

FINAL REPORT //

Cross-border housing markets

The Dublin _ Belfast corridor

Annex No. 4 Case Study // July 2022

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1 Northern Ireland – Ireland Border Region

1.1 Narratives & Territorial Scope

The Northern Ireland – Ireland border region was selected as a case study as it showcases how cross-border synergies can develop between two capital regions. As the economies of Belfast and Dublin have grown, new firms and developments have sought to take advantage of the proximity between the two regions. Hence, a growth corridor between the two cities has metastasised and created intense development pressures in towns located along the corridor (Yarwood, 2016). At the border, the cities of Newry and Dundalk have experienced unique dynamics consequent of differing conditions on either side of the border. In analysing these border towns specifically, we seek to further investigate how housing developments are influenced by the development of this broader cross-border corridor.

As the economic synergies between the two regions have continued to strengthen, the governments of Ireland and Northern Ireland are formally recognising these ties in creating the Dublin-Belfast Economic Corridor as a new consortium mandated to better manage growth throughout the corridor (DBEC, 2020). Hence, the territorial scope of this case study corresponds to the local authorities involved in the Dublin-Belfast Economic Corridor. We will specifically zoom-in and examine the Newry-Dundalk Twin City Region as the two cities have developed unique cross-border collaborations that better services the border region in particular.

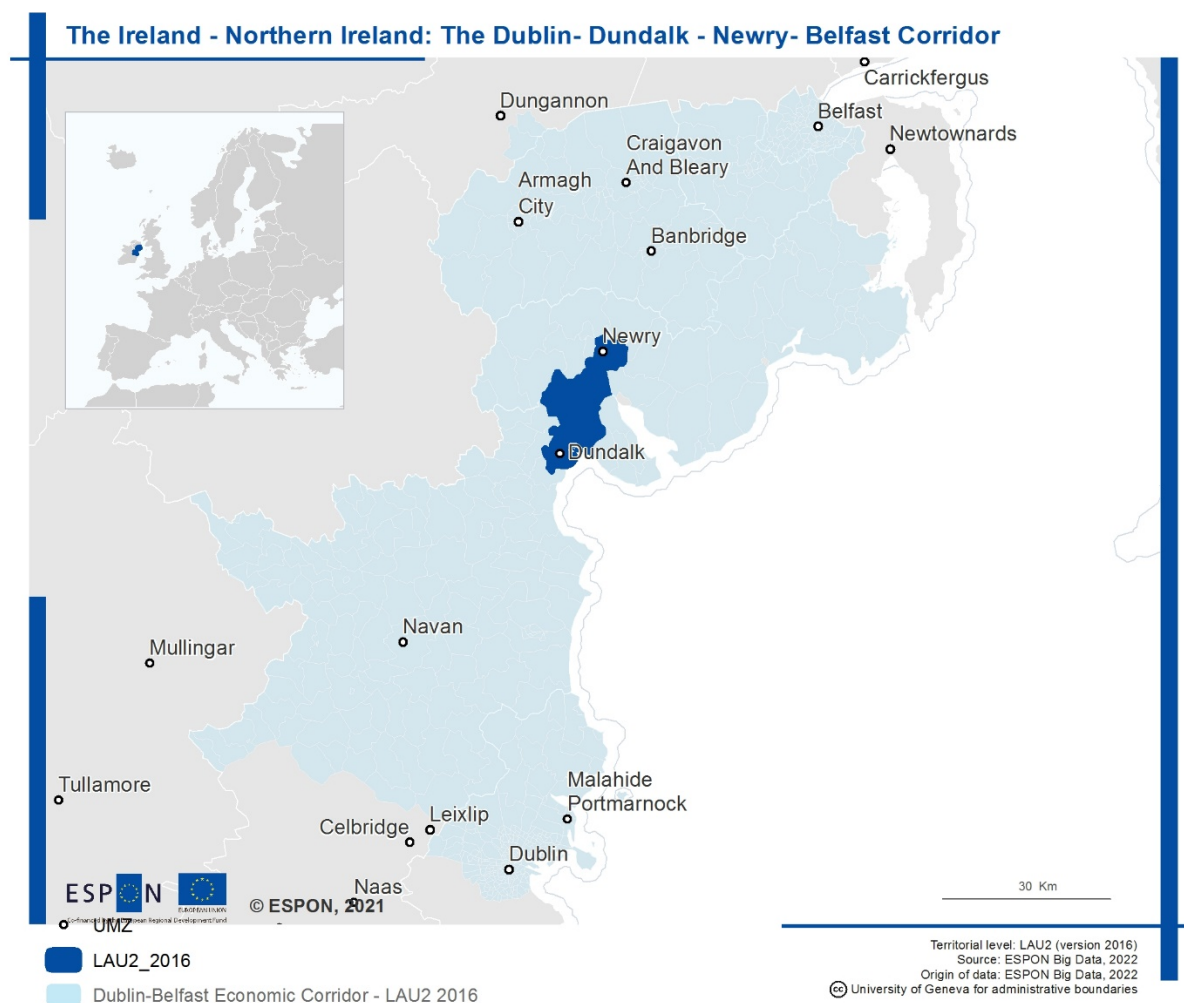


Figure 1: Territorial Scope Case Study Ireland - Northern Ireland

Box 1: Irish Household Scenario

Aine and Bláthnaid currently rent an apartment together in the Dublin Docklands. Aine works for a tech company also based in the Docklands while Bláthnaid works for the Irish civil service in a government department based in Dublin city centre. Hence, renting an apartment in the Docklands has suited their needs as a young couple as they have been able to walk or cycle to work and all their services. Recently, Bláthnaid has decided to return to academia and accepted a PhD position at Queen's University Belfast. While there are direct train connections to Belfast from Dublin city centre, the young couple desire to eventually purchase their own home. Despite Aine's high salary working for a tech company in the Docklands, housing prices in the Dublin area are so expensive that the couple would be unable to afford a mortgage to buy within the Dublin area. Given Bláthnaid's new job in the North and more flexibility for Aine to work from home due to COVID-19, the girls have decided to search for a property to buy in Newry. With less restrictions on accessing finance in the North along with lower housing prices, purchasing a house in Newry makes the most sense both financially and geographically. By relocating to Newry, the girls will have more living space, be within a feasible commuting distance to both Belfast and Dublin and will be saving money as the cost of living is less than in the Republic especially given Aine's high income from working in the tech sector.

1.2 Administrative Systems

1.2.1 Administrative Structure of Republic of Ireland

Within the Republic of Ireland, competencies over housing policy are designated over three tiers of governance: the national, regional and local level. Critically though, the central government enacts statutory legislation which regional and local authorities must adhere to (OPR, 2021). Therefore, the housing sector within the Republic of Ireland is heavily influenced by national policymaking and is closely tied to the direction of the ministerial department over housing within the Government (Lennon & Waldron, 2019). In the current government, housing policy is responsible to Minister Darragh O'Brien of the Department of Housing, Local Government & Heritage (DHLGH).

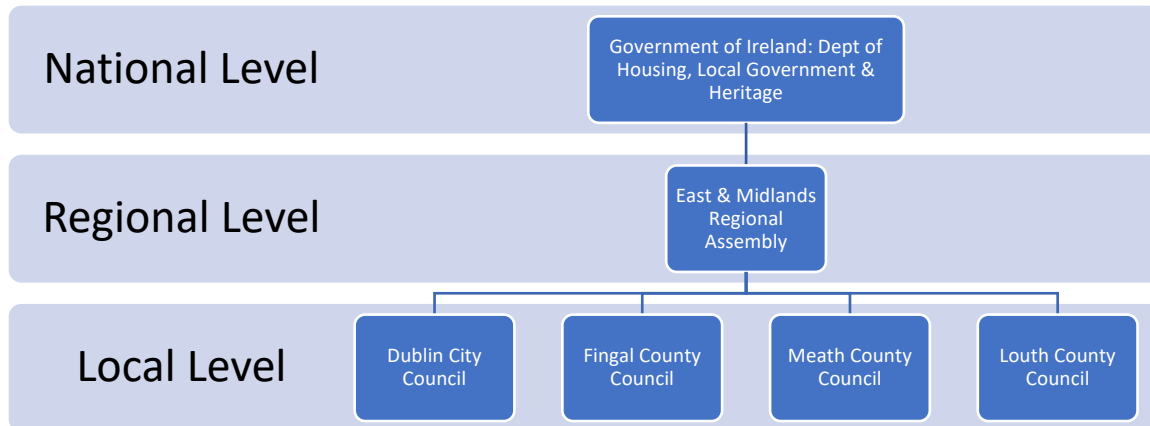


Figure 2: Administrative Schematic of Ireland

1.2.2 Administrative Structure of Northern Ireland

Within the devolved government of Northern Ireland, competencies over housing policy are designated through either two tiers: the national or local level. It should be noted that certain fiscal policy instruments are set by Westminster and maintained across the entire United Kingdom (NI Direct, 2021). Policy tools focused on either direct control of housing development, or the public sector construction of housing is implemented through the Northern Ireland Executive (NI Direct, 2021). The Department for Infrastructure and the Department for Communities both play a part in enacting Northern Irish housing policy while local authorities are generally responsible for the carrying out and implementation of central policy (NI Direct, 2021).

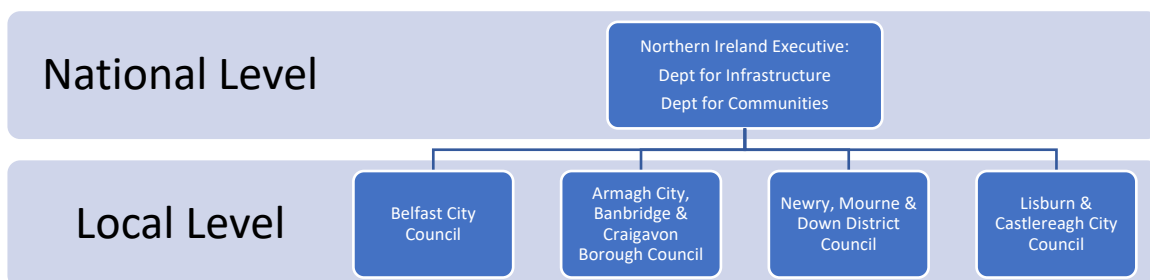


Figure 3: Administrative Schematic of Northern Ireland

1.3 Background & Facts

Economic growth has fomented development and generated increased demand for housing along the corridor between Belfast and Dublin. Consequently, towns such as Lisburn, Banbridge, Newry, Dundalk and Drogheda have witnessed substantial population increases over the past several decades. Improvements in mobility and accessibility due to infrastructural upgrades such as the completion of the M1/A1 motorway, upgrading the Belfast-Dublin rail corridor and coordination between different bus services have further enhanced development

opportunities throughout the corridor (Blair, et al., 2021). The governments of Ireland and Northern Ireland have developed the Dublin Belfast Economic Corridor (DBEC) as an agent to strengthen economic ties and foment further growth across the eight local authorities which make up the region (Blair, et al., 2021).

A commonality between housing markets in both Ireland and Northern Ireland is a high rate of homeownership. In the Republic of Ireland, homeownership sits at 67.8% while in the North, homeownership is 65.6% (CSO, 2016; DfC, 2020). Within the case study area, towns and rural areas have similar levels of homeownership as the national averages while Belfast and Dublin have slightly lower levels as a greater percentage of households rent in urban areas. Another emerging issue across the Irish housing markets is intergenerational inequity as older generations are 'house rich' while younger generations struggle to save up for deposits, meet strict lending requirements or make the jump onto the property ladder (Waldron, 2021). Nevertheless, the high levels of homeownership advances certain conditions such as a housing system highly reliant on private development and a political system which uses housing policy to supplement and foster homeownership (Doval Tedin & Faubert, 2020).

Another aspect impacting cross-border dynamics between Ireland and Northern Ireland is differences in income, taxation, currency, financing and purchasing power causing common border trends for inhabitants across the region. Consequently, households tend to live and shop on the Northern Irish side while households tend to work and commute to the Irish side (RSM Consulting, 2019). As house prices are more affordable and the exchange rate favours buying goods in the North, cross-border trends indicate that people are tending to ultimately settle and/or go shopping in the North. Conversely, incomes tend to be higher in Ireland, so households are taking advantage of this labour market and commuting to Ireland for employment. Furthermore, it should be noted that easier access to credit and more lenient lending standards in the North permits more household to receive a mortgage from British banks than would be possible under current Irish banking regulations (Yarwood, 2016).

In terms of the Newry-Dundalk Twin City Region, this is indicative of a high number of daily border crossings from people commuting and going about their daily errands as individuals take advantage of more economical opportunities on either side of the border (Clarke, et al., 2019).

A key development impacting the border region is Brexit, with new border elements developing across the region. Given the current Northern Ireland Protocol most border controls are happening at the sea, still allowing for a relative good traffic flow. Further the Good Friday Agreement provides a good robust framework for citizens for planning living across the border. Yet, it is clear what the considerations of citizens are in the decision making and whether citizens 'perceive the changed the situation as additional complications for such a decision.

1.4 Drivers & Factors

1.4.1 Greater Dublin Region Growth

A primary factor impacting housing demand across the Irish border is from intense economic growth within the Greater Dublin Region. As multinational tech companies agglomerate their European headquarters in the Dublin Docklands, accessibility to this growth pole has spurred an increase in demand for new development and housing along the Dublin-Belfast corridor (Doval Tedin & Faubert, 2020). Additionally, the logistics sector for the island of Ireland has centred itself along the Belfast-Dublin corridor as hauliers, freight companies and transport agencies take advantage of accessibility to the two major population centres on the island (Doval Tedin & Faubert, 2020). Altogether, this has driven a steep incline in demand for new housing especially on the Irish side of the border.

1.4.2 One-off Housing

One-off housing refers to the development of single-family houses along rural roads which lead to villages and towns. Also called ribbon development, the cultural popularity of building your own home in the countryside have caused urban development to sprawl into rural areas (Gkartzios & Scott, 2009). This problem is particular acute across the Dublin-Belfast corridor as households choose to settle in small towns and rural communities near the motorway but commute long distances to work in either Belfast or Dublin (Blair, et al., 2021)

Beyond the spatial implications associated with one-off housing, the expansion of ribbon development along the corridor plays an important factor in impacting local housing prices as markets value rural living over urban centres allowing for vacancy in towns and cities to manifest while single family houses begin to sprawl across the region (Gkartzios & Scott, 2009).

1.4.3 Economic Integration

Through the joint efforts of business interests between Ireland and Northern Ireland, governments have been able to align policymaking across the economic corridor in order to incite more growth and development between Dublin and Belfast. Organisations such as Intertrade Ireland promotes and encourages economic integration between the regions allowing for the development of cohesive trading networks (Blair, et al., 2021). Hence, logistic companies are able to run supply chains out of the Dublin-Belfast corridor due to the economic integration between communities north and south of the border.

1.4.4 Infrastructural Links

Another important factor impacting the housing market between Dublin and Belfast are improvements in terms of transport accessibility across the regional corridor. The M1/A1 motorway connects Dublin and Belfast City while providing more accessibility to towns along the corridor such as Lisburn, Banbridge, Newry, Dundalk and Drogheda (Blair, et al., 2021). A direct train service between Dublin and Belfast allows for hourly train connections between both cities while strengthening ties between towns along the railway corridor (Blair, et al., 2021). Additionally, bus services by Ulsterbus, Bus Eireann and Air Coach connect communities established along the economic corridor.

Consequent of these infrastructural links, the cross-border housing market benefits from these regular transport connections which enhances accessibility and improves mobility across the entire corridor.

1.4.5 Accessibility Across the Border

A central aspect to this research is how the formation of a cross-border housing market is integrated with the level of accessibility present across the border region. Hence, accessibility can act as either a driver or an impediment to promoting opportunities for further housing integration across border regions.

The following maps are exemplative of how the Irish border region requires further investment into transport links to create a more accessible and integrated region. Only the major towns and urban areas are accessible by public transport whereas many smaller towns and villages have no public transport access at all. Likewise, the map showing rail illustrates how the major urban centres and primary commuter towns are serviced by trains but most of the region is inaccessible by rail. Hence, further cross-border collaboration on public transport systems can better connect the capital cities and build on the economic strength of the Belfast-Dublin Economic Corridor. In the accessibility to employment maps, we observe how both Newry and Dundalk are within close distance to each other and the Irish border itself. Hence, from the maps of employment accessibility, we can derive that this region is highly dependent on the private vehicle for accessibility and connectivity.

