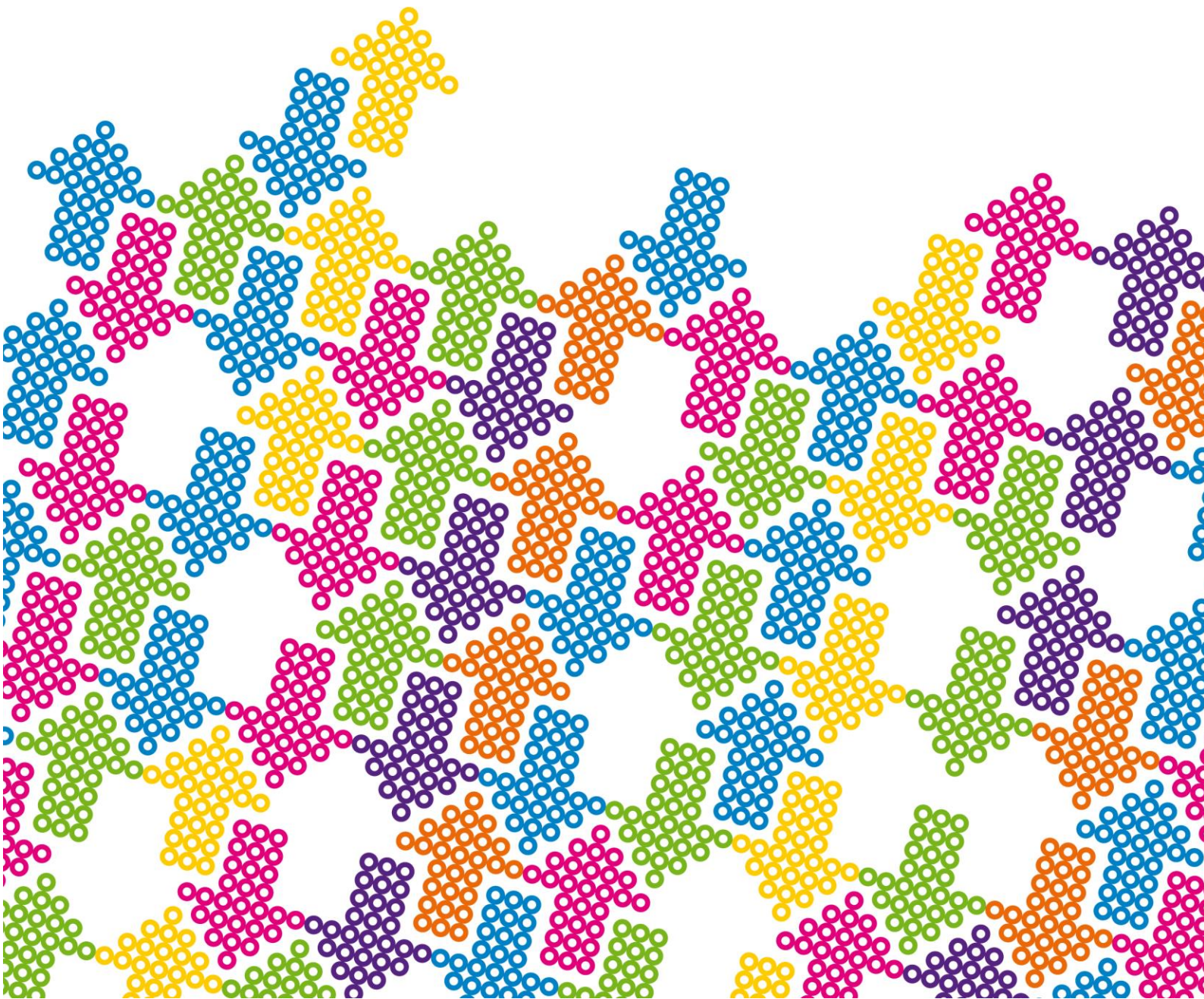




Costs of Doing Business in Ireland 2017

June 2017



Introduction to the National Competitiveness Council

The National Competitiveness Council (NCC) reports to the Taoiseach and the Government, through the Minister for Jobs, Enterprise and Innovation on key competitiveness issues facing the Irish economy and offers recommendations on policy actions required to enhance Ireland's competitive position. Each year the NCC publishes two annual reports:

- Ireland's Competitiveness Scorecard provides a comprehensive statistical assessment of Ireland's competitiveness performance; and
- Ireland's Competitiveness Challenge uses this information along with the latest research to outline the main challenges to Ireland's competitiveness and the policy responses required to meet them.

As part of its work, the NCC also:

- Publishes the Costs of Doing Business where key business costs in Ireland are benchmarked against costs in competitor countries; and
- Provides an annual Submission to the Action Plan for Jobs and other papers on specific competitiveness issues.

The work of the National Competitiveness Council is underpinned by research and analysis undertaken by the Strategic Policy Division of the Department of Jobs, Enterprise and Innovation.

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Kevin Callinan	Deputy General Secretary, IMPACT Trade Union
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Executive Summary

National Competitiveness

National competitiveness is a broad concept that encompasses a diverse range of factors, essential conditions and policy inputs including education and training, innovation, clusters and firm sophistication, Ireland's economic and technological infrastructure, and the business environment (which includes entrepreneurship, taxation and the regulatory framework). The National Competitiveness Council defines competitiveness as the ability of firms based in Ireland to compete in international markets. Competitiveness is not an end in itself, but is a means of achieving sustainable improvements in living standards and quality of life. Only by ensuring that firms based in Ireland can compete successfully here and abroad can we create the employment, income and wealth necessary to improve the lives of all of our citizens.

Cost Competitiveness

In terms of business costs, as a small open economy, dependent on exports and foreign investment as major drivers of growth, our relative cost competitiveness is a significant determinant of our overall competitiveness, and ultimately of our economic prosperity, employment and our standard of living. High business costs make Ireland less attractive for mobile inward investment and reduce the competitiveness of Irish enterprises' goods and services trading in both domestic and international markets. More broadly, a more competitive cost base can help to create a virtuous circle between inflation, wage expectations and cost competitiveness.

The Cost of Doing Business 2017 report focuses on those costs which affect business most and concentrates on costs that are largely domestically determined. It specifically focuses on Irish enterprise costs that are out of line with those in key competitor countries. The analysis and data reported are subject to availability. Based on the summary cost profiles considered in Chapter 2, it is clear that the **cost of labour** is the most significant driver of business costs for most firms – particularly for services firms. Since labour costs are generally the most significant cost component for most firms, the relationship between labour costs and consumer prices is a major determinant of Ireland's overall cost competitiveness. Overall labour cost growth has remained modest in recent years and well below the growth experienced in both the UK and the EU28. However, this masks considerable divergence at sectoral level. As the labour market tightens further, upward pressures on labour costs can expect to increase. These will vary between sectors and be dependent on the supply and demand for labour.

From an enterprise perspective, it is important that the taxation system is balanced, broad and provides certainty in a manner that supports and rewards employment. The Irish **income tax system** is the most progressive in the EU. Ireland's highest rate of income tax starts to apply at just below the average industrial wage; by comparison the UK top marginal rate applies at 4.2 times the average industrial wage. Entry to the higher rate of income tax in Ireland occurs at a relatively low level - the standard rate band threshold for a single individual of €33,800 is below the national average wage of €36,899 (Q4, 2016). OECD analysis shows the average single worker in Ireland faced a net average tax rate of 19.7 per cent in 2015, compared with the OECD average of 25.5 per cent and 23.4 per cent in the UK. In Ireland, a single worker on the average industrial wage, after tax and benefits, was 80.3 per cent of their gross wage, compared with the OECD average of 74.5 per cent and 76.6 per cent in the UK. Ireland's marginal tax rate is high relative to the UK and 20 per cent higher than the EU28 average. Figure 18 shows that marginal rates in Ireland are competitive at lower wage levels but high for individuals earning the average wage or above. At 54.4 per cent, the top marginal tax rate in Ireland is high relative to the UK (49%), the OECD average (47%) and the US (43.6%).

Our relative cost competitive position will be negatively affected if wage growth outpaces productivity and wage growth in competitor countries. To ensure that wages are sustainable, wage growth should not outpace

productivity growth. Productivity performance will assume an even more prominent role in driving Irish international competitiveness. Indeed, in the longer term, productivity growth is the preferred mechanism to improve competitiveness as it can support cost competitiveness in tandem with high and increasing income levels. Relative to most OECD countries, Ireland's productivity performance is strong in terms of growth and levels of GDP per hour worked. However, Ireland's overall productivity performance measured relative to GDP is positively skewed by certain sectors. A narrow base of sectors (ICT and Manufacturing account for the majority of productivity growth) leaving Ireland vulnerable to shocks. Increasing productivity across all sectors and occupations, particularly in the indigenous economy remains a significant issue¹.

After labour costs, **facility or property costs** represent the next significant cost factor in the profile of business costs. For services sub-sectors, **office lease** costs represent 4 to 15 per cent of total location-sensitive costs. For manufacturing sub-sectors, **industrial lease** costs range from 2 to 5 per cent of location-sensitive costs. The availability and cost of commercial property in Ireland remains a significant threat to sustained cost competitiveness. On the commercial side, annual growth rates in office rents in the 5 years to Q2 2016 in Dublin 4/Dublin 6 were 14.1 per cent, significantly higher than comparable rates in the UK and the Euro area. Concerns persist about the availability of prime office space for rent in large urban centres in the short term as the market tightens and vacancy rates decline. New commercial supply is being absorbed quickly while demand levels are expected to rise. These factors combined could equate to rents increasing further over the short to medium term. In 2016 prime **retail rents** increased by 31.5 per cent in Ireland on average since 2014 and Ireland was the 5th most expensive location in the Euro area. Such rental price pressures combined with the shortage of supply of commercial space over the past number of years could adversely impact on Ireland's competitiveness in attracting mobile inward investment and the expansion of existing Irish enterprises and start-ups.

From a competitiveness perspective, the supply and affordability of **residential housing** is a component of Ireland's ability to compete internationally. It impacts upon the attractiveness of Ireland as a location for investment and directly impacts on enterprise costs through wage effects, and indirectly determines the price of Irish goods and services. The cost of housing (purchase and rent) influences labour mobility and contributes to an economy's ability to adjust to adverse economic shocks. In short, a well-functioning housing and construction sector is critical to the overall health of society and the economy. The shortage of housing in Ireland remains an impediment both to attracting mobile inward investment and the expansion of operations by enterprises and is a critical infrastructure support job creation in both Dublin and the regions. Despite an increase in construction activity and planning permissions residential property supply remains constrained. Continued strong demand means property price inflation is likely to continue in the short term without additional supply becoming available. The link between residential prices and rents, and wage expectations means that developments in the residential property sector also have a direct impact on Ireland's international competitiveness. Average rents nationally are close to peak 2007 rates and even surpass them in certain areas. In a distinct echo of the recent past, our housing market risks undermining our entire competitiveness offering. While the 'Rebuilding Ireland' Plan presents a wide-ranging set of welcome commitments, many of these will take time to implement and to effect change.

A reliable and competitively priced supply of energy is vital for business and its ability to compete successfully in international markets. **Utility and energy costs** are an essential input to the entire enterprise base across the State, both the internationally trading and domestic sectors of the economy. Utility costs can represent 1 to 7 per cent of location-sensitive costs². Despite increasing investment in renewable energy, Ireland continues

¹ For more see NCC's Benchmarking Ireland's Productivity Performance, 2017

² The CSO's Census of Industrial Production shows that energy costs for Irish enterprise, including SME's, represents 1.57% of total costs.

to have a very high dependence on imported fossil fuels, particularly oil on which 48 per cent of our energy consumption is based. As a small peripheral EU economy, with limited resources, factors outside of our control such as international oil prices exert a significant influence on energy prices so it is essential that efforts continue to focus on cost determinants within our control such as regulatory costs. The energy implications for Ireland of Brexit could be significant given our dependence on energy imports from the UK, the source of 76 per cent of our oil imports. In terms of our electricity generation, 46 per cent is generated using natural gas, and 96 per cent of our gas is imported from the UK. Ireland is characterised by high taxes on motor fuel and 58 per cent of total diesel costs are made up of various taxes, the 5th highest proportion in the Euro area. The impact of these taxes is becoming more evident as the international price of oil increases.

Generally, **water and waste water** costs for enterprise in Ireland compare favourably to those in competitor markets despite there being a significant variation between water and waste water tariffs across Local Authorities. Ireland is relatively cost competitive for **telecoms**, although, concerns persist around quality and the regional availability of high speed services.

Brexit also underscores the importance of Ireland's **logistics and transport** sectors cost competitiveness. The UK is the destination for 50 per cent of all maritime goods exports and 88.4 per cent of roll on/roll-off freight traffic. Of the total amount of goods received at Irish ports in 2015, a third arrived from the UK. The proportion of exports varies depending on the type of cargo involved. 85 per cent of roll-on/roll-off traffic arrived from the UK while 41 per cent of liquid bulk originated in the UK. The implications of extra administrative costs and tariffs, standards and regulations and customs on the transport of goods between Ireland and the UK could negatively impact on indigenous exporters' supply chains, and their capacity to competitively price products, not only in the UK but domestically and in other international markets.

Access to competitively priced sources of **finance** is essential to facilitate enterprises establish, survive, improve productivity and ultimately scale. Limited or costly credit damages the environment for entrepreneurship, scaling and investment and amount to a competitive disadvantage for Irish enterprises. Irish SMEs are still heavily reliant on bank loans with limited uptake of non-bank finance sources.

The determinants of the **cost of credit** in Ireland are complex and varied but the concentrated lending market coupled with higher credit risk premiums in Ireland have been cited as the reasons for higher interest rates here over the Euro area average. Irish interest rates on business loans have been consistently higher (and more volatile) than equivalent Euro area rates and it is vital that the cost of credit is reduced to align Ireland with rates in competitor countries. While many firms are understandably primarily concerned about accessing credit rather than the cost of that credit, the interest rate differential between Ireland and the Euro area places Irish based enterprises at a disadvantage. Central Bank analysis shows the Irish SME lending market is highly concentrated with the three main lenders accounting for approximately 90 per cent of market share. The CSO's Access to Finance Survey, March 2016, indicates that there is a correlation between size and sector and growth trajectory in successfully accessing finance. It also highlights how relatively few SMEs (particularly, non-exporting SMEs) seek funding from non-bank sources: for example only 4.7 per cent of medium sized enterprises looked for equity finance compared to 39.8 per cent of similar sized enterprises who looked for bank finance. Further diversifying the lending market in Ireland and in turn increasing levels of private equity, crowdfunding and venture capital funding remains a challenge.

Combined with the aforementioned domestically determined costs, **infrastructural bottlenecks, skills shortages** and increasing levels of **industrial unrest** also present significant downside risks for Ireland and these could potentially undermine national competitiveness, and ultimately growth.

Service and Broader Environment Price Competitiveness

The **UK's decision to leave the EU** has imminent and far reaching consequences for Ireland's economy and brings into sharp focus the need for Ireland to maintain and improve our cost competitiveness. Ireland's current price profile could be described as 'high cost, rising slowly', the UK is "high cost, rising quickly". Price levels in Ireland were 22.2 per cent more than the EU average in 2015; the UK was 33.3 per cent above the EU average. Ireland needs to maintain and improve its relative cost competitiveness.

In recent years, the weak **Euro exchange rate**, low ECB interest rates, and low international fuel prices have driven improvements in Irish Harmonised Competitiveness Index (HCI) competitiveness. The nominal HCI appreciated by 3.8 per cent on a year-on-year basis to November 2016. The real HCI increased by 2.3 per cent when deflated with consumer prices, indicating a degree of diminishing Irish competitiveness. The openness of the Irish economy means the competitiveness of the enterprise sector is particularly vulnerable to negative price and cost shocks which are outside the influence of domestic policymakers. These include unfavourable exchange rate movements, higher international energy prices or imported inflation from our major trading partners. All of these competitiveness reducing variables have been evident over the past year. The recent appreciation of the euro vis-à-vis Sterling provides a timely warning about just how vulnerable Irish firms are to external shocks and further volatility and depreciation of Sterling represents a major threat to Irish export competitiveness. Volatility in exchange rates can affect the Irish economy through a number of channels. It may generate expenditure switching effects between foreign and domestic goods and services both at home and in trade partners, thus affecting net exports, to the degree that nominal exchange rate changes are absorbed by importers/exporters rather than passed on through increased prices, exchange rate movements may also affect firms' profit margins, with possible second-round effects on investment. Further volatility and depreciation of Sterling remains a clear threat to export competitiveness. Irish policymakers cannot influence exchange rates, and the trade performance of our small open economy will always be conditional on the ebb and flow of global markets. However, a competitive, sustainable, cost base can provide a buffer against such exchange rate fluctuations and other external factors such as international energy prices.

The **international price of oil** has almost doubled over the past 12 months³ and the favourable tailwind of low international energy prices, which to date have countered increases in other domestic costs, is now dissipating. The curbing of supply by OPEC, dwindling reserve levels and the fall-off in US shale oil production have been cited as contributory factors.

Consumer price inflation - as measured by the Harmonised Index of Consumer Prices (HICP) – decreased slightly in 2016 according to Eurostat. Despite low levels of inflation, Ireland remains a relatively high cost location and the return to strong economic growth has resulted in a series of upward cost pressures in some areas of the economy. Ireland compares favourably in HICP terms compared to the UK, US and the EU 28. Inflation in Ireland was negative through much of 2016. Recent changes in the euro Sterling exchange rate, and the impact of higher energy prices begins has seen inflation increase in early 2017 to 0.7 per cent in both CPI and 0.6 per cent in HICP terms in March 2017. The UK's new relationship with the EU post-Brexit will have a significant bearing on inflation there over the next few years through several channels. UK inflation recently soared to its highest level in two and a half years and is forecast to rise to 2.5 per cent in 2017. Much of the rise to date reflects the elimination of past drags from food, energy and import prices, together with renewed rises in oil prices. The projected path for inflation over the next three years in large part reflects the impact of higher

³ Despite this international oil prices are currently half the levels recorded over the period 2009-13 and the baseline reference here of \$27 per barrel lasted for less than 12 months.

import prices following Sterling's depreciation. Conversely, Irish inflation rates are forecast at 0.7 per cent in 2017 and 1.2 per cent in 2018.

The **services sector** is likely to remain the main source of upward price pressure in Ireland, with the price pass through impact of exchange rates and an expected increase in energy prices in 2017 also possible sources of upward pressure. In addition, **residential property** rents are also projected to increase due to continued limited supply of residential property. Persistently high rates of consumer price inflation lead to expectations of further price increases, and can create a vicious circle of increasing prices, reducing real incomes, increasing wage demands and reduced international cost competitiveness. As a small open economy, any deterioration in our cost competitiveness will have a major negative impact upon economic growth, employment and our standard of living. Addressing any erosion in cost competitiveness must remain a key economic priority for both enterprise and the Government.

Challenges for Policy Makers

As outlined in *Ireland's Competitiveness Challenge 2016*, maintaining fiscal sustainability and a broad tax base; supporting structural reform, innovation, and productivity; and growing our enterprise and export base will remain significant immediate challenges for Irish policymakers. The Council has set out a number of key recommendations for structural reform to address the national cost base in Ireland's Competitiveness Challenge 2016 report. These are summarised on page 10 of this report. Furthermore, there have been a number of key policy developments over the past year or so across the areas of interest to the Council – the development of the Action Plan for Housing and Homelessness, the National Rental Strategy, the enactment of the Legal Services Bill and the Cost of Insurance Working Group, all of which have been devised with a view to maintaining and enhancing cost competitiveness.

Ultimately, cost competitiveness is a critical foundation to withstand economic shocks and relentlessly pursuing cost competitiveness across all business inputs is essential for a small, open, trade-dependent economy such as Ireland. It is also a crucial element in reducing the cost of living and improving living standards. In light of these recurring and immediate cost issues, cumulatively there is a role for both the public and private sectors alike to proactively manage the controllable portion of their respective cost bases, drive efficiency and continue to take action to address unnecessarily high costs. It is important we maintain vigilant control over domestically determined costs and there is no opportunity for complacency. Such actions will ensure that improvements in relative cost competitiveness are more sustainable, leaving Ireland less dependent on a benign external environment.

Finally, the findings contained in the report, along with those from the forthcoming NCC International Competitiveness Scorecard 2017, will form the analytical basis for policy recommendations in *Ireland's Competitiveness Challenge 2017* due later this year.

Policy Recommendations

Based on the benchmarking analysis contained in the Costs of Doing Business 2016 and Competitiveness Scorecard 2016 reports, the Council identified a range of policy areas relating to costs requiring action in order to enhance Ireland's competitiveness performance. A number of key recommendations, drawn from the Council's most recent Competitiveness Challenge 2016 report are restated below.

Cost Competitiveness Policy Recommendations

Labour Costs

- Continue to reform and simplify the current regime of taxes and charges on employment, specifically to further encourage the take-up of employment opportunities and job creation, whilst simultaneously maintaining a broad personal tax base. Anomalies in relation to PAYE and the USC should be removed to support the self-employed, job creation and entrepreneurship.
- Review income taxes (e.g., credits, thresholds, rates, etc.) to support improvements in after-tax income, enhancing the incentive to work while simultaneously protecting labour cost competitiveness.
- Outline how the revenue foregone from the abolition of the USC would be replaced in a growth and employment friendly manner, consistent with the principle of broadening the tax base.

Property Costs

- Devise a clear implementation plan for *Rebuilding Ireland – Action Plan for Housing and Homelessness* with specific timelines and assigned responsibility for specific actions. Drive implementation through regular reporting and cross-agency collaboration. Establish and resource the Housing Delivery Office and the Housing Agency's dedicated Procurement Unit as a matter of urgency.
- Establish the State Lands Management Group with the clear objective of improving the supply of affordable development land. Drive proactive engagement with all relevant interests on the large-scale strategic sites to accelerate the delivery of new homes in our urban areas.
- Launch the competition to develop innovative systems for the delivery of affordable high quality residential development. Analyse the cost savings and disseminate the learnings from the competition to housing stakeholders.
- Expedite the development of a commercial property price register encompassing data on commercial sales and leases.
- Introduce the Vacant Site Levy as planned. Prior to its introduction, review the proposed exemptions to ensure that the Levy is sufficiently broad in scope.

Transport Costs

- Avail of the provisions within the expenditure benchmark pillar of the EU fiscal rules to fund capital investment. Use of these provisions should be in a manner compatible with and in adherence to the rules of the Stability and Growth Pact.
- Increase the allocation for capital investment in physical and knowledge capital to support competitiveness, in the context of the Mid-Term Review of the Capital Plan. Ensure that coherent and clear linkages exist between the objectives set out in the National Planning Framework and the priorities identified in the Mid-Term Review of the Capital Plan
- Review how other advanced economies coordinate and deliver capital investment and identify best practice in terms of the institutional framework for capital infrastructure investment.
- Develop and source non-exchequer investment to support the delivery of economic infrastructure. Options include (i) Public-private partnerships; (ii) funding channels such as the European Strategic Investment Fund; and (iii) special purpose vehicles.

Utility Costs

- Develop a target led, time bound implementation plan around the priorities identified in the Energy White Paper.
- Review the legal and institutional framework for the regulation of electricity and natural gas markets including the CER's mandate and resourcing in line with the Government's Energy White Paper.

- Complete the construction of the north-south interconnector to bolster security of supply and reduce energy costs.
- Identify specific barriers and recommend actions to improve mobile and broadband access pending the rollout of the National Broadband Plan.
- Commence work on the successor to the National Digital Strategy.

Credit and Financial Costs

- Continue to monitor the landscape for enterprise finance so that viable businesses are not constrained by an inability to access finance. Where gaps are identified, develop proposals to provide alternative sources of finance, with a particular focus on SMEs and on equity finance.
- Partner the Strategic Banking Corporation of Ireland with more international lenders, especially in non-bank finance, so as to increase competition and provide alternative sources of finance for SMEs.
- Increase the number of lenders and the uptake of SBCI loans. Secure additional funding for the SBCI once its current lending capacity has been fully drawn down.

