenomenon that is being driven by the need to devise solutions in the face of a range of constraints that are being experienced in many cities and by also by positive demand factors such as changes in consumer preferences and lifestyle choices. These factors are felt most intensely by groups of people at two stages in the lifecycle: younger, educated people who have not yet decided if or where they might wish to purchase – or who are saving to purchase – and older people whose living circumstances have changed as their family unit disperses either through ageing, as a result of children leaving home, separation and divorce. Demand is not necessarily limited to these groups but, while they differ in many respects, they also share some important characteristics.

Typically, most important among these shared characteristics is a relatively low requirement for private space but a requirement for spaces where they can interact with their peers. This often translates into a diminished wish to own residential property while maintaining access to the services that accommodation infrastructure provides. The most obvious difference between the two groups is that younger people wish to preserve their independence and lack of ties, while the older group have become more dependent and often wish to preserve ties to an area or a social group while reducing their responsibilities. Thus, while shared accommodation as a concept can meet the basic needs of both groups, there are important differences in the associated services that each requires. In this report, the emphasis is placed on the needs of the younger group, but much of the analysis could also be applied to older age groups also.

Some of the factors that have been identified as the basis for the changes that have promoted the growth in demand for shared accommodation among younger age groups and single people earning middle incomes include

- a general sense that the online world facilitates a wish to have access to the use of goods rather than their ownership – the so-called sharing economy,
- access to memorable experiences rather than material goods, and

- proximity to work and socialising locations in urban location with less commuting[2].

There is also a view that younger groups are more mobile and the impact of globalisation and global connectivity which can make the wish to travel a desirable experience over the longer term rather than being largely confined to younger ages. These impacts certainly contribute to a growth in renting and sharing rather than exclusive ownership and the changes may be sufficiently strong the they might persist through much of a person's working life in the coming decades.

These factors can appear somewhat transitory and their long term impact remains to be seen. However, along with these factors there are some longer underlying term trends that will persist and that may have an even greater impact on the growth of shared accommodation in the longer term. The most important of these are that people are living longer, people are increasingly living in cities, and cities are increasingly overcrowded and expensive. Whatever about the long term impact of lifestyle and cultural changes, these factors are very strong trends that will persist.

2.2 Impact of Increased Life Expectancy

Life expectancy continues to increase. Furthermore, the average age at which people can continue to actively participate in society continues to grow. Table 2.1 illustrates this long term trend. It shows that average life expectancy for the world's population increased by almost 20 years between 1960 and 2016. This was most pronounced in developing countries but, as the table shows, it was also seen in high income countries.

Table 2.1: Life Expectancy (years)

	World	High Income
1960	52.6	68.5
2000	67.7	77.6
2016	72.0	80.5

Source: World Bank

Obviously, this has important overall effects on the population and its structure with higher numbers of 'older' people. However, it is also impacting the definition of the age

[2] Wallman, J. (2017) *London's Broken Housing Market: Can We Fix It?* Report to U+I.

at which a person becomes 'older'. The most noted manifestation of this is the looming pensions crisis and increases in the age at which the old age pension becomes payable. However, an important, if less obvious, impact is an increase in the number of years that a person is likely to spend in any stage of life. Because the overall active age span is increasing, younger age groups have the option to extend the period between leaving home and settling down and taking on the responsibilities of property ownership.

When allied to increasing disposable income and the impacts of the digital economy that promote and facilitate a footloose existence, this ability to delay moving towards the traditional trappings, responsibilities and constraints of adulthood has created a longer timeframe within which groups wish to rent and have a private space while also having access to the facilities and social interaction that a permanent private residence would have traditionally provided. Shared accommodation is filling this market demand.

2.3 Economic Performance and Urbanisation

Projections indicate that the global population will be approaching 10 billion persons by 2050, from a current level of 7.6 billion, and will continue growing for the remainder of the century[3]. The proportion of the population that lives in cities exceeded 50% for the first time in 2010 and, today, approximately 4.3 billion people – a 55% of the total – are currently considered to live in urban areas. This percentage is rising and is expected to reach 65% by 2050.

This rapid and ongoing urbanisation is largely driven by two factors: the competitiveness of cities as centres of production and their attractiveness as places that can fulfil the consumption desires of populations in modernised and developing countries. Cities have long been the engines of economic productivity, innovation and growth and this has intensified in recent years. The World Economic Forum has identified important long term global trends that have caused the central role of cities in competitiveness and production to intensify in recent years[4]. These include the ongoing movement of younger age groups to cities, rising social and economic inequality which favours cities, increasingly rapid technological change which favours agglomeration, the importance of industrial clusters and global supply chains for productivity, and loss of trust in national governance in favour of more local municipal systems. These forces may be intensifying,

[3] World Population Projections www.worldometers.info

[4] World Economic Forum (2014) *The Competitiveness of Cities*. Report of the Global Agenda Council on Competitiveness

and it is not expected that any of them would reverse the process of urbanisation any time soon. In particular, despite the drawbacks of costs and lack of space, there is no indication that the relative balance of the consumption opportunities that are afforded by cities are likely to change[5].

However, there is an obvious conflict between the forces which drive the wish to live and produce in urban areas and the ability of cities to contain ever increasing populations. The projections above mean that in the region of 6.4 billion people will be living in cities by 2050. Even allowing for larger cities and higher densities, entirely new cities will be required to provide sufficient housing for these extra 2 billion people. This would place an impossible strain on the ability of cities to house populations and provide them with the standards of living they desire. Cities are already relatively poor performers from the point of view of energy use and sustainability and this would also deteriorate. However, the sheer growth in scale that is implied by these projections means that expectations regarding the space and housing that can be expected in city areas will need to be revised. This is driving the emergence of shared accommodation forms of housing in cities under particular pressure.

2.4 Social Impacts of Urbanisation

There is increasing evidence that urbanisation and living in closer proximity to other people does not easily lead to an increase in social interaction and involvement. Rather, the reverse would appear to be the case and being closer to people does not necessarily result in more interactions or relationships among people[6]. Comparison of results from the US General Social Survey of 1985 and 2005 found that as urbanisation progressed the number of people with no close friends had tripled. A similar result was found in the UK where 48% of respondents to an extensive survey reported their opinion that Britain was becoming lonelier as a society[7]. The fact is that as people move into cities they risk becoming lonelier and more socially isolated. Furthermore, there is consistent evidence

[5] While production efficiency is greatly affected by economies of scale, it is important to note that consumption is also affected in a similar manner. For example, professional sports, high-end arts and major leisure facilities will generally only be available in cities. The importance of proximity (support for the local top-tier sports team for example) means that unless there is a high level of subsidy or if there are exceptional circumstances, these consumption opportunities require that consumers are not just able to travel to a city, but actually live in the city.

[6] McPherson, M., L. Smith-Lovin and M. Brashears (2006) 'Social Isolation in America: Changes in Core Discussion Networks over Two Decades'. *American Sociological Review*, Vol. 71 (3) pp 353-375

[7] Mental Health Foundation (2010) *The Lonely Society?*

that online interaction and the ability to communicate digitally does not address the problems of loneliness and alienation that are often associated with moving to a new city [8].

This association of increased feelings of loneliness and urbanisation is not new but has been observed over a prolonged period. Neither is the most generally adopted solution wholly new. Collective living has existed in many cultures throughout history, albeit for different reasons. In the modern world this is reflected in the so-called sharing economy.

While the way in which this has become manifest is inarguably determined in large part by the rapid advances in technology, as well as the difficulties encountered as cities continue to grow, the sharing economy also fundamentally reflects the craving for human connection. New technologies simply allow for people to be brought together through these services. When allied to the growing population and depletion of natural resources, sharing homes is inevitable for many as a normal part of everyday living requiring us to rethink the concept of ownership, including in housing.

2.5 Shared Accommodation in Practice

Shared living accommodation started in the United States, where companies such as Pure House and Common targeted their housing offering to a market comprised primarily of under-35s who wanted the sociability and convenience of living in cities, but who lacked the financial resources to buy or rent good-quality accommodation in the city. It is often considered that people in this age group value experiences over products

[8] Beaton, C. (2017) *Why Millennials are Lonely*. www.forbes.com

and are more interested in living together than in owning a house[9]. They typically also express a wish for connection, privacy and efficiency.

Other locations differentiate themselves on the basis of common interests. For example, Pure House in Brooklyn is marketed as a 'highly curated community of likeminded individuals' and is targeted at a somewhat older age group. Rather than rent, residents pay a membership. Fish Island Village in London, which is still in development, offers housing not only to young professionals but to anyone interested in a creative community. The wish to travel is often an important consideration and Roam offers access to multiple locations around the world to members who sign a flexible lease.

In many cases, this targeting is based on employment and work interests. This type of targeting has been growing rapidly and sharing work spaces – often described as Co-working – is already an increasingly established business model. As well as workspaces and meeting rooms, the rent usually includes front-desk services, refreshments, employee events, utilities and security. WeWork, with over 120 locations around the world, is the market leader in providing these spaces. Although only 8 years old, the result of a recent funding round means that the company has a valuation of about $20 billion[10]. Its Irish facilities include Iveagh Court and 2 Dublin Landings. It is expanding rapidly, particularly in Asia, with the purchase of SpaceMob in Singapore in 2017, and NakedHub in China for $400 million earlier this year[11]. Other established companies in this market include Ucommune and Kr Space.

Smaller companies have found it difficult to develop Co-working businesses profitably and have branched into providing associated Co-living spaces to boost revenues and exploit economies of scope. This reduces rental costs for clients, but it also eliminates a commute, ensures 24 hour access to all services and enables interaction with people with similar interests. These companies often use their marketing to differentiate themselves. Nest in Copenhagen is targeted at entrepreneurs many of whom have founded start-ups. Residents do not have to start their own business but must be working within a start-up industry and be willing to participate in related weekly events. Nomad Life targets 'nomadic digital entrepreneurs', Herahub is targeted at mobile female workers, Selina emphasises the need for work-life balance, and Outsite provides a range of outdoor activities to members. Others such as Roam, Unsettled and Nomad

[9] 'The End of Ownership: Why Aren't Young People Buying More Houses' The Atlantic, February 29th, 2012 www.theatlantic.com/business

[10] 'WeWork's $20 Billion Office Party: The Crazy Bet That Could Change How The World Does Business' Forbes, October 2017 www.forbes.com/the-way-we-work

[11] www.bloomberg.com/wework-is-acquiring-china-s-naked-hub-for-400-million

House facilitate the ability to work and travel. As a result, combining co-living and co-working has emerged as a rapidly growing type of shared accommodation and targeting people with common interests is proving to be an effective way to bring people together and help residents to fit into the community with the ability to work and travel while living in low risk accommodation without the burden of ownership.

Early shared living developments tended to be rather small and highly targeted to people with closely aligned interests, but it is increasingly larger scale and focussed on peer groups more loosely defined. For example, the Old Oak Collective in London launched in May 2016 with 550 beds and is now the world's largest co-living facility. It is targeted at younger age groups with above average earnings. Currently, tenants at the Old Oak Collective have a median age of 28 and a median income of UK£32,000 per year, compared to the UK average earnings of just over £26,900[12]. Tenants at Old Oak Collective pay £230 to £360 per week, including bills.

The same company is also planning a shared accommodation scheme in Stratford High Street in a purpose built high-rise building that will have 223 rooms over 30 floors.

A planning application has also made for the development of a shared accommodation building comprising 320 private rooms with shared communal and working spaces and retail spaces on the ground floor for High Road in Ilford. The planning application identifies that the development will be specifically targeted at

> *Young professionals and key workers who are seeking high quality and flexibility on a budget, and who may not be able to afford conventional housing in the area … It is anticipated that the all-in cost would be affordable for individuals who earn in*

[12] Average total weekly earnings in the UK are estimated to be £516. See Office of National Statistics (2018) *Average Weekly Earnings, April 2018* www.ons.gov.uk/employmentandlabourmarket

the region of £35,000 per annum, based on paying one third of their income on rent and associated costs.

These developments all retain the core characteristics of shared accommodation of small private spaces, larger communal spaces, good building design in desirable locations with good transport links, comprehensive supporting management services, flexible leasing arrangements, and quite comprehensive rules concerning acceptable behaviours for residents. The result is that the offerings, while varying in scale and other features, all retain the main feature that they are highly targeted at specific market segments.

These targeted groups are open to sharing accommodation and, often, desire this as a solution. However, traditional house share or boarding houses did not meet their requirements as the buildings are usually old and not built for purpose. The housing that is offered also goes further by addressing some of the risk factors that confront footloose clients, such as expats and students arriving in a city for the first time to make friends and settle in quicker. By defining and targeting the accommodation to meet the demand of a specific group, the firms offering shared accommodation reduce risk by offering a solution to a number of problems reducing the risk of tenants wandering into a totally unfamiliar situation. In effect, they offer a built-in community, which can serve as a surrogate family for people still building up a new social network. Above all, the housing offered is highly targeted at a specific market. In this way, it is markedly different from the more traditional generic housing offering of apartment complexes or houses that may mix private ownership with renting, families with more transient residents and which need to be converted to approach the use needs of the target group.