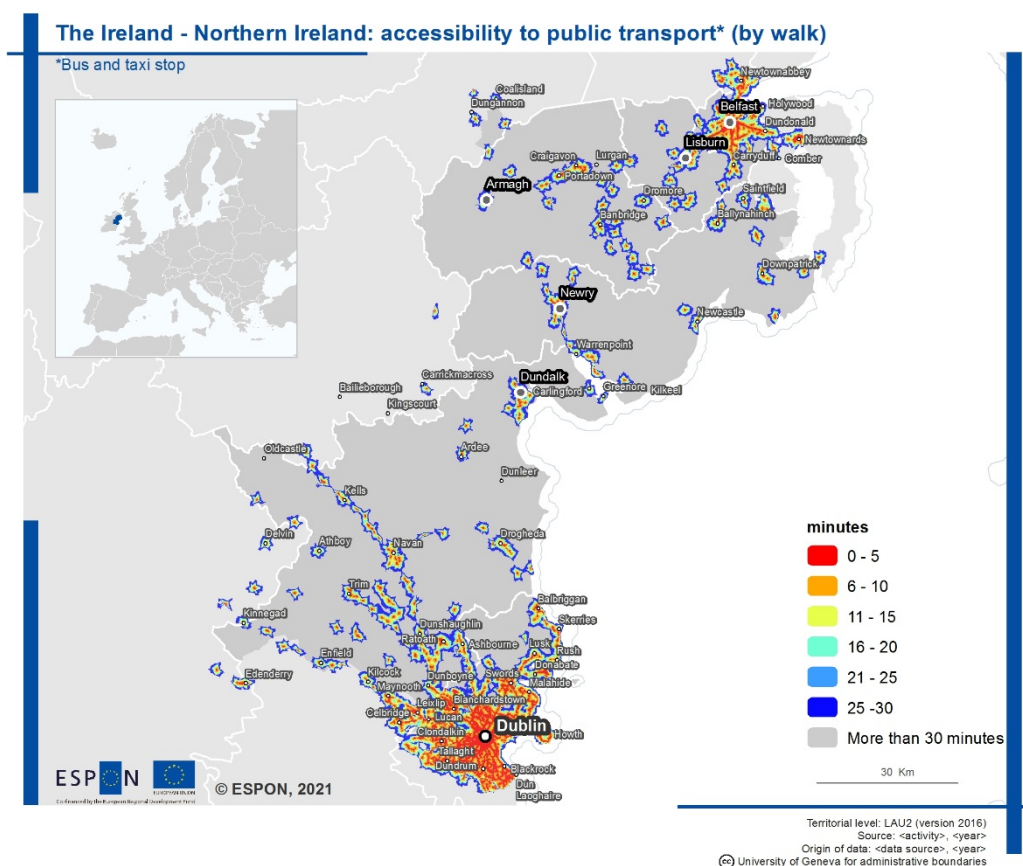


Figure 4: Accessibility of Public Transport

This map shows the accessibility to public transport bus and taxi stops, measured as the required walking time from any point in the analysed area to the nearest stop. Results are delivered as isochrones with a 5-minute interval.

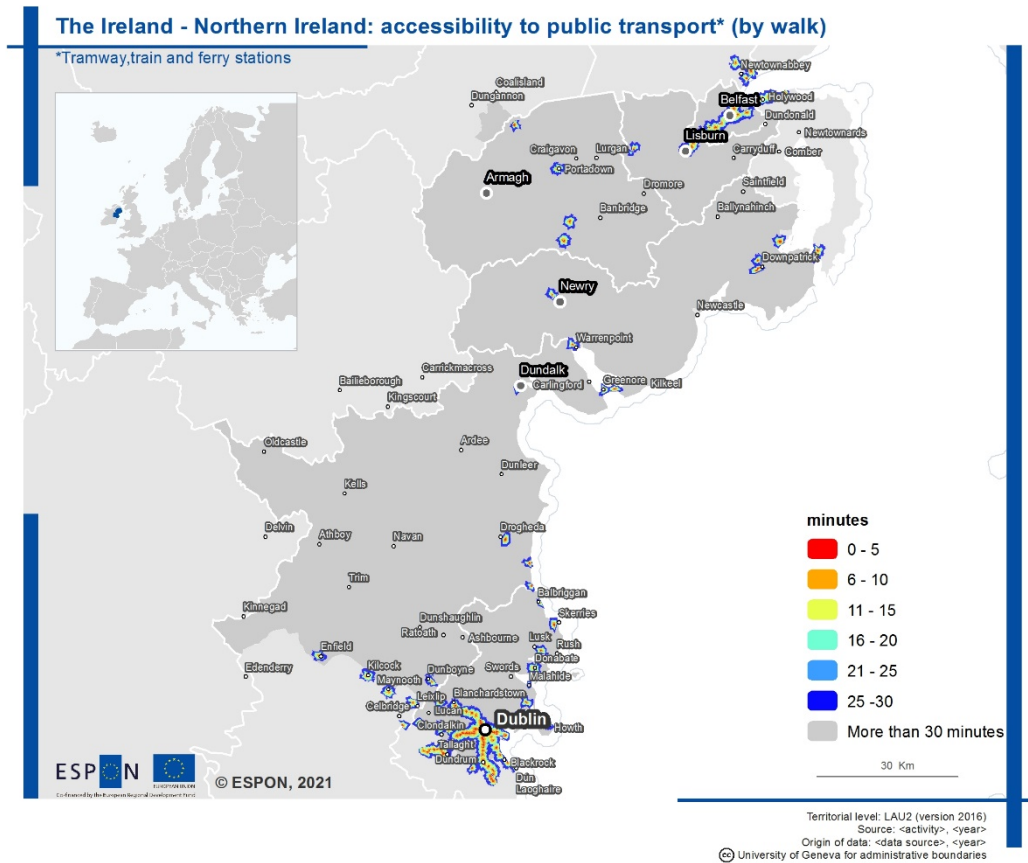


Figure 5: Accessibility of Public Transport (Rail)

This map shows the accessibility to public transport tramway, train and ferry stations, measured as the required walking time from any point in the analysed area to the nearest station. Results are delivered as isochrones with a 5-minute interval.

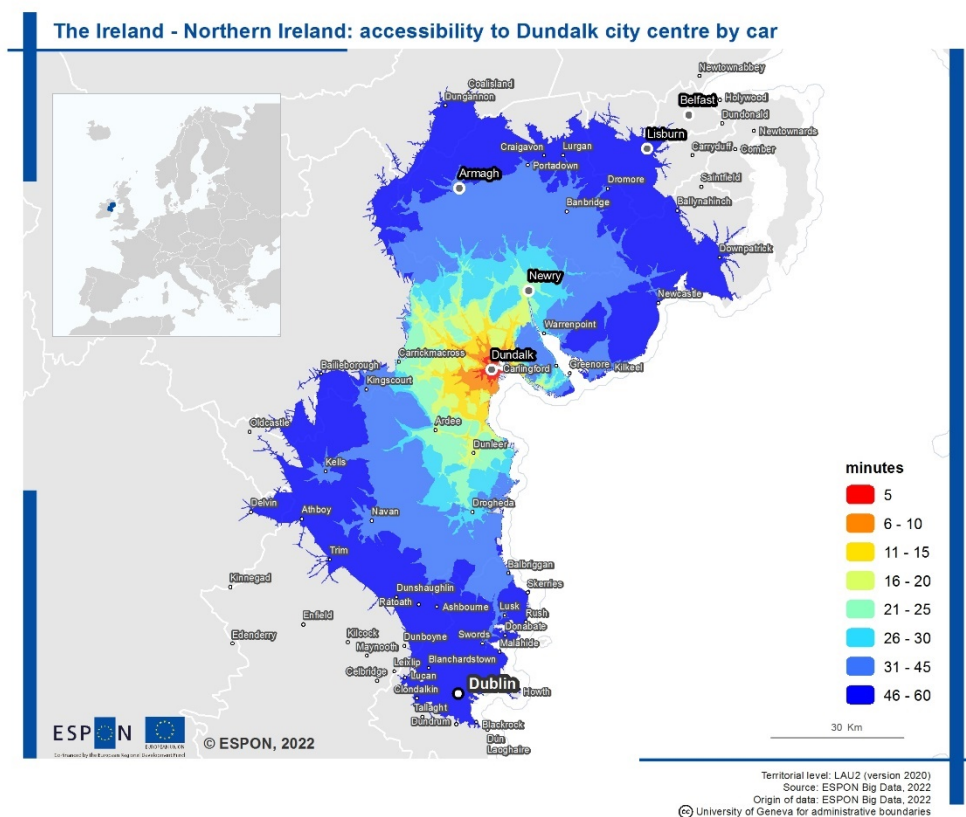


Figure 6: Accessibility Map to Dundalk

This map shows the accessibility to retail shops, measured as the required driving time by car from any point in the analysed area to the city centre in Dundalk. Results are delivered as isochrones with a 5-minute interval. Dundalk's accessibility reaches into Dublin as well as towards Belfast. However, reaching Belfast itself is more than 60 minutes away.

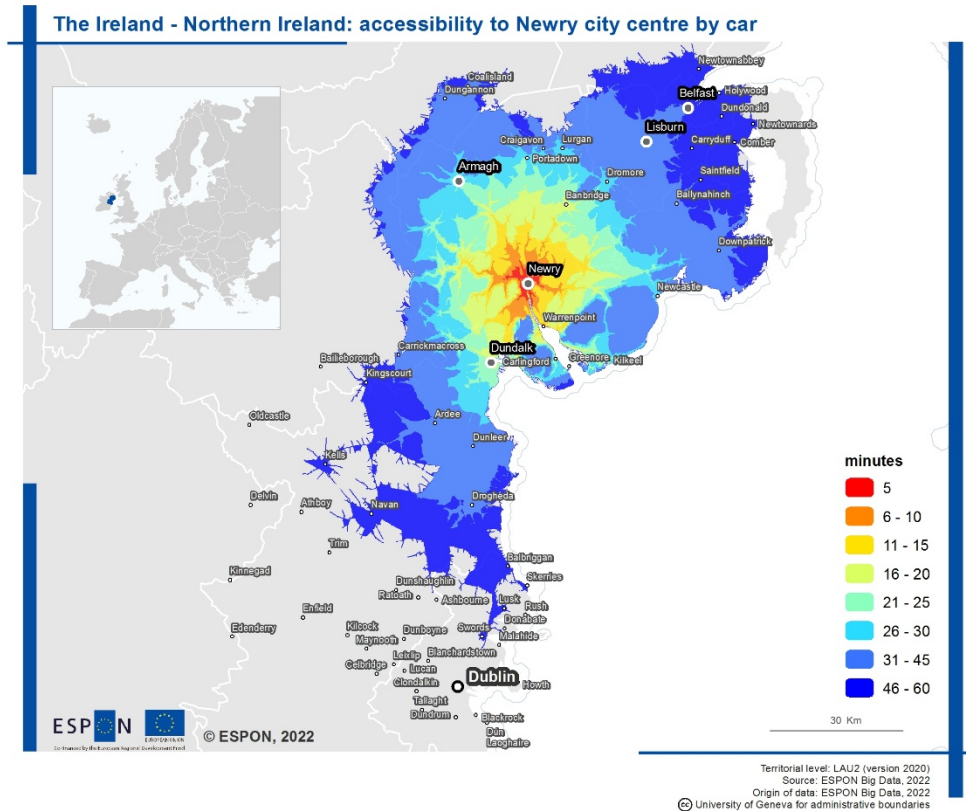


Figure 7: Accessibility to Newry

This map shows the accessibility to retail shops, measured as the required driving time by car from any point in the analysed area to the city centre in Newry. Results are delivered as isochrones with a 5-minute interval. It becomes apparent that Newry and Dundalk are very well connected and allow for cross-border movements. Yet, from Dublin centre it takes more than 60 minutes to reach Newry.

1.5 Policy Analysis

1.5.1 Spatial Planning Strategies

Similar to the administrative structures in both countries, spatial planning strategies across Ireland are highly hierarchical with central administrations dictating common regulations and policies through statutory planning documents.

In Ireland, the National Planning Framework (NPF) sets out the country's national spatial strategy to 2040 with particular emphasis on sustainable development methods. The central government funds its spatial strategy through the National Development Plan (NDP) which realises projects outlined in the NPF through ten-year funding programmes.

As the NPF is a statutory document, all regional and local development plans must adhere to its principles and objectives. At the regional level, regional assemblies have developed Regional Spatial and Economic Strategies (RSES) which cohesively determines the spatial development of Ireland's three European constituencies. At the local level, each local authority and its planning department build County/City Development Plans (CDPs) which controls the basis for all new local development and is regarded as the go-to document for planning decision-making. At a hyper local level, towns with at least 10,000 inhabitants are required to have a Local Area Plan (LAP) which guides new development; LAPs are often included as appendixes to CDPs. Given the hierarchical nature of the NPF, all RSES, CDPs and LAPs must adhere to its statutory objectives; to ensure integration, the government has created the Office of the Planning Regulator to oversee and ensure all strategies abide NPF guidelines. For housing developers, they must ensure their new developments meet CDP guidelines while also abiding by sustainable outcomes as outlined by the NPF.

An additional way in which central government controls housing in spatial planning strategies is by releasing ministerial guidelines from the DHLGH. When the minister releases new memos on housing regulations and guidelines, the new objectives are codified and eclipse local regulations (OPR, 2021). Developers must adhere to the regulations set out in ministerial guidelines even if the guidance contravene local regulations. As CDPs are updated every six years, new CDPs will eventually update their local regulations to follow current ministerial guidelines.

The following is a list of recent ministerial guidelines which impact local planning strategies today:

- Urban Development and Building Heights Guidelines 2018
- Design Standards for New Apartments 2015
- Local Area Plans Manual 2013
- Design Manual for Urban Roads & Streets 2019
- Sustainable Residential Development in Urban Areas Guidelines 2009

In Northern Ireland, the Regional Development Strategy (RDS) mandates how the country will develop until 2035. Released by the Department for Infrastructure, it “aims to take account of the economic ambitions and needs of the Region, and put in place spatial planning, transport and housing priorities that will support and enable the aspirations of the Region to be met”.

At the local level, local planning authorities develop Local Development Plans (LDPs) which serve as the basis for decision making on new planning applications. As the RDS is a statutory document, LDPs must adhere to the principles and objectives set out in the RDS. Additionally, the Northern Ireland Executive has released Planning Guidance Documents which further regulates local development by the central government. In an attempt to streamline the many different guidance documents, the Executive has published the Strategic Planning Policy Statement which codifies all the different central planning regulations into one cohesive document for planning authorities and housing developers.

A cross-border spatial strategy does exist between Ireland and Northern Ireland although it is non-statutory and used to guide policymaking on both sides of the border. The Framework for Co-operation Spatial Strategies of Northern Ireland and the Republic of Ireland was published in 2013 and outlines potential areas of cooperation for both governments while also identifying common cross border challenges. While the Framework is slightly outdated and relies of the previous National Spatial Strategy for the Republic, it asserts how sustainable development, densification of urban areas and the limitation of sprawl should be key objectives to achieve throughout the Dublin-Belfast Corridor. In terms of housing, the Framework states how an oversupply of housing will result in minimal new construction for the sector on both sides of the border despite both economies beginning to emerge from the recession in 2013. In retrospect, the Framework was correct in identifying a continued slowdown in housing construction number, but the following housing crisis which emerged and is particularly acute in the Greater Dublin area was not considered at the time (Doval Tedin & Faubert, 2020). Consequently, current housing prices have been especially impacted by an under supply in new dwelling construction over the past few years despite a rapid increase in demand due to rebounding economies post-GFC.

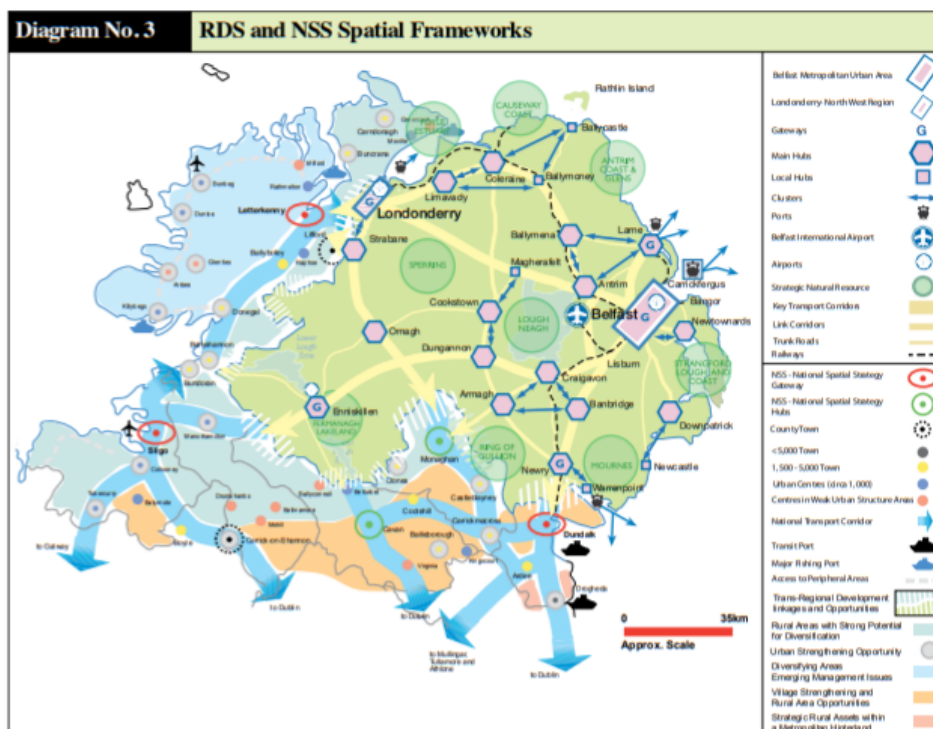


Figure 8: Spatial Representation of Border Region Collaboration

Beyond the Framework for Co-operation, both countries include provisions for cooperation in their national planning strategies. In the NPF, National Policy Objective 43 pertains to cross border collaboration with the Northern Ireland Executive; it states the Government will: “work with the relevant Departments in Northern Ireland for mutual advantage in areas such as spatial planning, economic development and promotion, co-ordination of social and physical infrastructure provision and environmental protection and management”. Regarding the case study area specifically, National Policy Objective 44 states that the Government will work: “in co-operation with relevant Departments in Northern Ireland, to further support and develop the economic potential of the Dublin-Belfast Corridor and in particular the core Drogheda-Dundalk-Newry network and to promote and enhance its international visibility”. Moreover, the NPF identifies three areas of intergovernmental focus: regional co-operation arrangements, joint initiatives and co-ordinated spatial planning. Additional relevant text states how “building up the economic, infrastructural and developmental ties will be supported through local leadership and co-operation arrangements such as the co-ordination of statutory planning functions and corresponding infrastructural investment”. National Policy Objective 46 relates to cross-border transport specifically and states that the Government will work to promote “enhanced transport connectivity between Ireland and Northern Ireland, to include cross-border road and rail, cycling and walking routes”.