Business Services Costs

- Continue to develop a more comprehensive and representative data set on legal service prices
- Incorporate the competition-enhancing and cost-reducing provisions of the Legal Services Act rapidly into the regulations to be issued by the independent Legal Services Regulatory Authority. Ensure that the LSRA is adequately resourced to undertake the research necessary to fulfil its mandate
- Continue to modernise the legal service profession. The establishment of a specialist conveyancing profession and the creation of a single tier counsel system should be considered in this regard.

Chapter 1 –Introduction and Methodology

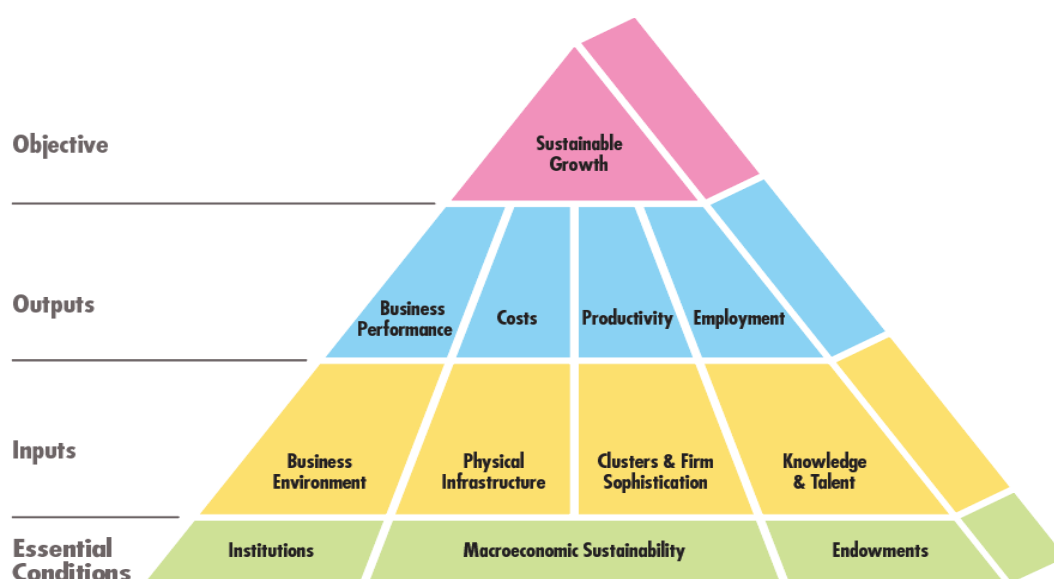
Introduction

Competitiveness is a multidimensional concept, encompassing many different drivers. Competitiveness is not an end in itself, but a means of achieving sustainable improvements in living standards and quality of life. The Cost of Doing Business is just one of the elements which determine a country’s ability to compete in international markets. The success of the enterprise sector affects overall prosperity and steps towards this prosperity also indicate progress in national competitiveness.

The NCC’s Competitiveness Framework

The Council defines national competitiveness as the ability of enterprises to compete successfully in international markets. National competitiveness is a broad concept that encompasses the diverse range of factors which result in firms in Ireland achieving success in international markets. For the Council, the goal of national competitiveness is to provide Ireland’s people with the opportunity to improve their living standards and quality of life. The Council uses a “competitiveness pyramid” to illustrate the various factors (essential conditions, policy inputs and outputs), which combine to determine overall competitiveness and sustainable growth. Under this framework, competitiveness is not an end in itself, but a means of achieving sustainable improvements in living standards and quality of life.

The NCC Competitiveness Framework



- At the top of the pyramid is **sustainable growth** in living standards – the fruits of competitiveness success.
- Below this are the key policy outputs for achieving competitiveness, including **business performance** (such as trade and investment), **costs**, **productivity**, and **employment**. These can be seen as the metrics of current competitiveness.
- Below this in the third tier are the policy inputs covering three pillars of future competitiveness, namely the **business environment** (taxation, regulation, and finance), **physical infrastructure**, **clusters and firm sophistication**, and **knowledge and talent**.

- Finally, at the base of the pyramid are the essential conditions for competitiveness, these foundations are based on institutions, macroeconomic sustainability, and endowments.

This *Costs of Doing Business 2017* report concentrates on the costs that are largely domestically determined such as labour, property, transport, utility, credit and financial, and business services. It considers both price levels, and changes in those levels (i.e. price inflation). It is structured as follows:

- Chapter 2 provided an overview of why costs matter for enterprise, sets out cost profiles for a range of firm types which identify the most important cost categories, and explains the high level economic factors that determine costs;
- Chapter 3 summarises the key cost trends for enterprise in Ireland;
- Chapters 4 to 8 examine the main cost categories in greater detail. The primary costs analysed in these chapters relate to labour, property, transport, utilities, and credit and financial costs;
- Chapter 9 examines data on business services and other input costs – a cost category not captured in the profiles referred to above but still an important input for the vast majority of enterprises; and
- Finally, acknowledging the interlinked nature of all sectors and participants of the economy, Chapter 10 considers the broader consumer cost environment.

Methodology

In each chapter, a range of internationally comparable, enterprise-focussed cost indicators are collected for Ireland and a number of our key trading partners. We have endeavoured to collect data from high-quality, internationally respected sources, and where necessary, caveats on data are set out. Measuring and benchmarking cost competitiveness performance relative to third countries highlights Ireland's strengths in a number of areas but is also intended to identify potential threats on weaknesses. Nonetheless, there are limitations to comparative analysis:

- While every effort is made to ensure the timeliness of the data, there is a natural lag in collating comparable official statistics across countries. As much of this data is collected on an annual basis, there may be a time lag in capturing recent changes in cost levels.
- The Council is also constrained in terms of the availability of metrics and their impact on enterprises of different sizes and sectors and across a number of important areas such as water, transport and international freight, waste, insurance and Local Authority rates.
- Given the different historical contexts and economic, political and social goals of various countries, and their differing physical geographies and resource endowments, it is not realistic or even desirable for any country to seek to outperform other countries on all cost measures.
- There are no generic strategies to achieve an optimum level of cost competitiveness; as countries face trade-offs and may be at different points in the economic cycle.
- Where possible, Irish cost levels are compared to a relevant peer group average (e.g. the OECD and Euro area average). It is also worth noting that individual cost metrics have strengths and weaknesses (i.e. in terms of definitions used, in how the data is collected etc.). When analysing the individual metrics, it is important, therefore, to consider all of the data as a whole – does the analysis of the individual metrics combine to tell a coherent story about Ireland's current cost competitiveness performance.

Chapter 2 – How Do Costs Impact on Enterprise?

The NCC framework (see Chapter 1) for analysing competitiveness performance considers inputs and outputs can be illustrated on a pyramid. Under the framework, competitiveness is not an end in itself, but a means of achieving sustainable improvements in living standards and quality of life. The NCC currently uses a pyramid to outline the framework within which it assesses Ireland's competitiveness. At the top of the pyramid is sustainable growth in living standards – the fruits of competitiveness success. Below this are the key policy outputs for achieving competitiveness, including business performance (such as trade and investment), prices and costs, productivity and employment. These can be seen as the metrics of current competitiveness. Below this are the policy inputs covering three pillars of future competitiveness, namely education and training, innovation, clusters and firm sophistication, Ireland's economic and technological infrastructure and the business environment (which includes entrepreneurship, taxation and the regulatory framework). Finally, at the base of the pyramid are the essential conditions for competitiveness, these foundations are institutions, macroeconomic sustainability and natural endowments.

Why Costs Matter

Generating sustainable broad based export-led growth is essential to sustaining economic growth in these challenging times. To achieve such growth, Ireland's international competitiveness must be maintained and enhanced relative to our key competitors.

Competitiveness is a complex concept, encompassing many different drivers. Notwithstanding the evolution of the Irish economy and the growing complexity of the goods and services produced in the country over the past decade, cost competitiveness remains a critical determinant of success. Indeed, in the absence of a currency devaluation policy lever to manage short term competitiveness pressures, a combination of cost competitiveness in key business inputs and enhancements in productivity must provide the foundations for sustaining growth. In the longer term, productivity growth is the preferred mechanism to improve competitiveness as it can support cost competitiveness in tandem with high and increasing income levels.

A high cost environment weakens competitiveness in a number of ways.

- High costs make Ireland less attractive in terms of mobile investment and business expansion and in the context of Brexit, if unchecked could see companies relocating to other jurisdictions;
- High costs make firms which rely on domestically sourced inputs less competitive when they are selling into foreign markets – this is a particular concern for large indigenous exporting sectors such as the food and drink sector, construction products and services, timber and engineering; and
- A high cost environment can impact on firms which may not export, but which rely on the domestic market – their customers (consumers and other firms) may source cheaper inputs from abroad due to currency fluctuations, rather than from within Ireland, leading to a loss of market share for Irish based enterprises.

More broadly, all sectors of the economy are interlinked and interdependent - high and increasing business costs have implications for the costs of living. These in turn, have knock on implications for wage demands, and so the cycle continues. It remains vital, therefore, that Ireland protects the gains made to date, and that we continue to take action to address unnecessarily high costs (i.e. cost levels not justified by productivity) wherever they arise. In this regard, there is a role for both the public and private sectors alike to proactively

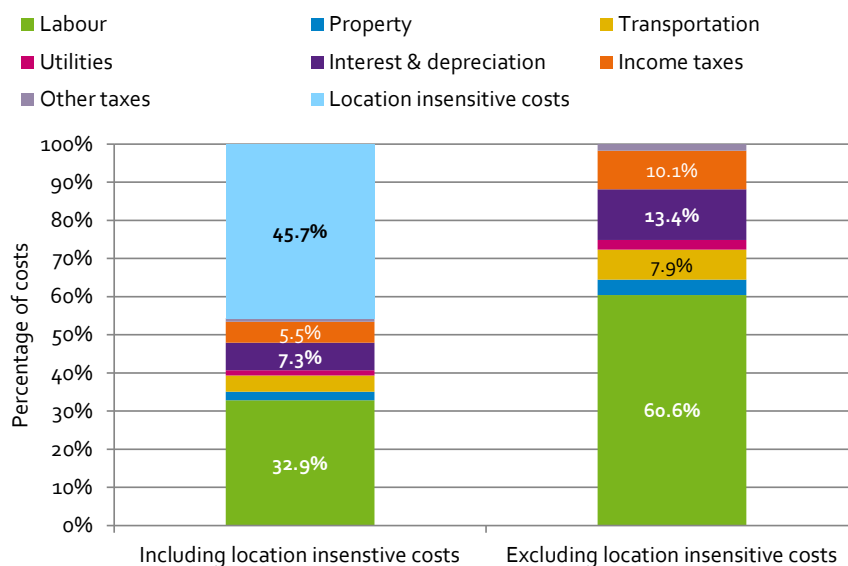
manage their cost base and drive efficiency, thus creating a virtuous circle between the costs of living, wage expectations and cost competitiveness.

Which Costs Matter Most?

From a competitiveness perspective, it is essential that policymakers focus on maintaining cost competitiveness, particularly in relation to those goods and services that comprise a significant percentage of business costs and that are out of line with those in competitor countries. Figure 1 and Table 1 provide an enterprise cost profile based on data for a range of sectors and locations⁴.

The data illustrate the relative importance of location sensitive and location insensitive costs (i.e. goods and services produced on international markets where the price is determined by global supply and demand conditions: e.g. commodity raw materials, industrial equipment, etc.).

Figure 1: Summary of Enterprise Cost Profiles, 2016



The column on the right strips out cost elements determined internationally and focuses instead on costs which are primarily determined domestically. The significance of the location-sensitive cost factors differs by sector, with considerable variations occurring between services and manufacturing firms.

Source: KPMG Competitive Alternatives 2016, NCC Calculations

These differences are elaborated upon in Table 1, which provides a range of magnitude for each cost category.

⁴ KPMG's 2016 Competitive Alternatives report explores the most significant business cost factors in more than 100 cities and 10 countries around the world. This study measures 26 key cost components, across 7 business to business service segments and 12 significant manufacturing sectors. The 10 countries included in the KPMG report are Australia, Canada, France, Germany, Italy, Japan, Mexico, Netherlands, UK and US. While Ireland is not included in the project, Figure 1 provides data based on the average contribution of each cost factor for the 10 countries included in the study. This provides an indication of the importance of each cost factor to the average firm. All figures in this report are expressed in US dollars and so results are sensitive to exchange rate movements – while exchange rate changes do not affect local business costs expressed in local currency, they do impact international comparisons when local costs are converted to US dollars.

Table 1: Relative Significance of Location Sensitive Costs (% of total location sensitive costs), 2016

	Services	Manufacturing
Labour & Benefits	72-86%	40-57%
<i>Of which: Salaries & Wages</i>	52-61%	28-40%
<i>Statutory Plans</i>	8-10%	5-7%
<i>Other Benefits</i>	12-14%	7-10%
Facility Costs	4-15%	2-5%
Transportation Costs	-	6-21%
Utility Costs	0-1%	2-7%
Capital Costs	0-8%	11-25%
Taxes	3-16%	10-18%
<i>Of which: Income Taxes⁵</i>	1-15%	9-15%
<i>Property Taxes</i>	1-2%	1-2%
<i>Other Taxes</i>	0-1%	0-1%

Source: KPMG Competitive Alternatives 2016

Taking these in turn:

- Labour costs include wages and salaries, employer-paid statutory plans, and other employee benefits. KMPG research indicates that labour costs represent the largest category of location-sensitive cost factors for all industries examined. For the services sub-sectors examined, labour costs typically range from 72 to 86 per cent of location-sensitive costs, while for manufacturing operations the typical range is from 40 to 57 per cent of total location-sensitive costs.
- Facility or property costs represent the next significant cost factor. For services sub-sectors, office lease costs represent 4 to 15 per cent of total location-sensitive costs. For manufacturing sub-sectors, industrial lease costs range from 2 to 5 per cent of location-sensitive costs.
- Transportation costs are only assessed for manufacturing operations – reflecting the cost of moving finished goods to markets. For the manufacturing sub-sectors examined, transportation costs represent 6 to 21 per cent of total location-sensitive costs.
- Utility costs represent 1 to 7 per cent of location-sensitive costs⁶. Electricity and natural gas costs are more significant for manufacturers than for non-manufacturers.
- Costs of capital include both depreciation and interest. These are major cost items for manufacturers, ranging from 11 to 25 per cent of location-sensitive costs across sub-sectors. Capital-related costs are much less significant for services sub-sectors, at 0 to 8 per cent of location-sensitive costs.
- Taxes typically represent 3 to 16 per cent of total location-sensitive costs for the services sub-sectors examined, and 10 to 18 per cent for manufacturing sub-sectors.

⁵ Effective income tax rates are calculated to reflect combined corporate tax rates (national, regional and local), net of generally applicable tax credits, grants and other common government incentives.

⁶ As noted above, the CSO's Census of Industrial Production shows that energy costs for Irish enterprises, including SMEs, represent 1.57% of total costs.

What Drives Costs?

Ireland would be considered a wealthy country by international standards. Wealthy countries are generally expensive countries and two theories are often cited to demonstrate this correlation, both of which resonate in some way with the Irish economic model.

- In an economy catching up with its richer neighbours, labour productivity tends to rise faster in sectors producing internationally tradable goods (particularly in capital intensive manufacturing industry) than in those involved in the more labour intensive and generally non-traded service sector. Increases in labour productivity growth in traded manufacturing industries are usually followed by wage growth throughout the economy. Thus, a combination of wage growth across both traded and non-traded sectors, but lower labour productivity gains in the services sector, leads to more rapid increases in the cost of services. In this way, services inflation is often higher in those regions of a monetary union enjoying the most rapid growth in productivity and incomes. This is known as the 'Balassa-Samuelson effect'.
- The Bhagwati–Kravis–Lipsey view provides a somewhat different explanation from the Balassa–Samuelson theory and the crux is that tradable goods are more capital intensive than non-tradable goods and wealthy countries have higher endowments of capital than their poorer counterparts. Therefore, workers in tradable goods in more affluent countries will be more productive and earn higher wages. Less affluent countries often have an abundance of labour and thus their non-tradable goods will be less expensive.

Analysis by the European Commission⁷ has found that even allowing for Ireland's relatively high level of GDP per capita, the price level in Ireland prior to the recent crisis had been relatively high in comparison with other Euro area economies. The Irish economy underwent a sharp correction in terms of its cost base across a range of metrics during the crisis. Notwithstanding these cost adjustments the Irish price level remains elevated compared with many of our competitors. Ireland's current price profile could be described as 'high cost, rising slowly, with price levels in Ireland 22.2 per cent more than the EU average in 2015.

Over the past number of years since the economic crisis a number of recurring cost-drivers identified by the Council have emerged impacting on a range of business inputs:

- Housing costs which indirectly impact on industries' costs and influence the competitiveness of Irish goods and services;
- Commercial property costs;
- Credit costs and interest rate differentials between Irish firms and their European counterparts;
- Energy and utility costs;
- Business services costs, namely professional services and transport; and
- Consumer costs, namely insurance, health and education.

In light of these recurring and immediate cost issues, cumulatively there is a role for both the public and private sectors alike to proactively manage the controllable portion of their respective cost bases, drive efficiency and continue to take action to address unnecessarily high costs.

⁷ Forfás, Consumer Costs and Inflation, February 2013

HICP – Administered prices (HICP-AP)

Persistently high rates of consumer price inflation lead to expectations of further price increases, and can create a vicious circle of increasing prices, reducing real incomes, increasing wage demands and reduced international cost competitiveness. Inflation also adversely impacts upon our attractiveness as a location for mobile talent. Although Irish inflation is currently low, it is prudent to consider administrative factors affecting consumer price inflation and contributing to the Irish consumer price level.

Administered prices refers to prices of goods and services which are fully (“directly”) set or mainly (“to a significant extent”) influenced by the government (central, regional, local government including national regulators). From a policy perspective, the portion of any increase in administered prices that can be attributed to the government directly is unclear for at least two reasons. Firstly, in the case of Ireland, the categories are “mainly-administered”, meaning the government does not completely determine prices in these categories. Secondly, some categories, such as electricity and gas, may be more influenced by international prices that are outside of the control of governments. In addition, certain pricing aspects of administered prices are determined by independent regulators (in accordance with their prescribed mandates). The HICP-AP is a Eurostat measure of state-influenced prices. It is important to stress the HICP-AP basket differs from country to country depending on the scope government has to influence prices. A number of conventions guide the definition of administered prices⁸. The goods and services classified as “administered” by the CSO and Eurostat represent a small subset of the overall Irish CPI basket. Up to 2006, refuse collection was considered a fully administered category, however, there are currently no consumer goods and services categories classified as fully administered prices in Ireland. Mainly administered prices cover the prices of goods and services on which the government including any national regulator has a significant influence. Table 2 outlines the range of goods and services categories defined as mainly administered prices in Ireland and the year in which they were classified and included in the mainly administered basket.

Table 2: Mainly-administered prices in Ireland

COICOP ⁹ Sub indices	Mainly-administered prices, in Ireland and date of inclusion
04.41	Water Supply (from 2015)
04.43	Sewage (from 2015)
04.51	Electricity (up to 2011)
04.52	Gas (up to 2014)
06.3	Hospital services
07.31	Passenger transport by railway (from 2011)
07.32	Passenger transport by road
07.35	Combined passenger transport (from 2011)
08.1	Postal services (up to 2008)
12.53	Insurance connected with health (up to 2008)

Source Eurostat

⁸ Consumer prices subject to indirect taxation and excise duties are not classified as administered as their effects are reflected in the HICP at Constant Tax Rates (HICP-CT). Products that are subject to standards regulation, such as health and safety or environmental standards or products under the Common Agricultural Policy are excluded. Products that are subject to index-linked price regulation by adjusting inflation are typically excluded. There are also conditions that dictate whether and how telecommunications, electricity, and gas items are included in the HICP-AP basket.

⁹ COICOP is an acronym for the Classification of Individual Consumption by Purpose.

Figure 2: HICP and Mainly-administered prices in Ireland, 2011-2016¹⁰

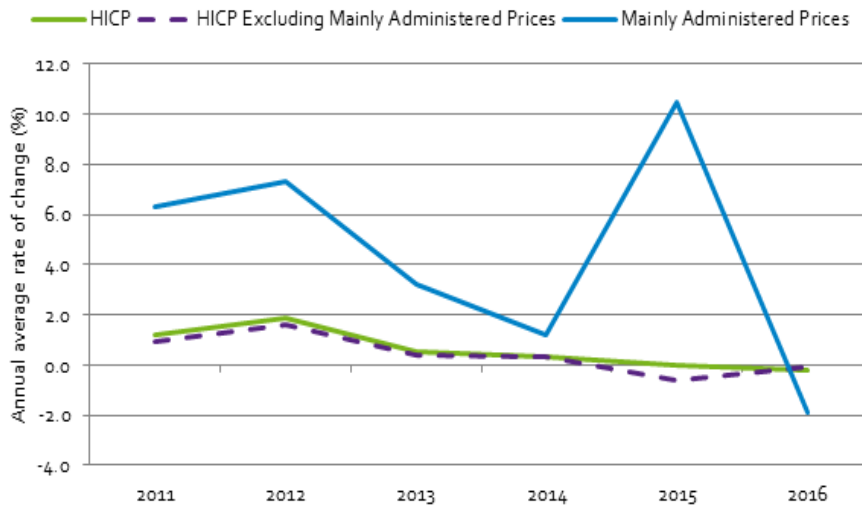


Figure 2 shows a downward trend in HICP and administered price inflation over the period 2011-2016. Inflation in administered prices was particularly high in 2011 (6.3%) 2012 (7.3%) and 2015 (10.5%). In 2016, mainly administered prices decreased by 1.9 per cent compared to a decrease in the HICP of 0.2 per cent.

Source: Eurostat

Table 3: HICP and Mainly administered prices, annual average rate of change (%), 2011-2016

	2011	2012	2013	2014	2015	2016	Median 11-16	Average 11-16
All-items HICP	1.2	1.9	0.5	0.3	0	-0.2	0.4	0.6
Mainly administered prices	6.3	7.3	3.2	1.2	10.5	-1.9	4.8	4.4
Overall index excluding mainly administered prices	0.9	1.6	0.4	0.3	-0.6	-0.1	0.4	0.4
<i>Electricity</i>	<i>6.6</i>	<i>11.3¹¹</i>	<i>5.6</i>	<i>3.6</i>	<i>-0.2</i>	<i>-3.6</i>	<i>3.6</i>	<i>2.4</i>
<i>Gas</i>	<i>6.6</i>	<i>15.2</i>	<i>6.7</i>	<i>2.1</i>	<i>-2.4</i>	<i>-3</i>	<i>4.4</i>	<i>4.2</i>
Hospital services	10.6	1.5	-0.5	0	0	0.1	0.1	2.0
Passenger transport by railway	1.3	2.7	5.1	4.7	4.4	2.1	3.6	3.4
Passenger transport by road	2	6	5.8	2.2	2.7	0.9	2.5	3.3
Combined passenger transport	3.4	6.8	7.3	7.1	1.9	0.2	5.1	4.5
Postal services	0	1	6.1	7.2	8.9	2.9	4.5	4.4
<i>Insurance connected with health</i>	<i>20.6</i>	<i>15.6</i>	<i>11.9</i>	<i>7.4</i>	<i>0</i>	<i>5.3</i>	<i>9.7</i>	<i>10.1</i>
Water supply	0	0	0	0	174.7	-50	0.0	20.8
Sewerage collection	0	0	0	0	174.7	-50	0.0	20.8

Source: Eurostat

Table 3 sets out the annual changes in the Classification of Individual Consumption by Purpose (COICOP) sub-categories that Eurostat has at one point determined qualify as fully- or mainly-administered in Ireland. Some categories, such as Refuse collection, Electricity, Gas and Insurance connected with health and Postal services were identified as administered up to particular points in time, after which the category has dropped out of the HICP-AP basket. Others, such as Water supply and Sewerage collection was introduced in 2015¹². All other

¹⁰ Inflation in administered prices has been higher than headline HICP inflation in Ireland throughout the period 2011-2016 and the differential between the two has narrowed (with the exception of 2015).

¹¹ Figures in italics are not categorised as administered prices for the related year.