Conclusions

- Demand for shared accommodation is growing rapidly, particularly among younger age groups and single people earning middle incomes. This is being promoted by a wish to have the use of goods without the responsibility of ownership, demand for experiences rather than material goods and a wish to live closer to work and locations for socialising.
- Technological advances are making it possible to travel and work and this also creates demand for flexibility in working and living arrangements.
- People are living longer with life expectancy in developed countries having risen from 68.5 in 1960 to 80.5 today. This means that there are more years in each stage of life and younger people can extend the period between leaving home and taking on the responsibilities of property ownership.

- Urbanisation continues due to the competitiveness of cities as centres of production and their attractiveness to consumers in both modern and developing countries. Approximately 4.3 billion people currently live in urban areas and this is forecast to rise by a further 2 billion by 2050. This is creating demands on space that cannot be met if only traditional forms of housing are provided.
- Urbanisation also creates problems of loneliness and risk. These can be addressed by collective living in the form of modern co-working then co-living. This is a rapidly growing sector around the world with many different offerings and, increasingly, the development of large scale facilities.

3. Ireland's Housing Requirements

3.1 Projected Housing Demand

Results from Census 2016 indicate that Ireland's population grew by in the region of 174,000 in the period 2011 to 2016. Almost by definition, newly formed households will be smaller than the average of 2.7 persons for all households. If it is assumed that these additional people live in households with an average size of 2.5 this would provide a conservative estimate that an additional 69,600 housing units were required in this period. However, total output in in this period was less than 30,000 units while the the addition to the housing stock – which recognises obsolescence – was less than 25% of what was required. This has resulted in a deficit that will need to be addressed.

This will take time. Research by Duffy *et al* showed that unless there is an ongoing sharp increase in the rate of building considerable shortfalls in the main urban areas will be ongoing[13]. However, the authors found that this increase will take time even if there are clear market signals, since house building activity adjusts slowly in response to demand, by approximately 17% per cent per year. This means that it can be expected that it would take over five and a half years for activity to adjust to a level where the supply of new homes equates with demand, even when it is known at the start of the period that there is a shortfall and there are no unusual constraints – such as lack of finance or suitable land – on the rate of development. The conclusion therefore is that, in the short term at least, the deficit will persist and that prices are likely to continue to rise in all areas.

The National Planning Framework (NPF) looked at likely developments over the longer term[14]. Its analysis provides an estimate that an average annual output of 25,000 new homes per year between 2018 and 2040 is required – 550,000 new homes in total[15]. This projected demand is based primarily on a projection that the population of Ireland would grow by about 1 million people up to 2040. It is targeted that 50% of this population increase will occur in the 5 largest cities. Based on this, it is targeted that 275,000 new

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[13] Duffy, D., D. Foley, N. McInerney and K. McQuinn (2016) 'Demographic Change, Long-Run Housing Demand and the Related Challenges for the Irish Banking Sector' in *Ireland's Economic Outlook: Perspectives and Policy Challenges*. Dublin: Economic and Social Research Institute

[14] Government of Ireland (2018) *Project Ireland 2040: National Planning Framework*

[15] The wording in the NPF refers to output so it is assumed that this is a gross estimate i.e. it is not the addition to the housing stock as allowance is not made for obsolescence.

homes will be required in the cities and that 50% of these would be built within the existing urban footprint. Output in the next number of years would need to be well above the average with an estimate that 30,000 to 35,000 new homes per annum would be required to address current deficits.

A number of recent research reports have questioned the estimates that that are included in the NPF particularly in relation to the output that is required over the next 5 years to address the existing shortfall and particular features of the Irish population. Downey (2017)[16] estimates that the actual requirement is for 45,000 to 50,000 housing units per annum and notes that this estimate is in line with forecasts produced by Davy Research (2017)[17] – which estimated that 53,000 units per annum are required – and Lyons (2017) who estimated that 45,000 units per annum are required[18].

Leaving aside demand for second homes and holiday homes, the demand for the output of new houses is determined by:

- Natural increases in the population and demographics;
- Obsolescence of older houses;
- Changes in incomes and other financial factors;
- Net inward migration; and
- Changes in average household size.

Lyons uses a demand disaggregation approach to estimate the impact of each of the factors above on demand in reaching his estimate.

A particularly important issue that arises in relation to the Irish population is the age structure of the population rather than merely changes in its size. Ireland's population is rising rapidly by European standards, but it is the population in the household formation age groups that will impact on demand for housing. The age structure of the Irish population means that while there are about 60,000 Irish born people who will turn 30 this year, this will fall to about 50,000 by 2025. However, this age cohort will rise thereafter to around 75,000 by 2040. As a result, demand for housing will increase faster than the increase in total population would suggest for a prolonged period.

[16] Downey Planning (2017) *Housing Solutions to Assist Ireland in Realising its Potential: An Irish Housing Research Report*. Report to Hooke & MacDonald.
[17] Davy Research (2017) *Gauging Ireland's Housing Demand/Supply Imbalance*. www.davy.ie
[18] Lyons, R. (2017) *Growing great Teams in Ireland: The Role of the Residential Rental Sector*. Report to American Chamber of Commerce Ireland.

Lyons also noted that Ireland's housing stock is both older and more rural than in the case of most European countries. Internal migration such as urbanisation and changes in preferences for house types impact on the demand for new housing by increasing obsolescence. For example, if everything else is held constant except for an ongoing net movement to the city then this will increase obsolescence for houses in the countryside and overall. The ongoing urbanisation of the Irish population plus the largely rural and older starting condition of the housing stock means that obsolescence will be higher than might be expected in Ireland. He uses a fairly conservative estimate of a rate of depreciation of 0.5% per annum for the housing stock which means that 10,000 new units are required each year to keep the housing stock constant. However, he notes that the CSO uses a depreciation rate of 0.8% for the housing stock in the calculation the Irish national accounts[19]. If this higher rate of depreciation is used, output of 16,000 housing units would be required each year to address obsolescence.

The recent and forecast performance of the Irish economy is an important factor that will impact on demand for housing. A key factor here is the rate of employment creation which has seen unemployment fall from over 15% in 2012 to 5.8% in May 2018[20] with total employment in Ireland growing at 3.1% or 66,8000 to 2.23 million in 2017[21]. This performance is well ahead of the Eurozone average where unemployment remains at 8.5% and at 7.1% for the EU28[22]. Incomes from these new jobs increase domestic demand for housing and also lead to inward migration. Research by Agnew and Lyons (2017) found that over the period 1980 - 2012 an extra 10% in real incomes increased house prices by 8% due to the extra demand that is created[23]. The impact in the period 2007-2013 when supply was constrained was even greater with the impact of new FDI jobs being particularly important in the area where the jobs are created. In a period of a more flexible supply response the impact would likely be seen as higher output with a lower impact on prices, but this is not the current condition of the housing market.

Ireland's impressive recent job creation has impacted on migration and is expected to continue to do so. New migration to Ireland has once again been positive since 2016. Based on Ireland's recent growth performance and medium term economic forecasts, plus the clear sensitivity of migration to performance as demonstrated over the past two decades, it is not excessive to project net inward migration of 100,000 in total, 20,000

[19] Central Statistics Office (Annual) '*National Income and Expenditure*'. www.cso.ie/nationalaccounts
[20] CSO *Monthly Unemployment May 2018* www.cso.ie/unemployment
[21] CSO Labour Force Survey Q4 2017 www.cso.ie/labourforcesurvey
[22] Eurostat News Release 'Euro area unemployment at 8.5%.' April 2018 ec.europa.eu/eurostat
[23] Agnew, K. & R. Lyons, (2017). 'The Impact of Employment on Housing Prices: Detailed Evidence from FDI in Ireland' Trinity Economic Papers 0417

people per annum, up to 2022. Using average household size of 2.5, this would give rise to demand for an additional 8,000 housing units nationally each year[24]. It is also noted that most of the houses for new immigrants would be required in the cities. Therefore, even if ongoing internal migration to the cities results in vacant residential buildings in rural areas, these would not be suitable to meet the housing requirements of immigrants.

Finally, average household size in Ireland stands at 2.7 and has been declining steadily since the 1960s. The indications are that this metric is converging on the EU average of 2.3[25]. Even if the population did not change from the current 4.8 million this convergence would have a considerable impact on housing demand increasing the required stock by an additional 300,000 units by the time the convergence is completed.

Based on these considerations, Lyons projects that a total of 232,500 new units are required in 2017-2022, or 46,500 per annum. The is in addition to what is required to address the existing deficit[26]. Details of the calculation are shown in Table 3.1.

Table 3.1: Demand for New Housing in Ireland 2017-2022

Natural Increase in population	80,000
Demographics	62,500
Net Migration	40,000
Obsolescence	50,000
Total	232,500

Source: Lyons (2017)

[24] Census data show that household size for immigrants is lower on average than for Irish-born households.
[25] Eurostat (2018) *Average Household Size - EU-SILC Survey*. Data table at appsso.eurostat.ec.europa.eu
[26] Providing an actual estimate of the extent of the current deficit is difficult since it would involve estimating the extent of suppressed demand as a result of price rises making housing unaffordable for first-time purchasers thereby deferring entry to the market. Define the deficit as the number of units that would be required to stabilise house prices. There was excess housing supply at the time of the economic crash a decade ago, but prices stabilised and began rising from about 2012/13 onwards. Assume that this means that 2012 was a time when the market was in balance. Based on the NPF estimate for annual demand, this would mean that 125,000 new houses were required in the 5 years 2013-2017. However, recent CSO data discussed in Chapter 4 below shows that just under 50,000 units were completed in this period. This would indicate a deficit of 75,000. This would be in line with the stated target in the NPF for 30,000 to 35,000 new units per annum up to 2027 to address the deficit, compared to an annual average of 25,000 up to 2040. However, if the estimates for annual demand from the other research discussed above are used, the current deficit would be over twice this amount.

The NPF had projected that average annual output of 25,000 will be required up to 2040 and that 30,000 to 35,000 per annum are required up to 2027 to address the existing deficits. The conclusions of this research, which are in line with other recent reports, suggest that the projected requirements in the NPF are too low.

3.2 Dublin's Needs Today and in the Future

The NPF also provided projections for population growth for the 5 main cities. Using the mid-points of the published projection ranges, the total projected increase amounts to 505,000 people. With an estimate of an additional 275,000 homes required, it is therefore calculated that 1 new home is required for every 1.84 additional people. The NPF projected that the population of Dublin City and Suburbs would grow by 235,000 – 290,000 people to 1.41 million in 2040. Therefore, it is implied that Dublin will require output of 143,000 homes, 6,500 per annum, over 70,000 of which are targeted to be within the existing footprint of the city.

Other official estimates support this conclusion. For example, the Housing Agency estimates that just under 45,000 new units are required in the five main urban areas alone in the period 2016 to 2021 with the same number again required for the rest of the country[27]. The Agency estimated that Dublin requires 6,622 new units per annum in this period. However, on the basis of existing projections of supply, the Agency concluded that there would be a shortfall of 35,242 in the Dublin area by 2020.

However, the basis for the estimate in the NPF and the implications of proceeding on this basis have been questioned and other research suggests that this projection greatly underestimates the likely requirements for housing output in Dublin. Recent trends in the location of the Irish labourforce, which reflects the location of the drivers of the Irish economy, indicate the dominance of the Dublin region. As is shown in Table 3.2, just over 30% of the Irish labourforce live in Dublin with a further 12% living in the Mid East region i.e. the neighbouring counties in the Greater Dublin Region. What is most striking is that the labour force in these regions grew by 6.6% and 3.6% respectively in the years 2011-16 and these were the only regions in Ireland where growth exceeded the national average of 3.2%.

[27] Housing Agency (2017) *National Statement of Housing Supply and Demand*

Table 3.2: Ireland's Labourforce, Aged 15 years and over, by Region

	2011	2016	% of total in 2016	% change 2011-16
Dublin	652,178	695,372	30.2%	6.6%
Mid East	260,441	269,763	11.7%	3.6%
State	2,232,203	2,304,037		3.2%

Source: *CSO Census of Population 2016*

Downey (2017) stresses the importance of the key role of Dublin in attracting migration from other parts of Ireland and internationally and emphasises the need to take this into account when planning for housing output[28]. The research also points to differences in the demographic structure of the Dublin region with higher percentages of people in the household formation age groups than in most other areas, a feature that is unlikely to change in the foreseeable future.

Based on an analysis of recent trends, the Downey research concludes that the population of Ireland by 2040 could increase by 1.6 million between now and 2040 and that 80% of the increase is likely to be in the East of the country. This is well out of line with the targeted growth distribution in the NPF which would effectively mean that Dublin would account for just 25% of future population growth. This target contrasts with the trends that have been seen in recent years where Dublin accounted for almost 43% of net population growth in 2011 to 2016. To meet current requirements, the Downey research concludes that 60% of housing output up to 2022 needs to be in the Greater Dublin Area. Beyond this, the region would require about 20,000 new units per annum to meet demand.

As the population grows and changes, household size will fall to European levels and there is likely to be a big increase in demand for small apartment rentals, particularly in Dublin. Partly as a result, the research concludes that 60% of the housing output in the Dublin region should comprise apartments and other small, high density housing units. This structure of output is not out of line with other European capitals but contrasts with the existing stock of Ireland's housing where apartments account for only 12% of the total. The research estimates that there is currently a deficit of 150,000 apartments in Dublin and an ongoing demand for 12,000 new apartments in the city each year.