In the RDS, Para 5.14 and 5.15 relate to cross-border collaboration with the Republic. Para 5.14 agrees to a joined-up approach to spatial planning in order to promote economic performance and competitiveness while Para 5.15 agrees to cooperate on key infrastructure through coordinated strategic planning.

1.5.2 Housing Policies

In Ireland, the current government recently released the *Housing for All* strategy which aims to end all homelessness by 2030, develop a robust and sustainable housing sector, improve housing affordability, increase housing supply and is touted as the largest ever state investment in housing. In Northern Ireland, a new housing supply strategy is being supported by both the Government's *New Decade New Approach* programme and the Department for Communities' *Building Inclusive Communities* strategic plan. Additionally, the *Facing the Future* housing strategy was released in 2013 and set up a five year plan on key roles for the government in relation to housing.

The below table documents specific tools in both countries' housing strategies along with general tools used to assist the sector.

Typology	Ireland	Northern Ireland
<i>Statutory</i>	<ul style="list-style-type: none"> • Legislation and Plans: PDA 2000; PDR 2001; BCA 2007; Residential Tenancies Act 2004; NPF 2040; NDP 2030; Ministerial Guidelines on Planning Permissions; CDPs • New CDP Guidance/Oversight by OPR • Ending centralised Strategic Housing Developments decision-making • Expedited planning applications for large-scale residential developments • Owner-occupier Guarantee for New Builds • Permitting and enforcing indefinite tenancies for PRS • New Cities Fund to incentivise/grant owner-occupier city centre apartment developments and new central sites • Urban/Rural Regeneration and Development Funds to support Town Centres First policy • Nationwide Compulsory Purchase Order scheme for vacant units • New Rural Housing Guidelines for one-off homes 	<ul style="list-style-type: none"> • Legislation and Plans: Housing Order 1983 & subsequent amendments; Planning Act 2011; Building Regulations 2012; RDS; LDPs • Empty Homes Strategy (brought vacant residential properties back into use through a number of different statutory tools) • Households in Multiple Occupancy Register • Rent Controlled Tenancies mandated by Rent Officer • Landlord Registration Scheme
<i>Fiscal</i>	<ul style="list-style-type: none"> • Help to Buy Scheme for first-time buyers • First Home Shared Equity Scheme with LAs • Affordable Purchase Scheme by LAs • Rent Value Scheme (links rent increases to inflation rate) • Mortgage to Rent Scheme (for long-term mortgage arrears) • Local Authority Loan Scheme Reform • New Vacant Residential Land Tax • Land-valuation Tax on Rezoning • New regulation on short-term lettings with new Failte Ireland registration system • Fresh Start Principles for Divorced/Separated or Insolvent Households • Better Energy Homes Scheme • Local Authority Home Improvement Loans 	<ul style="list-style-type: none"> • Co-ownership Scheme through Starter Share and Staircasing • Housing Development Grant Scheme • Renovation Grant/Replacement Grant • Home Repair Assistance Grant • Tenancy Deposit Scheme • Development of Intermediate Rent Sector • Mandatory Repair Grants
<i>Public</i>	<ul style="list-style-type: none"> • Mortgage Allowance Scheme • 10,000 new social homes annually • 2,000 new 'cost rental' homes annually • 4,000 new affordable purchase homes annually • Land Development Agency to fund new affordable and social housing on public land • Tenant Purchase Scheme • Revised Income Eligibilities for Social Housing • Repair and Leasing Scheme (for vacant properties) 	<ul style="list-style-type: none"> • Northern Ireland Housing Executive – specific gov't agency focused on providing/regulating social homes • Right to Buy Scheme • Repair grant for social houses • Housing Association Guide for Housing Associations on Developing Social Homes • Shared Housing Programme (social housing for mixed religious communities)

Typology	Ireland	Northern Ireland
<i>Universal</i>	<ul style="list-style-type: none"> • Housing Assistance Payments • 1,200 occupants for Housing First households (homeless) over 5 years • Housing Adaptation Grant for People with a Disability • Housing Aid for Older People • Mobility Aids Grant • Local Authority Improvement Works • Better Energy Warmer Homes Scheme 	<ul style="list-style-type: none"> • Universal Credit (recently replaced Rental Housing Benefit Payments through unitary financial support payments) • Rate Rebate Scheme for Individuals on Universal Credit • Disabled Person's Allowance • Lone Pensioner Allowance • Housing Benefit and Rate Relief • Affordable Warmth Scheme • Boiler Replacement Scheme

Figure 9: Table of Housing Policies Overview

Analysing both countries' housing policies, the South seems to have a more robust policy framework as their housing needs are more acute at the moment. As the North has a more affordable and stable market, their government have enacted less policies to manage the housing market. Of note though, the North has an established housing agency with a specific remit of delivering social housing to its people. Moreover, there are more policies aimed at assisting those with specific housing needs, and many of their housing policies are focused on ensuring the most vulnerable in society have access to housing. The North also has stronger protections for renters in the PRS as they have introduced both a tenancy deposit scheme and a landlord registration scheme to better regulate and control the rental sector. Conversely, the South has a more extensive focus on fiscal measures as their recent 'Housing for All' strategy has a specific focus on enabling further homeownership across society. Hence, designing and implementing fiscal policies which can moderate and mediate the more expensive, surging market for individuals seeking to access a mortgage and enter the property market has been a go-to strategy for the Irish government. Another aspect of the new southern housing policy regime has been a greater focus on increasing supply through direct government spending. Of note, the government is directly investing in thousands of social housing units, cost-rental units and affordable units for sale each year. Moreover, many of these investments and funds abide by statutory plans informed by sustainable development principles. Hence, the Irish government is seeking to spur new housing growth through a plan which mandates specific urban design principles relating to sustainability and reducing urban areas' carbon footprints. On policy shared across borders are attempts to eliminate vacancy and reuse empty homes and buildings for new housing. As vacancy, abandoned buildings and property misuse have been an issue across the island, both governments are seeking ways to eliminate these issues through housing policies specifically designed to reduce vacancy and bring empty properties back into use.

1.6 Local Interview Material

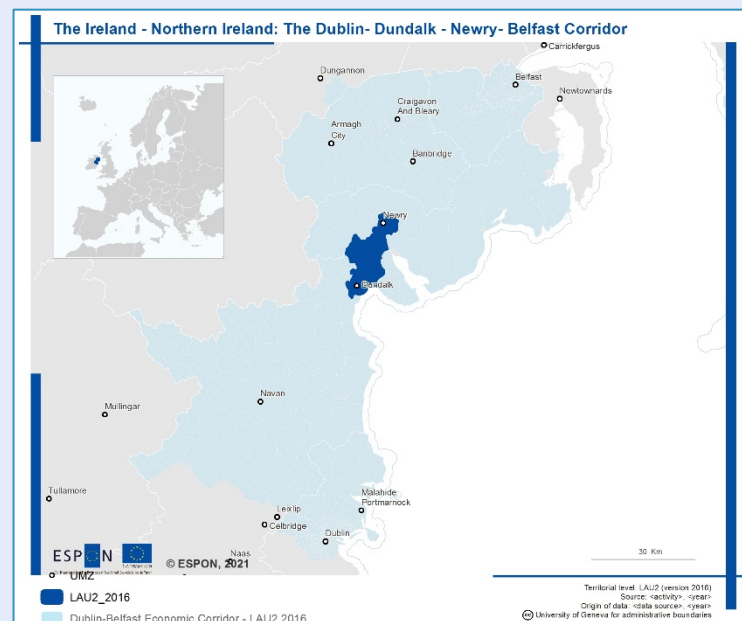
The below table documents findings collected from semi-structured interviews with local stakeholders within the case study region. Findings from these interviews have been referenced and referred to throughout the text.

Representative	Region	Key Points
Representatives with the Northern Ireland Executive	Northern Ireland	<ul style="list-style-type: none"> - A lot of focus in Northern Ireland is on the provision of public socialised housing - Currently publishing a new Housing Supply Strategy which approaches the housing sector with a whole system approach across all tenures - Intermediate Rent Sector – a new & secured form of PRS - Lack of a lot of cross-border data available - Strategic Housing Market Accessibilities currently being updated for new Housing Supply Strategy - Newry stands out as an anomaly across different tenures within the housing system – issues with private market stress, growth pressures, high demand within the PRS, high demand for social housing – also existence of geographic constraints for new development in Newry (town built into granite rock on a hill)

<i>Representative</i>	<i>Region</i>	<i>Key Points</i>
Representative from Louth County Council Services Directorate	Ireland	<ul style="list-style-type: none"> - 4,000 social housing units are managed by LouthCoCo - Issues relating to SGIs specifically in relation to medical services in the North (access to NHS medical care) - Acknowledgement of households living in North for better cost of living but working in the South - Border is not seen as a 'border' as communities are strongly interlinked but different housing systems are still strong and separate the two markets - Housing policy directed by national government in Ireland – centralised decision making limits LA abilities

Figure 10: Table of Interviews

2 Regional Fiche: Ireland – Northern Ireland: The Belfast – Dublin Corridor: Newry – Dundalk



Section 1: Housing

	<p>Region-wide</p> <p>Planning & Development Act 2000 – <i>IE</i></p> <p>Planning & Development Regulations 2001 – <i>IE</i></p> <p>Housing Act 2019 – <i>IE</i></p> <p>Affordable Housing Act 2021 – <i>IE</i></p> <p>Housing (Amendment) Act 2011 – <i>NI</i></p> <p>The Planning Act 2011 – <i>NI</i></p> <p>The Planning Regulations 2015 – <i>NI</i></p> <p>Housing for All – <i>Government of Ireland, DHLGH</i></p> <p>Housing Supply Strategy – <i>Northern Ireland Executive, DfC</i></p>	<p>Local-areas</p> <p>Local Government Reform Act 2014 – <i>IE</i></p> <p>Local Government Act 2014 – <i>NI</i></p>
Legislation		
Strategies		<p>CDP: 2.2.2 Housing Strategy – <i>Dublin City Council</i></p> <p>CDP: Chapter 3 Housing – <i>Louth County Council</i></p> <p>Belfast Housing Investment Plan 2019-2023 – <i>NI Housing Executive</i></p> <p>Newry, Mourne & Down Housing Investment Plan 2019-2023 – <i>NI Housing Executive</i></p>

2 Regional Fiche: Ireland – Northern Ireland: The Belfast – Dublin Corridor: Newry – Dundalk

Administrations	<p>Dept of Housing, Local Government & Housing – <i>Government of Ireland</i></p> <p>Dept for Infrastructure; Dept for Communities – <i>Northern Ireland Executive</i></p>	<p>Belfast City Council – <i>NI</i></p> <p>Lisburn & Castlereagh City Council – <i>NI</i></p> <p>Armagh City, Banbridge & Craigavon Borough Council – <i>NI</i></p> <p>Newry, Mourne & Down District Council – <i>NI</i></p> <p>Louth County Council – <i>IE</i></p> <p>Meath County Council – <i>IE</i></p> <p>Fingal County Council – <i>IE</i></p> <p>Dublin City Council – <i>IE</i></p>
Tenure	<p>67.6% – <i>Homeownership Rate in IE</i></p> <p>30.2% – <i>Tenant Percentage in IE</i></p> <p>65.6% – <i>Homeownership Rate in NI</i></p> <p>18.3% – <i>Private Tenant Percentage in NI</i></p> <p>16.0% – <i>Social Tenant Percentage in NI</i></p>	<p>60% – <i>Homeownership Rate in Co Dublin</i></p> <p>69% – <i>Homeownership Rate in Co Louth</i></p> <p>57% – <i>Homeownership Rates in Belfast</i></p> <p>73% – <i>Homeownership Rates in South Down</i></p>
Affordability	<p>€258,000 – <i>Average Price of Home in IE</i></p> <p>£195,242 (€229,760) – <i>Average Price of Home in NI</i></p>	<p>£150,267 – <i>Avg Price of Homes in Belfast City</i></p> <p>£172,085 – <i>Avg Price of Homes in Newry/Mourne/Down</i></p> <p>€399,323 – <i>Avg Price of Homes in Dublin City</i></p> <p>€212,500 – <i>Avg Price of Homes in Co Louth</i></p>
Supply Gap	<p>21,087 / 30,000 – <i>Homes Built / Supply Required in IE</i></p> <p>8,000 / 11,000 – <i>Homes Built / Supply Required in NI</i></p>	<p>16,000+ – <i>New Housing Units Needed Per Annum in Greater Dublin Region</i></p> <p>790 – <i>New Housing Units Needed Per Annum in Belfast City</i></p>
Section 2: Cross-Border Dynamics		
Inhabitants	<p>Region-wide</p> <p>1,174,502 – <i>Dublin Corridor</i></p> <p>347,800 – <i>Belfast Corridor</i></p>	<p>Local-areas</p> <p>139,500 – <i>Belfast City Council</i></p> <p>58,100 – <i>Lisburn & Castlereagh City Council</i></p> <p>83,200 – <i>Armagh City, Banbridge & Craigavon Borough Council</i></p> <p>67,000 – <i>Newry, Mourne & Down District Council</i></p> <p>128,884 – <i>Louth County Council</i></p> <p>195,044 – <i>Meath County Council</i></p> <p>296,020 – <i>Fingal County Council</i></p> <p>554,554 – <i>Dublin City Council</i></p>
Net Migration Border Crossings	<p>243,000 Border Crossings-a-day – <i>Irish Border Travel Pattern</i></p> <p>27 – <i>Physical Cross Points</i></p>	<p>4,300 – <i>Migration between Newry-Dundalk a day</i></p> <p>1 – <i>Motorway Link: A1/M1</i></p> <p>26 – <i>Road Links between Louth & Newry, Mourne, Down</i></p> <p>1 – <i>Train Link serviced by Translink</i></p> <p>3 – <i>Bus Links serviced by Ulsterbus, Bus Éireann & Aircoach</i></p>
Purchasing Power	<p>\$87,212 – <i>GDP per Capita, PPP in IE as of 2019</i></p> <p>\$31,061 – <i>GDP per Capital, PPP in NI as of 2016</i></p>	<p>€56,971 – <i>GDP per Capita, Greater Dublin Region 2014</i></p> <p>£29,191 – <i>GDP per Capita, Belfast City Region Area 2018</i></p>
Inflation	<p>5.1% – <i>Inflation Rate in IE as of Oct 21</i></p> <p>2.9% – <i>Inflation Rate in UK as of Sept 21</i></p>	<p><i>Local trends indicate that individuals tend to purchase houses and household goods in NI and work in IE as a consequent of purchasing power dynamics.</i></p>

2 Regional Fiche: Ireland – Northern Ireland: The Belfast – Dublin Corridor: Newry – Dundalk

Unemployment	5.2% – <i>Unemployment Rate in IE as of Oct 21</i> 7.9% – <i>Unemployment Rate in NI as of Oct 21</i>	4.65% – <i>Unemployment Rate of Belfast</i> 3.3% – <i>Unemployment Rate of South Down</i>
Mortgage Interest Rates	2.73% – <i>Average Mortgage Interest Rate in IE</i> 1.85% – <i>Average Mortgage Interest Rate in NI</i>	<i>The Republic of Ireland has the second highest average mortgage rates in the EU while in the North, average mortgage rates are considerably lower than in other UK regions.</i>
Language Barriers	English – <i>Primary Language Spoken by Majority</i>	Irish Gaeilge – <i>National Language of IE & Regional Language within NI</i> Ulster Scots – <i>Regional Language within NI</i>
Section 3: Spatial Planning Frameworks		
Regional Plans	Region-wide National Planning Framework – <i>Spatial Strategy for IE</i> Regional Development Strategy – <i>Spatial Strategy for NI</i>	Local-areas Local Development Plans (LDPs) – <i>Uniform Name for Spatial Strategies Across Local Authorities in NI</i> County/City Development Plans (CDPs) – <i>Uniform Name for Spatial Strategies Across Local Authorities in IE</i>
EU/Cross-Border Programmes	NI Protocol – <i>Post-Brexit Agreement maintaining a custom's border at the Irish Sea instead of the NI-IE Border</i> Interreg Atlantic Area – <i>EU Interreg Region</i> Interreg Northwest Europe – <i>EU Interreg Region</i>	Interreg Peace IV – <i>EU Interreg Region</i> Interreg Northern Ireland-Ireland-Scotland – <i>EU Interreg Region</i> Interreg Northern Periphery & Arctic – <i>EU Interreg Region</i>
Cooperative Agreements	Good Friday Agreement – <i>Political Treaty agreeing to cooperation among the Republic Ireland, Northern Ireland and the United Kingdom</i> Common Travel Area – <i>A region of integrated travel between Ireland and the UK</i>	Waterways Ireland – <i>Joint Irish authority overseeing inland waterways</i> Joint Ministerial Work Programme of Sustainable Development – <i>Agreed upon in Sept 2016</i> National Traveller Accommodation Consultative Committee – <i>Joint committee on traveller housing needs</i> Intertrade Ireland – <i>Joint Irish Business Coordination</i>
Governance	An Bord Pleanála – <i>National Appeals Board for Planning Decision in IE</i> Office of the Planning Regulator – <i>Regulatory Oversight Agency responsible for enforcing statutory planning policy in IE</i> Planning Appeals Commission – <i>National Appeals Board for Planning Decisions in NI</i>	Dublin City Planning Department – <i>Statutory Planning Authority in IE</i> Louth County Council Planning Department – <i>Statutory Planning Authority IE</i> Belfast Planning Service – <i>Local Planning Authority in NI</i> Newry, Mourne & Down Planning Service – <i>Local Planning Authority in NI</i>
Local Initiatives	Shared Island Initiative – <i>Joint Collaboration between the Dept of the Taoiseach and NI Executive funded by NDP of IE</i>	Memorandum of Understanding – <i>Cooperative Agreement between LAs of Dundalk & Newry</i> Newry-Dundalk Twin City Region – <i>ICLRD Cross-Border Collaborative Framework</i>

2 Regional Fiche: Ireland – Northern Ireland: The Belfast – Dublin Corridor: Newry – Dundalk

Legal Frameworks	<p>Common Law – <i>Both regions legislative systems originate from a system of Common Law dating to British rule</i></p> <p>European Directives – <i>Both regions have been subject to EU directives</i></p>	<p><i>Both Northern Ireland and Ireland are highly centralised states where executive power is concentrated at the national level. Hence, Irish local authorities are guided by national statutes.</i></p>
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3 Indicators for Ireland-Northern Ireland Case Study

This chapter reviews and analyses both the updated and new indicators in a cohesive fashion in order to arrive at some interim conclusions which provide us further detail on the activity of the cross-border housing market along with an understanding of general wellbeing in relation to the affordability of housing.