¹² Water supply and sewerage collection are components of Group 04.4 of the COICOP classification, codes 04.4.1 and 04.4.3 respectively. This group also includes refuse collection (04.4.2) and other services relating to the dwelling (04.4.4). Water supply and sewerage collection charges were introduced in Ireland on 1 January 2015 and subsequently suspended from 1st July 2016. See CSO, CPI Technical Paper Introduction of Water Supply and Sewerage Collection

subheadings are included in the HICP-AP index for the entirety of the time series. The table shows that transport related costs have increased at a rate consistently higher than HICP over the period 2011-2016. The rate of increase in hospital services was high in 2010 but has slowed considerably since then. Categories no longer categorised as administered prices such as Insurance connected with health, postal services, gas, electricity and postal services increased at a more rapid rate than HICP prices.

Figure 3: Inflation in mainly administered prices, Ireland, UK and the Euro area, 2011-2016¹³

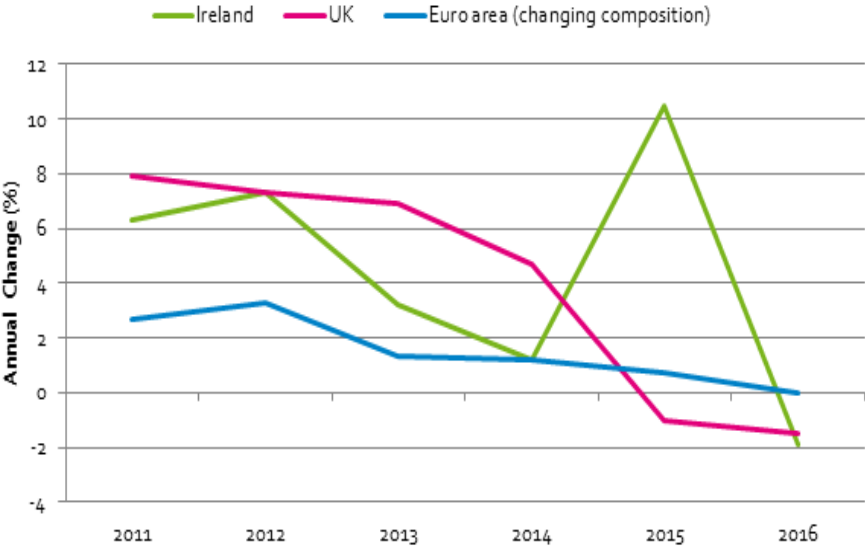


Figure 3 shows that between 2011 and 2016, inflation in Irish mainly administered prices has outpaced inflation in mainly administered prices in the Euro area (changing composition). With regard to the UK¹⁴, with the exception of 2015, (largely as a result of the introduction of water charges) mainly administered prices were higher than the Irish rates in every year.

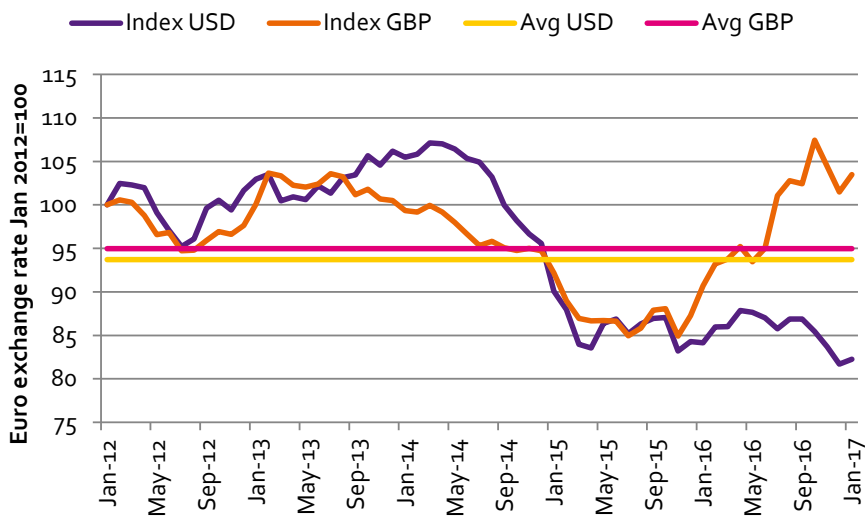
Source: Eurostat/ECB

¹³ Comparison with the Euro area is a comparison between other countries' HICP-AP inflation but there are differences in the composition and categories that make up the Irish HICP-AP basket and the Euro area basket which is calculated by the European Central Bank.

¹⁴ Mainly administered prices in the UK refer to Water Supply, Sewage, Electricity, Gas, Passenger transport by railway and Postal Services

Chapter 3– How Does Ireland Perform?

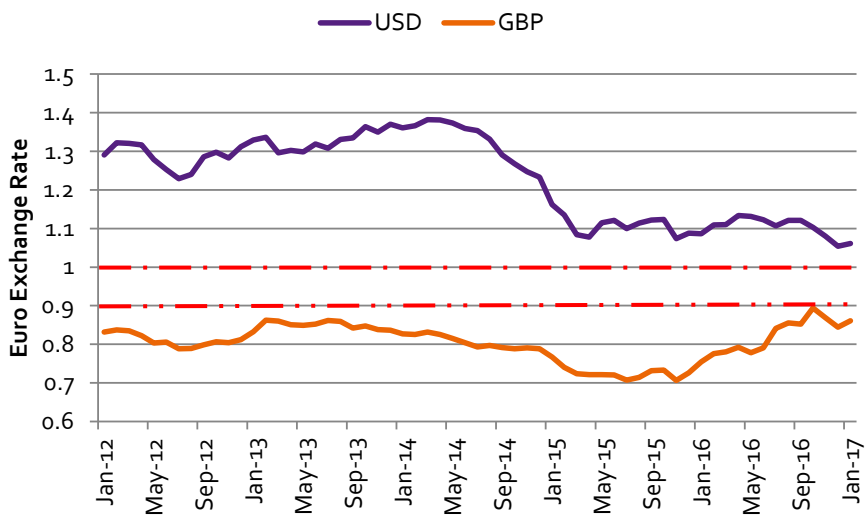
Figure 4: Euro/pound sterling and euro/dollar exchange rate Index, January 2012-2017



The relative value of the Euro against the Dollar and particularly Sterling has fluctuated considerably in recent months. The depreciation of Sterling in the wake of the Brexit referendum decision has diminished competitiveness relative to UK produced goods and services.

Source: Eurostat

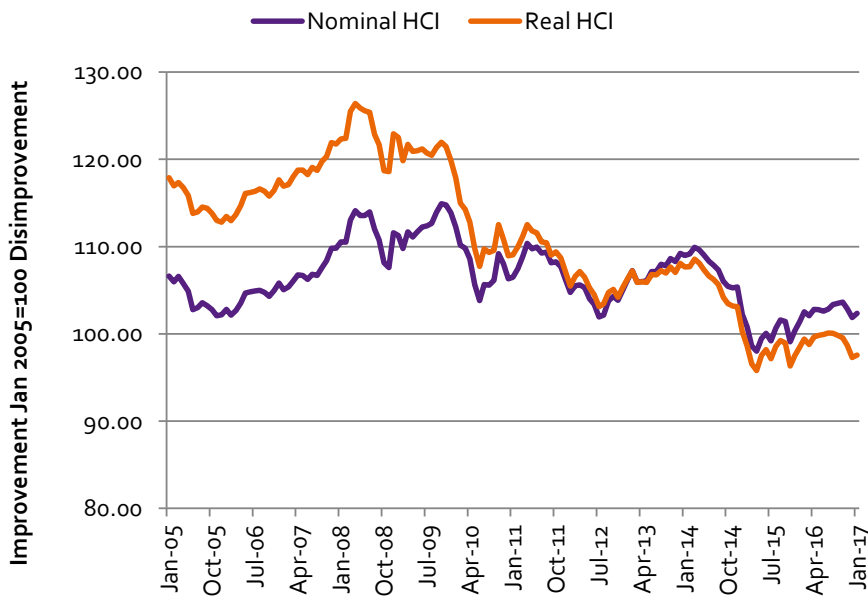
Figure 5: Euro/pound sterling and euro/dollar exchange rate, January 2012- 2017



In 2016, the Euro strengthened and appreciated by 16 per cent against Sterling posing significant challenges for parts of the exporting sector reliant on trade with the UK. Further volatility and depreciation of Sterling represents a major threat to Irish export competitiveness.

Source: Eurostat

Figure 6: Harmonised Competitiveness Indicators¹⁵, January 2005 – January 2017 (January 2005 = 100)



From March 2014 to January 2015, renewed euro depreciation provided a boost to Irish cost competitiveness. The latest data up to January 2017 show that the nominal HCI decreased marginally by 1 per cent, primarily as a result of exchange rate movements, whereas real HCI improved by 1 percent over the previous 12 months.

Source: Central Bank of Ireland, NCC Calculations

Figure 7: Real HCI Movements in Ireland, Germany, Spain and Euro area (Jan 2005 – Jan 2017 (Jan 2005 = 100))

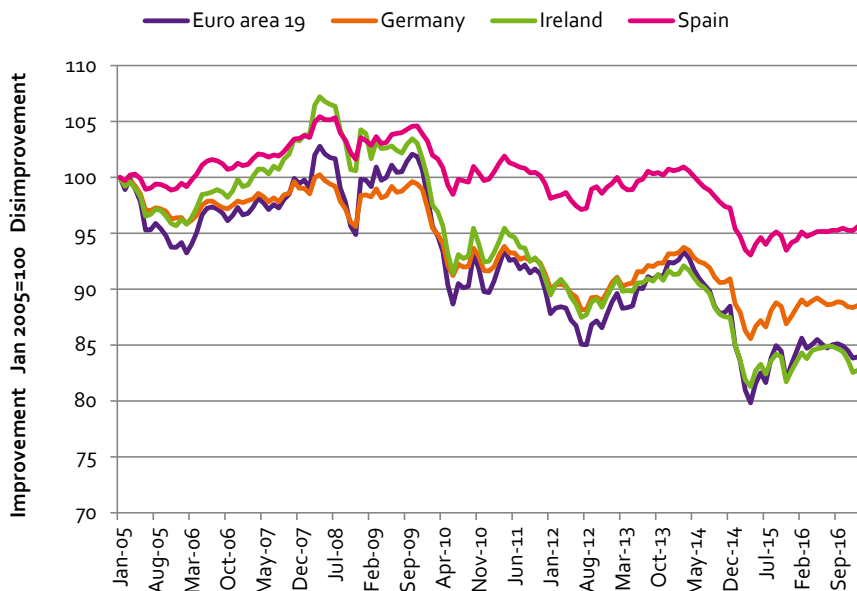


Figure 7 shows improvements in competitiveness were recorded across the Euro area during 2014 and H1 2015 as the euro depreciated. Irish competitiveness has mirrored that of the Euro area 19 over the corresponding period, with Ireland significantly more competitive than both Germany and Spain.

Source: Eurostat, NCC Calculations

Focus on Individual Cost Categories

¹⁵ Harmonised Competitiveness Indicators (HCIs) provide meaningful and comparable measures of countries price and cost competitiveness that are also consistent with the real effective exchange rates (REERs) of the euro. See NCC, UNDERSTANDING HARMONISED COMPETITIVENESS INDICATORS, 2016

Harmonised competitiveness indicators can be difficult to translate into real world experience. From the perspective of the firm or an individual, in order to fully appreciate changes in prices and costs, it is necessary to examine more tangible indicators such as wage rates, rents, and the prices paid for various utilities and services. In this regard, *Costs of Doing Business 2017* examines over 70 different metrics across a range of business cost categories to provide an overview of the cost environment for enterprise in Ireland. The key messages are summarised below.

Measures of Overall Cost Competitiveness

Summary of Business Cost Trends in Ireland	
Labour Costs	<p>There is considerable heterogeneity across Europe with regard to, average hourly labour costs in the whole economy, with the lowest hourly labour costs recorded in Bulgaria (€4.4), and the highest in Denmark (€42). In Ireland, the hourly labour cost was €30.4 in 2016, compared to €26.7 in the UK and €29.8 for the Euro area 19. The relative change in hourly labour costs 2015/2016 for the whole economy was 1.3 per cent compared to an increase of 1.4 per cent in the Euro area.</p> <p>While demands for wage increases are understandable after a period of economic stagnation and wage cuts, our relative competitive position will be negatively affected if wage growth outpaces that in competitor countries and is not backed up by increases in productivity. While labour cost growth has been positive, the growth has been below EU and Euro area averages in the 5 year period to 2016, representing a competitiveness gain for Ireland. Sectoral wage growth rates have been lower in Ireland than the Euro area over the corresponding period with the notable exception of Wholesale & Retail and ICT. Domestically, at sectoral level, hourly labour costs in Construction and Wholesale & Retail in Ireland grew by 4.6 per cent and 4.1 per cent respectively between 2012 and 2015. Across all sectors the average growth was 1 per cent.</p> <p>In 2015 the minimum wage as a percentage of average wages ranged from 34.6 per cent in the Czech Republic, 44per cent in Ireland to 52.4 per cent in Slovenia. As a percentage of average wages in 2014 across the Euro area 15, Ireland has the 10th highest minimum wage (not all comparable figures are 2014). In 2016 Ireland had the 2nd highest monthly minimum wage (€1,546). In its 2016 report to Government, the Low Pay Commission (LPC) recommended that the national minimum wage should increase by €0.10 to €9.25 per hour from 1 January 2017 after having previously concluding that moderate increases in the national minimum wage are unlikely to have a significantly adverse effect on employment.</p> <p>According to the OECD, the levels of taxation in Ireland are below the Euro area on average income levels and on marginal income levels for married couples. The corresponding marginal levels are, however, high for single earners. Ireland is currently very reliant on taxes on income as a source of revenue and significantly less revenue is generated through social security contributions in Ireland as compared with other OCED members. Ireland has the 8th lowest rate of social security contributions in the OECD. Employers' contributions are the 7th lowest, and employee contributions are the 11th lowest (although benefits are also correspondingly low in Ireland).</p>

Property Costs	<p>The last number of years has witnessed a sustained recovery in the Irish commercial property market. The cost of constructing a prime office unit and a High Tech Factory / Laboratory facility in Ireland rose by 6 per cent and 2 per cent in 2016 over the previous year. Commercial rents growth has been driven by an increase in demand, reflecting the improving economy. This in turn, has boosted capital values, the price that would have been paid for property if it had been purchased at the point of valuation, in all commercial sectors (e.g., office, industrial and retail). Overall growth was 3.8 per cent in Q4 2016. This acceleration has almost halved in the period since Q3 2015.</p> <p>The availability of competitive property solutions is a key requirement for the expansion of enterprises and winning mobile investment. In 2016 prime retails rents increased by 32 per cent year-on-year on Dublin’s Grafton St. In the 5 years to Q2 2016 Compound Annual Growth Rates associated with Office Rents were 14.1 per cent in Dublin (D2 and D4 districts) and 7 per cent in Cork. The growth rates in Dublin were over three times the equivalent rates in both London City and London’s West End. Commercial property prices in Ireland, however, still compare favourably to comparable cities in the UK but concerns persist about the availability of prime office space for rent in large urban centres in the short term as the market tightens and vacancy rates decline. This could result in future rent increases and any shortage of supply¹⁶ of new commercial space could adversely impact our competitiveness .</p>
Transport Costs	<p>Ireland continues to have a very high dependence on imported fossil fuels, particularly oil on which 48 per cent of our energy consumption is based. As a small peripheral EU economy, with limited resources, factors outside of our control such as international oil prices exert a significant influence on energy prices. Ireland is characterised by high taxes on motor fuel and 58 per cent of total diesel costs are made up of various taxes, the 5th highest proportion in the Euro area. The impact of these taxes is becoming more evident as the international price of oil increases. As well as lowering greenhouse gases, investment in renewables is reducing our reliance on imported fuel. Oil is a significant component of our fuel mix, but while the fuel mix has an energy policy relevance in Ireland’s contemporary economy, oil’s main significance is in transport policy and fiscal receipts.</p> <p>In the year to January 2017 world oil prices have risen by almost 80 per cent to over \$54 per barrel. This sharp rise in oil prices has been a contributing factor to the increased prices for petroleum products, and more generally inflation levels, across the EU. Irish petrol and diesel prices increased by 14.8 and 22 per cent respectively in the 12 months to February 2017. In addition, the cost of 1,000 litres of diesel in Ireland (€1,269) was 4.8 per cent above the Euro area average (€1,211) in the corresponding month. Ireland was the 4th most expensive country with taxes on diesel, at 58 per cent, accounting for the majority of this differential in Ireland. This is the 5th highest proportion in the Euro area. With regard to service prices in the transport sector, prices have been relatively stationary in recent quarters. Air transport is a notable exception with rapid price growth of 22.6 per cent recorded between 2012 and 2016.</p>

¹⁶ Recent research conducted by the ESRI noted that Dublin is the only European capital where there was no office space construction between 2011 and 2013. The same research notes the high level of demand for commercial property amongst mobile investment firms - 70 per cent of the take-up of such office space in Dublin in 2015 was by new and existing mobile investment firms, primarily tech-based companies, indicating the importance of ensuring a predictable and sustainable supply of commercial property.

<p>Utility Costs</p>	<p>The EU is among the most expensive locations for electricity and gas globally. The differential average price for electricity between Ireland and the UK has gone from a point where we are almost 12 per cent more expensive in 2012 to a situation where in the first half of 2016 electricity prices are 6 per cent cheaper in Ireland. Whilst industrial gas prices are now equal to the average prices across the Euro area, comparable prices are over 15 per cent lower in the UK. The data available, however, is based on cumulative average prices for Ireland and simple arithmetic averages for comparators. These figures also exclude VAT charges which may be making Irish prices appear to be more competitive given the fact that only 5 countries, Greece, Italy, Luxembourg, Malta and the UK have lower VAT rates on both natural gas and electricity¹⁷.</p> <p>On average, water and waste water costs for enterprise in Ireland compare favourably to those in competitor markets. Within Ireland, water costs vary significantly by local authority. In terms of waste costs, the cost of landfill has increased from €93 per tonne in 2010 to €113 in 2014 because of increases in the landfill levy¹⁸. Irish landfill costs are amongst the most expensive of the benchmarked countries/regions.</p> <p>Ireland is relatively cost competitive for telecoms, especially for business mobile broadband. However, concerns persist around the issues of quality (speed) and the regional availability of high speed services.</p>
<p>Credit and Financial Costs</p>	<p>The supply and demand for credit has improved significantly since the height of the crisis. However, the cost of credit, while falling remains high in an international context. Ireland had the 4th highest SME interest rates on bank overdrafts and credit lines in the Euro area in 2016. In January 2017, the interest rate in Ireland on loans of up to and including €1 million was almost double the Euro area average rate for new business. Furthermore, Irish interest rates for loans both under- and over the €1m threshold have been noticeably more volatile than Euro area rates. Irish and Euro area interest rates diverged further in 2014 and 2015. It is vital that cost competitiveness in this area does not weaken further.</p> <p>The cost of registering a business in Ireland as a percentage of Gross National Income was 0.2 per cent in Ireland in 2016, half the rate recorded some five years previously. The corresponding average across the OCED was 3.88 per cent.</p>
<p>Business Services and Other Input Costs</p>	<p>Services prices in Ireland have risen continuously since the beginning of 2012 and the magnitude of the increase has been higher than the Euro area 19 average during this period also. Overall since 2010, service prices have risen by more than manufacturing prices perhaps reflecting the greater exposure of the manufacturing sector to international competition. Large increases in prices were recorded in Postal and Courier (10.6 %) and Advertising, Media & Market Research (7.9%) since 2012.</p> <p>While the price of legal services dipped for a brief period in 2013, in Q3 2016 legal service prices were 8.3 per cent higher than the corresponding quarter in 2012. According to the</p>

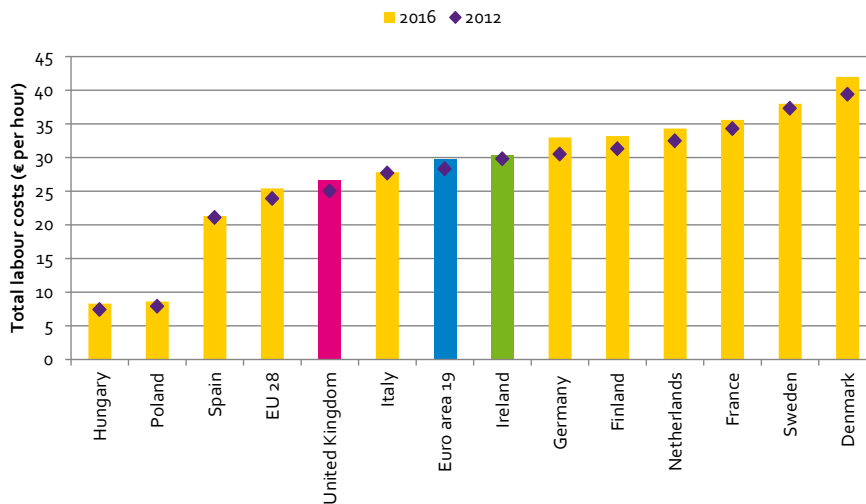
¹⁷ France applies a standard rate and a reduced rate of 20% and 5.5% on both natural gas and electricity.

¹⁸ The increase in the landfill levy is fully in line with the Government's policy to move waste management away from landfill. The landfill levy is an important economic instrument to support the development of alternative treatments to landfill in the higher tiers of the waste hierarchy and lessen our impact on the environment. The landfill tax in the UK is 84.40 Sterling.

	<p>World Bank, in international terms Ireland remains an expensive location in which to enforce a business contract and is the 6th most expensive in the OECD. It also takes significant time (650 days) to enforce a contract in Ireland (compared with an OECD average of 551 days). The World Bank also estimate that the total cost of contract enforcement in Ireland amounts to 26.9 per cent of a claim, compared with 22.1 per cent across the OECD.</p>
<p>Broader Cost Environment</p>	<p>Ireland remains an expensive location in which to do business with a price profile which can be described as “high cost, rising slowly”. Irish consumer prices remain over 22 per cent above the European Union average. Education costs have increased at a faster rate than overall consumer costs since 2012 and over the corresponding period prices have risen by 18.5 per cent. These increases have been driven primarily by increases in the tertiary sector. Irish insurance price inflation as measured by the HICP has been volatile and significantly above the UK rate and Euro area average from early 2014. Health insurance, which accounts for approximately 60 per cent of the insurance category, has increased in Ireland in recent months. In March 2017 the rate of Irish health insurance inflation (8.3%) was well above the Euro area (2.3%) and UK (3.8%).</p> <p>Mainly administered prices cover the prices of goods and services on which the government including any national regulator has a significant influence. There has been a downward trend in HICP and administered price inflation over the period 2011-2016. Inflation in administered prices was particularly high in 2011 (6.3%) 2012 (7.3%) and 2015 (10.5%).</p> <p>The affordability of housing is a key component of competitiveness. It impacts upon the attractiveness of Ireland as a location for investment and directly impacts on enterprise costs through wage effects, and indirectly determines the price of Irish goods and services. Taking account of the higher cost of mortgage finance in Ireland, only two cities, Amsterdam and London had a higher ‘mortgage affordability index’ in 2015. In terms of rent as a percentage of income, three international cities were found to be less affordable than Dublin. Residential Tenancies Board data for 2016 indicates that private sector rents continued to trend upwards.</p> <p>At a national level, annual growth was 7.8 per cent in Quarter 4, 2016; this compares to 6.6 per cent annual growth in Q3 2016. The standard national average rent in Q4 2016 stood at €986 per month. This is nearly the same as peak rents in 2007. The CSO’s Residential Property Price Index has risen by 52.1 per cent in the five years to February 2016 while year-on-year national growth in the corresponding month was 10.7 per cent.</p> <p>Childcare costs in Ireland are the second highest in the OECD for couples and the highest in the OECD for lone parents.</p>

Chapter 4 – Labour Costs

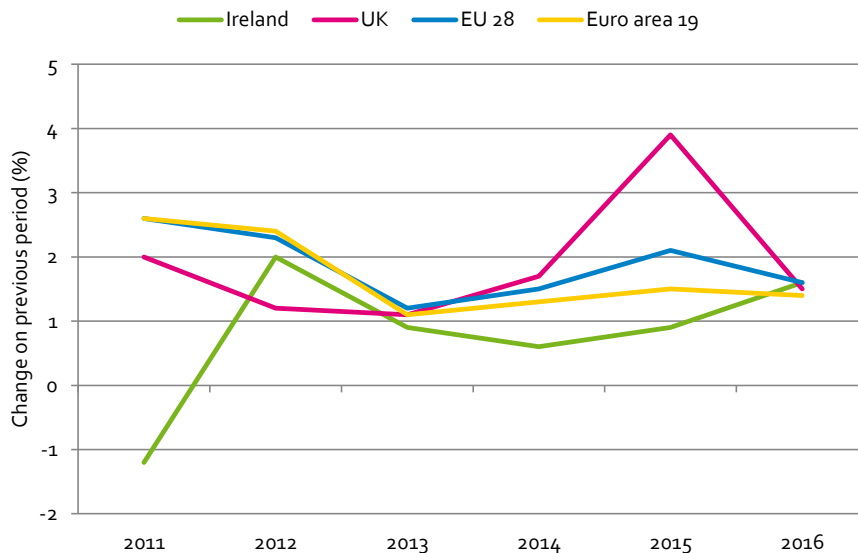
Figure 8: Total Economy Hourly Labour Costs¹⁹, 2016



Total Hourly Labour Costs denominated in Euro are shown in Figure 8. Hourly labour costs in the EU ranged from €4.4 in Bulgaria to €42.0 in Denmark in 2016. At €30.4 per hour (Ireland's hourly rate was the 8th highest in the Euro area, 2% and 12% higher than the Euro area 19 and UK respectively.