[28] Downey Planning (2017) *Housing Solutions to Assist Ireland in Realising its Potential: An Irish Housing Research Report*. Report to Hooke & MacDonald.

The research by Lyons, discussed above, also points to the fact that job creation has been strongest in Dublin and that both internal migration and inward migration will be impact mostly on demand in the Dublin area. His disaggregated analysis estimates that a total of 81,500 homes are required in the Greater Dublin area, over 16,000 per annum, in 2017 to 2022. The basis for this is shown in Table 3.2. Of the total, he estimates that 32,500 new rental units are required in this period.

Table 3.2: Demand for New Housing in Greater Dublin Area 2017-2022

Natural Increase in Population	28,000
Demographics	22,000
Net Migration	14,000
Obsolescence	17,500
Total	81,500

Source: Lyons (2017)

The targets in the NPF implied considerable new housing development in Dublin and are quite ambitious in terms of the number of units to be built within the existing footprint, unless a very different type of housing is foreseen. However, this research suggests that the actual requirements of Dublin will be a multiple of what is foreseen in the NPF. This is particularly acute in the next few years, but this conclusion remains valid for the full period up to 2040.

The NPF seeks to achieve a more even distribution of the population within its timeframe. The danger is that this cannot be achieved through limiting the growth of the housing stock in the city without risking undermining the main driver of Ireland's competitiveness.

A key issue is that development must be demand-led if the correct types of housing in sufficient numbers and in the correct locations that will achieve a balance in the housing market are to be provided. A perceived weakness of the NPF that is stressed by Downey is that the NPF does not place sufficient emphasis on this requirement and, while acknowledging that development should proceed in a planned manner, the Plan cannot attempt to undermine the need for output to be demand led by aiming at supply-led development.

Conclusions

- Ireland's population is growing as a result of natural factors and increasing inward migration. It is also concentrated in household formation age groups.
- This is promoting strong demand for housing. This demand is further strengthened by falling household size, urbanisation, and obsolescence in the existing stock. These factors will remain important over coming decades.
- The National Planning Framework estimated that annual output of 25,000 new homes is required between 2018 and 2040. This will amount to 550,000 new homes in total with 35,000 per annum needed up to 2027.
- This is an ambitious requirement, but other researchers have estimated that actual demand will require output closer to 45,000 units per annum for the foreseeable future due to Ireland's age structure, inward migration, urbanisation, economic recovery and obsolescence.
- The NPF has also been criticised for underestimating the number of units that will be needed in Dublin due to its supply side approach to planning. It targets that 50% of new homes will be outside the main cities. The risk is that this approach could undermine Dublin's competitiveness while leading to unneeded development outside the cities.
- Due to the housing shortage that has developed, it is estimated that over 30,000 new units per annum are required over the next 5 years in Dublin alone.

4. Meeting this Demand

4.1 Short Term Supply Outlook

There are many uncertainties surrounding data on the supply of housing in Ireland, but even allowing for any reasonable adjustments, an enormous increase in output above what has been achieved in recent years is required to meet prospective demand. Over the years, official estimates of output were based primarily on electricity connections data from the ESB. Additional data from the Building Control Management System (BCMS) on house commencements, registrations with HomeBond and are also published by the Department of Housing, Planning and Local Government (DHPLG) along with data on the housing stock and planning data. However, each of these datasets, while associated with the level of activity in housing data, is deficient as a precise measure of the number of actual houses that are placed on the market[29]. The DHPLG also records data on house completions, but this information is not published.

The CSO has recently published a new dataset that shows considerable revisions to previous estimates of output. This new series is based on electricity connections, but the data are adjusted using information from a range of sources[30]. This new series shows that the previous data overestimated total output considerably. The DHPLG estimate identified a total of 85,154 electricity connections for the years 2011 to 2017. This had been used as the official estimate of housing output. However, the revised data indicate that actual completions in this period were 53,578, a difference of 31,576. The earlier numbers were therefore an overestimate of actual output by 59%[31].

The numbers also show that the output was considerably slower to react to the uptick in demand although the rate of completion accelerated in 2017 with 14,446 units compared to just 9,915 in 2016. Table 4.1 provides information on the type of housing

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[29] For example, it is estimated that up to 40% of planning permissions never lead to actual houses being built while electricity connections do not always distinguish between new-builds and long term renovations where reconnection may be required.

[30] CSO (2018) *New Dwelling Completions Q1, 2018* www.cso.ie/newdwellingcompletions. The first publication in this new series includes information on the data sources that are used.

[31] It needs to be noted that these are estimates of gross output. Estimating the actual addition to housing supply requires that obsolete premises are subtracted. As discussed earlier, in the range of 10,000 to 16,000 units become obsolete each year. As a result, Ireland was not building enough houses to even maintain the existing stock in recent years and the actual addition to the number of habitable units even with the uptick last year was less than 5,000 units in total.

units that are being completed. It shows that almost 30% of houses were single, once off, detached houses. Many of these are unlikely to be placed on the market. In contrast, just 2,264 apartments were completed, less than 16% of total completions.

Table 4.1: Housing Units Completed, 2016-17, by Type of Unit

	Single		Scheme		Apartment		Total Units
	Units	%	Units	%	Units	%	
2016	3,660	36.9	5,078	51.2	1,177	11.9	9,915
2017	4,269	29.6	7,913	54.8	2,264	15.7	14,446

Source: CSO (2018)

Looking to the near future, planning permissions for a total of 20,776 new residential units were granted in 2017, an increase of almost 27% over the 16,375 granted in 2016[32]. This continues a sharp upward trend that has emerged in recent years, but it is still less than half the likely demand. Of the national total, 24% of permissions are for apartments and 26% are for one-off dwellings that are unlikely to come onto the market following completion.

It has been suggested by some commentators that a big contribution to meeting demand could come from bringing an existing stock of buildings into residential use. The 2016 Census identified that there were over 83,000 vacant residential properties in the State, about 30,000 of which were identified to be in Dublin. However, considerable doubt has been cast of this estimate as an indicator of the number of properties that may actually be available for housing. For example, follow-up surveys by some local authorities have found that the number of actual vacant properties that were in a habitable condition was only a small percentage of the estimate based on the Census data.

Irrespective, the fact is that there is a severe shortage of suitable accommodation. This is seen in rising prices but there are other indicators also. For example, data on the average length of time that a house takes to sell show that 48% of houses listed in Dublin are selling within 2 months[33]. In the rest of Leinster, on average 38% of houses sell with 2 months. The market is somewhat slower in the rest of Ireland with 48% of houses selling within 4 months in other regions. This indicates very little availability in the city even if there is a stock of housing on the market in other regions.

[32] Department of Housing, Planning, Community and Local Government (2017) *Monthly Housing Activity Report* and CSO (2018) *New Dwelling Completions Q1, 2018*
[33] The Daft.ie House Price Report (Quarterly). www.daft.it/report

4.2 Where Can the Housing be Built?

Output of housing will depend on the availability of suitable zoned and serviced land in the places where demand is strongest. Data on the available zoned land and the potential provision of housing units from the Department of Environment, Community and Local Government, when compared with the distribution of the Irish population according to the 2016 Census, show that just over 28% of the Irish population live in Dublin and that just over 28% of the planned housing units are located in Dublin[34]. However, as is shown in Table 4.2, this does not hold at the level of the local authority areas in Dublin and it is at this level that decisions regarding development are made. When the Dublin data are disaggregated into local authority administrative areas, the data show that the percentage of development that could accrue in the City area is well below the percentage of the population of Dublin that currently lives in the city. This imbalance will inevitably lead to pricing pressures in the city and an on-going hollowing out of the population into new suburbs in Fingal and South Dublin, and likely further afield, unless this distribution is changed.

Table 4.2: Population and Residential Zoning in Dublin

	Zoned Area (Ha)	Projected Houses	% of Houses in each Area	% of Population in each Area
Dublin City	298	29,694	25.4	41.16%
DLR	399	19,710	16.9	16.18%
Fingal	1,159	36,025	30.9	21.97%
South Dublin	798	31,276	26.8	20.69%

Source: Department of Environment, Community and Local Government (2015) *Residential Land Availability Survey* and CSO (2017) *Census of Ireland 2016*

There is also an additional constraint identified by Downey (2017). While the research also identifies that there are adequate lands zoned for residential development in Dublin as a whole, it identifies a major difference between the area of land that is zoned and the area that is both zoned and has the appropriate services and infrastructure, such as roads, water and waste water facilities, in place to facilitate residential development. This is particularly important in DLR and Fingal and means that there are significant barriers to development within a medium term timeframe and that the overall potential is much lower than the zoning would suggest. The analysis is based on data from the

[34] Department of Environment, Community and Local Government (2015) *Residential Land Availability Survey*. 'Planned housing' in this context means the projected housing output potential of the zoned land, not the number of housing units for which planning application have been submitted.

Housing Supply Coordination Task Force and shows that out of potential for 33,600 units in DLR, 11,200 units would require infrastructure and 4,400 would require investment by Irish water before they could be built. In Fingal, out of total potential for 49,541 units, 13,578 would require infrastructure and 19,980 would require investment by Irish water. The research concludes that this is an important reason for the very high number of planning permissions in these areas that have not led to commencements: the necessary services, which are outside the control of the developer who has achieved planning permission, are simply not in place.

4.3 Commercial Realities

Lack of suitable sites is not the only reason for the fact that the industry has not geared up in recent years to provide the supply of housing in Dublin that the recovery in demand requires. The evidence shows that it is simply not commercially viable to do so. This is the clear conclusion from two recent research reports on the viability of building apartments in Dublin[35].

Research published by SCSI in late 2017 provides an independent assessment of the costs of developing apartments and assesses this against the viability of the investment that would be required based on the prices prevailing in the current market[36]. The research examined the costs of developing 2-bedroom apartments of approximately 79 sq.m. in Dublin with data sourced from 28 actual developed apartment schemes consisting of a total of 2,146 apartments. These were divided into three categories of apartment types, namely Suburban (low-rise); Suburban (medium-rise); and Urban (medium rise). The analysis was provided for a range of cost and price specification. The costs of provision identified were as follows:

- Category 1: Suburban (low rise) €1,700 to €1,925 per sq. m.;
- Category 2: Suburban (medium rise) €2,125 to €2,450 per sq. m.; and
- Category 3: Urban (medium rise) €2,400 to €2,800 per sq. m.

The research led to a very clear conclusion: the current market price would be adequate to cover the costs of provision only in the case of a suburban low-rise development (Category 1 apartments). The analysis shows that the gap between the cost and price –

[35] These reports also examined housing more generally but the focus here is on the provision of apartments.
[36] *The Real Costs of New Apartment Delivery*. Report published by Society of Chartered Surveyors Ireland October 2017

the viability gap – is in the region of 20 to 30% of the total costs for suburban and urban medium rise apartments. It is currently not commercially viable to build other apartments in other categories given the current costs of doing so and current prices. The results are shown in Table 4.3.

Table 4.3: Viability Appraisal of 2-Bed Apartment Construction (€000s)

	Range	Sale Price	Cost	Viability Gap	Gap % of Cost
Suburban Low Rise	Lower	298	293	5	
	Higher	308	346	38	11.0
Suburban Medium Rise	Lower	318	400	82	20.5
	Higher	386	481	95	19.8
Urban Medium Rise	Lower	337	470	133	28.3
	Higher	441	578	137	23.7

Note: Price and cost of construction data relate to October 2017 and exclude VAT
Source: Society of Chartered Surveyors Ireland

This means that if the apartments that are required in Dublin – to alleviate the current severe shortage and to meet the city's longer term housing needs – one of two things must happen. Either the market price of apartments must increase, or the costs of development must fall considerably (or a combination of both).

So, how is this likely to be resolved? Prices have been increasing at close to 10% for the past few years and this could continue. However, the upturn in construction and in the economy in general has also seen increases in the costs of development so the gap is not closing adequately. The research first examined the outlook for prices and approached it, not from the usual means of examining the balance of demand and supply, but by looking at the ability of people to purchase at higher prices i.e. affordability. The analysis was done using CSO data on incomes and salaries for a couple where both are earning and Central Bank rules for first time buyers regarding the required deposit (10%) and the loan to income restriction of 3.5 times salary.

The analysis shows that the least expensive type of apartment i.e. a suburban low-rise apartment at the lower range, would require a combined, gross salary of at least €87,000 per annum. However, CSO data show that only the top 20% of households have salaries over €80,000 per annum. The research then estimated the affordability of apartments in each category at the lower range given the market price data. The results are shown in Table 4.4.

Table 4.4: Affordability Estimates (Couple, 2 Earners, €90,090 Gross Salary)

	Category 1	Category 2	Category 3
Sale Price	338,000	361,000	383,000
10% Deposit	33,800	36,100	38,300
Mortgage required	304,200	324,900	344,700
Mortgage available	315,315	315,315	315,315
Affordability	11,115	9,585	29,385

Note: Sale prices refer to the market prices for 2 bed apartments at the lower range in each category.
Source: Society of Chartered Surveyors Ireland

This table shows that for a couple with a combined annual gross salary of over €90,000 who are first-time buyers, the only apartments that would be affordable are low rise suburban apartments towards the lower end of the range. All others are out of their price range. The implications of this conclusion are particularly noteworthy when it is recalled that, as already shown, these prices would not cover the costs of building the apartments. The inescapable conclusion is that there is very limited capacity for ongoing price rises to bridge the viability gap. Consequently, addressing the demand will require that the costs of providing the required housing units are reduced.