3.1 Offerings and Prices

This subchapter details information pertaining to the offerings and prices found in the web scraping process through a number of different indicators.

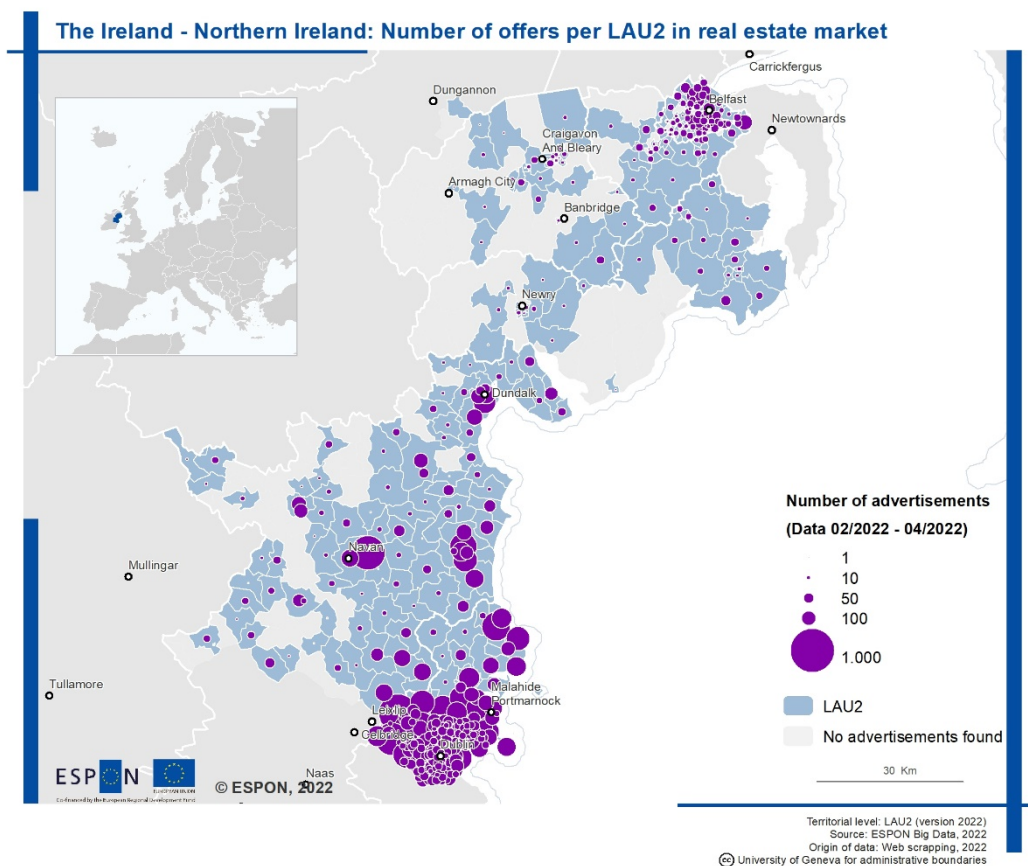


Figure 11: Number of Offers on Advertised Properties per Townland Across Real Estate Market

Indicator and data

This map displays the number of advertisements for buying dwellings scraped from web portals in the period of February to April 2022. The advertisements are aggregated at LAU2 level, and they are unique and avoid counting multiple instances of the same advertisement across time.

The collected advertisements are cleaned according to the methodology explained in the technical annex. For some LAU2 units, no valid advertisements are found. The list of valid advertisements is used in all subsequent indicators.

Trends and patterns

For this case study, the number of offers is highest within the metropolitan cities and along the M1/A1 roadway. On the other hand, rural areas have few or no offers at all. Overall, there are more offers on the Irish side than on the Northern Irish side, and more electoral divisions have active listings in the South. In the corridor region, there is a high number of offers especially in the South indicating how access to the M1/A1 roadway has brought about increased residential real estate activity in commuting towns and accessible rural areas. Interestingly, the town of Newry, an area of focus with a border study, brought up substantially less offers than its counterpart, Dundalk. This could be evidence of Newry's challenging geography limiting substantial real estate activity as discussed in an interview with representatives from Northern Ireland. Overall, we see an active market with a high number of offers in both regions, and we see evidence of how the M1/A1 roadway functions as an essential link within Belfast-Dublin Economic Corridor.

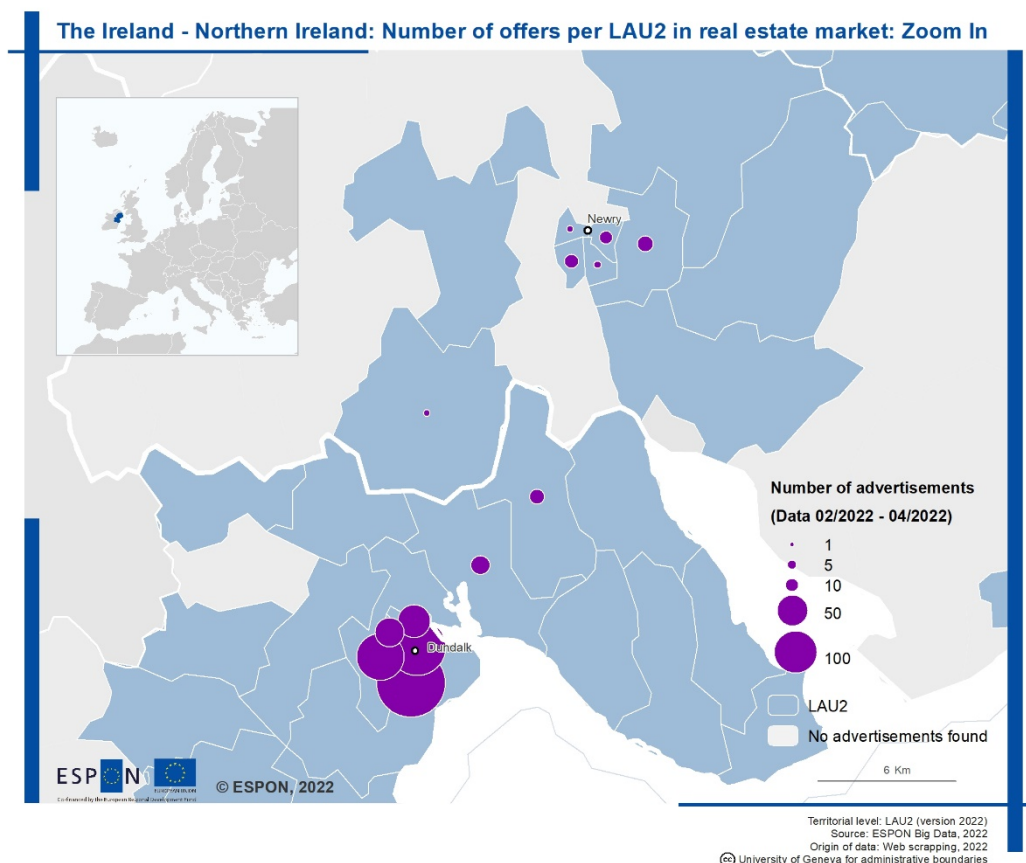


Figure 12: Border Zoom In - Number of Offers on Advertised Properties

Indicator and data

This map displays the number of advertisements for buying dwellings scraped from web portals in the period of February to April 2022. The advertisements are aggregated at LAU2 level, and they are unique and avoid counting multiple instances of the same advertisement across time.

The collected advertisements are cleaned according to the methodology explained in the technical annex. For some LAU2 units, no valid advertisements are found. The list of valid advertisements is used in all subsequent indicators.

Trends and Patterns

The zoom-into the border region shows a substantially higher number of offers in Dundalk, with Newry not reaching more than 10 places.

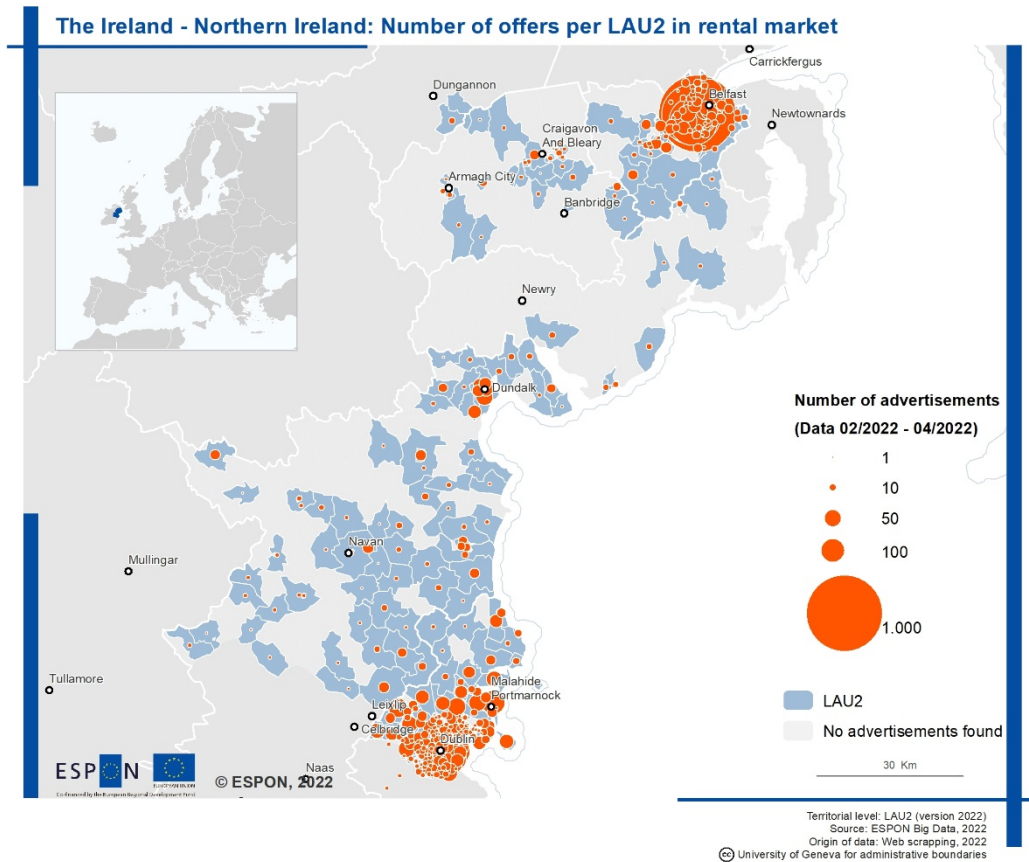


Figure 13: Number of Offers on Advertised Dwellings per Townland across rental market

Indicator and data

This map displays the number of advertisements for renting dwellings scraped from web portals in the period of February to April 2022. The advertisements are aggregated at LAU2 level, and they are unique and avoid counting multiple instances of the same advertisement across time.

The collected advertisements are cleaned according to the methodology explained in the technical annex. For some LAU2 units, no valid advertisements are found. The list of valid advertisements is used in all subsequent indicators.

Trends and patterns

The total offers in Ireland are 1834 offers in comparison to 1077 offers on the Northern Irish side. Therefore, there are many offers found on both sides of the case study, especially in the urban metropolitan areas. In the South, almost all offerings are found in the Dublin region or in commuting towns and areas with accessible to a motorway connection. In the North, the offers are predominantly found in the Belfast region and some of its surrounding commuting towns. Interestingly, no offers were found in Newry and very few offers were found along the A1 roadway. This corresponds with interview findings which suggest that the rental market in Newry is inelastic, and the housing needs for this area is quite high.

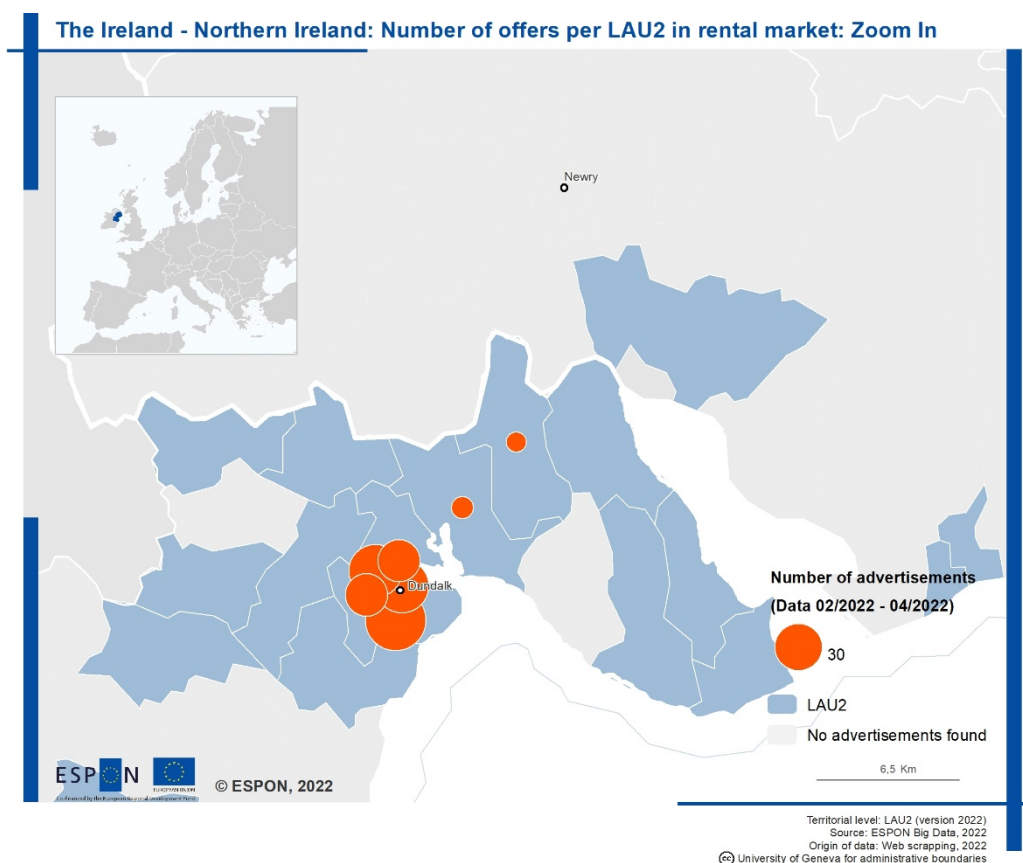


Figure 14: Border Zoom In - Number of Rental Offers on Advertised Properties

Indicator and data

This map displays the number of advertisements for renting dwellings scraped from web portals in the period of February to April 2022. The advertisements are aggregated at LAU2 level, and they are unique and avoid counting multiple instances of the same advertisement across time.

The collected advertisements are cleaned according to the methodology explained in the technical annex. For some LAU2 units, no valid advertisements are found. The list of valid advertisements is used in all subsequent indicators.

Trends and patterns

Similarly to the number of offers the Irish case study displays a higher number of offers, whereas for renting Newry does not display offers.