Source: Eurostat

Figure 9: Growth in labour costs, annual percentage change, 2011-2016



In 2016, Irish labour costs grew by 1.6% compared with growth of 1.6%, 1.4% and 1.5% respectively in the EU28, the Euro area 19 and the UK. The year-on-year growth rate in Ireland has been below the comparable rate across the EU28 during the period 2011-2016.

Source: Eurostat

¹⁹ Eurostat total economy data refers to enterprises with 10 or more employees and excludes agriculture and public administration

Figure 10: Growth in labour costs, Labour Cost Index, 2011-2016

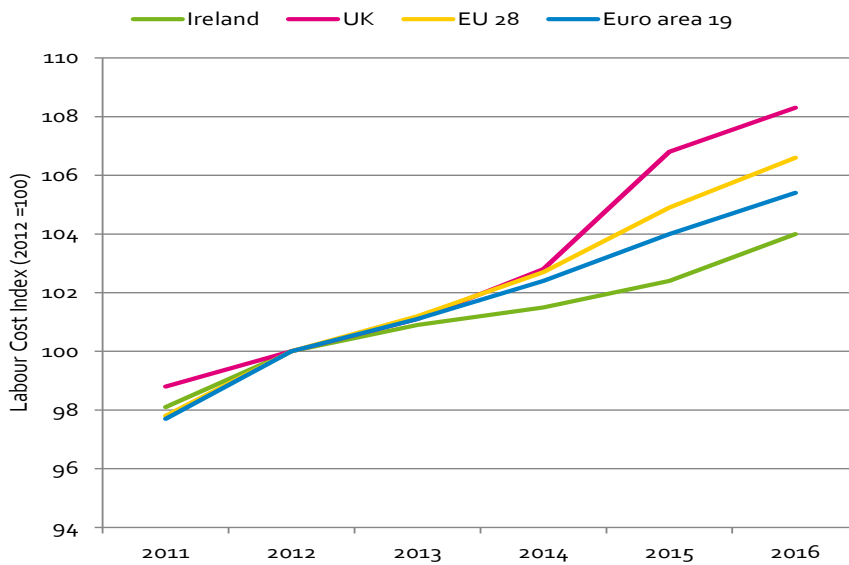


Figure 10 shows similar data to Figure 9 but expressed in index form. Setting 2012 labour cost levels equal to 100, it is evident that Irish labour costs are increasing but cumulatively have increased by less than EU and Euro area labour costs. The index does not reflect the different starting levels of labour costs in each country.

Source: Eurostat

Figure 11: Growth in labour costs²⁰, by economic sector, annual percentage change, 2016



The rate of labour cost growth varies by economic sector. In 2016, growth in labour costs in Ireland was strongest in Professional, scientific & technical activities (+3.4%, EA+1.5%), Transportation & storage (+2.6%, EA 1.1%) and Administrative and support service activities (+2.3%, EA 0.8%).

Source: Eurostat

²⁰ Labour cost for LCI (compensation of employees plus taxes minus subsidies)

Figure 12: Growth in labour costs, by economic sector, average annual percentage change, 2012-2016

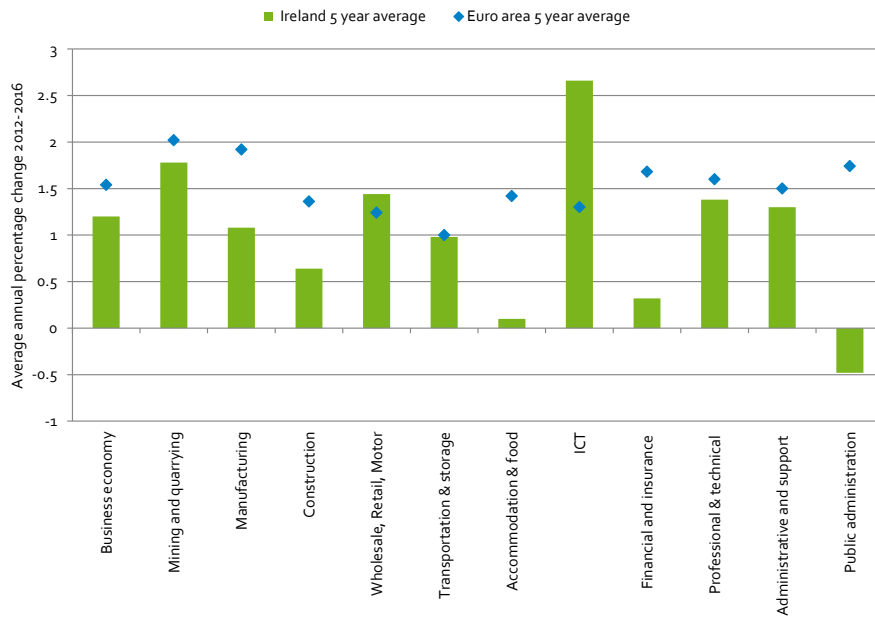


Figure 12 shows that in the 5 years to 2016, labour cost growth in Ireland was below the Euro area average in most sectors with the exceptions of Wholesale, Retail & Motor, Transportation & storage and ICT. Labour cost growth was lowest in Accommodation and food, Financial and insurance and Construction and negative in public administration.

Source: Eurostat

Figure 13: Average growth rate in Total Earnings by Sector, 2015

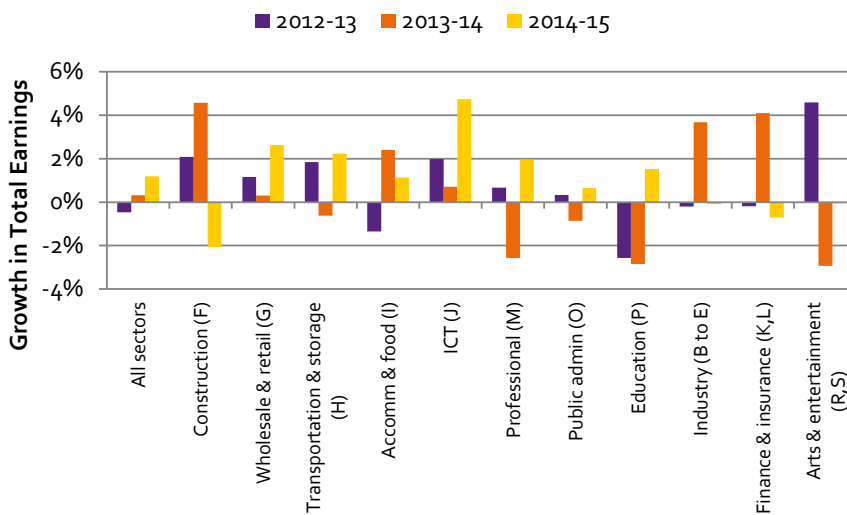


Figure 13 shows that total earnings across all sectors in Ireland grew by 1.2% between 2014 and 2015 with increases recorded in 8 out of the 12 sectors examined. The largest increase in 2015 was recorded in ICT. Construction earnings fell by 2.1% in 2015 having grown by 4.5% in the preceding year.

Source: CSO

Figure 14: Average hourly labour costs in Ireland by sector, Q3 2016

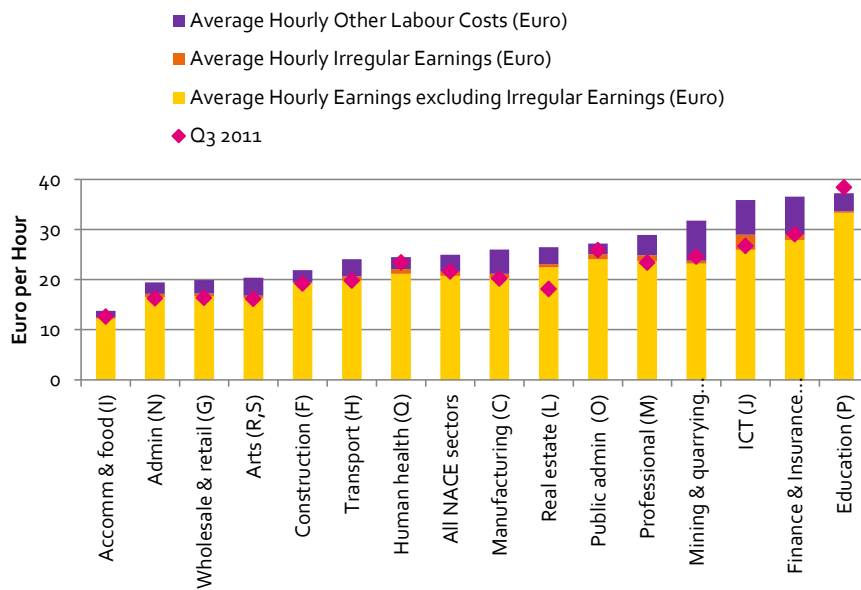
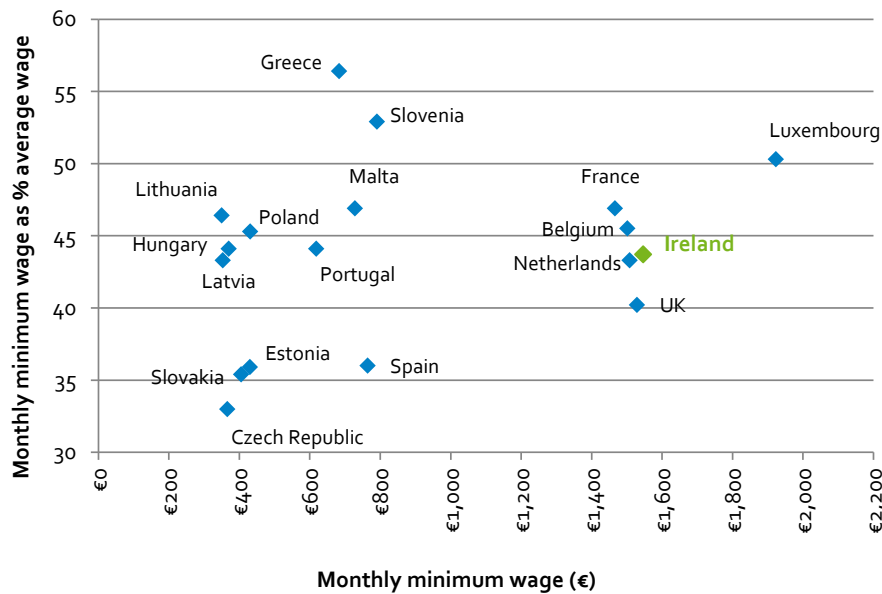


Figure 14 examines hourly Irish labour costs for a range of sectors. It includes data on regular and irregular earnings as well as “other labour costs”. The highest hourly labour costs occur in sectors such as finance & insurance, ICT and education.

Source: CSO

Figure 15: Monthly minimum wage (2017) and minimum wage as a percentage of average wage (2011-2017)²¹

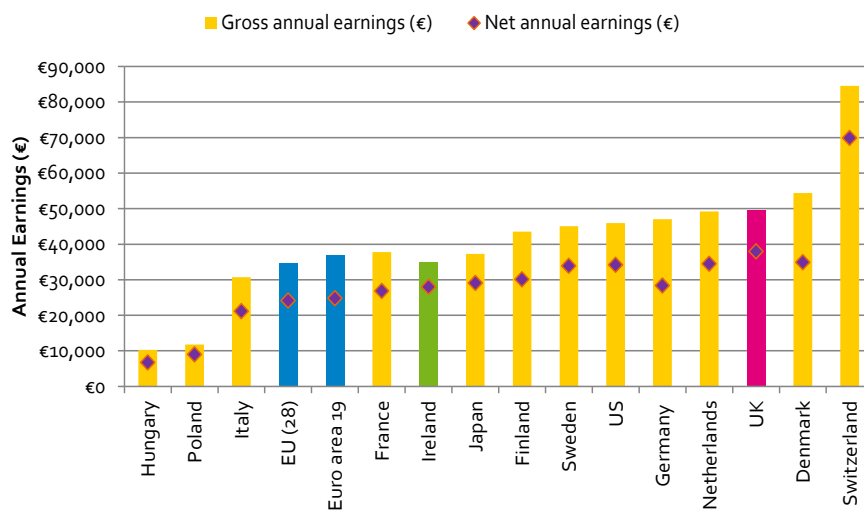


In 2017 Ireland had the 2nd highest monthly minimum wage (€1,546) and 5th highest monthly minimum wage in PPP terms (€1,264). In 2016 the minimum wage as a percentage of average wages ranged from 34.6% in the Czech Republic to 44% in Ireland (11th highest) to 52.4% in Slovenia.

Source: Eurostat

²¹ Data relating to the minimum wage as a percentage of average wages is based on the latest year available. All data measuring monthly minimum wage levels relates to the first half of 2017 (i.e. S1 2015). It is also worth noting that many countries have sectoral and regional minimum wages in addition to national minimum wages (e.g. Denmark). Ranking of PPS data is based on data for 20 countries.

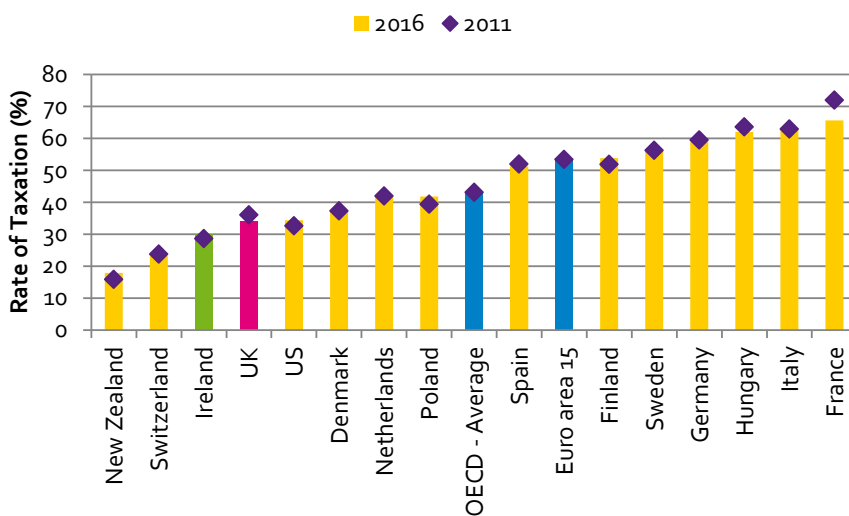
Figure 16: Average annual gross & net earnings, single individual, no children, 100% of average earnings²², 2015



Ireland had the 8th highest gross and 6th highest net wage level in the Euro area-19 in 2015. Net earnings are almost 13% above the Euro area average, partly a result of the relatively small gap between before and after-tax wages in Ireland (primarily a result of low social security contributions).

Source: Eurostat

Figure 17: Average income tax plus employee and employer contributions less cash benefits – single individual earning 100% of average earnings²³, 2016



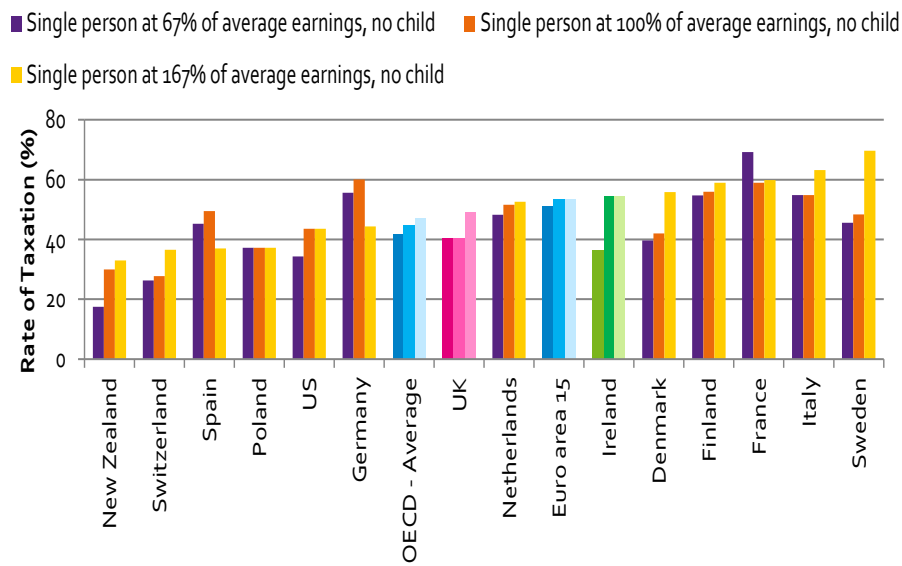
For a single person earning 100% of the average wage in 2016, total average income tax in Ireland was almost 13% lower than the average across the OECD. Irish taxes rates rose marginally in the five years to 2016 whereas OECD figures were comparable in 2016 to 2011.

Source: OECD, Taxing Wages 2016

Figure 18: Marginal income tax, single individual, no children, 2016

²² Gross wages include wages, taxes on income and employer and employee social security contributions. EU27 and Euro area 17 excludes Cyprus.

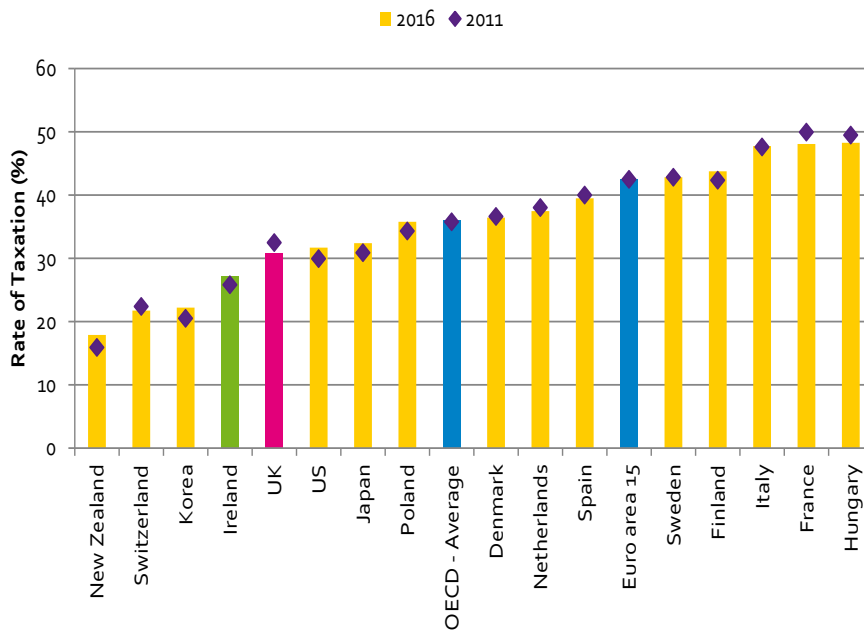
²³ Where relevant, the Universal Social Charge is included in the Irish data. Euro area 15 excludes Cyprus, Latvia, Malta and Lithuania



The Irish marginal tax rate for those earning 100% or 167% of average earnings in 2016 was 54.4%. The comparable average rates across the OECD were 44.6% and 47% respectively. Conversely, the rate for a single individual earning 67% of average earnings in Ireland is below the OECD average.

Source: OECD, Taxing Wages 2016

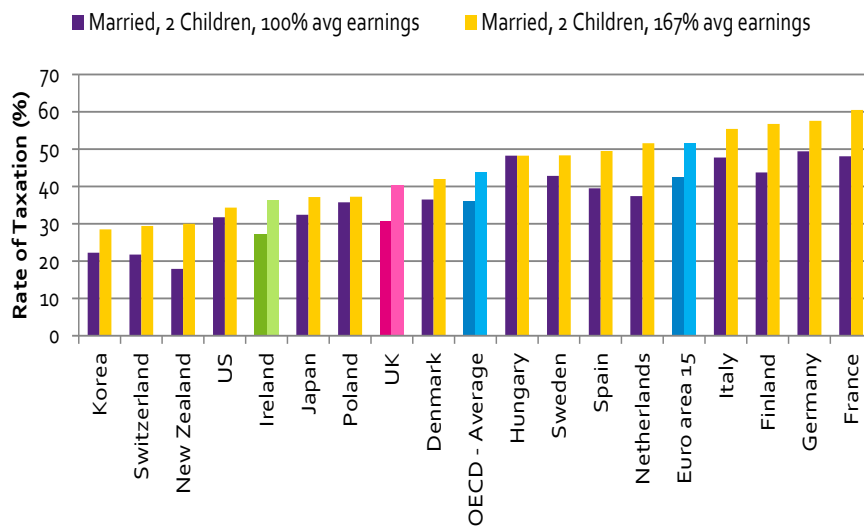
Figure 19: Average income tax plus employee and employer contributions less cash benefits, married couple with two children, earning 100% of average earnings, 2016



The combined total of income tax and social security contributions in Ireland in 2016 is the 5th lowest in the OECD for married couples with 2 children and 100% of average earnings (Ireland was the 4th lowest in 2014). At higher income levels (167% of average earnings), the average rate in Ireland remains competitive and is below both OECD and Euro area 15 averages.

Source: OECD, Taxing Wages 2016

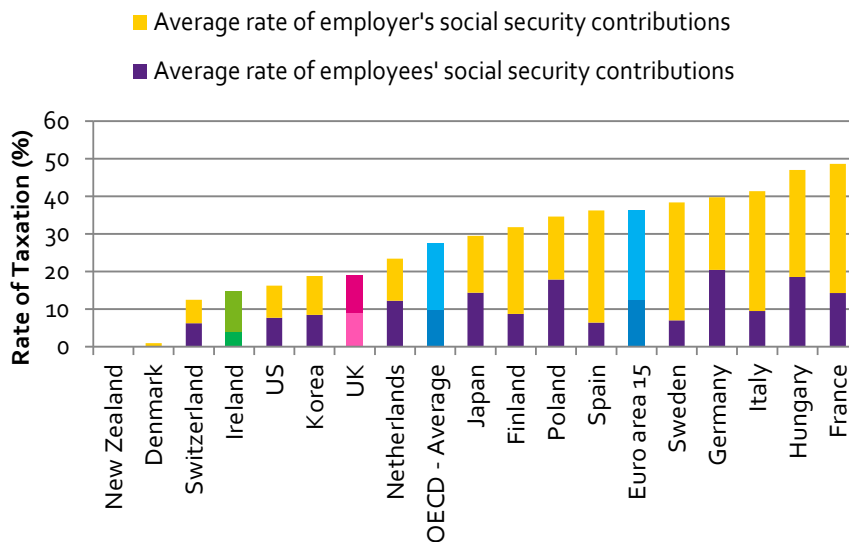
Figure 20: Marginal income tax, two-earner married couple, one earning 100% and the other earning 67% of average earnings, 2 children, 2016



Married couples fare better than single people in terms of the marginal rate in Ireland. Married couples earning 100% and 167% of average earnings pay a marginal rate of 27.1% and 37.7% in Ireland compared with marginal rates of over 36% and 43.8% respectively in the OECD.