The conclusions of the SCSI are confirmed by research that has recently been published by Department of Housing, Planning and Local Government (DHPLG)[37]. This research examined the issues of commercial viability and affordability in a broadly similar manner but using a different dataset based on hypothetical developments. The research looked in considerable detail are the factors that influence costs but did not specifically compare the costs of construction with the market prices that would be available. Instead, it looked at the viability of development in terms of the prices that might be available in the market based broadly on an approach similar to the affordability analysis above.

This research described a broadly similar prospective purchasing couple and identified that housing would be affordable if priced in the price range €239,458 to €319,277. It then compared this with the cost of developing a range of apartment types in urban locations. As with the SCSI report, the analysis found that none of the range of apartments developments examined would be viable. Apartments with perimeter parking, as distinct from basement parking, provided the least worse commercial outcome i.e. the lowest loss per unit. The research then looked at allowing higher

[37] Department of Housing, Planning and Local Government (2018) *Review of Delivery Costs and Viability for Affordable Residential Developments*

developments to see if this addressed the losses. The developments remained non-viable for developers. However, changes in the mix of apartments could help with hypothetical schemes with a higher number of 1 and 2 bed apartments led to a somewhat better outcome. However, this was inadequate to make the development viable.

The research also looked at the viability of a hypothetical build-to-rent scheme, but the outcome was the same. The development would not be commercially viable unless it was assumed that rents would exceed €1,500 per month. This is problematic as this would exceed the level of rent that is affordable for households on or somewhat above average disposable incomes as it would require an income of €54,000 if expenditure is to remain at or below one-third of income. Consequently, the units would be out of range for most prospective renters.

Both reports emphasise the importance of the need to reduce costs and focus on the costs of obtaining sites. The data show that site costs increase with sales price but at a faster rate so that site costs increase as a percent of sales prices at the upper end. The SCSI cost breakdown shows that site cost per apartment unit ranged from €33,000 at the lower range of Category 1 to €125,000 at the higher range of Category 3. This has a significant impact on viability. This is key determinant of non-viability in category 2 and 3 type apartments. However, site cost is a market outcome and trying to address it through direct intervention would be difficult to implement.

Higher density would be one way to reduce the site cost per unit developed on the site, but care is required. As the DHPLG report notes, higher rise apartment developments, particularly those that exceed 6 storeys, can actually result in a more expensive development due to increased structural and fire safety requirements. Consequently, building higher rise apartment complexes would provide no guarantee of improved affordability. Neither would it guarantee increased density because restrictions that may result on proximate development.

It is clear that there is no easy solution without innovation in terms of the type of housing that is developed. The new guidelines offer some assistance, but the gaps cannot be bridged by individual changes in a small number of the cost elements that make up the total. But increased height is not the only way to increase density and shared accommodation as an innovation holds promise in this regard.

This opportunity to address the housing crisis in Dublin is described in much greater detail in Section 6 below. As an illustration, a preliminary analysis of the potential of a site area of 0.35 ha (0.86 acres) in the city was undertaken. At 143 units per ha (58 units per acre), planning permission would be available for an apartment building of 50 apartments comprising 7 1-bed and 43 2-bedroom units. This would provide living accommodation for between 93 and 140 people given assumptions of occupancy of 1 or 1.5 persons per bedroom.

A hypothetical scheme for a shared living accommodation development was also examined along the lines of the London examples discussed earlier. This identified potential for 246 units i.e. bedspaces, plus the communal areas, broadly within the same footprint and outline. In other words, there is an increase in the accommodation potential of the site of up to 160% over the traditional apartment block. This is what an increase in density must mean if the issue is to be addressed and the viability and affordability gaps are to be closed. Furthermore, as is discussed in the next section, this accommodation would be more in line with what the market is demanding.

4.4: An Alternative Outcome: Commuting

Before examining this potential in more detail, it is important to note that there is a proven alternative to this type of urban development that has prevailed in Ireland. The analysis above showed that the price rises that have been seen in the housing market are actually being moderated by the inability of people to buy at higher prices. In other words, the effective market demand is being curtailed such that it is below the level of demand that the usual underlying drivers would indicate. The problem is that while this may ease the rate of price increases in the short term, it has damaging social and economic consequences. One of these problems arises because there is an available alternative to buying the preferred house or apartment in the city. This is what is currently the second best option of a house or apartment outside the city and commuting into the city.

Commuting is a burden that is accepted by some workers. They accept this burden as it enables them to balance what may be two competing objectives: to live in an adequate house while having a rewarding job. Morgenroth (2002) examined the reasons for choosing to commute at a time when it was emerging as a major issue in Ireland[38]. He found that relative wages and relative house prices were the most important factors in

[38] Morgenroth, E. (2002) 'Commuting in Ireland: An analysis of Inter-County Commuting Flows' Working Paper, Economic and Social Research Institute, Dublin

determining this choice. In general, commuters would like to reduce the number of trips and live closer to work thereby allowing them to use the time spent commuting on more pleasurable or profitable activities, but they cannot afford to do so. For those people, commuting is a necessary use of time.

The growth in commuting has been a feature of Ireland in recent decades and is considered to be a socially difficult, personally unpleasant and costly activity. A total of 1.88 million workers identified as commuters in the 2016 Census, up from 1.55 million in 2011[39]. The Census found that 25% of workers in Dublin City commute daily to the city from outside the city and suburbs and that this had increased between 2011 and 2016 by 10.9%, to 130,447 people making this commute each day. The percentage of people with longer commutes increased with over 10% of workers, about 200,000 people, now travelling for over 1 hour to get to their place of work each day. This is most prevalent in the counties around Dublin where about 20% of workers in Wicklow and in Meath had a commute of one hour or more. Cork city saw an increase of 13.5% with Limerick commuting increasing by 13.1% in this period.

Fingal and Kildare are the top two counties from which workers commute into Dublin city and suburbs with 22% Dublin's non-resident workforce coming from each of these counties each day. Together, Fingal, Kildare, Meath and Wicklow account for over three quarters of all commuters into Dublin city. Table 4.5 shows the origin towns with the highest percentages of commuters that travel for over 1 hour to get to work each day.

Table 4.5: Towns with the Highest Percentage of Workers with Commutes over 1 hour

Town	Region	% of workers
Laytown-Bettystown	Mid East	27.6
Skerries	Dublin	27.3
Greystones-Delgany	Mid East	25.0
Maynooth	Mid East	22.6
Wicklow	Mid East	21.7
Balbriggan	Dublin	20.8
Navan	Mid East	19.2
Malahide	Dublin	18.9
Celbridge	Mid East	18.6
Arklow	Mid East	18.3
Newbridge	Mid East	17.8
Portlaoise	Midlands	17.4

Source: CSO *Census of Population 2016*

[39] These data exclude students travelling to school and college and people who primarily work from home.

Overall the number of workers who lived 25 Km or more from their workplace location (when measured in a straight line) increased by 10 per cent from 216,820 to 238,341 between 2011 and 2016. The conclusion is clear: the burden of commuting has been increasing and while it is a feature of all regions of the country, the times and distances are greatest in the commuter areas around Dublin due to the availability of employment in Dublin.

Given that commuting is a use of time, one might expect that those on higher incomes would commute less. On a local or sub-regional level this may hold, particularly for people on highest incomes. However, Morrissey *et al* (2011) undertook an inter-regional level analysis of commuting in Ireland which showed that areas with higher levels of incomes also have higher commuting times and distances[40]. They concluded that the prospect of higher income acts as a compensatory mechanism and that commuting can be interpreted as 'a regional virtual poll tax' that is imposed on people in a certain income group. This tax is regressive in that it is not imposed on people who are at highest income levels in a region, but on those on moderate income levels. Given a choice in terms of retaining their income level and the standard of their house, people would eliminate the 'tax' i.e. eliminate the commute.

In practice, few would describe the decision to commute as anything other than an enforced choice and a burden that is imposed on them. However, its growth around Dublin is second best solution to the problem of the prices and non-availability of housing in the city. All the evidence is that this could get much worse as it would provide a 'solution' to the problem of the non-viability of developing apartments in the city at affordable levels. This is underlined by the results of the DHPLG report that notes that the development of houses, as distinct from apartments, is viable across a range of affordable levels, particularly outside the city where site costs are much lower.

In summary, there is a clear economic reason for urban sprawl and commuting to continue to grow in the Dublin region as it remains a much more viable prospect, from the point of view of developers and prospective purchasers, than the development of apartments in the city. The data above on the type of units that were completed in 2017 support this. Given these incentives, it is less probable that the planning objectives outlined in the NPF can be achieved without risking a sharp reduction in the competitiveness of Dublin.

[40] Morrissey, K., Vega, A. and O'Donoghue, C. (2011) 'Commuting: A Virtual Poll Tax Across Irish regions'. Paper presented to Irish Transport Research Network Conference, Cork

Conclusions

- Recently published data estimate that total housing output in Ireland in 2011 to 2017 was just 53,578 units, much less than previous estimates. It is unlikely that this level of output was adequate to even maintain the housing stock after allowance for obsolescence in this period.
- Output has accelerated in recent years, but it remains well below the level of demand. This is particularly the case in relation to the construction of apartments.
- The result is severe shortages with upward pressure on rents and prices. It is estimated on the basis of the data in the NPF that this deficit is at least 75,000 currently.
- The shortages are particularly severe n the Dublin region and lack of infrastructure means that while there is zoned land in the area it is not available for development in the near future.
- A serious constraint on development is that it is not commercially feasible to construct housing in Dublin at current price and cost levels. Research indicates that only low rise suburban apartments could be built profitably and that the gap between the cost of construction and the prices that could be obtained is in the range of 20 to 30 percent for most apartments in suburban and urban locations.
- This gap will only be addressed if unit costs are reduced or if prices rise. However, affordability research shows that there is limited potential for price rises to address the problem as housing is already outside the range of affordability for most potential new purchasers.
- The affordability research also shows that build-to-rent apartment schemes would require rents that are above the sustainable affordability range of most potential tenants in most locations. As a result, unit costs will have to be reduced.
- Site cost is a significant component of unit costs. Greater density would address this, but this cannot be achieved through higher buildings as costs rise with height. Projections for shared living accommodation indicate that densities can be meaningfully increased within existing site footprints and building heights.
- If this issue is not addressed further residential development in the commuter belt around Dublin appears inevitable as this is a viable alternative. This would result in ongoing growth in commuting, which has been seeing rapid increases in recent years, while failing to meet the demand for people to be able to live close to their work and the services that are offered by a city.

5. Potential for Shared Accommodation in Ireland

5.1 Factors Underlying Demand for Shared Living in Ireland

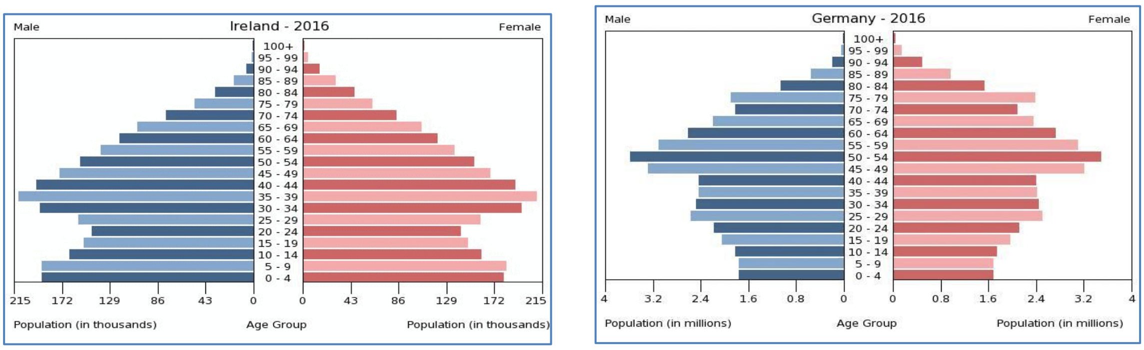
As discussed in Section 2 above, the emergence of shared living accommodation is being driven by

- Technological progress and the emergence of the sharing economy;
- Changes in the structure of demand for housing types arising from the desire for greater mobility and smaller family units;
- Increased pressure on space and other resources in cities and the impact of this on prices; and
- The need to address the danger of social isolation that comes with a footloose and urbanised society where traditional family and social ties are more difficult to maintain.

Ireland is certainly not immune to these factors. Indeed, given a growing population, a relatively young demographic structure, the importance of knowledge-intensive industries in economic performance and the increasing importance of Dublin as the economy's engine, it is to be expected that these factors would be even more visible than in many countries.

Ireland's demographic age structure is somewhat out of line with what is seen in other European countries. The main population bulge is at a notably lower age group in Ireland with the largest numbers in the 30 to 45 are group. This contrasts with most other European countries where the 45 to 55 age group is the largest. For example, this is clearly shown in Figure 5.1 below which show the population pyramids for Ireland and for Germany, the country with has the largest population in the EU.