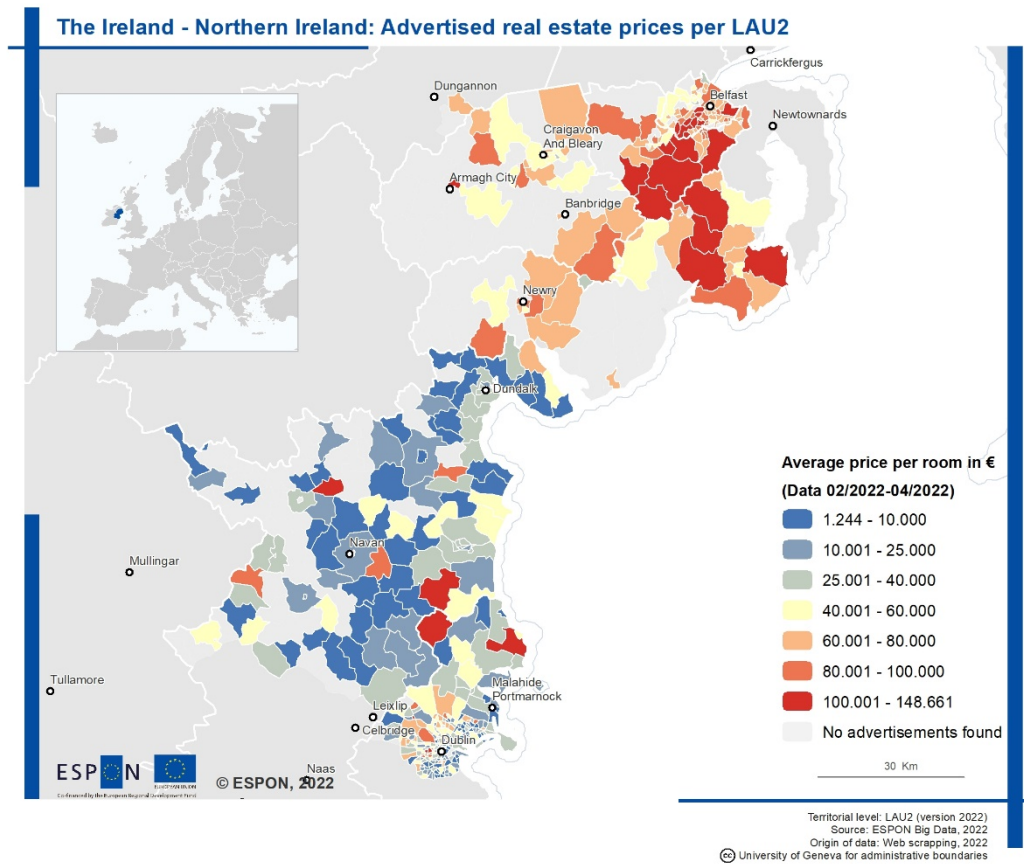


Figure 15: Advertised Price of Residential Property for Sale

Indicator and data

This visualization shows the advertised price of real estate. The data shown is the average price of buying a property in €/sqm per LAU2 unit computed from web scraped data obtained from online portals. All typologies are included (multifamily / single family, new / old). Data availability within the scraped period limits the calculation of the indicator, thus whenever no adds exist for a given LAU2, the indicator is empty.

Trends and patterns

The spatial pattern indicates an overall high price of residential property for sale in Northern Ireland with prices in the South being substantially cheaper. This finding contravenes research which indicates that housing prices in the Republic of Ireland is substantially more expensive than housing prices in Northern Ireland due to differences in cost of living and economic conditions. It should be noted that a shortcoming of this case study was the inability to compare differences at prices per sqm and only compare differences by the number of rooms. Given how rooms will be unique and different per each dwelling, it does call into question the robustness of the measurement. Nevertheless, the data displays how Northern Ireland has more expensive housing which corresponds with interview findings which indicate that buying has become increasingly less affordable for the average household in the North. An additional factor to consider is how these maps only display advertised prices; the final sale's price may be substantially higher than the advertised prices, especially in the South where competition for housing is high.

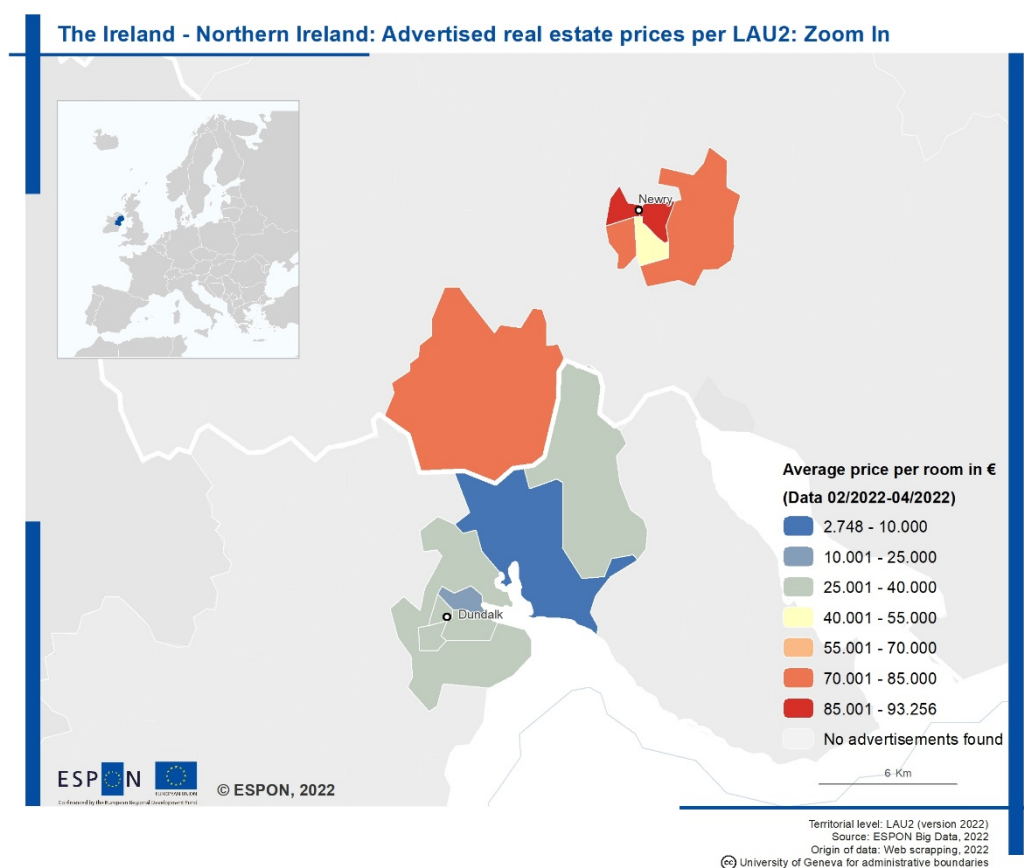


Figure 16: Border Zoom In - Advertised Price of Residential Property for Sale

Indicator and data

This visualization shows the advertised price of real estate. The data shown is the average price of buying a property in €/sqm per LAU2 unit computed from web scraped data obtained from online portals. All typologies are included (multifamily / single family, new / old). Data availability within the scraped period limits the calculation of the indicator, thus whenever no adds exist for a given LAU2, the indicator is empty.

Trends and patterns

The zoom in indicates the substantial prices differences in residential properties where the prices for a room are above 40.000 Euros, though in most cases above 70.000 Euros with Newry itself displaying 85.000 Euros on advertisement.

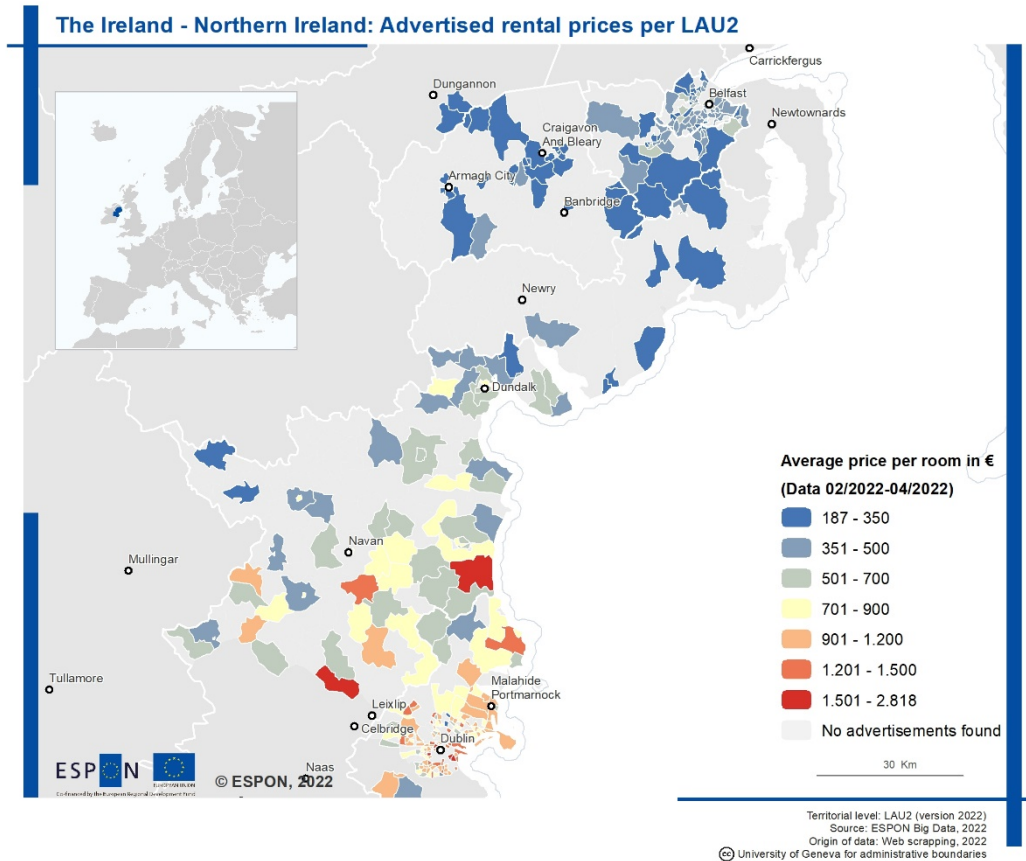


Figure 17: Advertised Price of Residential Property for Rent

Indicator and data

This visualization shows the advertised price of rental. The data shown is the average price of renting a property in €/sqm per LAU2 unit computed from scraped data obtained from online portals. All typologies are included (multifamily / single family, new / old) Data availability within the scraped period limits the calculation of the indicator, thus whenever no adds exist for a given LAU2, the indicator is empty.

Trends and patterns

The advertised prices for rent per room are higher in the South than in the North where Irish rental prices are on average most expensive within Dublin city. As one moves further away from Dublin city, rental prices begin to trend downward. In the North, rental prices are low ranging from €187 to €800, and the offers are primarily located in the Belfast metropolitan area. Hence, without information from along the A1 roadway and Newry, it is impossible to conjecture about how expensive rental conditions are within the Newry border region.

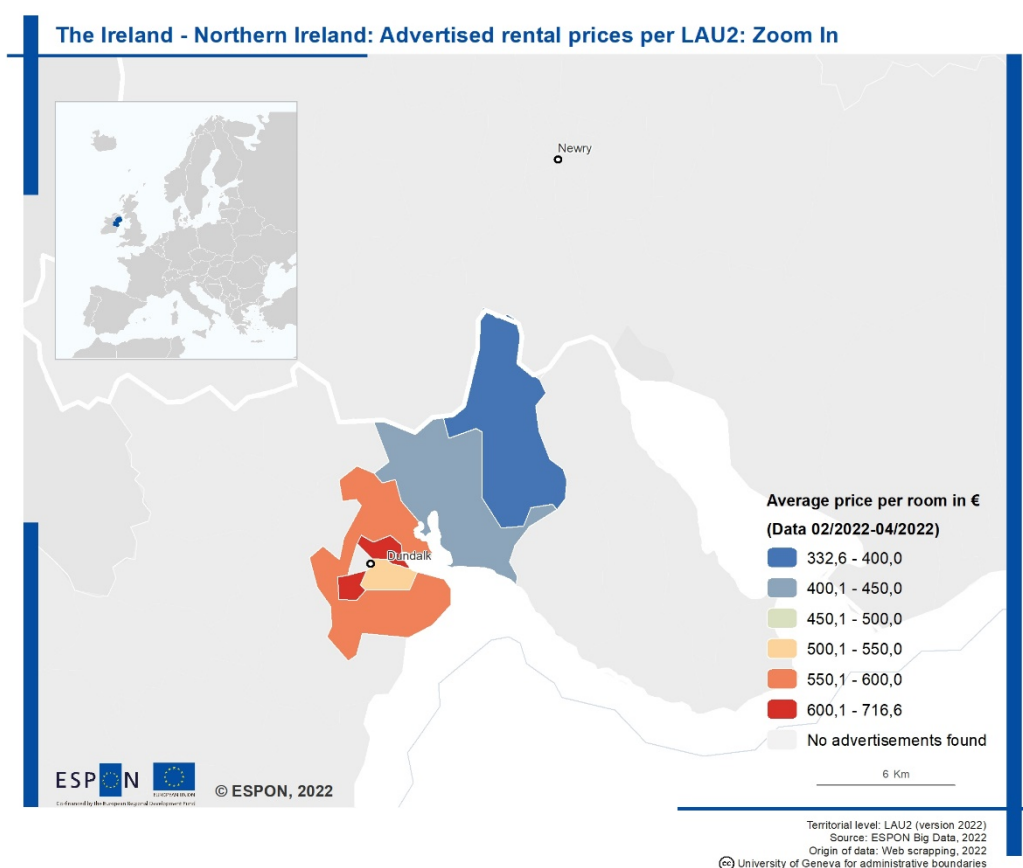


Figure 18: Border Zoom In - Advertised Price of Residential Property for Rent

Indicator and data

This visualization shows the advertised price of rental. The data shown is the average price of renting a property in €/sqm per LAU2 unit computed from scraped data obtained from online portals. All typologies are included (multifamily / single family, new / old) Data availability within the scraped period limits the calculation of the indicator, thus whenever no adds exist for a given LAU2, the indicator is empty.

Trends and patterns

As the zoom in only displays values for the Irish side no cross/border patterns can be discussed. Yet, the offers right at the border are lower priced indicating that border movements would be more restrained in Dundalk.

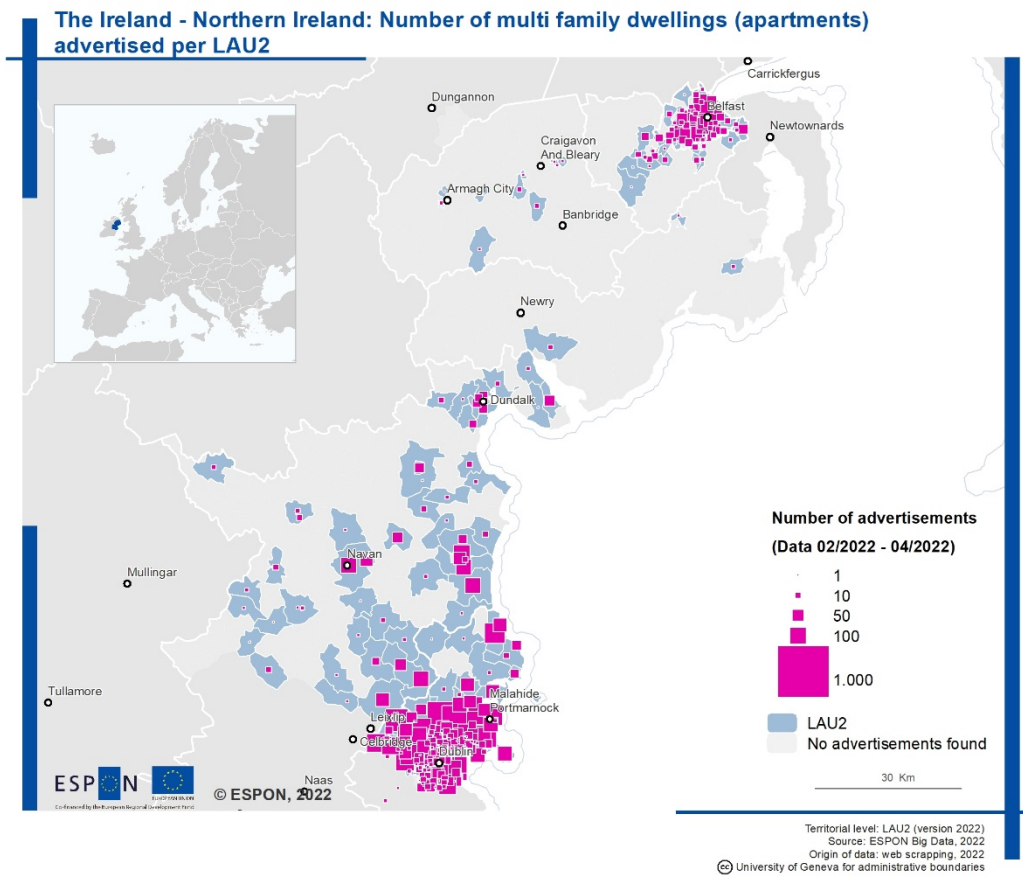


Figure 19: Multifamily Housing Type

Indicator and data

The indicator shows the number of valid scraped advertisements for multifamily dwellings (apartments) aggregated at LAU2 level. It includes both rental and buying advertisements and requires homogenising the housing typologies, which are slightly different in each country.

Trends and patterns

Within the duration of the web scraping, a total of 2883 advertisements for multifamily housing types have been advertised in Ireland and 629 in Northern Ireland. It is evident that in Ireland the advertisements for renting and buying are closer to one another (1241 for renting and 1642 for buying) than in Northern Ireland (480 for renting and 149 for buying). This can likely be explained by the concentration of the Northern Ireland offers being located in Belfast rather than the countryside. In Ireland, we see the offers more dispersed throughout the case study region. Overall though, we see multifamily housing mostly relegated to the urban areas and the large commuter towns.