Source: OECD, Taxing Wages 2016

Figure 21: Employer and employee social security contributions, 2016



Ireland has the 9th lowest rate of social security contributions in the OECD. Employers' contributions are the 11th lowest, and employee contributions are the 7th lowest. In many countries, there is either a cap on employer social security costs or a reduced rate above a certain income threshold; in Ireland, a flat rate is charged on the full salary: as salaries increase, Ireland's competitive position is quickly eroded.

Source: OECD, Taxing Wages 2016

Figure 22: Social security costs as a percentage of total labour costs, 2012-2015²⁴

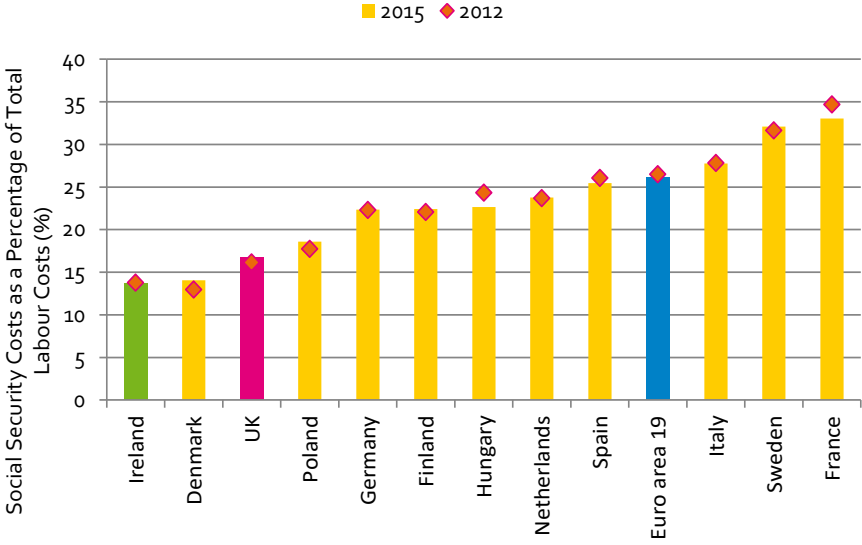


Figure 22 shows that in 2015 Ireland at 13.6 % had relatively low social security costs as a percentage of personnel costs. As a percentage of labour costs, social security costs have been relatively consistent in Ireland since 2012. In the Euro area '19, 26% of labour costs are spent on social security. The equivalent figure for the UK in 2015 was 16.7 %.

Source: Eurostat

²⁴ Data for 2015 is provisional

Chapter 5 – Property Costs

Figure 23: Quarterly change in capital values in Ireland, Q1 2015-Q4 2016

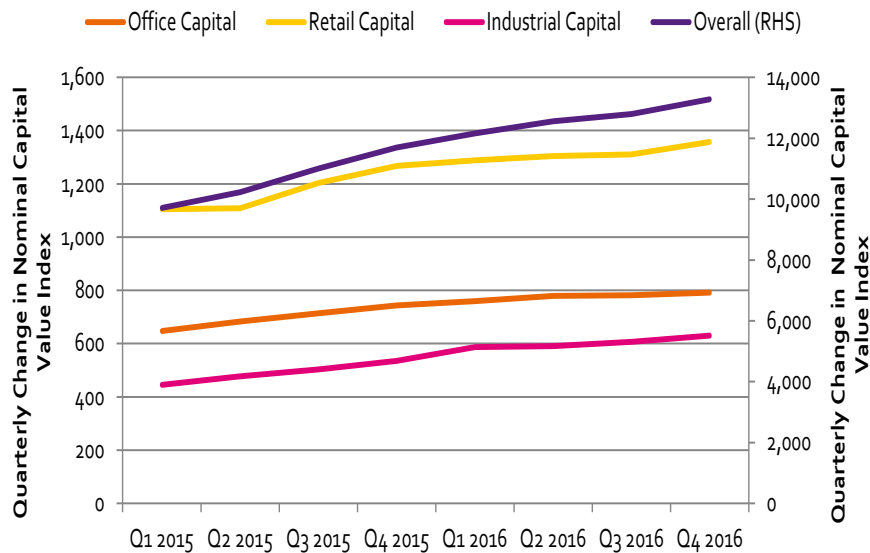
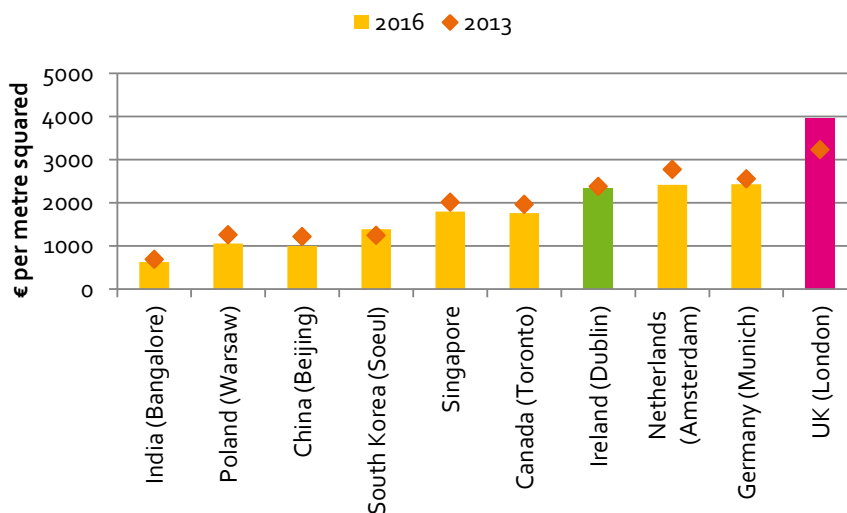


Figure 23 illustrates the change in capital values in Ireland for a range of commercial property classes. Since Q1 2015, values across all categories have consistently increased. Overall growth was recorded at 3.8% in Q4 2016 – this comprised of quarterly increases of 1.3%, 3.7% and 3.9% in Office, Retail and Industrial values.

Source: Jones Lang LaSalle, Irish Property Index

Figure 24: Cost of constructing a prime office unit, € per square metre²⁵, 2016

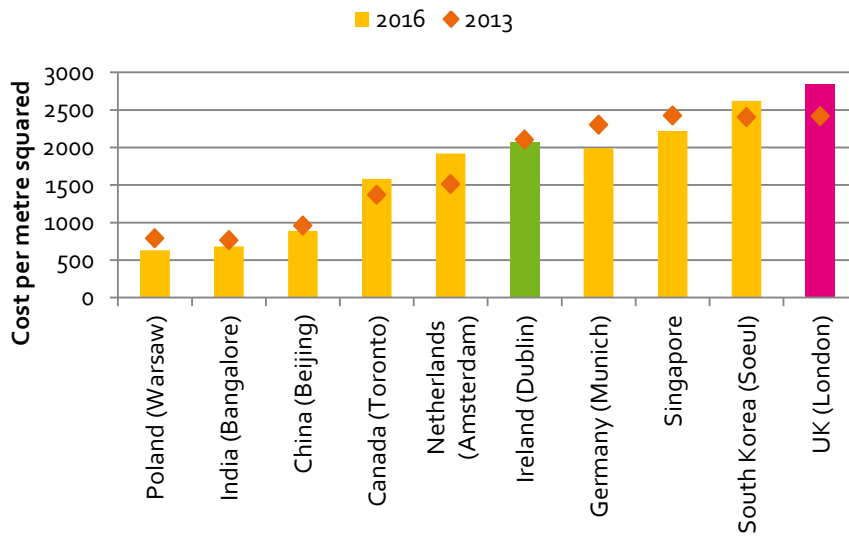


Construction costs data takes account of building, labour and material costs. The cost of constructing a prime office unit in Ireland has fallen by almost 1.8% since 2013. The decline in office construction costs was almost 15% in Amsterdam over the corresponding period. Costs rose by 23% in London.

Source: Gardiner and Theobald, International Construction Cost Survey

²⁵ Prices quoted are the upper boundary of the cost of the constructing a prime office unit. A prime office unit refers to a city centre, self-contained building of a size and height typical of major cities in a country; building costs include for accommodation to a good finish with raised floors, carpet, suspended ceilings, air conditioning, lighting and power, but excluding partitioning.

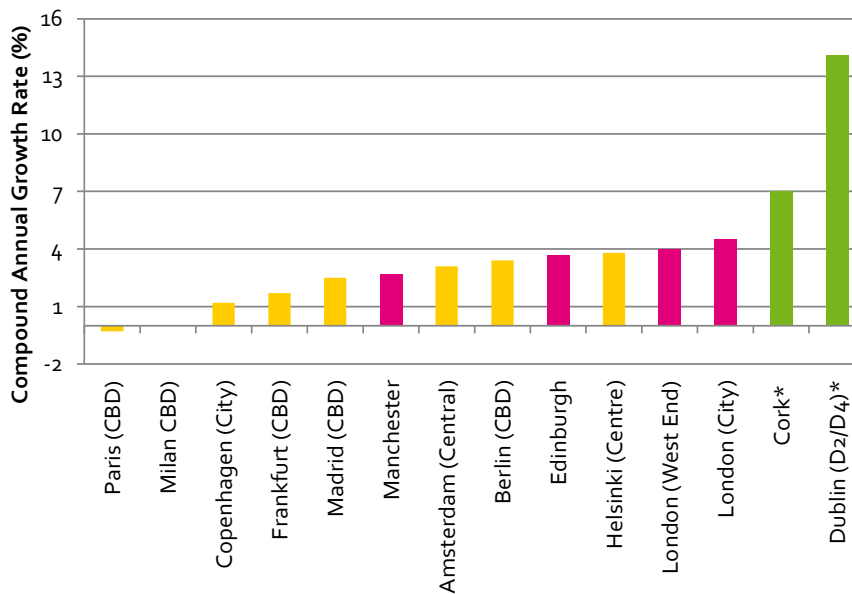
Figure 25: Cost of constructing a High Tech Factory, € per square metre, 2016



The cost of constructing a High Tech Factory / Laboratory in Ireland has fallen by over 1.7% since 2013. The cost of construction actually increased significantly over the three year period in London (18%) and Amsterdam (27%).

Source: Gardiner and Theobald, International Construction Cost Survey

Figure 26: 5-year Growth²⁶ in Cost of renting a prime office unit, € per square metre per year, Q4 2016²⁷



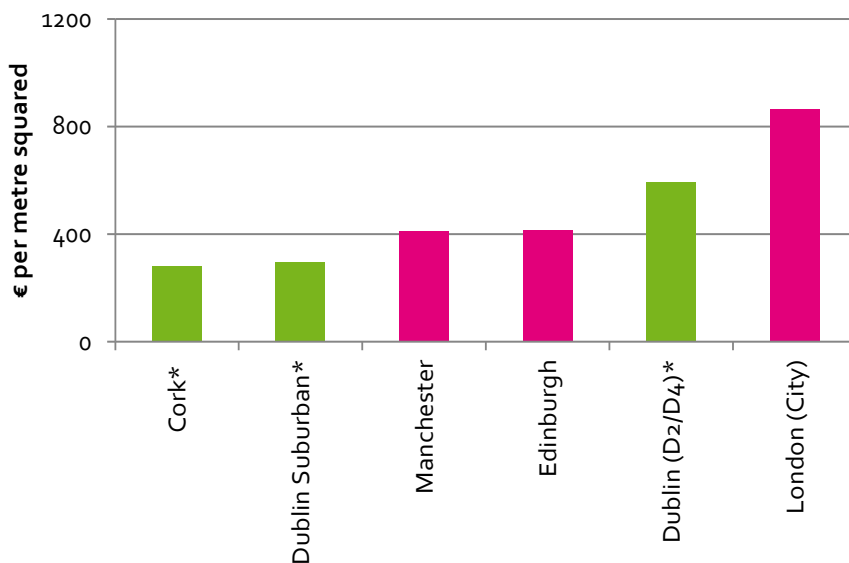
In the 5 years to Q4 2016 Compound Annual Growth Rates associated with Office Rents were 14.1% in Dublin (D2 and D4 districts) and 7% in Cork. The rates in Dublin were over 3 times the equivalent rates in both London City and London's West End. Tightening supply is forecast to increase rents further.

Source: Cushman and Wakefield, Office Snapshot Reports

²⁶ This growth is measured in Compound Annual Growth Rate (CAGR) Terms. CAGR equates to the mean annual growth rate of an investment over a specified period of time longer than one year.

²⁷ Figures for both Dublin (D2/D4) and Cork are from Q2 2016.

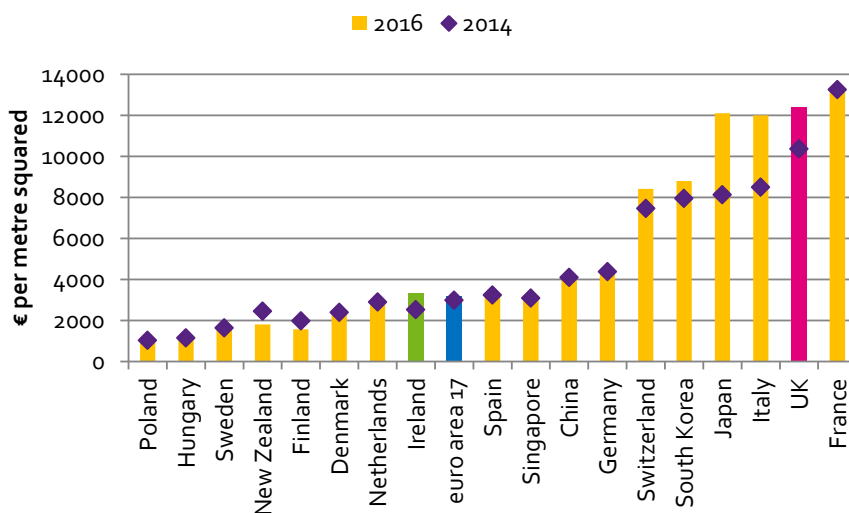
Figure 27: Cost of renting a prime office unit, € per square metre per year, Q4 2016²⁸



Office rental prices in Ireland in 2016 compare favourably to comparable cities in the UK. However, year-on-year increases in the three Irish locations ranged from 3.7% (Cork) to 10% (Dublin Suburban). The range in the UK cities benchmarked was 1.5%-3%.

Source: Cushman and Wakefield, Office Snapshot Reports

Figure 28: Cost of Renting a Prime Retail Unit, € per square metre per month²⁹



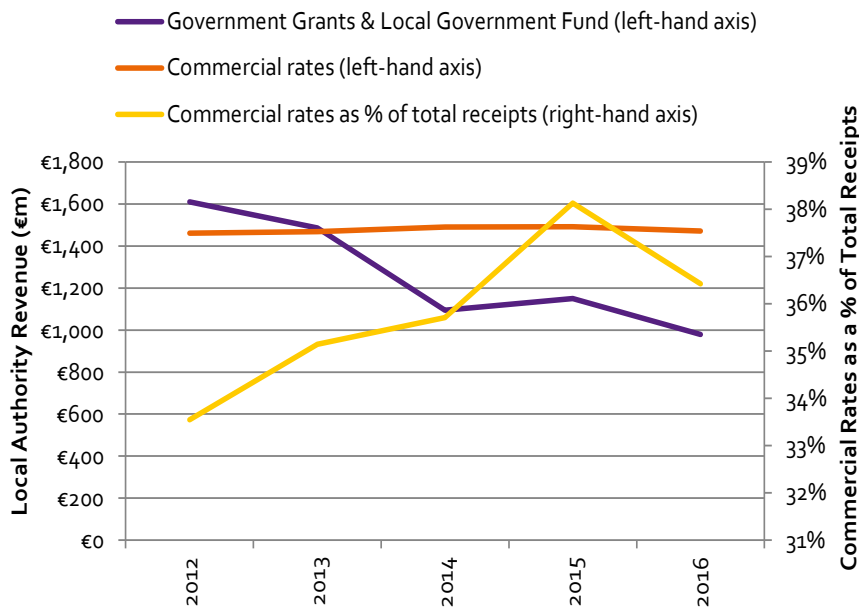
Trading conditions and occupier activity improved across Europe in 2015. In 2016 prime retail rents had increased by 31.5% in Ireland since 2014. Ireland was the 5th most expensive location in the Euro area. Rents range from €550 per square metre in O’Connell Street, Limerick to €5,920 in Grafton Street, Dublin.

Source: Cushman and Wakefield, Main Streets Across the World

²⁸ Figures for both Dublin (D2/D4) and Cork are from Q2 2016.

²⁹ The chart is based on the most expensive retail location in each country, and uses data collected in September 2014. Data for retail rents relates to the expected rent obtainable on a standard unit and/or shopping centre in a prime pitch in 330 locations across 65 countries around the world. Rents in most countries are supplied in local currency and converted to a common currency for purposes of international comparison. Data for Ireland is based on rents for Grafton St. in Dublin. The chart excludes data on the US (New York - €29,822 per metre squared) for presentational purposes.

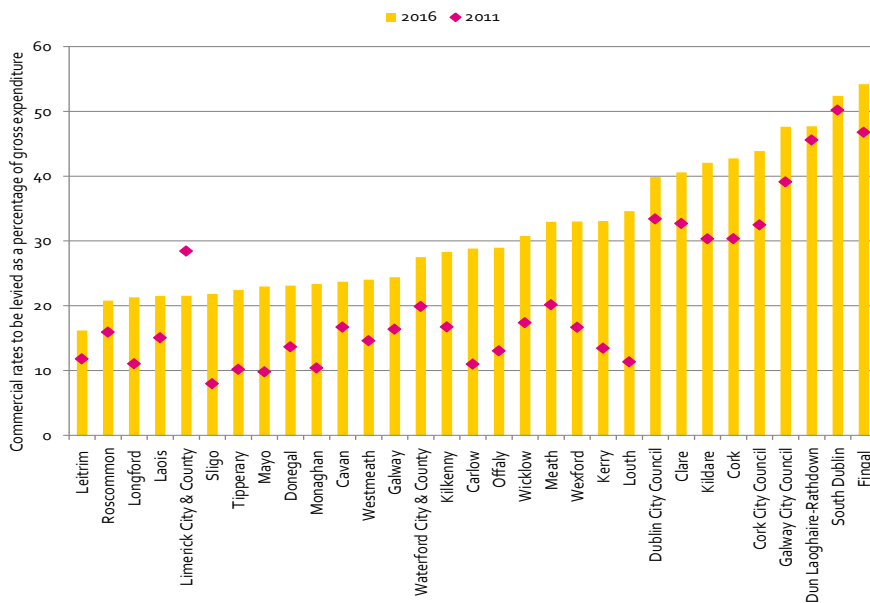
Figure 29: Commercial rates, receipts from central government, and rates as a percentage of total local authority revenue, 2002-2016



Revenue collected through commercial rates almost doubled over the fifteen years to 2016 (primarily between 2002 and 2009). Rates as a proportion of total LA revenue stood at 36.5% in 2016. The proportion of revenue received from Central Government almost was 24% in 2016.

Source: Department of the Environment, Community and Local Government

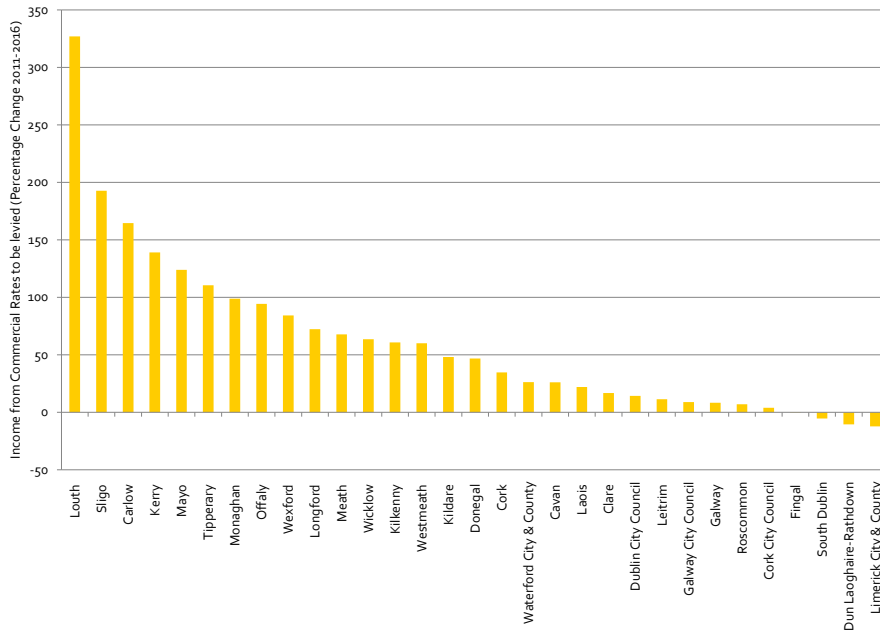
Figure 30: Commercial rates, as a percentage of total local authority expenditure, 2011-2016



In the period 2011-2016 the revenue collected by Local Authorities through the levy of commercial rates has increased by 23%. As a proportion of total Local Authority expenditure, commercial rates have increased from 34% in 2011 to 36% in 2016. At the same time, as a proportion of expenditure, grants received from Central Government increased from 19% to 24%.

Source: Department of the Environment, Community and Local Government

Figure 31: Local Authority Income from Commercial rates to be levied, percentage change, 2011-2016

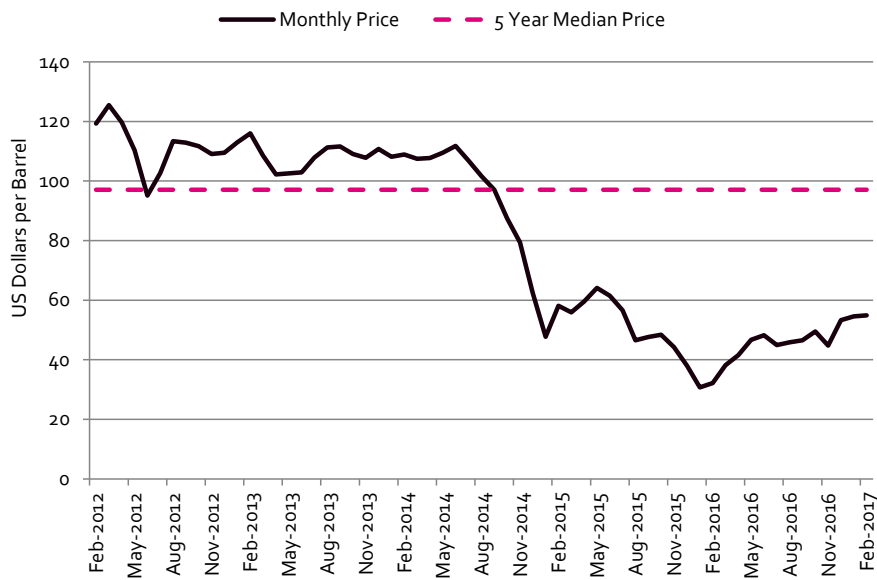


There is significant divergence in the rate on valuation and commercial rates levied. Comparing 2011 with 2016, local authority income from commercial rates has increased considerably in Louth, Sligo, Carlow, Kerry, Mayo and Tipperary.

Source: Department of the Environment, Community and Local Government

Chapter 6 – Transport Costs

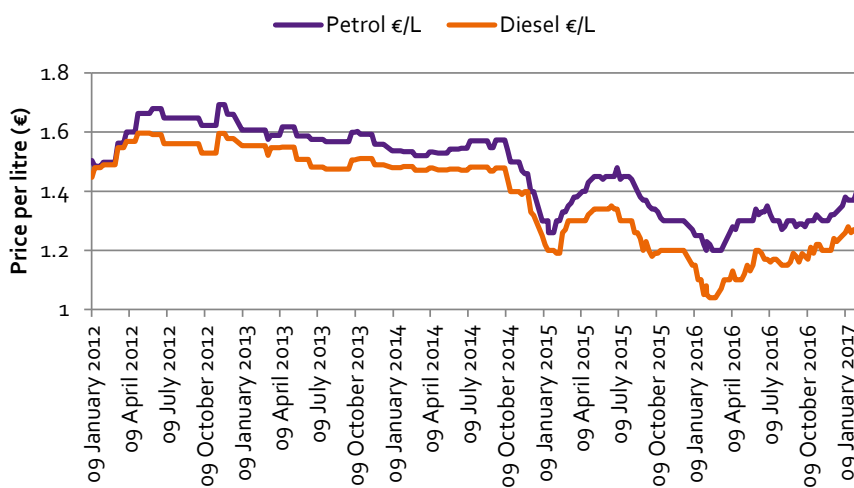
Figure 32: Europe Brent³⁰ Spot Oil Price, USD per Barrel



The price for Brent Crude is one of the primary benchmarks for oil prices globally. Persistent decreases in the price of energy were a feature of the economic landscape in the two years to January 2016 when the price per barrel dropped to \$27. Year on year, prices were 70 % higher in February 2017 with spot prices of \$58 recorded in February 2017.