Figure 5.1: Population Age Pyramids for Ireland and Germany (2016)



Source: CIA *International Yearbook*

The consequence of these differences is that the mean and median ages in Ireland are lower than in other European countries. The average age of the labourforce is also lower and will continue to be so for the next couple of decades. This means that there are higher numbers of people in the household formation age groups thereby requiring higher numbers and proportions of housing units suitable for people at this stage than is the case in comparable countries.

There are also important differences in the age structures of regional populations in Ireland. Table 5.1 shows the proportions of the population in two age groups – 20 to 39 and 40 to 64 – in Dublin compared to the rest of the country. Together these two groups make up the productive labourforce and have the highest levels of incomes. However, household formation is concentrated in the first group. The data show that over 33% of the population of Dublin was aged 20 to 39 at the time of the last Census. This is much higher than in any other region – the next highest region was the South West at 26.7% - and well above the national average of 27.8%. Just under 34% of people in this age group lived in Dublin. However, this is reversed for the older age group where people aged 40 to 64 comprised just 29.4% of the Dublin population – the lowest of any region – compared to 31.3% of the Irish population. This means that the demand for housing per head of population will be greatest in Dublin irrespective of other factors such as household size.

Table 5.1: Age Structure of Dublin's Population

	Aged 20-39		Aged 40-64	
	Number	% of total	Number	% of total
Dublin	447,522	33.2	396,152	29.4
State	1,322,467	27.8	1,492,463	31.3

Source: CSO *Census of Population 2016*

The overall dependency rates – the ratio of people of working age to the total population – are broadly similar across all regions, but there is a greater proportional cohort of people of working age to younger age groups in Dublin, i.e. there are fewer people aged under 20 years, per worker, in Dublin. This reflects internal migration trends and the movement of people to Dublin in their 20s before they have children, rather than fertility, i.e. the propensity to have children as some stage.

Ireland's population has also been growing steadily in recent decades, despite cycles in inward and outward migration. Projections indicate that this will continue[41]. Depending

[41] CSO (2013) *Population and Labour Force Projections* 2016-2046

on assumptions in relation to migration and fertility, the projections show the population increasing to between 4.9 and 5.6 million by 2031 and continuing to increase to between 5 and 6.7 million by 2046[42]. This would amount to an increase of up to 2 million people in 30 years, or over 40%, over the number recorded by Census 2016.

Life expectancy in Ireland is also increased in line with global trends. The data in table 5.2 show that life expectancy increased from 69.7 years in 1960 to 81.5 years in 2016 and is now on a par with the UK.

Table 5.2: Life Expectancy (years)

	UK	Ireland
1960	71.1	69.7
2000	77.4	76.5
2016	81.6	81.5

Source: World Bank

This increase in life expectancy is having similar cultural impacts as in other countries with younger Irish people availing of the ability defer settling down until a later age. For example, the average age of marriage for males in Ireland in 2017 was 36.1 years, the highest on record[43]. The average age for females was also at its highest recorded level at 34.1 years. This compares with 26.5 and 24.4 years for males and females respectively in 1980 and 33 and 30.9 years at the turn of the century. Clearly, this is a long term trend. These trends are also reflected in household sizes with the average household size in Ireland, which had stood at 3.7 in 1981, falling to 2.7 at the 2016 Census.

In line with the trends seen elsewhere, the increase in Ireland's population is also accompanied by ongoing urbanisation with Dublin seeing particularly strong growth in its population. As shown in Table 5.3, Dublin as a whole and each local authority area in the region saw its population grow at faster than the national average over the period 2011 to 2016. A continuation of these trends would further undermine the adequacy of supply and affordability of appropriate housing in the City area. However, this is precisely what the most recent research indicates.

[42] Intermediate assumptions in relation to fertility and migration give rise to the M2F2 projections produced by the CSO. This projection shows a population of 5.2 million by 2031 and 5.6 million by 2041, an increase of just under 1 million over the 2016 count.

[43] CSO (2018) *Marriages 2017*. The data exclude same sex marriages where the average ages are considerably higher but for which there is no long term data series.

Table 5.3: Population and Population Growth in Dublin

	Population 2016	Change 2011-16	% change 2011-16
Dublin City	554,554	26,942	5.1
DLR	218,018	11,757	5.7
Fingal	296,020	22,029	8.0
South Dublin	278,767	13,562	5.1
State	4,588,252	4,761,865	3.8

Source: CSO *Census of Population 2016*

CSO projections indicate that the population of the Greater Dublin Area will increase by 400,000 by 2031 out of a total projected increase in the Irish population of just over 600,000 (using the intermediate M2F2 assumptions) in this period[44]. In other words, the GDA would account for about two-thirds of the projected growth in the state in this period and would contain over 42% of Ireland's population by that time. Most of this growth is projected to occur in Dublin City with an additional 250,000 people living in the city by 2031. At that time, the city's population will exceed 1.5 million. At a current household size of 2.7 persons per household this would require an additional 92,500 occupied housing units, an increase of almost 20%, in Dublin.

This rate of growth is not sustainable long term without changes in housing provision. There is simply not the space to maintain this level of growth and the risk is long term rapidly rising prices in the central area with an ongoing social 'hollowing out' as many socioeconomic groups are forced to move out further. This would inevitably lead to even greater increases in commuting than were shown in the 2016 Census. The only alternative unless new types of housing are produced is to curtail the growth of Dublin, but such an enforced curtailment would risk reducing the competitiveness of Dublin and, by extension given Dublin's central role in the Irish economy, reducing the competitiveness of Ireland.

5.2 Meeting Changes in the Structure of Demand

Interpreting developments in the housing market can be complex. Ultimately, the desire of consumers can be defined as one service namely accommodation. However, this service can be provided by products that are traded not on one market but on a collection of distinct but related markets that are heavily regulated. These markets are

[44] CSO (2013) *Regional Population Projections 2016-2031*

distinguished by various features including the type of consumer – purchasers or renters, for example – by location since the product is not transportable, and by the characteristic of the product, for example, the level of specification or the type of property. Commentary on the Irish housing market has long distinguished between many of these markets but has often failed to adequately reflect the fact that the market for apartments is quite distinct from the market for family houses. The former is often seen simply as a stepping stone towards the latter, perhaps a second best option or a 'make-do' solution, that may be of interest to a particular cohort of the population at a stage of their life. There is some truth in this, but this approach to analysis disguises the fact that apartment living will have a much greater role to play in the future. This is being driven by supply constraints and the inefficiency from many perspectives of trying to provide individual houses for all. However, it is also being driven by demand factors and a growing acceptance of apartment living as a lifestyle choice. An important corollary of this development is that apartments and houses are not the close substitutes from the point of view of consumers that they once were. This same line of reasoning can also be applied to the decision to buy or to rent.

In theory, ensuring that the output of the housing sector meets demand should be relatively straightforward over the medium to long term as the sector will respond to market demands and output can also be planned. However, the failure to adequately recognise the changes that have been occurring over a long period now means that characteristics of the existing housing stock in Ireland, which is the main part of total supply, are not well matched to demand. This is particularly noticeable in Dublin.

As well as the shortage of supply, there is an imbalance in what is available in Dublin. According to the 2011 Census, the city contained 467,000 households, of which more than half (256,000) were comprised of just one or two persons. However, only 170,000 dwellings in Dublin contain four or fewer principal rooms. This indicates a shortage of smaller units. Comparative data certainly supports this conclusion. For example, the Eurostat Housing Census shows that roughly 12% of households in Ireland live in apartments with just 14% of households in Dublin and Cork living in apartments [45]. This is very low compared to other European cities of similar populations. In contrast to Dublin, almost half of Liverpool's housing stock is comprised of apartments, while apartments make up two-thirds of the stock in Copenhagen and over three-quarters of the stock in Lisbon. This is despite the fact that the age structure of the population as shown above would indicate a particular requirement for high numbers of apartments and starter housing units.

[45] Eurostat Housing Census ec.europa.eu/eurostat/housing census

This is having an impact on one of the most basic social building blocks: Ireland's household composition. After falling for a number of decades, household size actually rose slightly between 2011 and 2016. However, this is not a reflection of an increase in family size as might usually be the main factor driving such a development.

Four broad categories of household exist:

- families with children;
- families without children (including people living on their own);
- family households that include unrelated persons; and
- "non-family" households.

The first two categories are by far the largest. However, a noticeable trend in recent years was that over 40% of population growth between 2011 and 2016 existed in the latter two categories: families who have non-family members living with them, and non-family households. In effect, what is happening is that household composition is being rearranged. Households are attempting to fit into the existing housing stock, which mostly comprises of 3 and 4 bedroom houses with a lack of suitably designed and sized apartments.

These underlying structural changes in housing demand and the adverse impacts of the imbalance between the existing housing stock and the structure of demand have been recognised and are reflected in current planning objectives as laid out in the National Planning Framework and the revised planning guidelines for apartments. These aim to facilitate the much greater provision of apartments and housing types to facilitate single persons who have not yet settled on a permanent location or family arrangement.

The National Planning Framework (NPF) targets that the housing supply be developed in a manner that enables people to live closer to their jobs and to the services they wish to access. This means living in cities. However, so that greater urban sprawl is avoided, the NPF targets that 50% of the housing units to be provided in cities must be within the existing footprint of the cities. Obviously, infill housing will provide some of this, but a much greater density is also required. The NPF highlighted the importance of ensuring a change in housing types in favour of more apartment living and in the Minister's Foreword to the Guidelines, it is stated that

> *A move towards a much greater level of apartment living is essential in ensuring our major urban areas develop sustainably rather than sprawling inexorably outwards.*

Furthermore, the NFP is clear that if this is to be achieved, it is essential that the housing that is provided is suitable for what is demanded i.e. it must address identified demands for specific targeted sectors of the population. Shared accommodation will need to constitute an element of the housing supply over the next number of years if this vision is to be realised. Notably, the NPF described shared accommodation and communal living as

> *new and exciting ways to meet the housing needs of key sectors of our society including a young and increasingly internationally mobile workforce, as well as older persons who want to live independently.*

Clearly, shared living accommodation is not only compatible with these strategic planning statements but is foreseen as a solution to the changes in demand that are ongoing. However, the current imbalance means that Dublin is faced with a pressing need ot catch up on the changes that have already occurred, but, as shown in the previous section of this report, it appears ill-equipped to do so without a major change in the type of housing that is produced.

5.3 Sources of Potential Demand for Shared Accommodation

It is clear based on the factors that have been driving the growth of demand for shared accommodation and the experience elsewhere that it is specific to certain socioeconomic and demographic groups rather than being a general demand for housing. This is also illustrated by the way that existing developments are highly targeted, in their design and marketing, towards certain groups. It is also clear that the population structure and socioeconomic changes in Ireland, and Dublin in particular, mean that there is a particularly large section of the population that could fall into these groups. The ongoing migration of young people to Dublin from other parts of the country also contributes to this. Furthermore, a higher proportion of households without children in the city means that traditional family homes are not what is desired.

In addition to the socioeconomic and demographic factors discussed earlier, there are three identifiable features of the Dublin economy that would further support the demand for shared accommodation in the Dublin region. The first is the large cohort of people who are saving to buy their own houses but who have found that rising housing costs are making this increasingly difficult. Salaries and average disposable incomes, at €21,963 per person in 2014 values, are higher in Dublin than in any other region of Ireland and are about 15% above the national average[46]. However, average weekly household expenditure on housing is also much higher in Dublin at €224.21 compared

[46] CSO (2017) *County Incomes and Regional GDP*

to the national average of €164.36[47]. Housing accounts for 23.8% of total expenditure by Dublin households compared to 19.6% on average for the state. Of course, expenditure on housing in the household formation age group will be much higher but can be expected to reflect these relative levels.

Despite relatively high incomes in Dublin, the higher proportion of total expenditure that is accounted for by housing costs means that there in a greater burden on people in the household formation age groups in terms of saving to buy in Dublin, a situation that is exacerbated by the lack of affordability of apartments as discussed earlier. The result is that there is a large cohort of people seeking affordable rentals in the city, without the additional costs of commuting, to use during the period of time when they are saving to buy.

A second important factor that contributes to demand for shared accommodation arises from the increasing tendency for a lot of employment creation to be concentrated in hubs. Many of these are located in the city centre but there are also many such hubs in the suburbs. These tend to fall into two groups but are generally concentrated in service sectors. The first group is what might be considered to be the more traditional services professions with concentrations of employment, often comprising a large proportion of younger people, around facilities such as hospitals and centres of third level education. These facilities have ongoing demand for housing for employees, but growth is quite slow. The second group comprises large international companies being attracted to Ireland. These can have a profound demand on the local housing market when they arrive, and Ireland continues to be very successful in attracting them. This has not happened by accident but is the result of a prolonged period of cohesive and effective policy interventions often involving many areas of policy development and investment.

Table 5.4 compares Ireland with a number of countries that have been identified by the IDA as Ireland's main competitors when trying to attract foreign direct investment (FDI) by large firms. It shows the output per worker in Ireland in US$ after allowance for differences in living costs – a key measure of productivity – is noticeably higher than in the case of these competitors[48]. It also shows that the average number of years that are spent in education by Irish people is higher than among competitors. The WEF research also ranked Ireland 2nd among 130 countries for the diversity of skills that in the workforce and 4th in terms of the availability of skills. The ability of Ireland to attract large scale FDI is often reduced to a discussion in relation to tax rates but, while tax

[47] CSO (2017) *Household Budget Survey 2016*
[48] World Economic Forum (2017) *Human Capital Report*

remains important, these data show that much of the ability to compete for FDI is based on fundamental competitiveness of the labourforce. This has been developed over a long period of time.