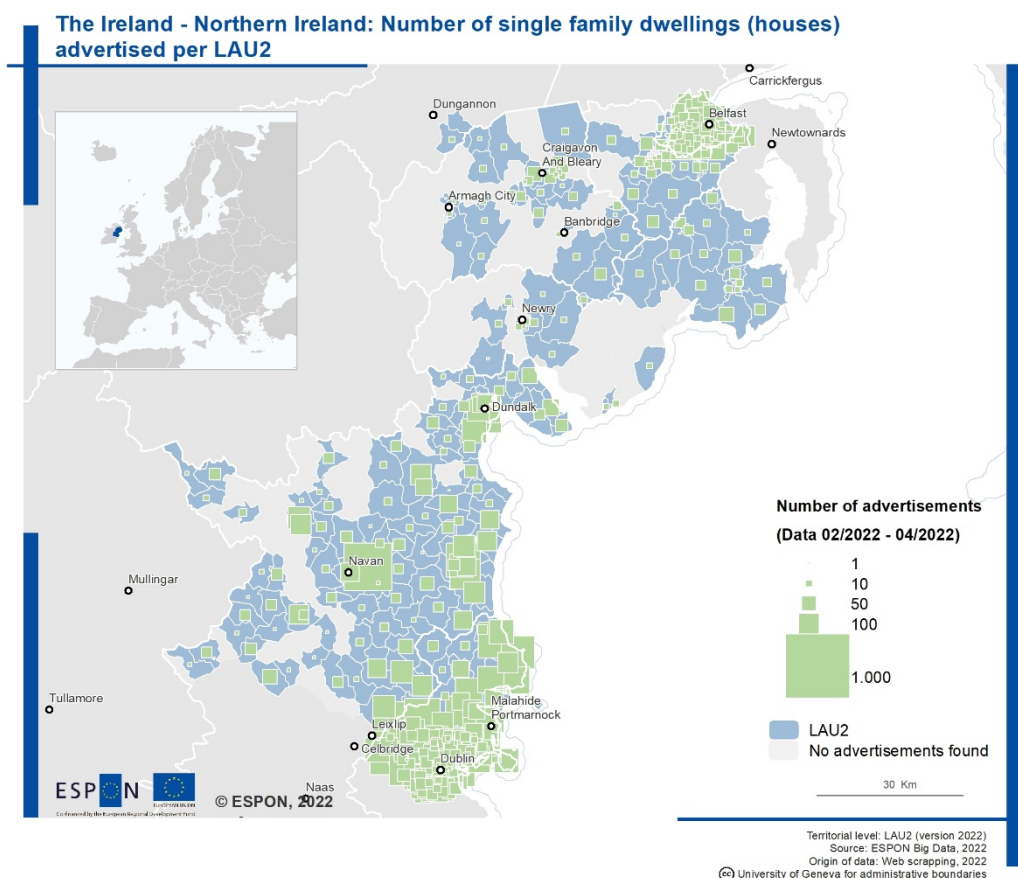


Figure 20: Single-family Housing Type

Indicator and data

The indicator shows the number of valid scraped advertisements for single family dwellings (single houses) aggregated at LAU2 level. It includes both rental and buying advertisements and requires homogenising the housing typologies which are slightly different in each country.

Trends and patterns

In view of the advertisements for single-family houses, we see substantially more units than in the multifamily segment. In Ireland, a total of 4311 advertisements were published in the timeframe scrapped, and in Northern Ireland, 1421 units were advertised. Given the Irish cultural preference for living in detached, semi-detached and terrace style houses, the dominance of the single-family housing type is not surprising. One interesting caveat is that for the Republic of Ireland statistics, there were 1241 multifamily units to rent and only 593 single-family units to rent suggesting that the rental sector is dominated by multifamily units and that people prefer to purchase single-family units instead of renting standalone houses.

3.1.1 Interim Conclusions: Offerings and Prices

Given the greater population of the Dublin area, it is unsurprising that more adverts were scrapped from the Irish side of the market. In the rental market, the difference between offerings was only slight with the Irish market having 757 more offerings recorded than the Northern Irish rental market. On the other hand, the owner-occupied market had a substantial difference in offerings with the Irish market exhibiting 5360 offerings compared to just 973 offers observed in the Northern Irish market. From our research, we understand that both regions are under strain to deliver more supply, particularly within the private rental sector. Nevertheless, the substantial difference in offerings scrapped from the owner-occupied market may have contributed to some of our more surprising results.

Regarding the advertised sales price of housing, we expected prices in the South to be substantially larger than the advertised sales price of housing in the North. Instead, the results by-in-large illustrate that in fact prices for owner-occupied housing in the Northern Ireland are more expensive than housing in the Republic. While there are a few outlying LAU2 units in the South which buck the trend and have similar prices to that of the North, but overall, we were surprised to see how sales prices in the South were listing less than prices in the North.

Before we contradict established trends in relation to housing prices on the island of Ireland, it is important to note a few factors which may have potentially skewed our data. One factor already discussed in the substantial difference in offering scraped between markets. If there were more offerings scraped from the Northern Irish market, we may be observing a different situation than the one depicted in Figure 15. Likewise, we must take account of what is being measured. While for all the other case studies, we were able to find the price per sqm, for the Irish case study, we could only find the price per room due to particularities set out within the United Kingdom's real estate system. As a result, our findings may be skewed given the invariable differences between room sizes and room quality across offerings. It essentially adds another unknown factor to our results. Beyond the factors discussed, historical information must also be accounted for. For instance, one of the LAU2 units in the Dublin area, Howth, is listed as having the lowest prices per room across the entire case study. Historically, Howth has had some of the most expensive real estate across the entire island given its coastal locale and high accessibility to Dublin city centre. Altogether, this information should call into question the validity of the results.

While the advertised sales price map delivered surprising results, the advertised rental price maps were more in line with our initial expectations. The highest prices were found within the Dublin area while the lowest prices were found in the North near Belfast. For the zoom-in area, we observe that rental prices in Dundalk are more similar in range to prices in the North than it is to prices in Dublin. Unfortunately, the web scraping did not collect data for across the border in Newry which would have provided us with a more nuanced view of rental dynamics in the border region.

Regarding housing typology, most of the multifamily offerings are concentrated in urban areas or in the large commuting towns of Drogheda, Navan and Dundalk. On the other hand, there are a significant amount of single-family housing throughout the corridor in both urban and rural areas. This is exemplative of a cultural preference toward single-family housing in Ireland where detached, semi-detached and terraced housing with front and back gardens are preferred to apartment-style living.

3.2 Affordability and Profitability

This subchapter details information pertaining to the affordability and profitability of the cross-border housing market found in the web scraping process through the incorporation of several different indicators.

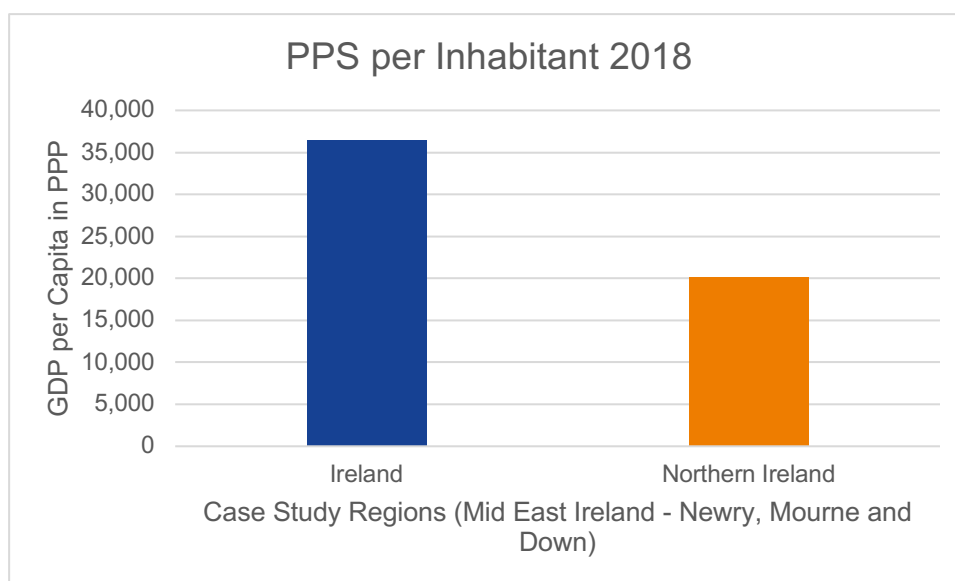


Figure 21: PPP (at NUTS3 level)

Indicator and data

This chart displays an indicator measuring income differences on either side of the border for each case study. Data is available as PPP per capita at NUTS3 level for the case studies with the most recent year of complete information being 2018. The PPP for **Mid-East Ireland** is shown along with the PPP for **Newry, Mourne and Down District** in Northern Ireland.

Trends and patterns

This graphic displays how the Irish GDP per capita in PPP is higher than the Northern Irish GDP per capita in PPP. The Irish PPS stands at 36400 while the Northern Irish PPS stands at 20120 which illustrates the dominance in purchasing power of Irish incomes over their Northern Irish counterparts.

3.2.1 Sales Price Affordability

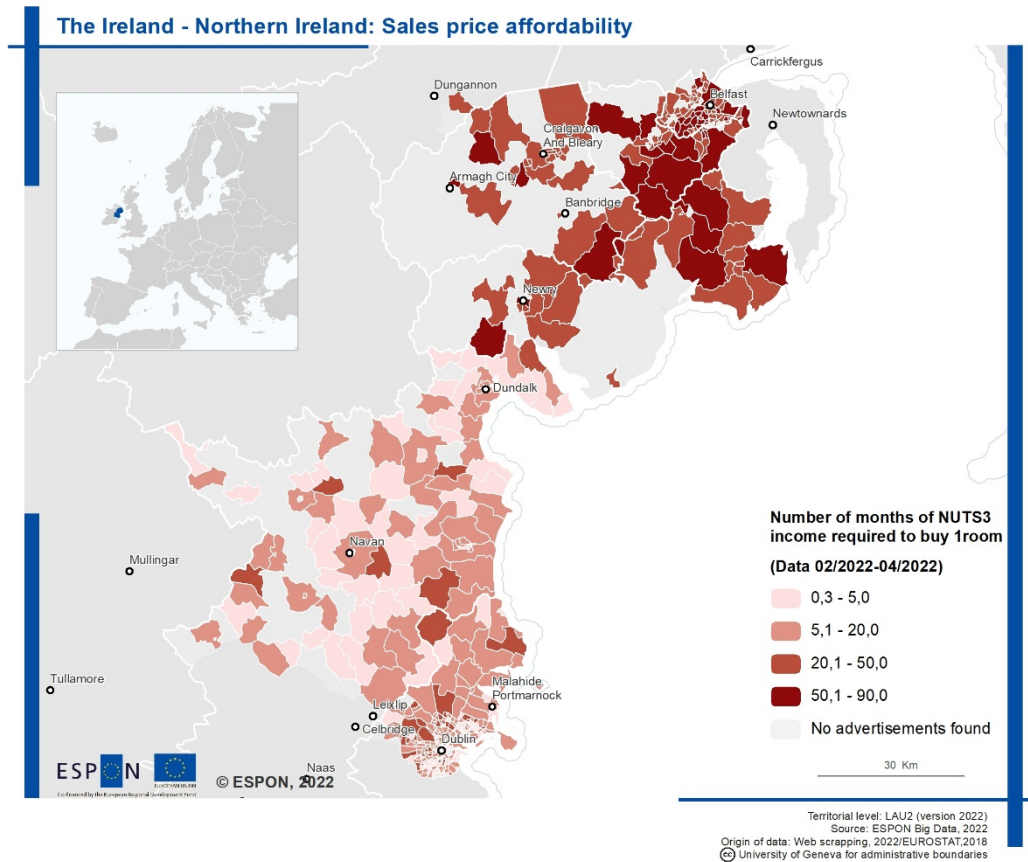


Figure 22: Sales Price Affordability

Indicator and data

This map displays a composite indicator on affordability of buying real estate. The indicator is calculated as the average price per sqm in each LAU2 over the monthly income measured as PPP in the NUTS3 region in which the advertisement is located. The resulting figure is the number of months of income required to buy a sqm of property.

Trends and patterns

The measure of the number of months of NUTS2 income required to buy a room discussed as sales price affordability for the case study regions indicates a clear border effect. On average, most of Northern Ireland requires over 20 months of saving to be able to afford to purchase a house while in Ireland, the results are significantly more varied. This spatial pattern does exemplify a border effect where households in Northern Ireland are less able to afford to purchase their own house than households are in Ireland. Likewise, access to the M1/A1 roadway has an upward effect on sales affordability as houses tend to be more expensive along this stretch of road and decrease affordability.

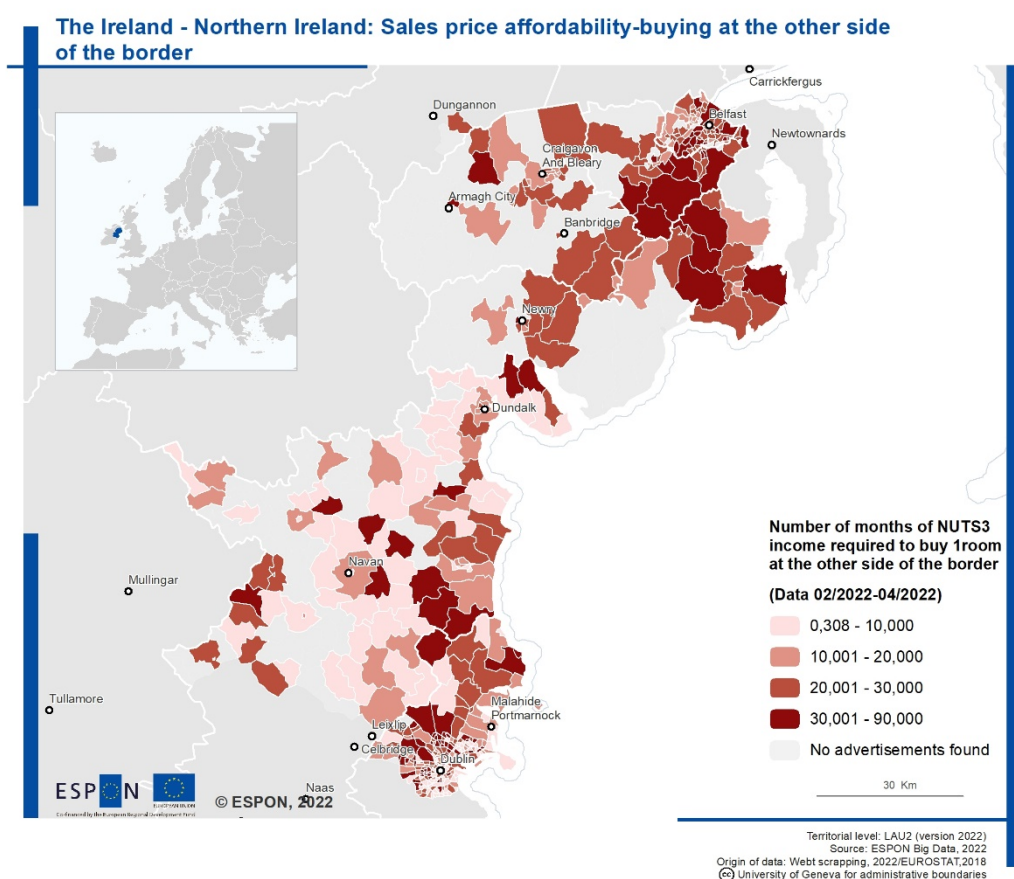


Figure 23: Sales Price Affordability – buying at the other side of the border

Indicator and data

This map displays a composite indicator on affordability of buying a dwelling. The indicator is calculated as the average price per room in each LAU2 over the monthly income measured as PPP in the NUTS3 region opposite to that in which the advertisement is located. The resulting figure is the number of months of income required to buy a room in a dwelling on the other side of the border. So here, we simultaneously see for example how many months of income from Ireland (IE062) would be needed to buy a room in the North and how many months of income from Northern Ireland (UKN08) would be needed to buy a room in the Republic.

Trends and patterns

In view of understanding the mean difference in income affordability to purchase one room across the Irish regions, we can see a border effect. When comparing how long an Irish worker would need to work to purchase in Northern Ireland with that of a Northern Irish worker, the Irish worker would need to work less time to afford the same housing. Similarly, a Northern Irish worker purchasing in the Republic would be required to work more months than their southern counterpart. Overall though, this map reveals that affordability across the island of Ireland is declining as households are required to work longer in order to afford to purchase housing.