Source: US Energy Information Association

Figure 33: Average diesel and petrol costs per litre in Ireland, January 2008-January 2017

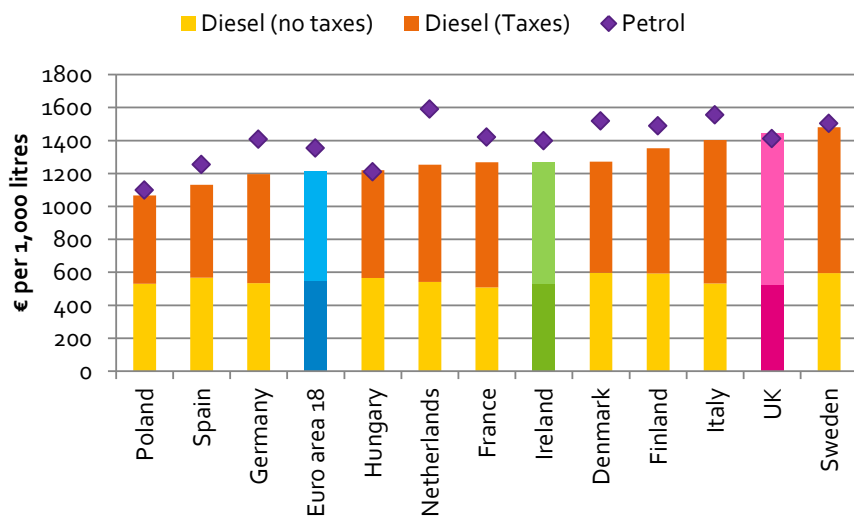


The sharp increase in oil prices in global commodities markets that began at the start of 2016 has led to an increase in consumer prices for petroleum products across the EU. In Ireland, petrol and diesel prices increased by 16.7% and 18.7% respectively in the 12 months to February 2017.

Source: European Commission, Energy Statistics & Market Observatory

³⁰ Brent is the leading global price benchmark and is used to price two thirds of the world's internationally traded crude oil supplies.

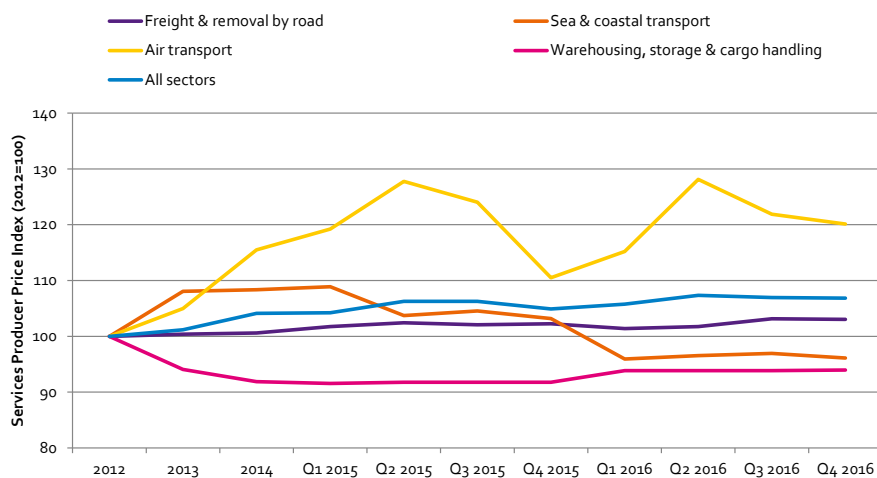
Figure 34: Diesel and petrol costs per 1,000 litres, January 2017



The cost of 1,000 litres of diesel in Ireland (€1,269) was 9.2% above the Euro area average (€1,097) in January 2017 making Ireland the 6th most expensive country in Europe. Taxes on diesel range from 50% to 64% across the countries benchmarked (58% of total diesel costs in Ireland).

Source: European Commission, Energy Statistics & Market Observatory

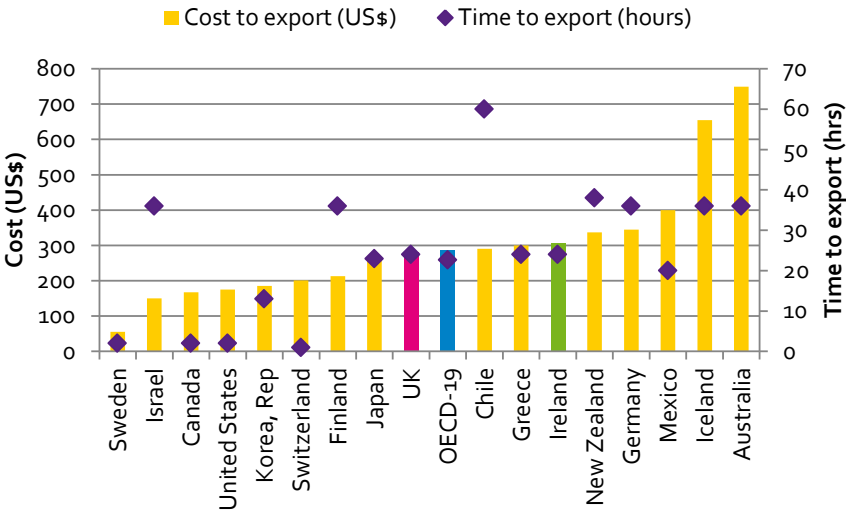
Figure 35: Trends in Transport Related Prices In Ireland, 2012-Q3 2016



In the 12 months to quarter 4 2016, overall transport services prices were 2% higher. In the transport sector, prices have been relatively stable in recent quarters. Air transport is the notable exception with rapid price growth recorded in recent years, albeit some slowdown occurred since the middle of 2016.

Source: CSO, Services Producer Price Index

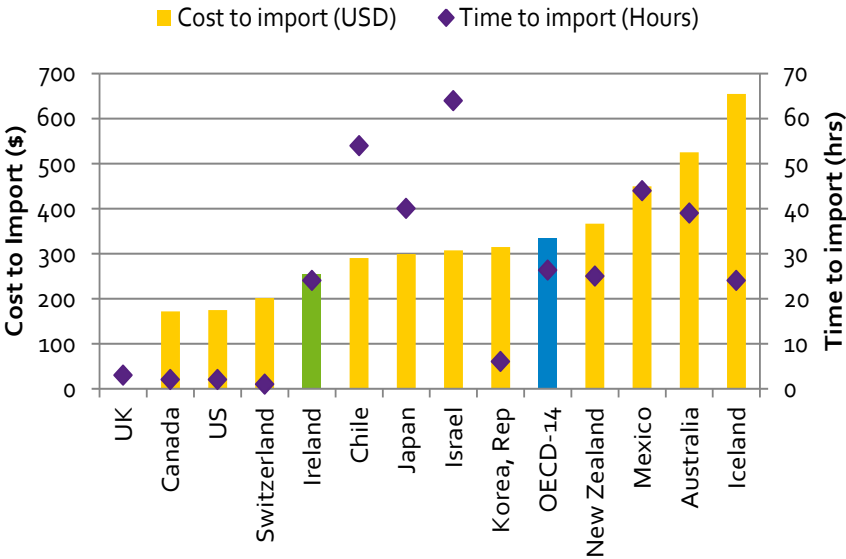
Figure 36: Administrative Costs and Time to Export³¹, 2016



The ease and cost of customs and admin procedures has a significant impact on trade flows. Compliance costs in Ireland to export a standardised cargo by sea were \$305 compared with an average of \$286 in the OECD-19. It takes 24 hours to complete the required procedures in Ireland³², which is slightly higher than the OECD average.

Source: World Bank, Doing Business 2017

Figure 37: Administrative Costs and Time to Import, 2016



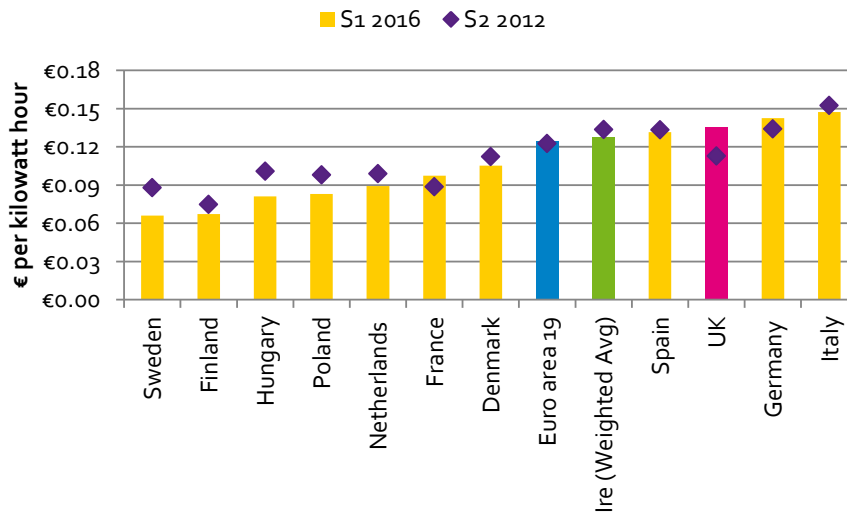
Irish costs to import a container were \$253, significantly lower than the OECD-14 average (\$333). The time taken to complete the necessary procedures is 24 hours in Ireland. This is marginally lower than the OECD average but significantly higher than the comparable times in the UK, Canada and the US.

Source: World Bank, Doing Business 2017

³¹ The World Bank's Doing Business index measures the time and cost (excluding tariffs) associated with exporting and importing a standardized cargo of goods by sea transport. The time and cost necessary to complete 4 predefined stages (document preparation; customs clearance and inspections; inland transport and handling; and port and terminal handling) for exporting and importing the goods are recorded; however, the time and cost for sea transport are not included. All documents needed by the trader to export or import the goods across the border are also recorded. The most recent round of data collection was completed in June 2016.

Chapter 7 – Utility Costs

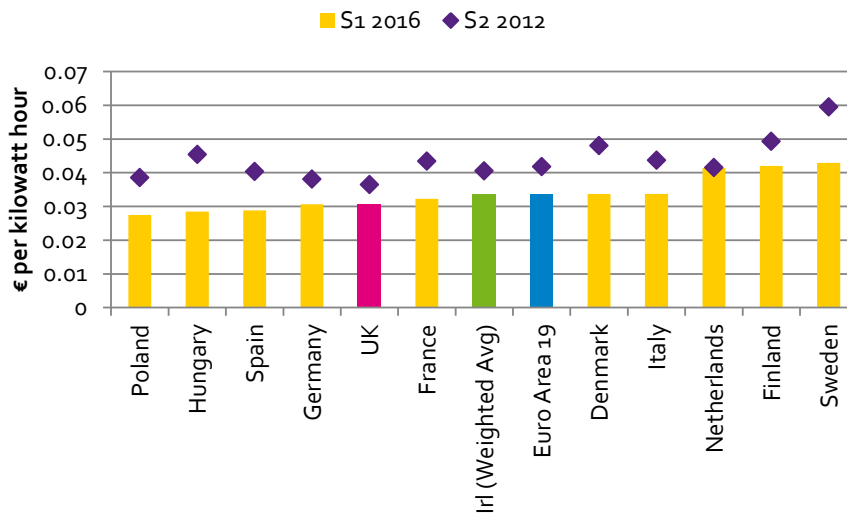
Figure 38: Industrial electricity prices³² (excluding VAT), S1 2016



In the first half of 2016, weighted average industrial electricity prices in Ireland were 2.9% higher than the simple Euro area 19 average but 6% cheaper than the UK average price. Nominal prices in S1 2016 here were 4.5% lower than in S2 2012.

Source: SEAI, Eurostat

Figure 39: Industrial gas prices for (excluding VAT)³³, S1 2016



In the first half of 2016 weighted average industrial gas costs in Ireland were in line with the average Euro area 19 price. The weighted average price in Ireland has fallen by 17% since S2 2012 whereas average prices across the Euro area fell by 19.5% over the corresponding period.

Source: SEAI, Eurostat

³² The Irish figures are weighted average electricity prices whereas the remaining prices are simple arithmetic averages. Weighted average figures for other European countries will be available later in 2017. It should be noted that Ireland's energy supplies, excluding renewables, are often at the end of supply pipelines and this combined with low spatial density make energy more expensive to deliver in Ireland.

³³ The Irish figures are weighted average gas prices whereas the remaining prices are simple arithmetic averages. Weighted average figures for other European countries will be available later in 2017. Again it should be noted that Ireland's energy supplies, excluding renewables, are often at the end of supply pipelines and this combined with low spatial density make energy more expensive to deliver in Ireland.

Figure 40: Renewable Energy Targets 2015

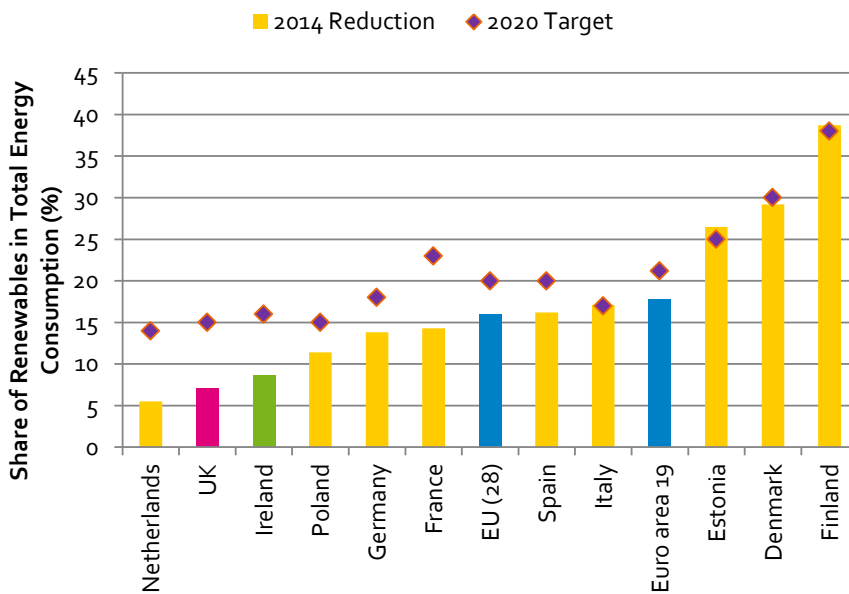


Figure 40 shows that in 2014 Ireland was 6.8 per cent behind its 2020 target (16%) for the share of renewable energy as a proportion of gross consumption. The UK and the EU 28 was 6.8 and 4 per cent away from their respective targets. Finland exceeded its target some six years early.

Source: Eurostat

Figure 41: Business water service costs in Ireland by Local Authority, 2017

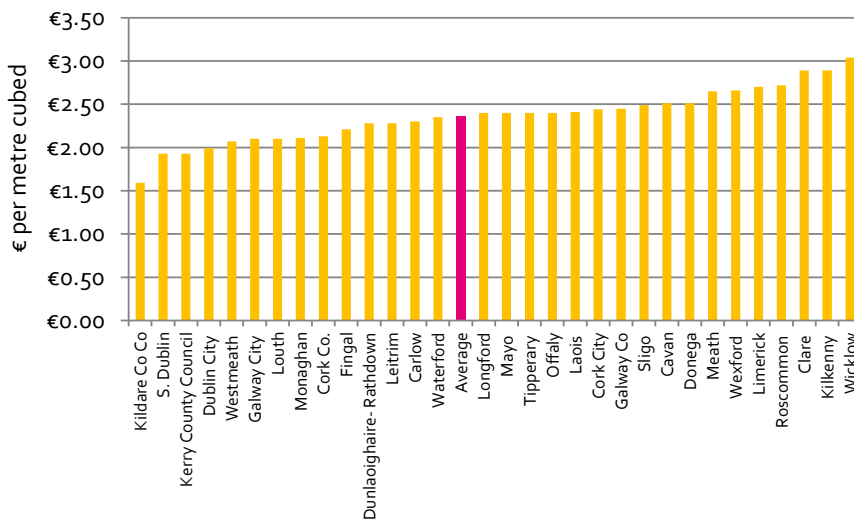


Figure 41 shows the combined charge per m³ of water in each Irish Local Authority area. The average cost of water for business in Ireland is €2.38 per m³. The Commission for Energy Regulation is embarking on a project to develop a more harmonised suite of tariffs for non-domestic customers.

Source: Irish Water

Figure 42: Water services costs³⁴, 2013

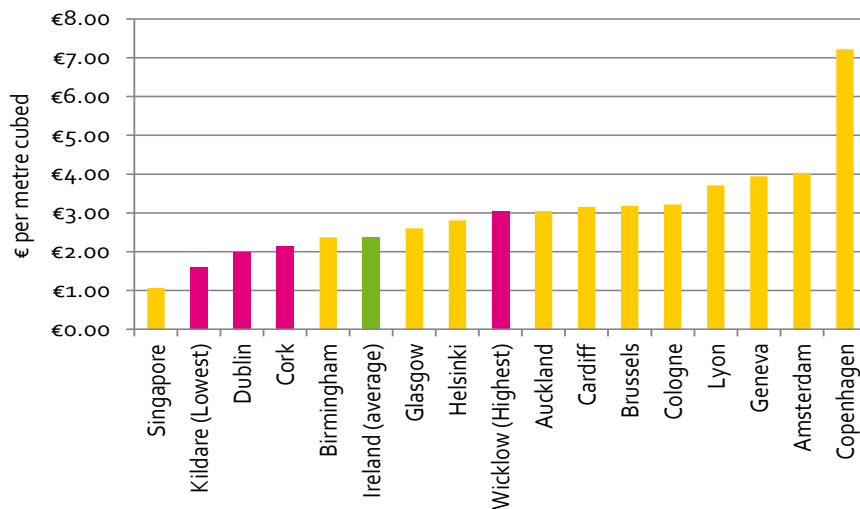
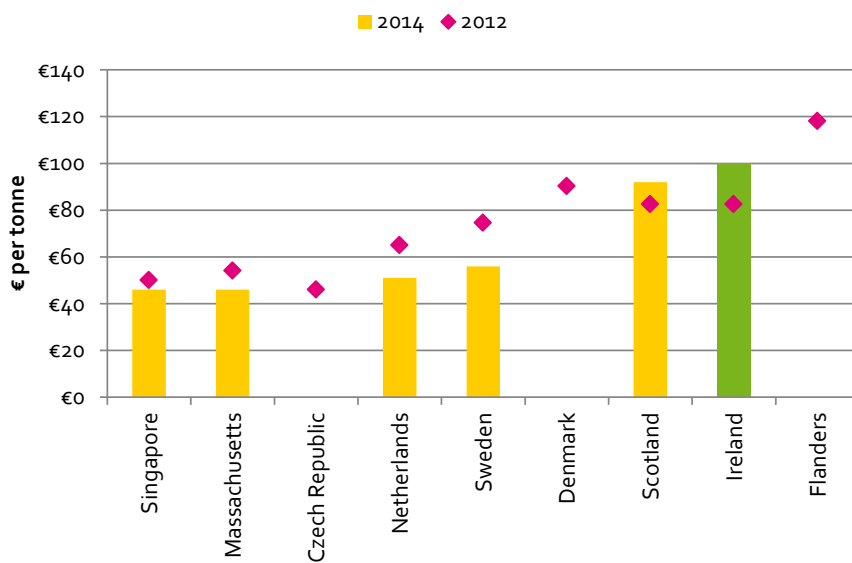


Figure 42 places Irish water and waste water costs for industrial users into an international context. On average, water and waste water costs in Ireland compare favourably to those in competitor markets, especially the UK with charges in both Dublin and Cork cheaper than Birmingham, Glasgow and Cardiff.

Source: DKM/ RPS Consulting for DJEI

Figure 43: Non-hazardous thermal treatment gate fees³⁵, € per tonne, 2014



Until very recently, landfill had dominated waste treatment in Ireland. However, our reliance on landfill is at its lowest rate in the history of the State. The importance of thermal treatment (incineration) is growing. Thermal treatment costs (gate fees) in Ireland are amongst the most expensive in the benchmarked countries/regions³⁶.

Source: RPS Consulting for DJEI

³⁴ Data for Dublin relates to Dublin City Council; data for Birmingham is based on > 50,000 m³ annual water consumption in May-Sept and 50,000-249,000m³ waste water annual consumption; data for Glasgow is based on > 25,000 m³ annual water consumption 23,750m³ waste water annual consumption; data for Auckland is based on 10,000-88,310 m³ annual waste water consumption; data for Cardiff is based on 50,000 -99,000 m³ annual water consumption; data for Brussels is based on >5,000 m³ annual water consumption.

³⁵ Note that 2014 data was not available for the Netherlands, Singapore or Sweden - 2013 data is used instead. Neither 2013 nor 2014 data was available for the Czech Republic or Denmark. The 2012 fee for Denmark includes a levy of €44 per tonne. Data for Ireland 2012 and 2014 is based on a simple average of price range data.

³⁶ The increase in the landfill levy is fully in line with the Government’s policy to move waste management away from landfill.

Figure 44: High Usage Mobile Phone Basket for Businesses, 2014

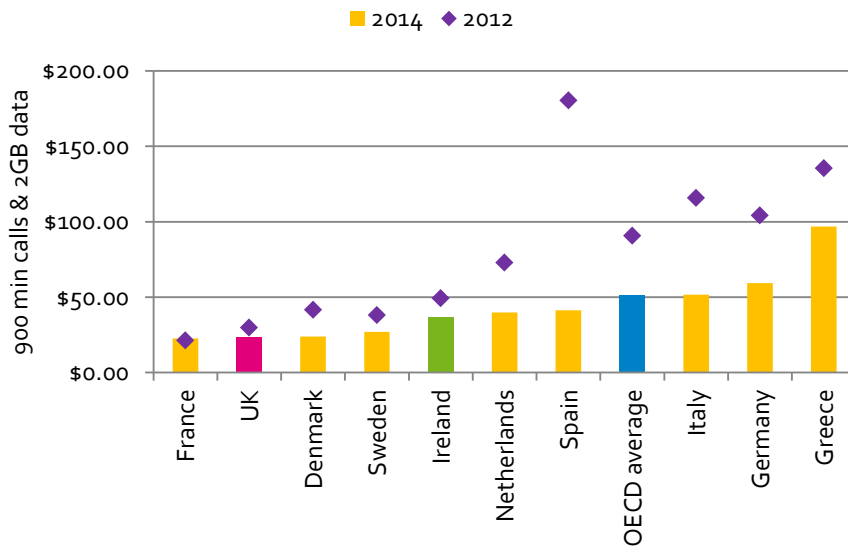


Figure 44 shows that in 2014 the price of a High Usage Mobile Basket (900 mins and 2GB Data) was almost 40% lower in Ireland than the average price across the OECD average. Between 2012 and 2014 the cost of this Basket fell by almost one-third. The only increase in cost over this period was recorded in France.