Table 5.4: Productivity: Annual Output per Worker

	Annual Output per Worker	Average Years in Education
Ireland	141,473	19
Germany	88,481	17
Netherlands	93,532	18
Singapore	140,993	13
Spain	85,258	18
Switzerland	98,430	16
United Kingdom	79,720	18
United States	111,131	17

Note: Annual output is measured in US$ at purchasing power parity to allow for international comparison.
Source: World Economic Forum

FDI and the employment it creates leads to concentration of demand for housing. This is the case irrespective of whether the jobs are filled by Irish residents of new arrivals from abroad. The point is that there is a locally concentrated demand for housing. Much of this demand is for a particular type of housing, in particular, smaller apartments and not family homes. However, as discussed later, the inability to provide suitable housing is undermining the competitiveness that ahs been created by long term investment in the labourforce.

The third issue is the tendency for new arrivals to congregate towards major cities. With unemployment at 5.8% and falling rapidly, inward migration has picked up and is likely to accelerate[49]. Ireland will need to provide housing for new arrivals if it is to maintain economic growth irrespective of whether this employment arises form FDI or domestic demand.

Census 2016 showed that over 40% of the people living in Ireland who identified as non-Irish – just over 135,000 out of a total of almost 335,000 people – lived in Dublin. Of these, just under 104,000 had come from European countries to Ireland. However, as

[49] The effective rate of full employment in Ireland is at about 4 to 4.5% unemployment. This level of unemployment comprises people between jobs and those who have effectively withdrawn from being available for employment in the measured economy. As this level is approached wage pressures arise and job vacancies increase. This can be expected to induce greater immigration.

shown in Table 5.5, immigrants from Western European countries – with the exception of Germany – are more likely to live in Dublin than people coming from Poland, the Baltic States and other European countries. Immigrants from the former group of countries tend to have higher levels of education, higher incomes and higher earning potential than those from the latter group.

Table 5.5: Origin of Immigrants from Europe to Ireland (Aged 15 and over)

	Dublin	State	% in Dublin
French	5,559	10,755	51.7
German	3,683	10,680	34.5
Italian	6,914	10,836	63.8
Spanish	6,410	10,998	58.3
Baltic States	13,471	47,061	28.6
Polish	29,285	102,743	28.5
Other Europe	38,549	79,524	48.5

Source: CSO *Census of Ireland 2016*

CSO population projections are based on a number of scenarios for migration with the most likely being that annual inward migration will increase steadily to reach 10,000 to 30,000 per annum by 2021 and that this will be maintained into the longer term. The higher end of this range would approximately equate to migration levels in the years 200 to 2005 before it moved much higher. In fact, the rapid turnaround in recent years suggests that migration will be towards the higher end of this range and that an assumption of an additional 20,000 to 30,000 per annum entering Ireland over the next few years appears conservative. The impact of this on housing demand in Dublin has been discussed earlier and it appears inevitable that there would be substantial demand from this group for shared accommodation, if it were available, particularly in light of the social benefits of communal living for new arrivals as discussed in Section 2 above.

The sources of demand are diverse, but the groups have a number of common features. In general, these people will be

- Concentrated in younger age groups but will have left home;
- Will not yet have set up households, but may be planning to do so;
- There will be no more than small numbers of children;
- They will be educated and generally working in service sectors often in larger employers;
- They will wish to live in urban or close suburban locations;
- They will wish to remain mobile in terms of their locations and the jobs in which they work; and

- They will own relatively few possession and control low levels of financial assets but will have moderate to above average incomes with prospects of higher incomes in future years. They will currently have higher levels of disposable incomes than they would have experienced in the previous 5 years.

The discussion and data above indicate that in comparison with other European countries that these groups will comprise a relatively large cohort of Ireland's population for the foreseeable future.

Conclusions

- Demand for shared accommodation in Ireland will be driven by its particularly young population, which is concentrated in the household formation age groups. This is particularly notable in Dublin, which is growing rapidly and has a higher than average proportion of the national population in these groups. It also has a low youth dependency ratio.
- Ireland's housing stock is out of balance with what is required. This is particularly noticeable in two respects: an excess of properties in rural areas and a deficit of smaller units and apartments in Dublin. Dublin's housing stock is well out of line with comparative cities in this regard.
- The failure to supply the quantity and type of housing that is required is having social impacts that go beyond affordability and commuting. People are being forced to remain in family homes beyond the time when they would wish to have their own places and are increasingly living with non-family members in houses that were designed for families because that is all that is available.
- Demand for shared accommodation in Dublin would arise from people in these situations and also from the large cohort of people saving to buy in Dublin, people working in employment hubs often centred on investments by major foreign firms in both urban and suburban locations and the tendency for new arrivals, particularly from European countries, to wish to live in the Dublin area.
- Overall, Dublin has relatively large cohorts of people in younger age groups who have left home but have not yet have set up households, do not yet have children, who wish to live in urban location but remain mobile, and are well educated with good salary prospects but limited financial assets.

6. Economic Impact of Shared Living

6.1 Illustrative Examples of Shared Living Developments

In order to assess the potential economic impact of a new shared accommodation development on an area, outline plans for two existing sites have been developed for both an apartment development and a shared living accommodation building. In both cases the sites would be available for development at short notice. The plans meet existing zoning and site coverage criteria as specified in the Development Plans published by the relevant local planning authority in each case.

Site A: City Location Close to All Amenities

The first site (Site A) is situated within the Dublin City Council area and extends to an area of 0.193 acres. The area is currently in mixed residential, commercial and public services use and would be considered to be a long settled urban area. The site is in a location deemed "Central and/or Accessible Locations" and it is considered that the site would meet the criteria for Shared/Communal Living developments as set out in the Planning Guidelines[50].

The site is currently occupied by an unused office building, which would be demolished, and is surrounded by buildings of considerably greater height than the existing building. It has good road access and is located within a short walk of two urban town centres with a broad range of shopping, leisure, public services and employment opportunities. It is within a short walk of multiple bus routes and the LUAS Green Line and is within a 20 minute walk of the city centre. It therefore meets some of the most important requirements of people likely to create the main demand for shared accommodation.

The site would also be suitable for the development of apartments, for sale or as a build to rent scheme, and this option has been considered. The options for possible development of the site as a residential location are summarised in Table 6.1. The table shows that the build to sell option would provide accommodation for a maximum of 98 persons while the build to rent option would provide accommodation for 92 persons. However, these estimates are based on full occupancy of 2 persons per bedroom in the

[50] Department of Housing, Planning and Local Government (2018) *Sustainable Urban Housing: Design Standards for New Apartments - Guidelines for Planning Authorities*.

apartments, with 1 person per room in the studios and the rooms in the shared accommodation option. Typical occupancy would likely be better approximated by an assumption of 1.5 people per room in the apartments, with 1 person in the studios. In this case, typical accommodation would be 74 for the 49 rooms in the build to sell option and 73 for the build to rent option.

Table 6.1: Residential Development Options for Site A

Option	**Rooms/Apartments**	**Maximum Accommodation**
Build to Sell 35 apartments	14 x 2 bed (80m^2) 21 x 1 bed(45-57m^2)	98 persons
Build to Rent 54 apartments	16 x studio (37m^2) 38 x 1 bed (45m^2)	92 persons
Shared Accommodation	129 single rooms + communal areas	129 persons

The shared accommodation plans identified potential for 117 standard rooms of 16 sq. metres each and 12 accessible rooms of 24 sq. metres each[51]. These would be located on 5 storeys over ground floor and basement. Each storey above the ground level would contain communal space comprising a kitchen and living area extending to approximately 40 sq. metres on each level. Communal areas located on the ground floor would include a lobby, a café/lounge/reception area, a private dining room, a cinema/function room and other support areas and would extend to approximately 200 sq. metres. The basement area would include a laundrette, plant room and gym and would extend to 245 sq. metres. All communal areas would be for the exclusive use of residents and their guests.

Preliminary financial analysis has been undertaken and this exercise indicates that a standard room would rent for about €1,300 per month, €300 per week, in this development. As well as the private room this would also include full access to the communal areas, all utility bills and cleaning. It would also include full management of the premises including security.

CSO data show average household expenditure of €35.36 per week on Fuel and Light in 2016[52]. As this relates to the 'average' household, it would cover 2.7 persons – the

[51] All measurements refer to net internal areas. These dimensions exceed the minimum room size of 12 sq. metres specified in the Guidelines.
[52] CSO (2017) *Household Budget Survey 2016*

average household size in Ireland. It is likely that a single person living alone, for example in a studio apartment, would incur somewhat lower expenses but the economies of scale of living in a household of more than one person would mean that the expenses would not be that much lower. The shared accommodation rent costs would also cover other costs, such as cleaning, maintenance, TV, waste disposal, repairs and security which are all included under the 'Housing' and 'Other' cost categories in the CSO data. As a result, a weekly cost of €35 per person for these items appears very reasonable[53]. Costs such as gym membership would be additional.

Preliminary analysis of the planned Build to Rent scheme indicates that a monthly rent of €1,500 would be required from the studios and €1,850 for the 1-bed apartments. This would not include the cost of utilities and cleaning and there would be a far lesser amount of space provided for communal areas. Based on the data for average incomes in the Dublin area as discussed earlier, this would place this development well outside the affordability range for most earners[54].

People renting a studio in a build to rent scheme – or any traditional rental – would incur additional costs of €35 per week for items that are include in the shared accommodation cost. These costs are included in rent in the shared accommodation. Therefore, for a like-for-like comparison between rental costs in the shared accommodation option and rental costs in the Build to Rent option it is necessary to add this back in. When this is done, the traditional studio costs over €350 per month, (27%) more than the shared accommodation membership. This would be a very attractive saving for someone seeking to save for a mortgage.

The housing expenditure element of living in this scheme would be less than the recommended one-third of gross income for anyone on a salary of more than €41,344 per annum. According to the CSO, the seasonally adjusted average weekly wage in the first quarter of 2018 was €738.14, or €38,515 per annum[55]. This means that someone earning just 7.5% above Ireland's average wage would be able to rent in this

[53] A cost in this range is supported by estimates that have been published by the Insolvency Service of Ireland in ISI (2013) *Guidelines on a reasonable Standard of Living and Reasonable Expenses*. This publication estimated the levels of expenditure that would be incurred in order to maintain a reasonable standard of living by different formats of households, including one person living alone with no car. The headings Household Services, Electricity, Heating and Home Insurance were estimated to cost 146.81 per month (€33.90 per week). Given that these estimates were based on 2012 data and were minimum levels, a cost today of €35 per week for these items for a person living alone appears quite frugal.
[54] Based on a required gross rental yield of 5% per annum, the implied sale price for a 45 sq. m. 1 bed apartment on this site would be €444,000. This is also outside the affordability range identified earlier.
[55] CSO (2018) *Earnings and Labour Costs Quarterly* www.cso.ie

development. Given that CSO data indicate that incomes in Dublin are 14% above the national average this means that this is an affordable and sustainable housing cost for someone on average wage levels in Dublin[56]. For the Build to Rent studio, an individual would need to be earing €54,000 per annum, 40% above the average national wage, to rent a studio and keep housing costs to less than one-third of their gross salary.

Site B: Suburban Location Close to Employment Hub

The second site is located in suburban Dublin outside the City Council area, but within walking distance of important and growing employment hubs. It is located in a central location in an existing town centre with good shopping, leisure and socialising facilities nearby. Access to the site is very good and it has been used for commercial purposes for many years. It is located on major bus routes – both to city and provincial centres – and is within a short walk of mainline rail. It is also a short bus ride to the planned corridor for the proposed MetroWest light rail that will link Dublin's suburbs to the Luas Red line and the Airport.

The site is more extensive in area, but development to above 3 storeys over the ground level is unlikely and the outline plans reflect this. Again, plans have been developed for the same options as above. These are summarised in Table 6.2.

Table 6.2: Residential Development Options for Site B

Option	**Rooms/Apartments**	**Maximum Accommodation**
Build to Sell 36 apartments	31 x 2 bed (81-86m^2) 5 x 3 bed(92-112m^2)	149 persons
Build to Rent 79 apartments	8 x studio (37m^2) 71 x 1 bed (45m^2)	150 persons
Shared Accommodation	209 single rooms + communal areas	209 persons

As above, these accommodation estimates are for maximum occupancy. At more typical average levels of 1.5 persons per room (the 3rd room in the 3 bed apartments is single occupancy), typical occupancy for the Build to Sell option would be 113 persons and 115 people for the Build to Rent option.

[56] CSO (2017) *County Incomes and Regional GDP*

The proposed development would contain 197 standard rooms of 16 sq. m. each with a further 12 accessible rooms of 24 sq. m. with shared facilities located on storeys over the ground floor and basement. The communal spaces would include kitchen and living spaces on each of the upper floors and a range of other facilities, similar in use to Site A above, on the ground and basement levels.