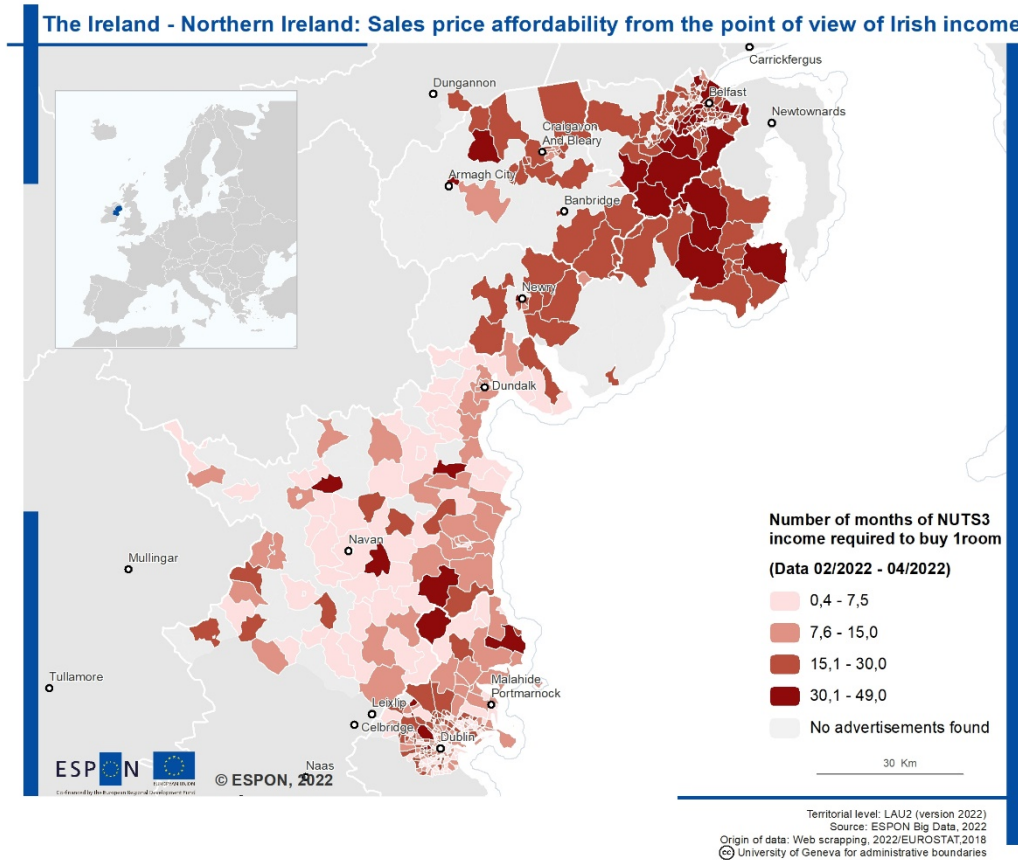


Figure 24: Sales Price Affordability - from an Irish worker's perspective

Indicator and data

This map displays a composite indicator on affordability of buying a dwelling. The indicator is calculated as the average price per sqm in each LAU2 over the monthly income measured as PPP in the NUTS3 region of Ireland (IE062). The resulting figure is the number of months of income required to buy a sqm of dwelling in any municipality of the analysed area. This tells us how expensive it is for a person working in the Irish side to live in the cross-border area.

Trends and patterns

From the perspective of an Irish worker, housing prices within the Republic are more affordable than prices in Northern Ireland. Hence, there is no economic incentive for workers to migrate across the border and create a border effect despite their superior incomes as it takes less time to save for a house in the South according to this web scraping data.

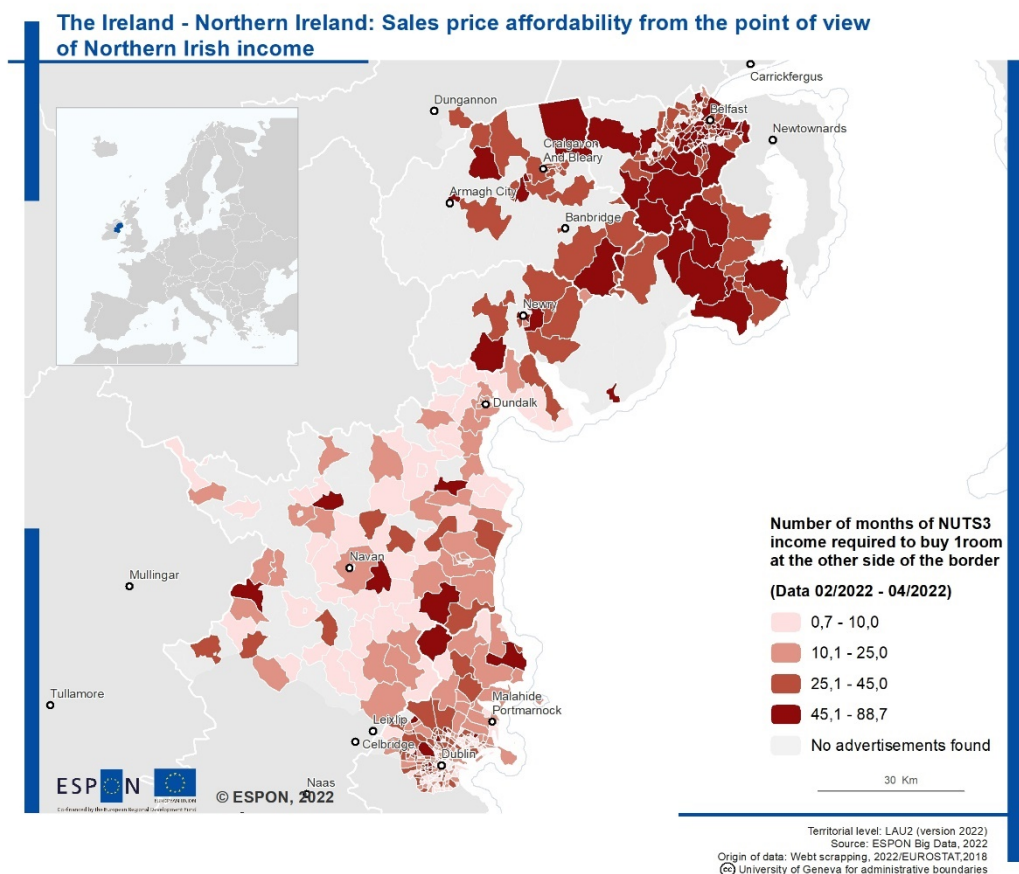


Figure 25: Sales Price Affordability - from a Northern Irish worker's perspective

Indicator and data

This map displays a composite indicator on affordability of buying a dwelling. The indicator is calculated as the average price per sqm in each LAU2 over the monthly income measured as PPP in the NUTS3 region of Northern Ireland (UKN08). The resulting figure is the number of months of income required to buy a sqm of dwelling in any municipality of the analysed area. This tells us how expensive it is for a person working in the Northern Irish side to live in the cross-border area.

Trends and patterns

Unlike in Figure 24, Northern Irish workers do have an incentive to migrate to the South according to the web scraping data. In the Republic, Northern Irish workers would be required to work less days to save for the same amount of housing as they would in their home region. A cross-border housing market is prevented from being established though as Irish workers can outbid Northern Irish workers due to the higher incomes in the South. Hence, there is little incentive to migrate to the South for better priced housing as their incomes are less competitive and attractive in the Republic's market.

<i>Months to buy 1 sqm</i>	Irish income	Northern Irish income
Irish LAU	8,79	15,91
Northern Irish LAU	23,74	42,94

- Prices are 45% more affordable on average with an Irish salary
- Prices are 63% more affordable on average in the Irish side

Figure 26: Mean Difference in Sales Price Affordability

Indicator and data

This indicator is built using the affordability per LAU2 unit considering the income of either sides of the border. In this case, we restrict ourselves to actual cross border LAU2 units (the dark blue area appearing in the case study definition map)

We calculate the average affordability measured as number of months of salary needed to buy 1 sqm of property (or 1 room in the case of Ireland-Northern Ireland). Given that we do not have the real average salary figures, we use the GDP per capita PPP as a proxy.

The indicator provides 4 figures with the affordability of property at either country, with the perspective of a person working at either side of the border. In addition, we calculate the affordability variation depending on the country and depending on the income.

Trends and patterns

According to this indicator's calculations, Irish incomes are the strongest across this function cross-border housing region while Irish households can find the most value for their money in purchasing residential property in their home region. While we expected to see a border effect for sales affordability with Irish households purchasing anecdotally cheaper residential property in Northern Ireland, the results indicate that this might not be the case and that it may be more economically savvy to remain within the Republic to purchase the most affordable housing across the Belfast-Dublin Economic Corridor.

3.2.2 Rental Price Affordability

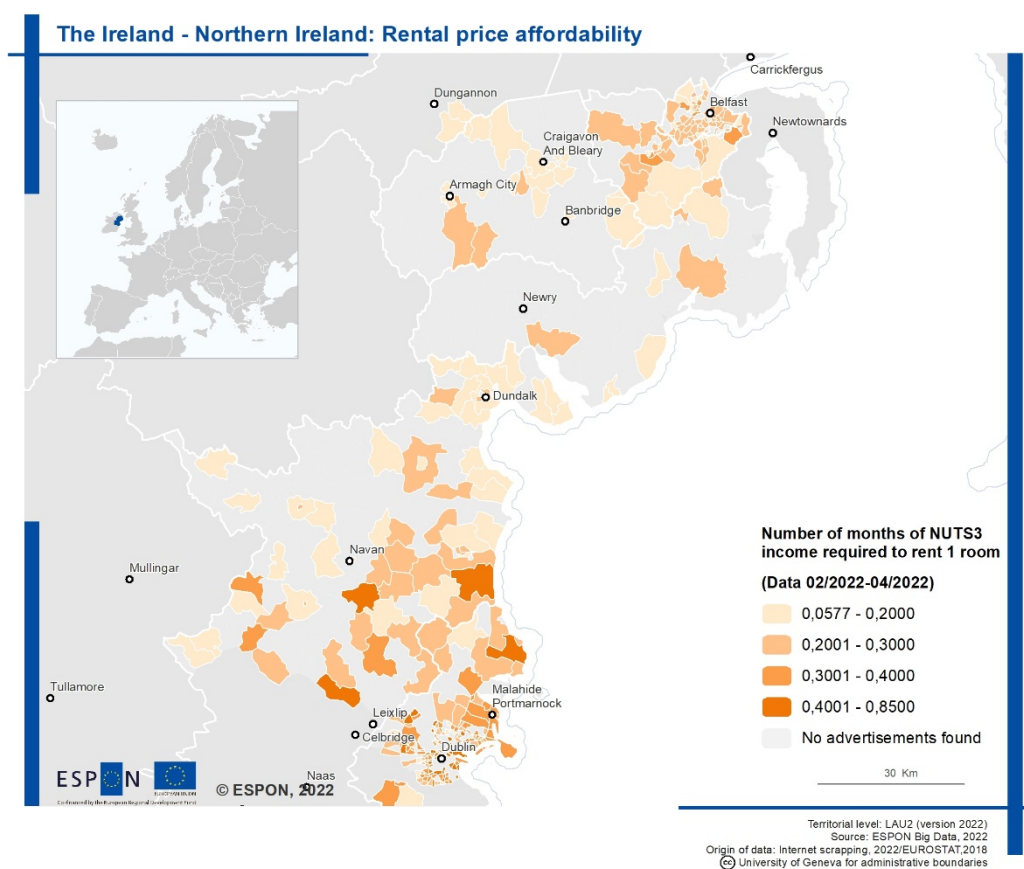


Figure 27: Rental Price Affordability

Indicator and data

This map displays a composite indicator on affordability of renting a dwelling. The indicator is calculated as the average price per sqm in each LAU2 over the monthly income measured as PPP in the NUTS3 region in which the advertisement is located. The resulting figure is the number of months of income required to rent a sqm of dwelling.

Trends and patterns

In contrast to the affordability of sales prices, Northern Ireland and Ireland have similar values in terms of rental affordability. For instance, most of the offerings in the North require only .0577 to .4 of a month's income to afford rent. In the South, affordability on average tends to be slightly more expensive with most offerings requiring .2 to .6 of a month's income to afford rent. As one travels north and further from Dublin, rental affordability improves and most offerings along the border only require .0577 to .2 of a month's income to afford rent. This is indicative that a border effect is not observed within the Irish rental market.

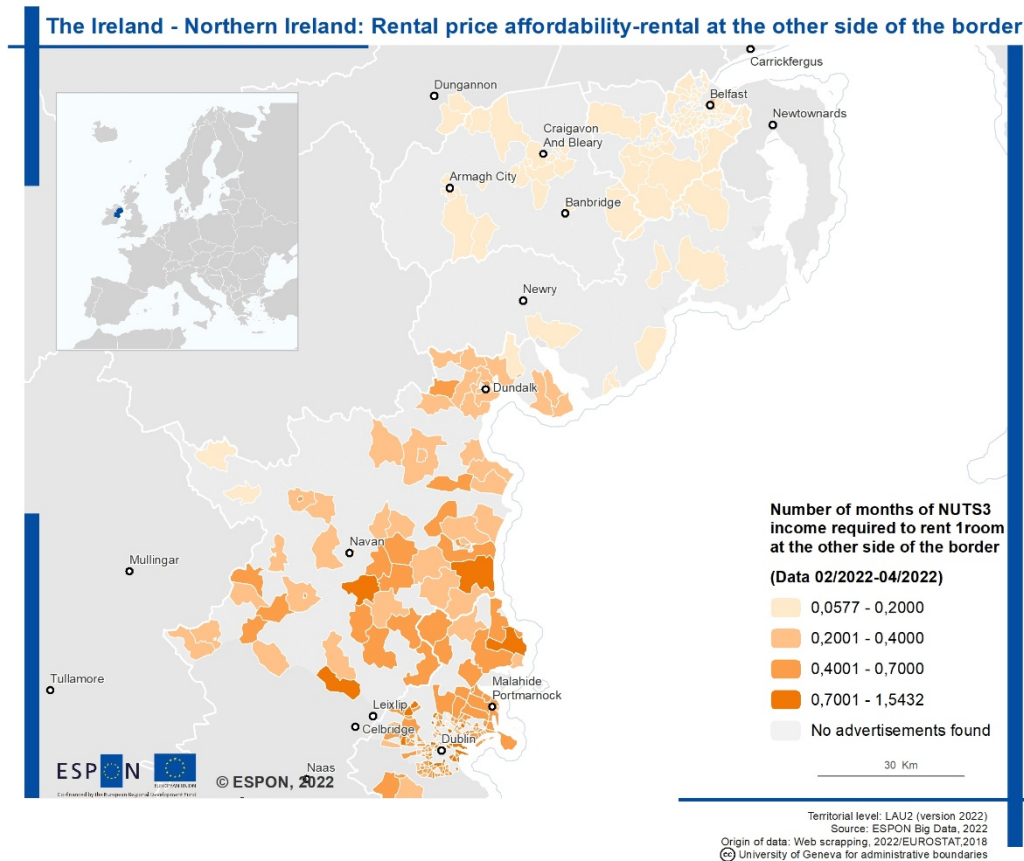


Figure 28: Rental Price Affordability – renting at the other side of the border

Indicator and data

Description of visualisation and commentary on indicator for this case study. This map displays a composite indicator on affordability of renting a dwelling. The indicator is calculated as the average price per sqm in each LAU2 over the monthly income measured as PPP in the NUTS3 region opposite to that in which the advertisement is located. The resulting figure is the number of months of income required to rent a sqm of dwelling on the other side of the border. So here we simultaneously see for example how many months of income from Ireland (IE062) would be needed to rent 1 sqm in the North and how many months of income from Northern Ireland (UKN08) would be needed to rent 1 sqm in the Republic.

Trends and patterns

In view of understanding the mean difference in income affordability to rent one room across the Irish regions, we observe less of a border effect. First, the lack of information surround the Newry area presents a challenge in understanding potential cross-border impacts. It does indicate though that the Newry rental market is constrained for new rental accommodation which could potentially be due to Irish workers also competing for rental properties in the Northern Irish border town. More information and research are needed to verify such a hypothesis though. Overall, the spatial pattern from this indicator reveals that regional differences in income would not play a significant role in impacting rental markets as the difference it would take to rent the same amount of housing on either side of the border is minor.

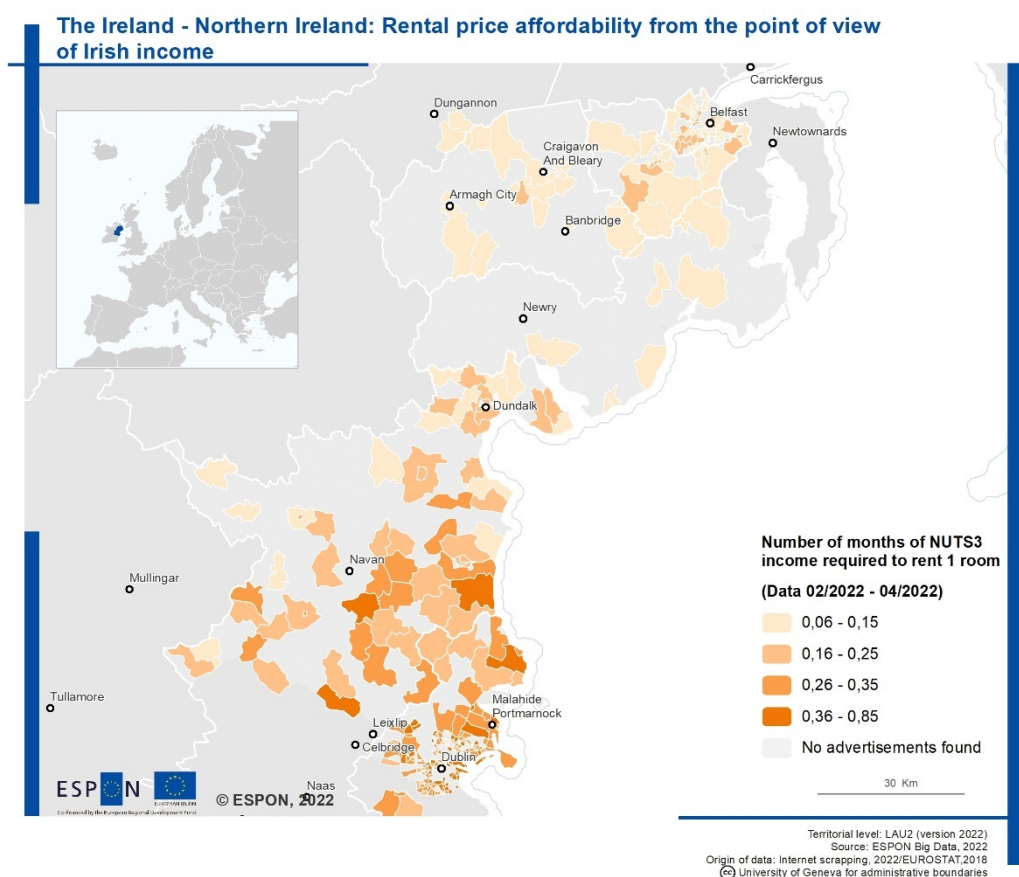


Figure 29: Rental Price Affordability - from an Irish worker's perspective

Indicator and data

This map displays a composite indicator on affordability of renting a dwelling. The indicator is calculated as the average rent per sqm in each LAU2 over the monthly income measured as PPP in the NUTS3 region of Ireland. The resulting figure is the number of months of income required to rent a sqm of dwelling in any municipality of the analysed area. This tells us how expensive it is for a person working in the Irish side to live in the cross-border area.