Source: OECD Digital Economy Outlook, 2015

Figure 45: Business Standalone Fixed Voice Basket ³⁷€ per month excluding VAT, Q4 2016

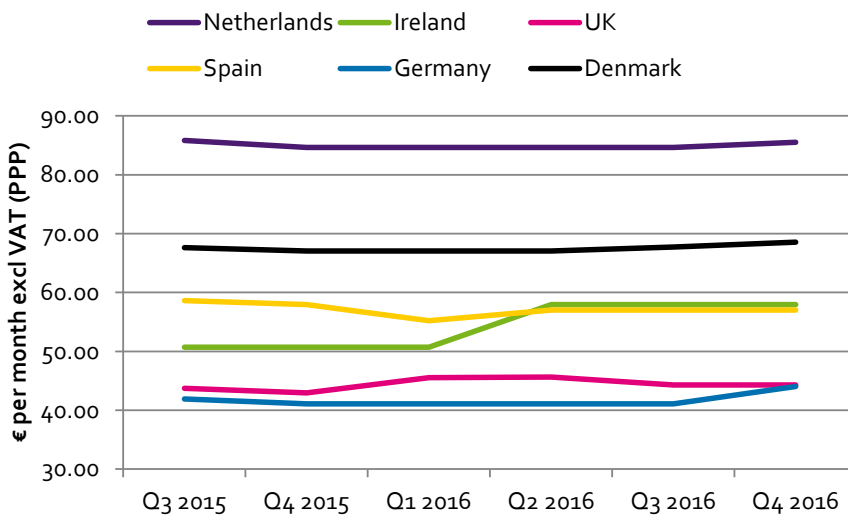


Figure 45 shows that in Q4 2016 a basket of Standalone Fixed Voice charges for Business was €57.94 in Ireland, which was 31% more expensive than in the corresponding baskets in both Germany the UK.

Source: Comreg

³⁷ Standalone fixed voice services are voice services not sold as part of a bundle or other services.

Figure 46: Business Fixed Broadband, € per month excluding VAT, Q4 2016

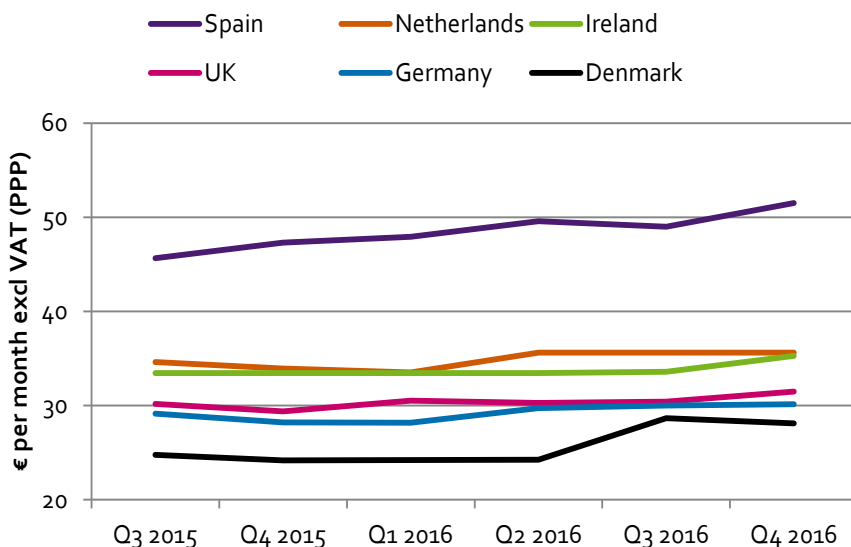


Figure 46 shows that over the previous six quarters Fixed Broadband services remained stationary and in Q4 2016 for Irish Business were €35.28, significantly less than the most expensive country benchmarked (Spain at €51.52). The least expensive country benchmarked was Denmark (€28.11).

Source: Comreg

Figure 47: Business Mobile Broadband, € per month excluding VAT, Q4 2016

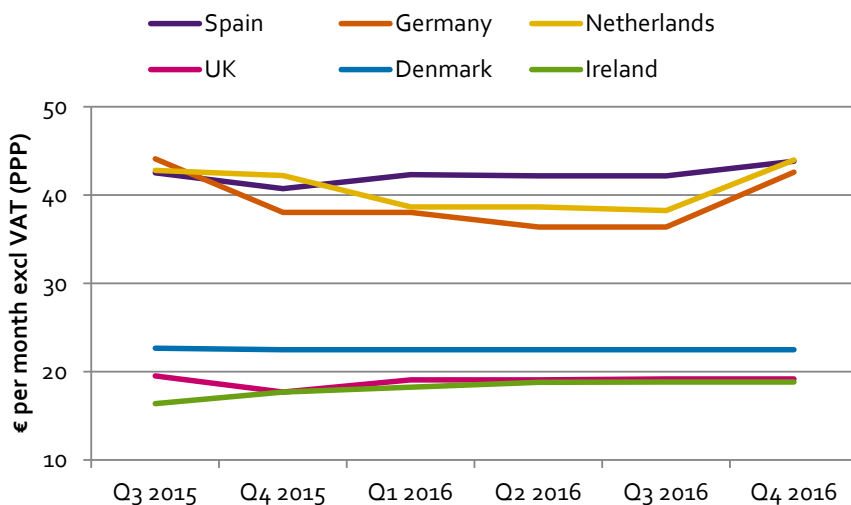
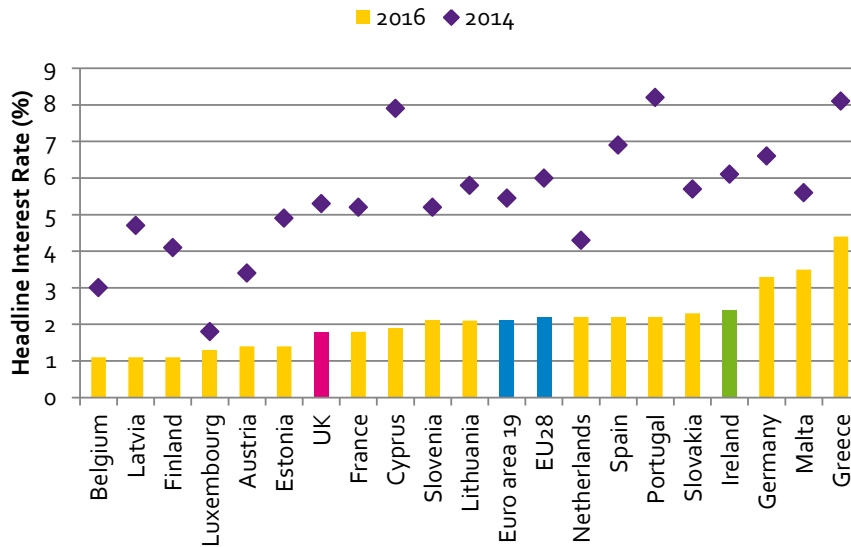


Figure 47 shows that Ireland had the lowest Business Mobile Broadband costs in the sample of countries. Mobile broadband charges for business baskets in Ireland were €18.84 in Q4 2016. Similar charges in Spain in the corresponding period were over twice as expensive.

Source: Comreg

Chapter 8 – Credit and Financial Costs

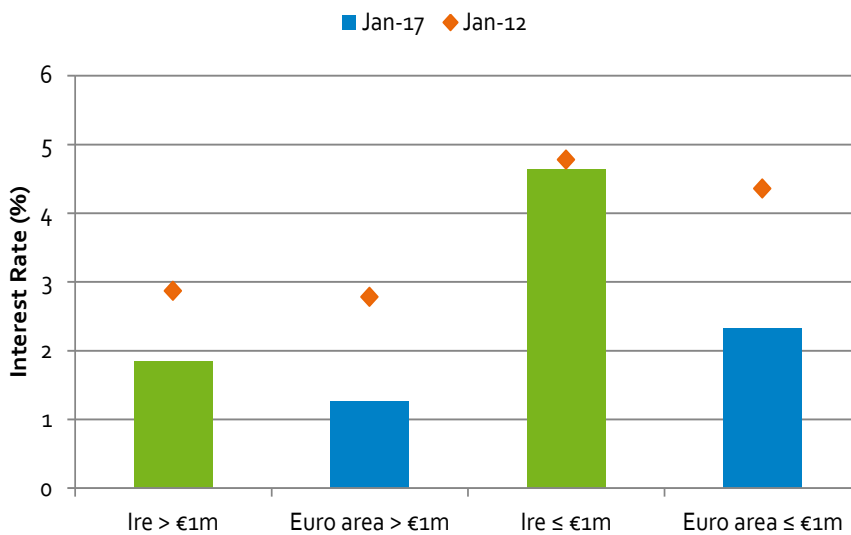
Figure 48: Interest rates on bank overdraft and credit line for SMEs 2016



Ireland had the 4th highest SME interest rates in the Euro area in 2016, with only Greece, Malta and Germany's SME being levied with higher interest charges. The mean Irish figure of 2.4%, down from 6.1% in 2014, was 14.2% above the Euro area 19 average.

Source: European Central Bank

Figure 49: Interest rates for non-financial corporations (new business) by loan size, January 2017³⁸

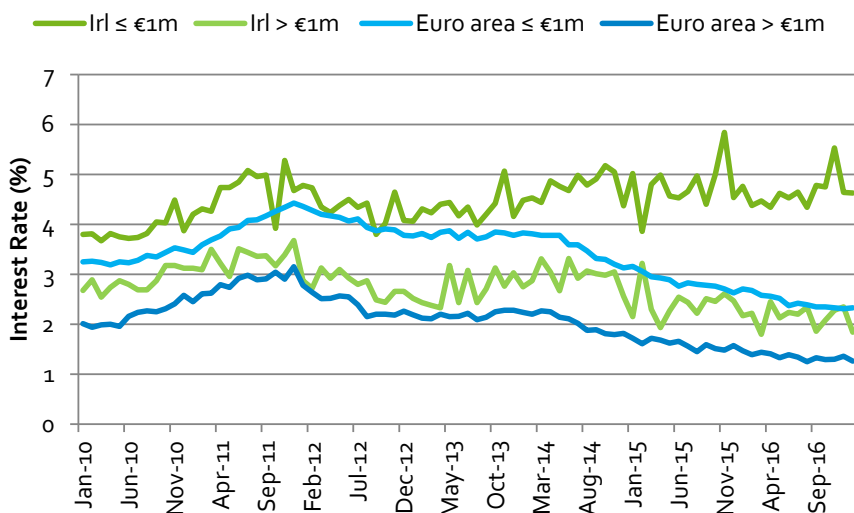


Irish interest rates on business loans have been consistently higher than equivalent Euro area rates. In January 2017, the interest rate in Ireland on loans of up to and including €1 million was almost double the Euro area average rate for new business; the rate on loans of up to €1 million was almost 50% more expensive in Ireland.

Source: European Central Bank

³⁸ Figure 49 refers to loans other than revolving loans and overdrafts, convenience and extended credit card debt. Euro area average is based on changing composition.

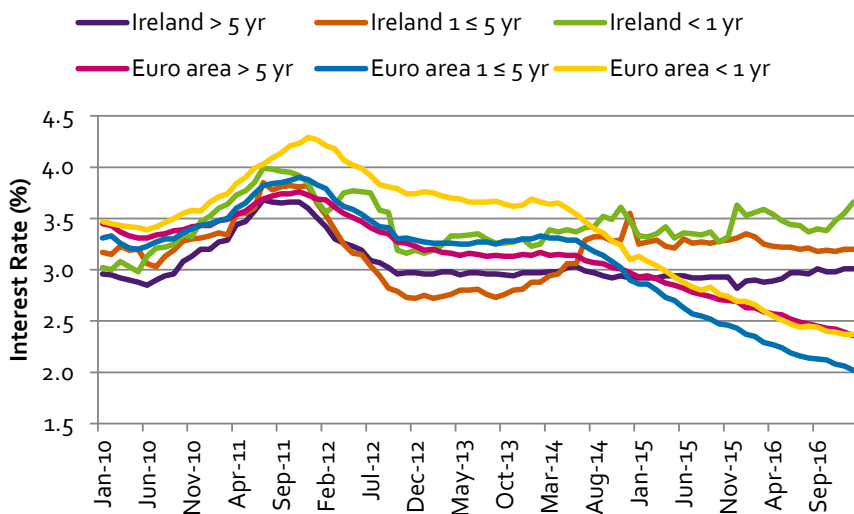
Figure 50: Interest rates for non-financial corporations (new businesses) by loan size, Jan 2010-Jan 2017³⁹



Looking at the same data in time series from 2010 to 2017, it is clear that not only are interest rates in Ireland above average for loans of up to €1 million and for loans over €1 million, Irish rates have been noticeably more volatile than Euro area rates. The divergence in Irish and Euro area interest rates accelerated from 2014.

Source: European Central Bank

Figure 51: Interest rates for non-financial corporations (outstanding amounts) by duration, Jan 2010-Jan 2017

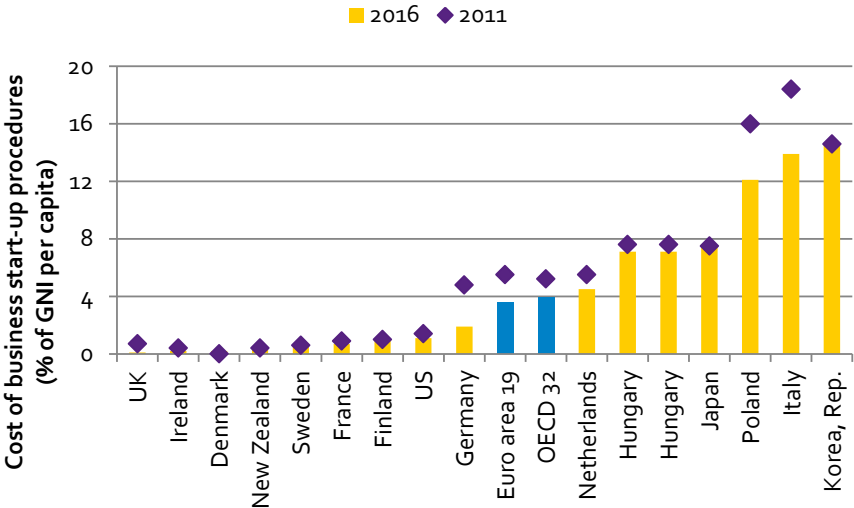


In 2010 interest rates on outstanding amounts in Ireland were universally lower than the Euro area. A period of convergence between retail interest rates in Ireland and the Euro followed. As of late 2016 rates for all durations are significantly higher in Ireland. Rates are inversely correlated with duration in Ireland but the same is not the case for the Euro area average.

Source: European Central Bank

³⁹ Figure 50 refers to loans other than revolving loans and overdrafts, convenience and extended credit card debt. Euro area average is based on changing composition

Figure 52: Cost of starting a business, percentage of GNI per capita ⁴⁰, 2016



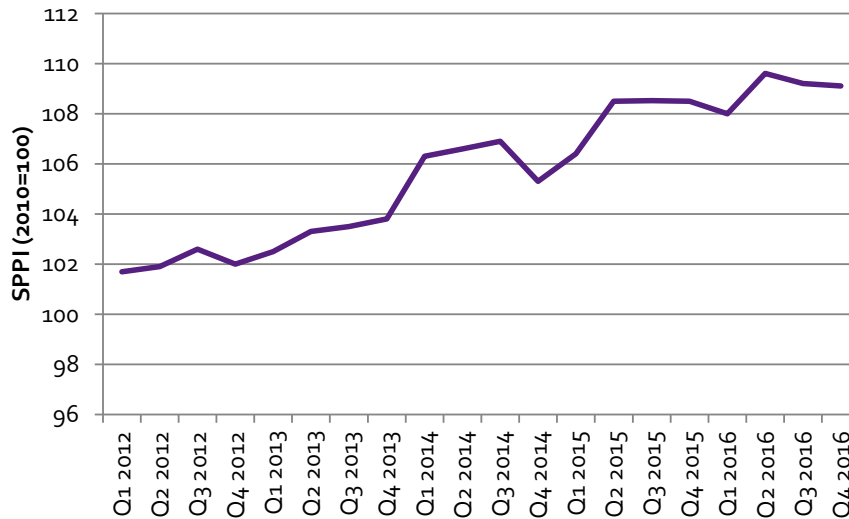
The cost to register a business as a percentage of gross national income per capita in Ireland was 0.2% in 2016, half the rate it was in 2011. The percentage recorded in 2016 was the joint-third lowest percentage recorded across the OECD where the average was 3.88% in the corresponding year.

Source: World Bank

⁴⁰ Cost to register a business is normalized by presenting it as a percentage of gross national income (GNI) per capita.

Chapter 9 – Business Services and Other Input Costs

Figure 53: Services producer price index⁴¹,



In Q4 2016, the SPPI stood at 109.1. Following a period of decline during the recession, an upward trend has been evident since 2011. Recent increases were driven by air transport and Architecture, Engineering and Technical Testing.

Source: CSO, Services Producer Price Index (SPPI)

Figure 54: Comparison of business services prices and wholesale manufacturing prices, Q1 2012- Q4 2016

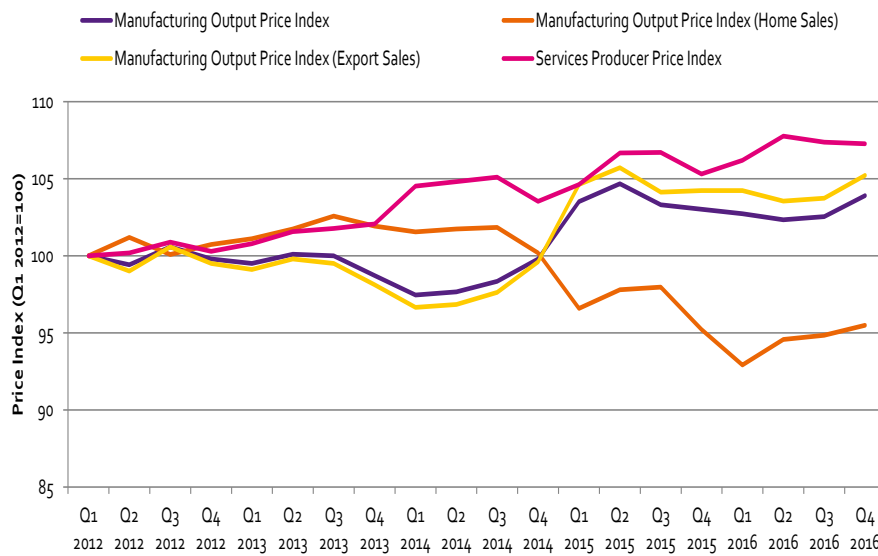
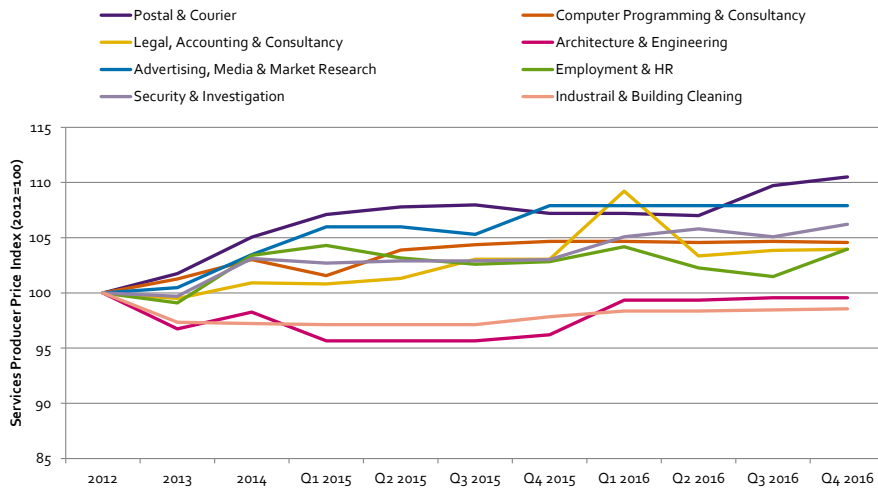


Figure 54 compares the evolution of prices for manufacturing products and services – both of which input into the overall cost base for enterprise. Overall since 2012, service prices have risen by more than manufacturing prices. This may reflect the greater exposure of the manufacturing sector to international competition.

Source: CSO, Services Producer Price Index & Wholesale Price Index

⁴¹ The SPPI measures changes in the average prices charged for a range of business service. The SPPI is an experimental data set and the indices are still under development. In most cases the services measured are provided to business customers only and so individual price indices should not be considered indicative of more general price trends in the economy. The index covers transaction costs from business to business and excludes consumers who are covered in the Consumer Price Index (CPI). Individual price indices are aggregated together to create a "service industry" index that is limited in coverage.

Figure 55: Non-Transport Services Producer Price Index, 2012-Q4 2016



The non-transport component sector of the SPPI showed that Postal and Courier costs were up 10.6% since 2012. Advertising, Media & Market Research and Computer programming & Consultancy services costs rose by 7.9% and 4.6% respectively over the corresponding period.

Source: CSO, Services Producer Price Index

Figure 56: Accountancy and legal services⁴² costs, Q1 2010-Q3 2016



The cost of legal services fell briefly in 2013. However, in Q3 2016 legal service prices were 10.4% higher than the comparable quarter in 2013. By comparison in the three years to Q3 2016 the price of Accountancy Services grew by 2%.

Source: CSO, Services Producer Price Index

⁴² Note that the legal services data is based on 16 respondents to the CSO survey and 96 separate price observations.

Figure 57: European Services Producer Price Index, Q2 2012-Q3 2016

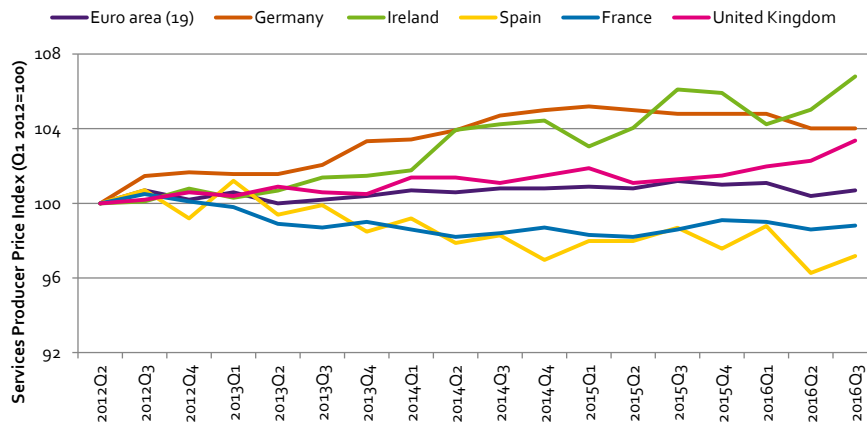


Figure 57 compares the evolution of SPPI's across the EU³⁶. Since 2010, service prices have risen markedly in both Ireland (6.8%) and Germany (4%), and to a lesser extent the UK (3.4%), compared to the Euro area 19 (0.7%). Corresponding prices in France and Spain were lower in Q3 2016 than in comparable quarter in 2010.

Source: Eurostat

Figure 58: European Accountancy, legal and consultancy services costs, Q1 2011-Q3 2016

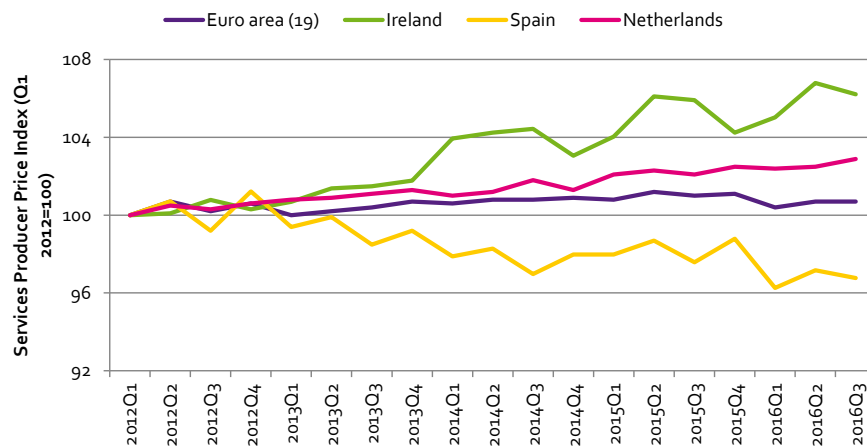
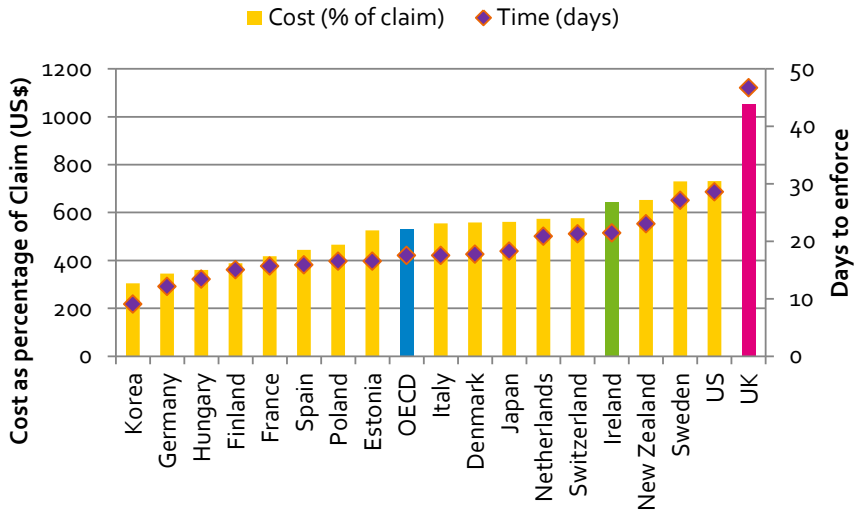


Figure 58 compares the evolution of a basket of accountancy, legal and consultancy services across the Euro area. Overall since 2012, the price of this basket of services rose markedly in Ireland and to a lesser extent the Netherlands. The Index grew by 6.2% from the start of 2012 to Q3 2016 in Ireland.