Preliminary financial modelling indicates that, with the Build to Rent option, studios would need to command a rent of €1,200 per month which 1 bed apartments would need to rent for €1,500 per month for the scheme to be commercially viable. With the shared accommodation option, the typical room rent for the standard rooms would be €250 per week, €1,083 per month. Not only is this about 11% blow the studio cost, but it also includes all the extras such as utility bills and cleaning that are additional costs for tenants with the Build to rent option. As with the scheme outlined for Site A, this would provide a source of savings. These financial projections also mean that with these rental levels housing costs for tenants in the shared accommodation scheme would be below one-third of gross salary for someone on the average income, in this case with some margin to spare.

Given their locations and outline designs, it is clear that these shared accommodation designs are targeted at younger employed people on average incomes who would wish to be close to urban facilities and transport linkages. Furthermore, proximity to specific concentrations of employment would further add to the amount of shared interest in the people at whom they would be targeted. This is in keeping with the model that has been developed in other countries.

6.2 Local Economic Impact

Previous sections have looked at the financial consideration of shared accommodation for the providers of accommodation and for people who would live in the schemes. However, these are developments of considerable scale and there would be an impact on the local economy of an area as a result of the increase in population and the boost that they would provide to the level of expenditure in local businesses and services.

It is important to note that this is not to say that there would be a notable impact on the Irish economy as a result of developing shared accommodation. The analysis here is based on expenditures as a result of people moving to an area. Very little of this would be additional to the Irish economy – it is mostly diverted from other areas – but it would be additional to the area. The impact on the economy is better dealt with in terms of the role of housing in promoting the competitiveness of the economy as discussed below. However, it is local expenditure that is of interest to local authorities who have primary responsibility for the residential development of an area.

The calculation considers the different economic impact on the local economy of developing a build to rent scheme and a shared accommodation scheme on the two sites outlined above. There will be employment created in the area during construction and some additional expenditure, although most of the expenditure on materials will be outside the area. However, irrespective of the precise location of the expenditure, very little, if any, additional economic activity would result from the construction of a shared accommodation building as distinct from a more traditional apartment block.

The real addition arises during the period when the accommodation is occupied. Three main differences arise between the resident populations of shared accommodation and traditional apartment blocks. First, there are more people living in the area. As shown in the tables above, there would be 37 more people housed in the shared accommodation development compared to a build to rent scheme at Site A and 59 more people at Site B. This is an increase of about 40% in accommodation in both cases. Second, the occupants have more disposable income after housing expenses and will typically also be of an age group that will wish to spend on socialising and leisure. This is based on the experience of developments abroad. Third, a higher proportion of the occupants will be of working age groups as there will be fewer children, and likely no children, in the shared accommodation development. Therefore, all occupants of the shared accommodation will be of working age. As a result, average income person, and expenditure per person, will be considerably higher than in the case of family households. However, this is not an issue given the scenarios that have been outlined for this calculation as there are unlikely to be children in the build to rent schemes given that that all the apartments are either studios or one bedroom.

Expenditure data are available from the CSO Household Budget Survey[57]. However, it is not considered that the data for incomes contained in that survey are appropriate for this calculation. The most typical household in the potential developments are households composed of a single person. The Budget Survey contains data for such households, but they are national averages. Many of these households will be composed of single older persons living on pensions. This would not be typical of the residents of the likely developments. To address this problem, average income data from the CSO Earnings dataset is used and percentages for the distribution of expenditure across

[57] CSO (2017) *Household Budget Survey 2016-17* www.cso.ie/budgetsurvey

different categories of goods were applied to these totals. This provides a better indication of likely expenditure values.

A number of other assumptions were also used in the calculation. It is assumed that average incomes for residents of the shared accommodation would be 10% above the general working population to reflect trends seen in existing developments. For the Build to Rent schemes it is assumed that average earnings would be 20% above the general population to make them affordable. It is also assumed that there would be 100% occupancy in the Build to Rent scheme with 2 people per bedroom (except for studios) but that occupancy in the shared accommodation would be 95% to allow for a higher turnover rate among tenants[58]. Finally, it is important to recognise that people in shared accommodation will be young, single, employed people, but with an assumption of 2 people per room in the 1 bedroom apartments a high proportion will be couples. It is appropriate to note that a proportion of these couples will not be composed of 2 earners. As a result, it is assumed that each 2 persons in the 1 bedroom apartments comprise 1.9 income earners.

Average weekly earnings in Ireland in Q1 2018, following adjustment for seasonal factors, was €738.14. However, it is known that average earnings in Dublin are higher with the most recently available data indicating a difference of 11.6% above the national average[59]. This would give average weekly earnings of €823.76 or €42,983 per annum. Following PRSI, USC and PRSI deductions, this would provide net income of €32,952 per annum. Using this with the assumptions above gives the disposable incomes shown in Table 6.3. For each site, the total net income to residents is about 38% higher with the shared accommodation option.

Table 6.3: Annual Income Projections for Sites A and B

		Residents	Earners	Av. Income	Total Income
Site A	B to R	92	88	€37,358	€3,287,504
	Shared	129	129	€35,154	€4,534,866
Site B	B to R	150	143	€37,358	€5,342,194
	Shared	209	209	€35,154	€7,347,186

From this, residents will need to pay rent and other essential household expenses with the reminder available for discretionary expenditure. In the case of the shared

[58] Occupancy at the Collective in London is claimed to be 100% even with a turnover rate of 50% per annum. See www.forbes.com/co-living

[59] CSO (2017) *Statistical Yearbook of Ireland*

accommodation option, discretionary expenditure will be net income less the rental payment as it includes all housing costs. In the case of the Build to Rent option it is necessary to subtract this cost. It was estimated earlier that this would be €35 for a single person household. For a two person household in a 1 bedroom apartment it is estimated to be €45 per week. Using the data for projected rents this indicates that discretionary income in the sites would be as shown in Table 6.4 following occupancy.

Table 6.4: Estimated Income for Discretionary Expenditure at Sites A and B

	Build to Rent	Shared Accommodation
Site A	2,081,860	2,623,086
Site B	2,960,350	4,766,830
Total	5,042,210	7,389,916

This calculation shows that the development of the two shared accommodation buildings along the lines above would boost the local economy by providing additional income to residents, after all taxes and housing costs, for discretionary expenditure in the area of €7.4 million per annum. Development as a Build to Rent scheme would boost expenditure €5 million[60]. There would also likely be a small local multiplier effect as a result of this boost in expenditure and some local employment generated[61].

There is a further important point that arises when dealing with an inflow of 200 or more new residents to a locality that needs to be noted. The supply of most products and services is not fully divisible in the sense that consumption is. Businesses require a level of demand – a critical level – to be viable. This critical level will be different for different local suppliers and can usually only be seen after an investment has taken place. An extra consumer moving to an area will not cause a business to scale up. However, an

[60] A 2017 report by Development Economics to U+I entitled *A New Perspective on Compact Living: The Social and Economic Benefits for London* examined the likely boosts to expenditure from alternative developments comprising a traditional apartment block and a shred accommodation option. In that case the boost to expenditure as a result of the latter was about double what would accrue from the apartment block, compared to the 50% increase that is estimated here. The main reason relates to the assumed composition of the apartment block. In the London case it comprised only 30% studios and 1 bed apartments with 30% of the remainder 3 bed units. As a result, there would be a high proportion of children and average earnings per resident would be lower.

[61] The London research for U+I included multiplier impacts, but it would not be meaningful to include estimates for these possible impacts here. Local multiplier effects would be very small as most of the goods likely to be purchased by the residents of the possible development being considered would simply retail in the area but would be brought in, i.e. imported, from other industrial locations where they would be produced. The additional impact on activity in the national economy would also be minimal as most of the expenditure that is being assessed would have occurred elsewhere outside of the immediate locality of the sites irrespective of how, or if, they are developed as residential locations.

inflow of 200 consumers would make a difference of many local businesses. This is important since it means that in many cases the incremental nature of the foregoing analysis can underestimate the impact of a new development of scale. Rather than expenditure in the local area increasing proportionately it can experience a step change as economies of scale kick in. At the limit, a locality that was previously non-viable for business may become a profitable location. In this way, a virtuous circle is created by the concentration of demand in a locality, and the ultimate effect can be many times the initial impact.

6.3 Housing and Competitiveness

The previous section looked at the economic impact of additional expenditure on a local area. However, there is a much greater issue facing the Irish economy currently. While domestic demand is certainly important to the performance of the economy, it is clear that it is Ireland's ability to produce value domestically and then export the goods and services to abroad that drives the economy and has done so for decades. The ability to do this is dependent on Ireland's ability to produce these goods competitively. Competitiveness is a complex issue, but it is very clear that Ireland needs to be an attractive place for human capital to reside. In other words, it needs to be able to produce, retain and attract the talented labourforce that is central to competitiveness. Providing affordable, suitable housing for this labourforce is obviously important. This is not happening at the moment and Ireland's competitiveness is increasingly threatened by this failure.

The extent of this problem is clear from the analysis published by the National Competitiveness Council. In its annual Competitiveness Challenge report, the NCC warned that:

> The shortage and cost of residential property is damaging competitiveness. It impacts upon our attractiveness for mobile investment and talent. High rents affect decisions around labour mobility and entering employment (NCC 2017, page 5)[62].

The NCC went on to state that

> The availability and affordability of residential housing in Ireland is important from both a social and economic perspective. In terms of national competitiveness, it remains an impediment both to attracting mobile inward investment and the

[62] National Competitiveness Council (2017) *Ireland's Competitiveness Challenge*

> expansion of operations by enterprises and is a critical infrastructure impediment, particularly in urban areas. (NCC, Page 80).

These are quite strong statements and indicate the emphasis that needs to be placed on ensuring that the appropriate housing is provided. Several of the NCC report's recommendations were subsequently targeted at the need to address the negative impact of the current imbalance in the residential property market on competitiveness. Other researchers have also reached similar conclusions.

FDI relies on skilled labour and wages comprise typically three quarters of all costs[63]. Based on this, Lyons (2017) points of that since housing is the single largest item of expenditure in the household budget:

> If labour is three quarters of a firm's costs, and housing is one third of household spending, housing is one quarter of Dublin's competitiveness[64].

The report for the American Chamber of Commerce Ireland by the same author, referenced earlier, estimated that more than 30,000 new one- and two-bedroom rental properties will be needed in Dublin by 2022 to sustain new jobs in multinational companies and maintain growth in inward investment. The research found that expanding and newly arrived companies are finding it difficult find accommodation for staff because of a shortage in city-centre apartments and concluded that housing is a critical issue for firms when considering an expansion of their Irish operations. This is particularly serious for young and single wishing to find accommodation close to their jobs.

This obviously provides a disincentive to invest in Ireland but there is a further issue. As the ESRI has pointed out

> As economic activity in the broader economy has recovered, pressures are beginning to appear in the labour market, reflected in accelerating rates of average earnings growth (ESRI 2018, page 39)[65].

This inherent impetus in recovery is being further driven by higher wage demands by workers who are experiencing higher housing costs. However, attempting to address the deficits in this area could lead to additional problems as it could place additional demand on labour. This would intensify the shortages of labour that are emerging in the economy and lead to wage inflation. These developments have also been examined by the Fiscal Advisory Council which summed up the situation as follows[66]:

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[63] National Competitiveness Council (2017) *Costs of Doing Business in Ireland*

[64] Lyons, R. (2017) *Housing and Dublin's Competitiveness: Accommodating the City's Growth*. Available at: www.dublineconomy.ie

[65] ESRI(2018) *Quarterly Economic Commentary*, Winter

[66] Irish Fiscal Advisory Council (2017) *Fiscal Assessment Report*

> The lack of a supply response to the excess demand in the property market has seen a continued escalation in the prices of both residential and commercial property. … While a stronger supply response would be welcome and is needed to keep prices and rents down, overheating in the economy would be more likely to occur if there were substantial increases in construction activity, presuming other sectors continue to grow strongly. (page 54)

So, more labour is required to build more housing if wage inflation is to be avoided, but where would these people live in the meantime? This point was also contained in a recent report from Friends First which concluded that:

> Without adequate labour supply, housing needs will not be met.[67]

This is quite a bind: lack of suitable housing is making Ireland less competitive but addressing the shortage could make the situation worse, at least in the short term. Faced with this situation, it is particularly important that the housing that is built is provided using a minimum of resources both labour and physical. It is also important that affordability is stressed in decisions on what type of housing is to be prioritised.

6.4 Housing, Efficiency and Resource Use

Improving competitiveness is obviously important for a small open trading economy such as Ireland, but this is only part of the story. The ultimately economic objective is not to produce goods and services and sell them, but to provide a high and sustainable standard of living and quality of life for Ireland's resident population. Competitiveness and the production of wealth facilitates this, but it is how this wealth is then used that determines the outcome for people. The NCC recognises the role of the housing market in this process when it states that:

> A sustainable housing market enhances the competitive performance of our cities and towns, improves quality of life, maximises land use potential, attracts more overseas talent and reduces negative environmental and congestion costs caused by commuting. [*A poorly performing market contributes to*] high house price inflation particularly in urban areas, severe traffic congestion, long commuting times, and increased pressure on local authority services such as water and waste. (NCC, Page 83)

[67] Friends First (2018) *Economic Outlook*

The housing that is provided and available is an important determinant of the quality of life in a country and this relies on the efficient use of resources. It is not difficult to see why this is so given the importance of housing in household expenditure. It is therefore vital that the housing that is provided is what is needed and that there is no waste, inefficiency or use of excessive resources in providing the required accommodation.