Trends and patterns

From this map, we observe that renting in the Greater Dublin region is unaffordable even for an Irish worker on a higher income. This corresponds with research and interview findings which state that Dublin is experiencing an affordability crisis within its private rental sector. As one moves further away from Dublin city centre, rents become more affordable. Dundalk, at the border, serves as an intermediary point in terms of rental affordability while Irish workers renting in Belfast can find significantly more affordable rental accommodation than they could find in Dublin.

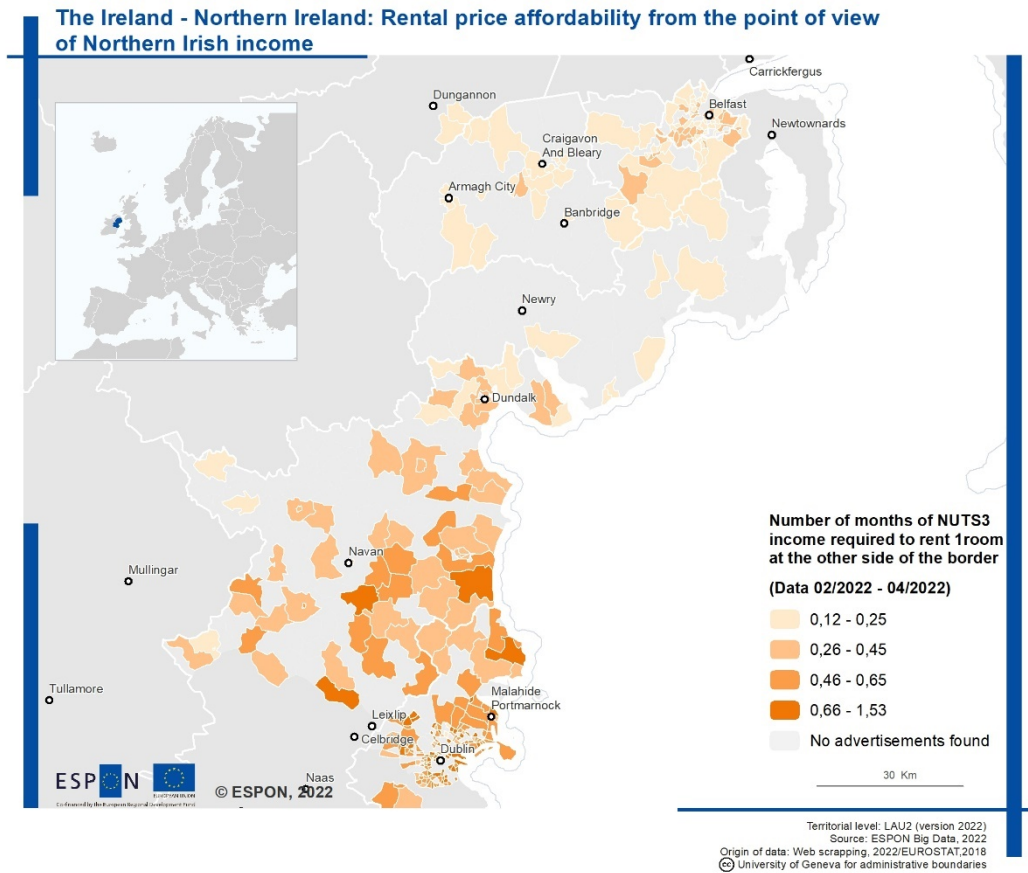


Figure 30: Rental Price Affordability - from a Northern Irish worker's perspective

Indicator and data

This map displays a composite indicator on affordability of renting a dwelling. The indicator is calculated as the average rent per sqm in each LAU2 over the monthly income measured as PPP in the NUTS3 region of Northern Ireland. The resulting figure is the number of months of income required to rent a sqm of dwelling in any municipality of the analysed area. This tells us how expensive it is for a person working in the Northern Irish side to live in the cross-border area.

Trends and patterns

Given how Figure 24 illustrates how renting in Dublin and in the Republic can be unaffordable for most Irish workers, this map of rental affordability for a Northern Irish worker only highlights how renting in the South would be mostly out of reach for the average Northern Irish worker. Hence, there is no border dynamic formed from Northern Irish workers renting across the border as this situation would be economically disadvantageous.

Months to rent 1 sqm	Irish income	Northern Irish income
Irish LAU	0,1754	0,3173
Northern Irish LAU	0,1465	0,2651

- Prices are 45% more affordable on average with an Irish salary
- Prices are 16% more affordable on average in the Northern Irish side

Figure 31: Mean Difference in Rental Price Affordability

Indicator and data

This indicator is built using the affordability per LAU2 unit considering the income of either sides of the border.

We calculate the average affordability measured as number of months of salary needed to rent 1 sqm of property (or 1 room in the case of Ireland-Northern Ireland). Given that we do not have the real average salary figures, we use the GDP per capita PPP as a proxy.

The indicator provides 4 figures with the affordability of property at either country, with the perspective of a person working at either side of the border. In addition, we calculate the affordability variation depending on the country and depending on the income.

Trends and patterns

According to this indicator's calculations, Irish incomes are the strongest within the cross-border housing market while Irish households can find the most value for their money in renting residential property in Northern Ireland. When these calculations are considered against the previous affordability mappings, it suggests a potential border trend where Irish workers choose to rent housing in the North and in locations further away from Dublin. As many young households cannot immediately afford to enter the property ladder, they need to rent from the private rental sector in order to save enough for a deposit and mortgage. Unfortunately, the unaffordable rental situation in Dublin does not allow young households to save money as rental payments take up too much of their income. Hence, these households look further afield to rent in towns with high accessibility to Dublin such as Drogheda, Dundalk or even Northern Irish towns like Newry or Belfast. By living further away from Dublin, these households can afford to save money to eventually be able to qualify for a mortgage and afford steep deposits while commuting to the higher income jobs located in Dublin.

advantage of the economic asymmetries and cost of living differences between the two regions. According to our results though, a border effect has not materialised based on the mappings. In terms of sales price affordability, there isn't an advantage to buying in the North as the higher cost of housing translates to a longer savings period. Hence, there is no economic motivation to migrate as households choosing to relocate would not currently experience a benefit from paying higher prices in the North

For rental affordability, it is not possible to determine if a border effect has materialised without further scraping results shedding some information on rental conditions for Newry. What we do note though is that the further away from Dublin one moves, the more affordable rental conditions become. Hence, renting in Belfast is the most affordable option while renting in Dundalk is still less expensive than renting in Dublin. For households unable to make it onto the property ladder, this difference in rental affordability could definitely play a part in determining where that household chooses to settle.

Regarding the profitability of the cross-border region, there is a clear distinction between renting being the more cost-effective option in the North whereas purchasing is often more cost effective in the South. While there are certain LAU2 units in the South have better conditions for renting, overall, the trend is clear that renting is more cost advantageous in Northern Ireland while buying can be a better option for households in the Republic.

3.3 Advertisement Duration

This subchapter details information pertaining to duration of how long the advertisements were posted and adds a temporal dimension to the indicators and analysis.

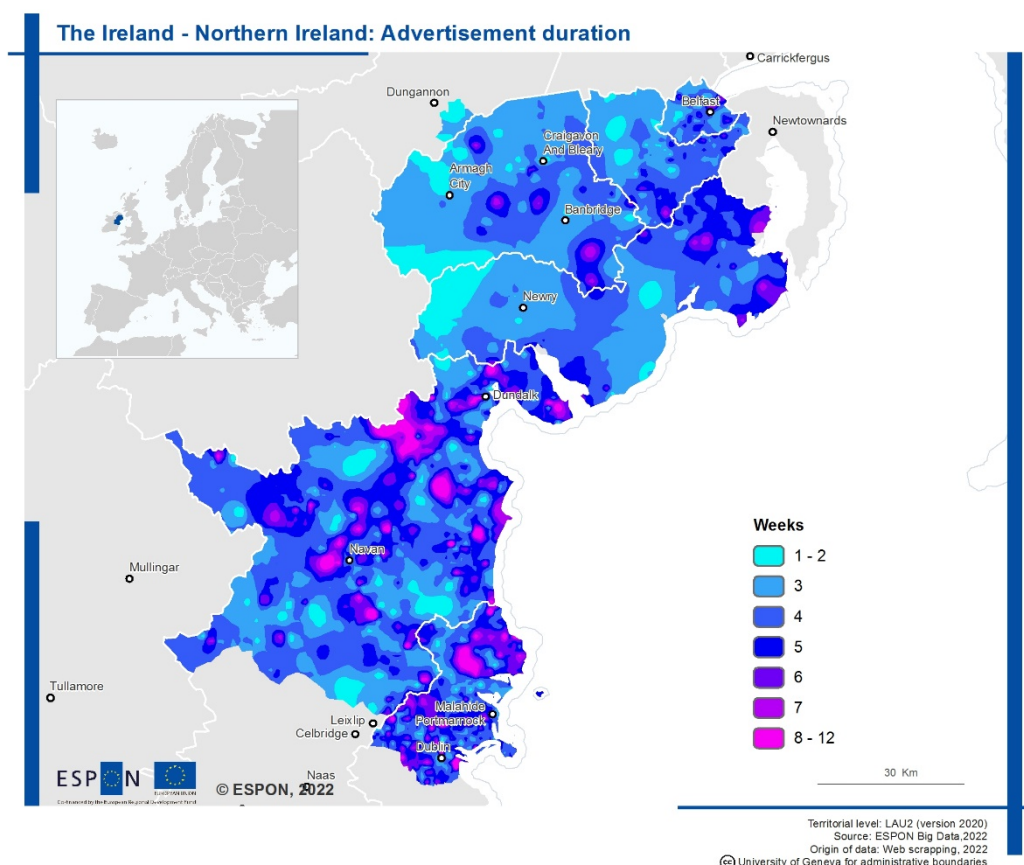


Figure 33: Length of Advertisement Posting

Indicator and data

This map shows average length of the scraped advertisements. It is computed by counting how many times each advertisement appears during the 7 weeks we have scraped data (so it takes a value from 1 to 7). Afterwards, we

apply the Inverse Distance Weight (IDW) methodology from ArcGIS toolbox to compute a surface grid to extrapolate the advertisement length in the whole region analysed.

Trends and patterns

The analysis of the duration of advertisements reveals that overall, the duration of offers staying online in the Republic of Ireland is longer than the duration of offers staying online in Northern Ireland. Thus, time online is shorter in the North indicating that there is more activity and a faster turnaround of offers. Yet, the graphic also indicates a pockets of the market in the South with fast turnarounds and similar short advert durations suggesting that the market is varied. Hence overall, we observe a more active market in the North while the market in the South currently has a slower turnaround.

3.3.1 Interim Conclusion: Advertisement Duration

This results for this section indicate that the Republic of Ireland has, in general, a less active market than Northern Ireland. This finding contravenes research findings which indicate that property turnover in the South is very fast whereas certain areas in the North are subject to higher demand and consequently have a faster market turnaround. For instance, according to information supplied during the interviews, Newry is a Northern Irish town in high demand as its supply is geographically limited by its location on a steep hillside. Hence, the faster advertisement duration in Newry along with an absence of rental offerings found in Newry during the scraping period would correspond with research indicating that Newry is a town in high demand. Of course, the longer duration of adverts in the South could be connected to lower quality or derelict housing which is less desirable on the market. In this case, it would suggest that this indicator does not as precisely exemplify market activity as a initially imagined.

4 Discussion and Conclusions

This case study has had broad scope encompassing the region from Belfast city to Dublin city. Given the breadth of this functional cross-border region, we choose to specifically focus in on the border twin cities of Dundalk and Newry. Based on initial research, we expected to witness a border effect driven by Irish workers with higher incomes taking advantage of the lower cost of living and cheaper accommodation typically found in Northern Ireland. Hence, Irish workers would be migrating across the border to the North while the commuting stream flowed south to the higher paying jobs.

Overall, we did not find a border effect. Despite expecting this migratory trend to play out in the data, instead we found evidence that **it is more expensive to purchase a dwelling in Northern Ireland than it is to purchase a dwelling in the Republic**. Hence, there is **no incentive for Irish workers to buy across the border** as they require more savings to afford a house in Northern Ireland. Likewise, Northern workers would not be able to outcompete Southern incomes to take advantage of the lower priced housing.

As in many countries, word of mouth is an important sales tool in the real estate market which is especially ingrained in this case study area's culture. The accessibility mapping indicates the functional integration of the cross-border region and the potential for commuting across the border as confirmed by the interviews. However, **the cross-border segments in the market are clearly differing via the affordable and the rental market**.

The rental market depicts an altogether different situation though. While we do not witness a border effect in the private rental sector, we do observe **the unaffordability of renting in the Dublin area**. Hence, renting in places further afield and commuting by either car or train can offset the high rents commanded in the Dublin area. This corresponds with colloquial findings from interviews that Irish workers will rent cheaper accommodation in Belfast and other accessible commuter towns along the M1/A1 corridor in order to save enough money for a deposit for a home mortgage in the Republic.

Box 2: Irish Household Scenario

Aine and Bláthnaid's initial plans of purchasing a house in Newry has changed as they embarked into a new stage of their careers and lives. The initial appeal of purchasing a cheaper house in Newry has dissolved as they find prices similar if not more expensive in Newry. They realised that while they may qualify for a housing mortgage to purchase a house in the North with their high incomes, they were not interested in paying prices higher in Newry than what they may have paid in the Dublin area. Instead, during their housing search, they realised that renting accommodation further away from Dublin was significantly cheaper than their current high rent. Hence, by renting cheaper accommodation in Dundalk or Belfast, they could finally afford to save for a housing deposit and qualify for a housing mortgage in the South. Consequently, the girls found suitable accommodation in Dundalk for a third of the price they were paying in Dublin. They estimate that after two years of saving, they will have saved enough money to afford a mortgage in the South. Hence, they choose to delay homeownership and instead move to a cheaper accommodation further away from the Dublin market in order to be able ultimately afford their desired home in the Dublin area after a few years of saving.

Overall though, **the distinct border effect we expected to find did not materialise** across the indicators despite the significant difference in regional incomes and cost of living across the cross-border area. While both desktop research and interviews pointed to a clear border trend and an integrated housing market, **we cannot corroborate these findings with the data scraped from the real estate websites**.

Perhaps with a longer scraping period and more data and information on market prices and housing sales, we may find that a cross-border housing market is in existence since this functional cross-border region contains many of the components required of such a market. For instance, **there is a significant imbalance in household purchasing power across the territory, a growing economy is causing land speculation on one side of the border and economic asymmetries are present which households can profit and take advantage of**. Hence, further research and investigation into this case study region could prove to be an insightful venture within the exploration of cross-border housing markets.

Another key determinant affecting the results of this research has been **the impact of Covid-19** on the case study region. Given the unpredictability of the pandemic, all of our results must be considered with regard to its major impact. While research on how Covid-19 has impacted housing trends is still forthcoming, we understand that demand for more rural, single-family houses with greater access to greenspace has been in high demand since the second half of the pandemic as households acclimatised to teleworking and mandatory public health guidelines regarding social distancing. Moreover, both the Irish and Northern Irish governments are encouraging teleworking and resettlement of small towns and villages as a policy solution to repopulate and grow rural economies. For much of our case study, this will have meant that housing is in high demand in atypical, more rural and remote locals as households leave the cities for more spacious environs. As our research takes place in Q1 of 2022, when many of the pandemic's restrictions were coming to an end, we must caution that our results will have been skewed by the disproportionate effect the pandemic has had on changing housing trends and demands.

It is further unclear what exactly the implications of Brexit are in view of the cross-border housing market as the methodology does not allow a comparison with past data. However, the Good Friday Agreement and the Common Travel Area set robust frameworks for low border controls, and thus we do not expect Brexit to have substantial impacts.

In order to observe a border effect on housing prices between Ireland and Northern Ireland further data scraping and research can provide further detail as to if a cross-border housing market functions across the Irish border. It is important to also critically consider how many of the jobs which have spurred the economic growth in the Dublin region are connected to the tech and financial services sectors which are congenial to support teleworking roles. The growth of teleworking may have had a substantial impact on the housing dynamics in the Dublin and can have had a knock-on effect on prices and trends across the Belfast-Dublin Economic Corridor.

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