Housing supply in Ireland is noticeably different from other European countries. Overall, the resources that are used in providing housing are considerably higher then the average. One of the most noticeable aspects of this is that while more than 4 out of every 10 persons (41.8 %) in the EU lived in flats or apartments, the figure in Ireland is just 7.3%[68]. In Europe, 24 % of people live in semi-detached houses and one third in detached houses, but Ireland (51.6 %) is one of only three EU countries where more than half of the population live in a semi-detached house. This contrast is clear from the data in Table 6.5.

Table 6.5: Percent of Population by House Type (2016)

	Flat or Apartment	House	
		Detached	Semi-detached
European Union	41.8	33.6	23.9
Ireland	7.3	40.1	52.4
Denmark	31.4	54.9	13.4
Germany	57.1	26.1	15.5
Spain	66.1	12.0	21.5
France	31.5	44.6	23.7
Italy	52.5	22.5	24.8
Netherlands	18.8	17.8	58.4
Austria	45.0	46.9	7.4
Portugal	45.0	36.8	18.1
Finland	34.2	46.2	19.2
Sweden	45.1	45.6	9.0
United Kingdom	14.3	24.7	60.1

Source: Eurostat

Apartments are much more efficient in terms of the living space and cost of infrastructure that is required per person. Not surprisingly, housing in Ireland – for those who can afford it – is particularly good. For example, the average number of rooms per

[68] Eurostat (2017) *Housing Statistics* ec.europa.eu/eurostat/Housing statistics

person in the EU is 1.6 but it is 2.1 in Ireland. In this, Ireland is exceeded only by Belgium at 2.2 rooms per person. The rate of overcrowding is also very low in Ireland at 3.2 the second lowest rate in the EU, and far below the EU average rate of 16.6[69]. These may seem like desirable characteristics, but they are being achieved at a high cost including lack of affordability, diminishing access to housing and increasing commuting. In effect, while many people desire this type of traditional housing, the emphasis on providing it means that Ireland is unable to provide the types of housing that is required by the range of demand in the market.

It is not surprising therefore that expenditure on housing is high in Ireland. However, it is of greater concern that the proportion of expenditure on housing has been rising over time. CSO data show that the percentage of total household expenditure allocated to housing increased from 18.2% in 2010 to 19.6% in 2016[70]. This increase occurred in a period when house prices and rents remained below previous peaks and interest rates were low. As shown earlier, the proportion in Dublin is even higher. In the same period, the percentage of expenditure that was related to food fell 16.2% to 14.7%. Importantly, this is not just a recent trend but can be seen in in long term data series and has been happening since the early 1980s. Over this period the proportion of household expenditure that is accounted for by housing has almost tripled while the proportion accounted for by food has almost halved. This is shown in Table 6.6.

Table 6.6: Distribution of Household Expenditure, 1980 to 2016 (%)

	1980	1987	1995	2000	2005	2010	2016
Housing	7.2	8.8	9.8	9.6	12.0	18.2	19.6
Food	27.2	25.2	22.7	20.4	18.1	16.2	14.7

Source: CSO (2018)

With recent price increase, the projections discussed above that the market imbalance is likely to continue for some time and the prospect of a rise in interest rates as the current financial cycle matures, all the indications are that this trend will continue unless there is some fundamental change. Experience abroad and developments in Ireland show that shared accommodation housing has an important role to play in bringing about this change.

[69] As measured by Eurostat. The definition of overcrowding used by Eurostat is available by clicking here. For comparison, the UK has 1.9 rooms pe person and an overcrowding rate of 8.0.
[70] CSO (2018) *Ireland – Facts & Figures 2017*

What this discussion shows is that good housing is important for national competitiveness but that the housing sector itself must be competitive. This requires that it provides the types of housing that are required, in the quantity and location that that is required, at affordable prices, using the minimum of Ireland's physical and labour resources. Ireland is not performing well. Lack of housing is affecting competitiveness while the output of the past has created a housing stock that is out of line with Ireland's competitors and is not well suited to the needs or resources of the economy. Ireland's need to provide more housing but cannot do so based on the usage of resources similar to the past. However, there is plenty of room for adjustment before Ireland would come into line with European norms. A real start of this adjustment will be required to address the current crisis.

Conclusions

- Outline structural and financial plans for two existing sites were developed for both an apartment development and a shared living accommodation building in order to assess and compare the potential economic impact of both on an area.
- The first site is in the Dublin City Council area and could be developed as a build-to-rent scheme to provide accommodation for up to 92 persons or as a shared accommodation building for up to 129 persons. The second site is in a suburban area that is close to a major employment hub and is well serviced by public transport. It could accommodate up to 150 people as a build-to-rent scheme or 209 people as a shared accommodation building.
- Studio apartments at the first site would rent for in the region of €1,500 per month and for €1,200 at the second site to make the schemes commercially viable. One bed apartments would rent for €1,850 and €1,500 in the two schemes respectively.
- Preliminary financial analysis indicates that rooms in the alternative shared accommodation development would rent for €1,300 in the City scheme and for €1,085 in the suburban location. This payment would also include access to all the facilities, utilities, management and security which are estimated to be worth at least €150 per month per person.
- These estimates indicate that the shared accommodation option would mean that the accommodation would be affordable for people on close to the average salary in Ireland, but that the build to rent units would not be affordable for most workers.
- Using these housing costs and official data on earnings it is estimated that annual discretionary expenditure by residents of the build to rent scheme would total in the region of €5 million. However, discretionary local expenditure by residents of the

shared accommodation schemes would total close to €7.4 million. This additional boost would support local economic activity and employment.

- An even more important economic benefit of providing shared accommodation is that it would help to address the increasingly serious negative impact of the housing shortage on Ireland's competitiveness and attractiveness as a location for foreign direct investment.
- By using less resources per unit of output, shared accommodation would also reduce the impact of an increase in residential output on an increasingly tight labour market. Overall, providing the type of housing that is required rather than forcing people to fit into the existing housing stock would reduce the resources that are required to house Ireland population making it a more efficient sector.

7. Main Findings

Shared accommodation has emerged as a desirable solution to a range of problems and constraints being experienced in many cities and by changes in consumer preferences, technology and lifestyle choices. The concept of market-led, purpose designed, high quality building that characterises modern shared accommodation started in the US but has since spread to many other countries. Some of the factors driving its growth may be transient, but these also reflect important underlying changes included longer life expectancy, urbanisation and some negative social effects of greater mobility. These long term trends look likely to persist.

The greatest impact of these developments is on the lifestyle choices of younger, usually single, educated people. This often manifest as lower requirements for private space and private possessions and a greater desire for experiences and social interaction. Along with modern design and high quality buildings, shared accommodation developments seek to address this demand by offering a mix of private and communal spaces and the prospect of sharing with people of similar ages, with similar interests and socioeconomic characteristics.

Output of new houses in Ireland is falling far short of requirements resulting in rising prices and rents. The National Planning Framework estimates that an average annual output of 25,000 new homes per year between 2018 and 2040 is required. Over the next decade, it is estimated that 30,000 to 35,000 new homes per annum would be required to address current deficits. The NPF targets that 275,000 new homes will be required in the cities and that 50% of these would be built within the existing urban footprint. Other researchers have identified a need for 45,000 to 50,000 new houses annually over a number of years due to demographic factors and the location of much of Ireland's housing stock in rural areas. However, Ireland is currently producing less than 15,000 new units per annum.

The situation is particularly serious in the Dublin region. The NPF projected that the population of Dublin City and Suburbs would grow to 1.41 million in 2040. If this is the case then Dublin will require an additional 143,000 homes, 6,500 per annum. However, this may under estimate demand in Dublin on the basis that the strategy seeks to disperse economic activity and demand to other parts of the economy. This is a risky approach as a supply-led approach rather than a demand led approach to housing provision could undermine the competitiveness of Dublin and curtail development across the economy. Alternative estimates have identified long term demand for 20,000 new housing units in Dublin per annum with demand for 12,000 apartments. However, fewer than 2,300 apartments were built across the whole country in 2017. As a result, even though the output targets in the NPF would require a major increase in production, they may be underestimates of the true requirements particularly in Dublin.

Just 12% of households in Ireland live in apartments, well below other European cities of similar populations. There has been an increasing realisation that it is important to disaggregate the market and recognise the imbalances that exist in different sectors of the market. This is important to recognise if the proposed remedies are to be efficient – in terms of the usage of resources and the extent to which the product meets demand – and sustainable. The current mismatch means that many households are effectively being forced to fit into an existing housing stock which does not suit their needs.

In the short to medium term, output in Dublin will be constrained because much of the land that is zoned for development is not available as it lacks the infrastructure that is required for development. However, the most important reason why apartments are not being built is that it is not commercially feasible to do so. Research shows that only schemes comprised of low rise apartments in suburban areas would be viable. A viability gap of 20 to 30% exists for medium rise apartments in suburban and urban areas. However, housing in commuter belt areas is viable and, in the absence of alternatives, this is likely to continue to be the main source of new supply. This also means an ongoing increase in commuting.

To be viable, either costs of development would need to fall, or prices would need to rise. However, the room for price increases is already constrained as apartments are no longer affordable for most people. Only first-time buyers earning €90,000 would be able to afford a suburban apartment and even at this relatively high salary they would not be able to afford a newly built unit in a medium height or urban scheme.

Given the importance of site costs, greater density Is required to reduce costs per unit. However, this cannot be achieved simply through higher buildings as this pushes up construction costs. Improvements across a range of cost elements are required. Finding a solution will also require innovative approaches to the provision of housing. Shared accommodation is one such possibility.

Certain features of Ireland strongly suggest that there will be a ready market for high quality shared accommodation here. It also offers an opportunity to address the serious shortage of suitable housing. Indeed, many of the trends that have driven the emergence of demand for shared accommodation internationally are particularly strong in Ireland. These include the population bulge in household formation age groups, high life expectancy, inward migration, rapid urbanisation, falling household size and the tendency for employment to be created in large companies in high skill sectors. These often create concentrated employment hubs. This is particularly the case in the Dublin region.

The high cohort of young single people in Dublin, and those who are saving to buy, provide an important source of demand for shared accommodation. Although incomes are higher in Dublin than in other parts of the country, the cost of housing means that saving to buy is a particular burden in the city. Overall, the trends indicate that Dublin will have a relatively large cohort of people who are

- Concentrated in younger age groups but will have left home;
- Have not yet set up permanent households, but may be planning to do so;
- Have few children if any;
- Are educated and generally working in service sectors often in larger firms;
- Wish to live in urban or close suburban locations;
- Wish to remain mobile in terms of their locations and the jobs in which they work; and
- Own relatively few possession, have moderate to above average incomes with good prospects and rising disposable incomes, but few financial assets.

Providing shared accommodation to meet the housing requirements of these people would provide a product with a better match to their demands and would also free up the units where they currently live do to the non-availability of housing better suited to their needs. These houses would then be available for use by families to which they are better suited.

To illustrate the economic realities of shared accommodation, outline plans for two existing sites were developed for both an apartment development and a shared living accommodation building. The calculations show that the apartments would provide accommodation for a total of 242 people while a shared accommodation option would accommodate 338 people. Based on preliminary financial projections, the shared accommodation would rent for between €1,083 and €1,300 per month for a 16 sq. m. private room plus access to a broad range of communal facilities. Rents for studio apartments would be €1,200 to €1,500. The payment in the shared option would also include many housing costs that are estimated at €35 per week. This would allow for savings of €350 toward a deposit over and above what would be possible with the studio. In terms of affordability, the shared accommodation would be affordable by persons at or just above the average earnings in Dublin, but the apartments would not be affordable for most earners.

The shared accommodation development would also provide a higher economic boost to the local area as a result of the higher numbers of residents and higher disposable income for discretionary expenditure following housing costs. It is estimated that this would be in the region of €7.4 million per annum for the two sites considered, about 50% higher than if a traditional apartment block if developed. These results are summarised in Table 7.1.

Table 7.1: Impact of Alternative Development Scenarios

	Shared Accommodation	Build to Rent
Number of Units	338	133
Maximum Number Residents	338	242
Housing Costs per Month	€1,083 - €1,300	€1,200 - €1,850 + extras
Net Incomes of Residents	€11.9 million	€7.8 million
Discretionary Expenditure	€7.4 million	€5 million

The infusion of a concentrated level of new expenditure of this size would be locally important, but the greatest impact on providing this type of housing would be due to the potential for the housing shortage to impact adversely on Ireland's competitiveness. Competitiveness is a key determinant of performance and many concerns have recently been expressed that lack of suitable housing will damage Ireland ability to attract investment. More housing output is required and quickly. However, this would itself pose problems due to the impact on labour demand. And if it leads to increased migration than this would further push up housing demand.

Getting out of this bind will require housing output that is different from Ireland's housing stock. However, there is room to adjust the type of housing that is produced without undermining quality of life. Ireland has a very low proportion of apartments and a high number of rooms per head of population. Future housing output does not need to replicate this. Furthermore, housing similar to what is provided by the existing stock is not what is required to address demand. The fact is that actually producing the type of housing that is being demanded would reduce the impact on the economy and relieve the pressures. This underlines the importance of providing new types of housing such as shared accommodation developments in sufficient quantity.