Source: Eurostat

Figure 59: Legal fees – the cost of enforcing a business contract, 2016⁴³



Ireland remains an expensive location in which to enforce a business contract (6th most expensive in the OECD₃₂). The World Bank estimates that the total cost of contract enforcement in Ireland amounts to 26.9% of a claim, compared with 22.1% in the OECD. It also takes longer to enforce a contract in Ireland (650 days) than in the OECD (551).

Source: World Bank Doing Business 2017

⁴³ This category is based on the ease or difficulty of enforcing commercial contracts. This is determined by following the evolution of a payment dispute and tracking the time, cost, and number of procedures involved from the moment a plaintiff files the lawsuit until actual payment.

Chapter 10 – Broader Costs Environment

Figure 60: Consumer price levels, 2015 and average annual inflation, 2011-2015

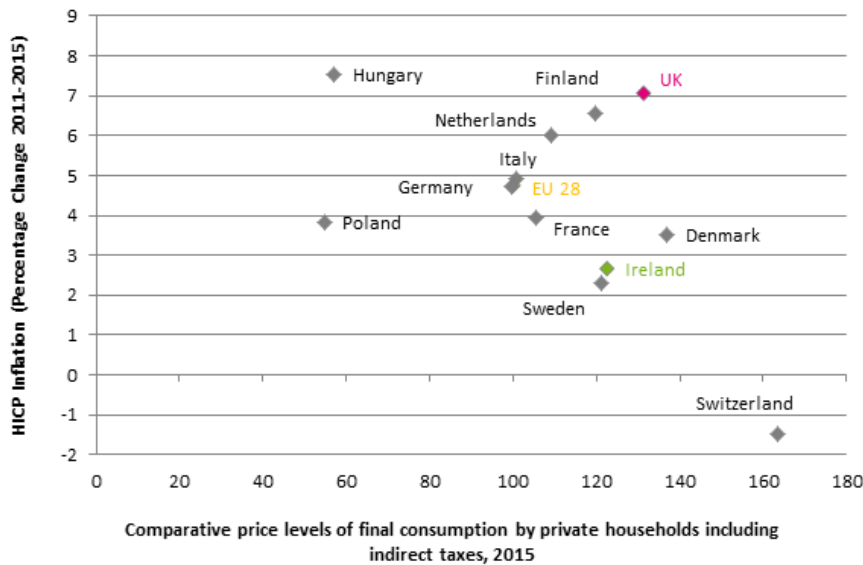
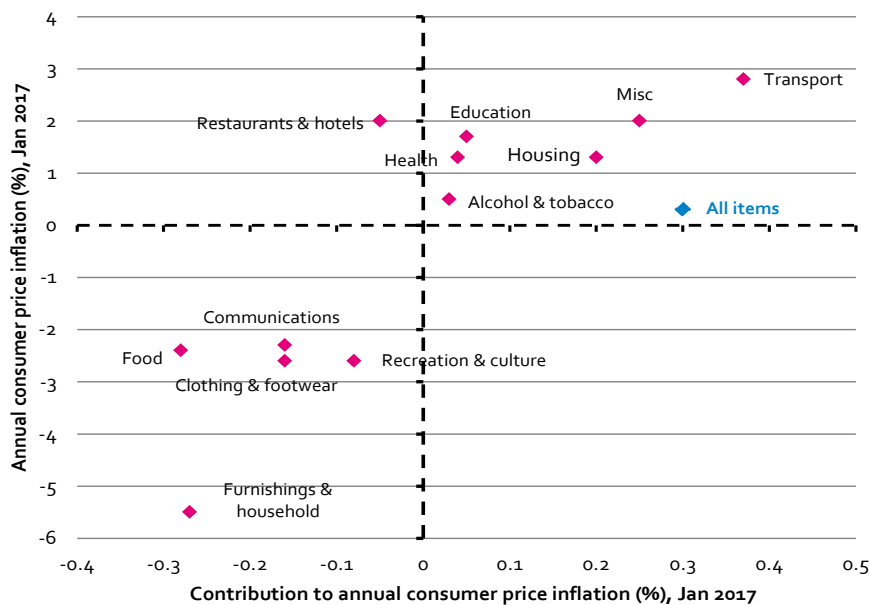


Figure 60 examines both changes in prices (inflation) and the price level. Ireland’s current price profile could be described as ‘high cost, rising slowly’ while the UK is “high cost, rising quickly”. Price levels in Ireland were 22.5 per cent more than the EU 28 average in 2015; the UK was 31.3 per cent above the EU average.

Source: Eurostat

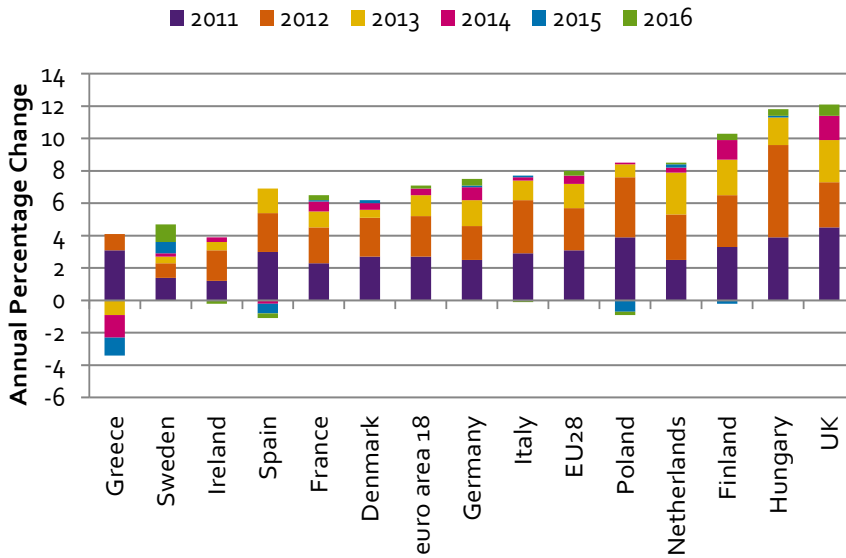
Figure 61: Annual CPI inflation and contribution to total CPI inflation, January 2017



This chart examines the contribution of individual categories of goods and services to overall inflation (i.e. taking account of inflation rates and the weighting attached to each good or service). The highest inflation rate was recorded for Transport, while “miscellaneous” and restaurants and hotels contributed most to overall inflation.

Source: CSO

Figure 62: Harmonised index of consumer prices⁴⁴: annual percentage change, 2011-2016



During the course of the recession, Irish inflation was consistently amongst the lowest in Europe (in some years Irish prices declined), resulting in a narrowing price differential with comparator countries. Inflation remained muted in 2016. As Europe struggles to return to growth, inflation across the Euro area rose from 0% in 2015 to 0.2% in 2016.

Source: Eurostat, DJEI Calculations

Figure 63: Irish price levels relative to the European Union 28 (including indirect taxes), 2015

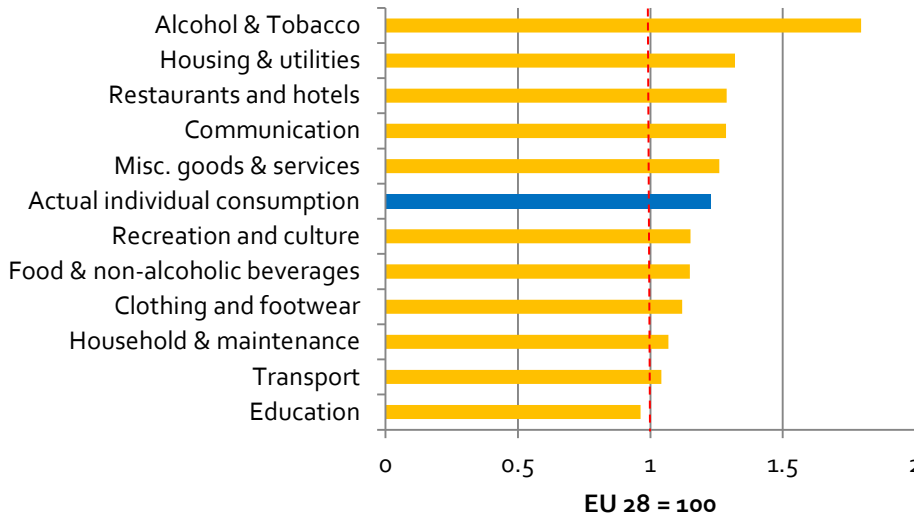
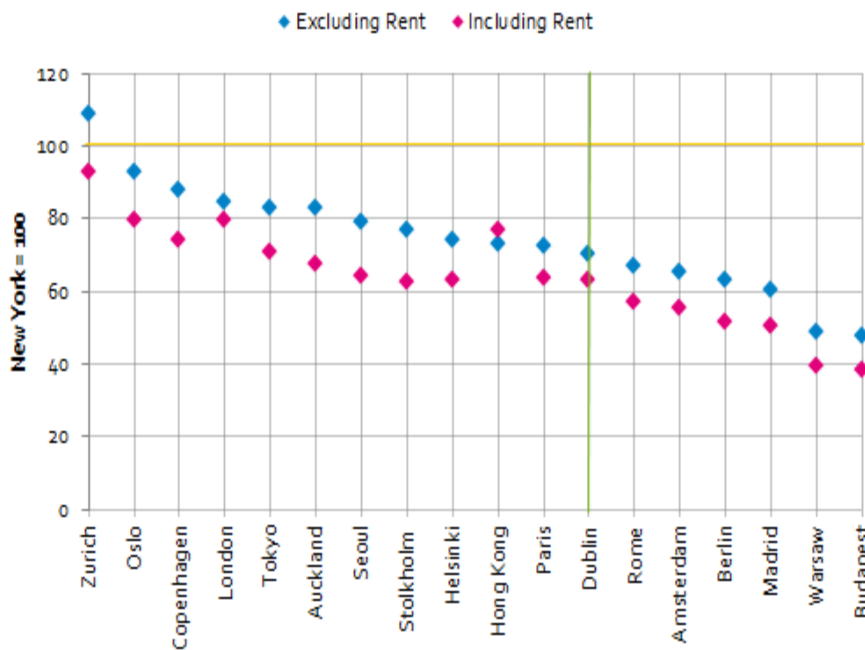


Figure 63 compares relative prices for a range of goods and services in Ireland with the average Euro area price. Irish prices are above the Euro area average for 11 out of 12 categories of goods and services (education being the exception). The wide differential in alcohol and tobacco prices is primarily a consequence of taxation policy.

Source: Eurostat

⁴⁴ The European Union-Harmonised Indices of Consumer Prices (EU-HICP) is calculated in each Member State of the EU. The purpose of this index is to allow the comparison of consumer price trends in the different Member States. The methodology adopted for the construction of the national CPI is identical to that recommended for the HICP. Thus the two indices only differ in respect of the coverage of certain goods and services and the treatment of insurance.

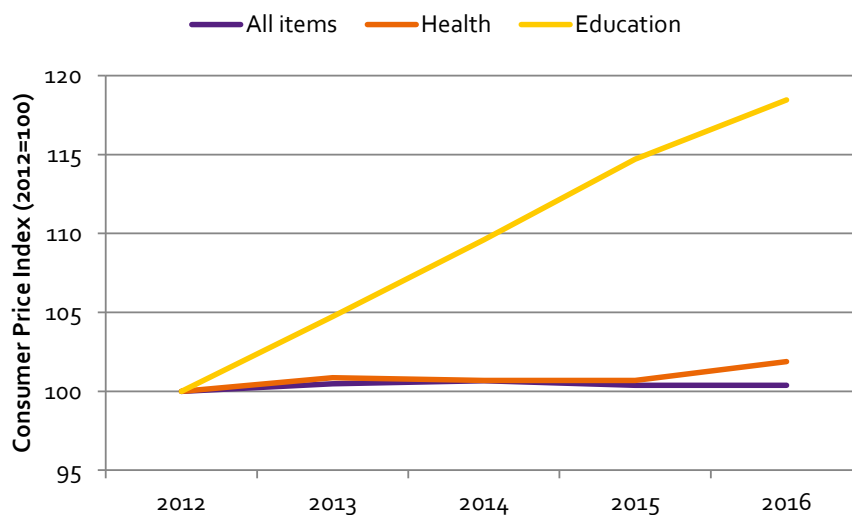
Figure 64: Consumer price level comparison (New York = 100)³⁸, 2015



This chart shows the cost of goods and services worldwide, relative to New York. A basket of comparable goods and services in Dublin costs 70.3% of the cost of a similar basket in New York. The basket in London would cost 84.7% of New York levels. When rents are included, most city indices decrease relative to New York (i.e. New York rents are higher than elsewhere).

Source: UBS Prices and Earnings 2015

Figure 65: Health and Education Consumer Price Inflation 2012-2016



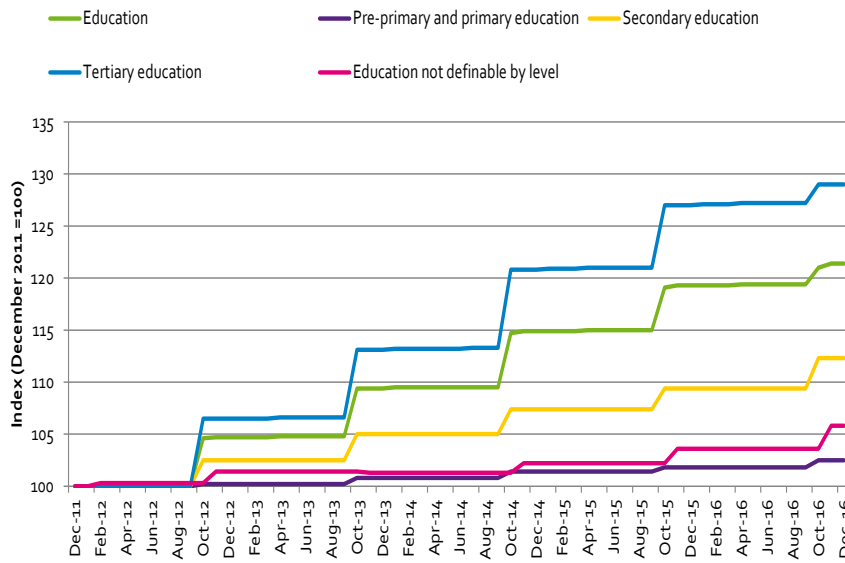
Health⁴⁵ and education⁴⁶ consumer costs have increased at a faster rate than overall consumer costs since 2012. In 2016, education costs were 18.5% above prices 5 years previously. By comparison, the overall consumer price level increased by 2.2% over the same period.

Source: CSO

⁴⁵ "Health" includes medical products, appliances and equipment, hospital charges and outpatient services supplied by doctors, dentists, opticians, physiotherapists and practitioners of alternative and complementary medicine.

⁴⁶ "Education" includes pre-primary and primary (comprised of playschools and private primary fees), secondary (private second level day fees), third level fees (third level tuition fees and third level accommodation), and other education and training such as night courses and examination fees.

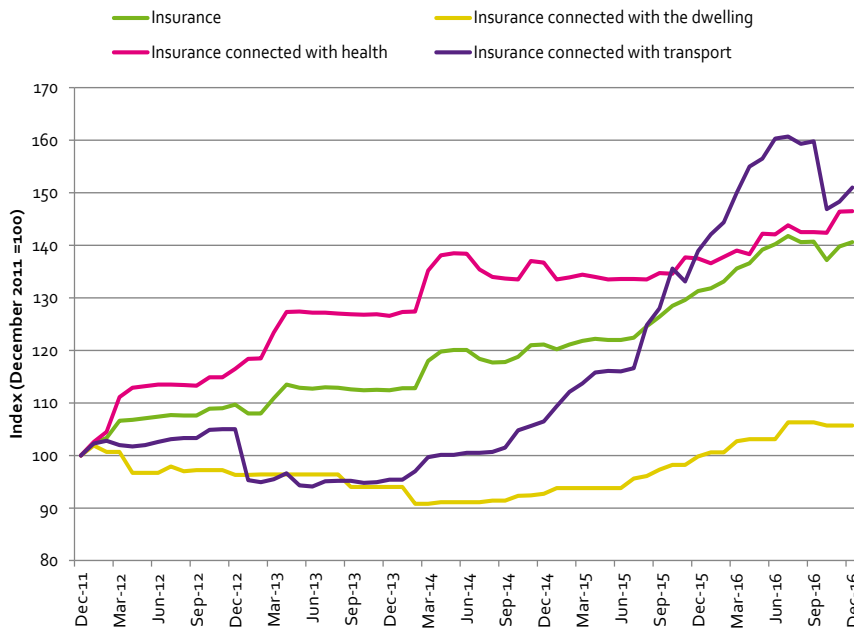
Figure 66: Education Consumer Price Inflation 2011-2016



Source: CSO

Despite its low weighting within the CPI basket (2%) education is a driver of Irish inflation. Tertiary education (annual student tuition contribution) accounts for two thirds of the weight of the education component. Tertiary education prices have increased by almost a third in the last five years.

Figure 67: Insurance Consumer Price Inflation 2011-2016



Source: CSO

The rate of inflation for insurance which is captured in the Miscellaneous Goods and Services category is well above the aggregate CPI rate. Insurance is a significant element within the CPI basket with a weighting of 5.6%. While the rate of increase in motor insurance has moderated in recent months, in the period 2014-2016, prices as measured by the CPI increased by 50%.

Figure 68: Insurance HICP Price Inflation 2012-2017

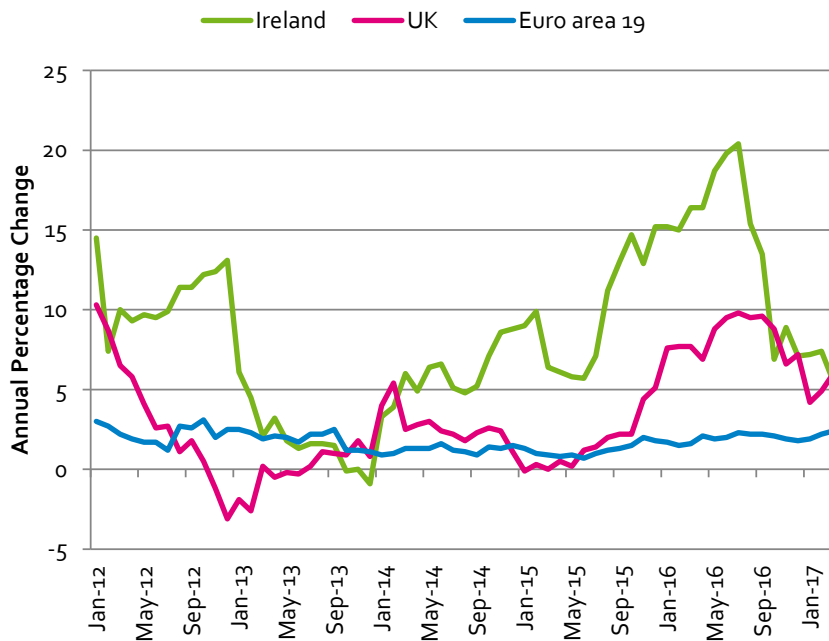
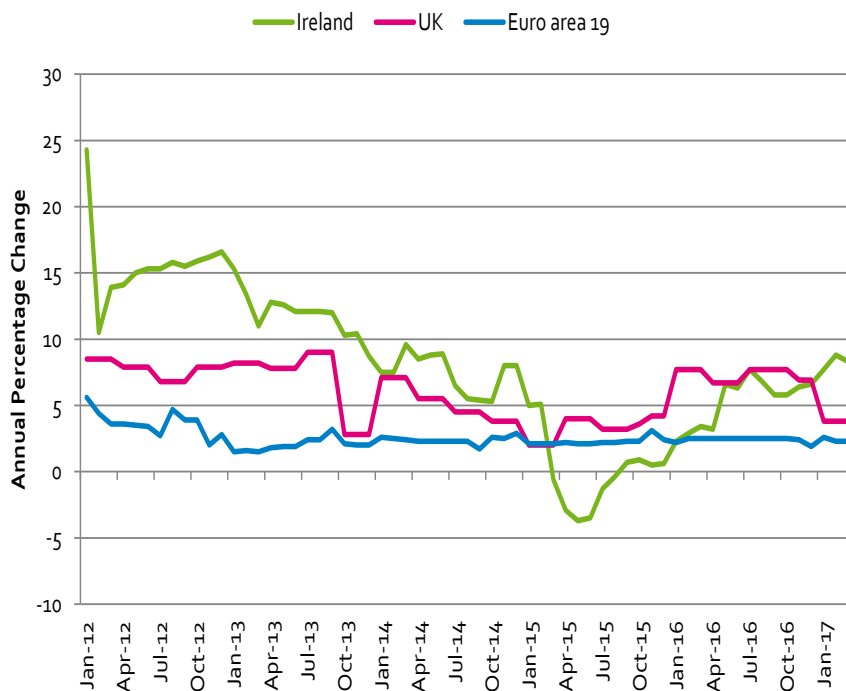


Figure 68 shows that Irish insurance price inflation as measured by the HICP has been volatile and significantly above the UK rate and Euro area average from early 2014. Since peaking at 20% in July 2016, Irish insurance price inflation has moderated and at 5.5% in March 2017 was below the UK (6%) but remains well above the Euro area average.

Source: Eurostat

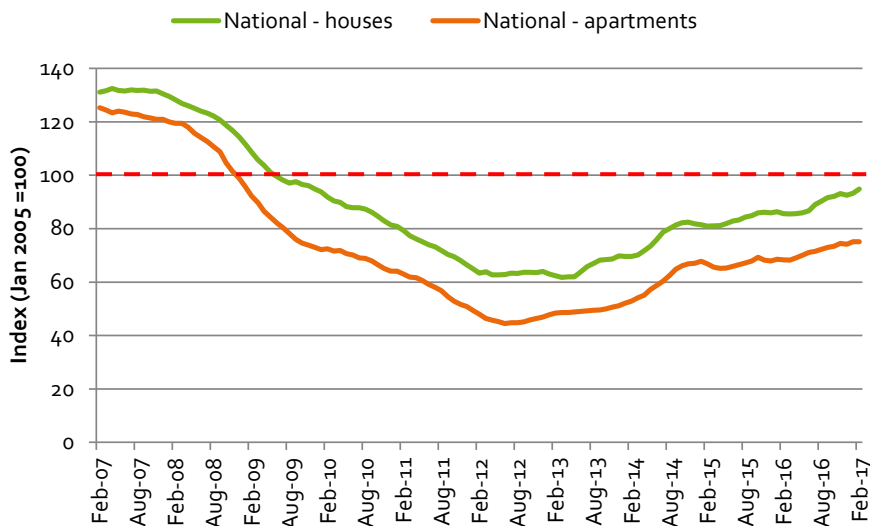
Figure 69: Health Insurance HICP Price Inflation 2012-2017



Health insurance is the most significant element within the miscellaneous goods and services category and accounts for approximately 60% of the insurance category. Health insurance price inflation was decreasing over the period 2013-mid 2015 and fell below the Euro area average in 2015 but has increased in recent months. In March 2017 the rate of health insurance inflation (8.3%) was well above the Euro area (2.3%) and UK (3.8%).

Source: Eurostat

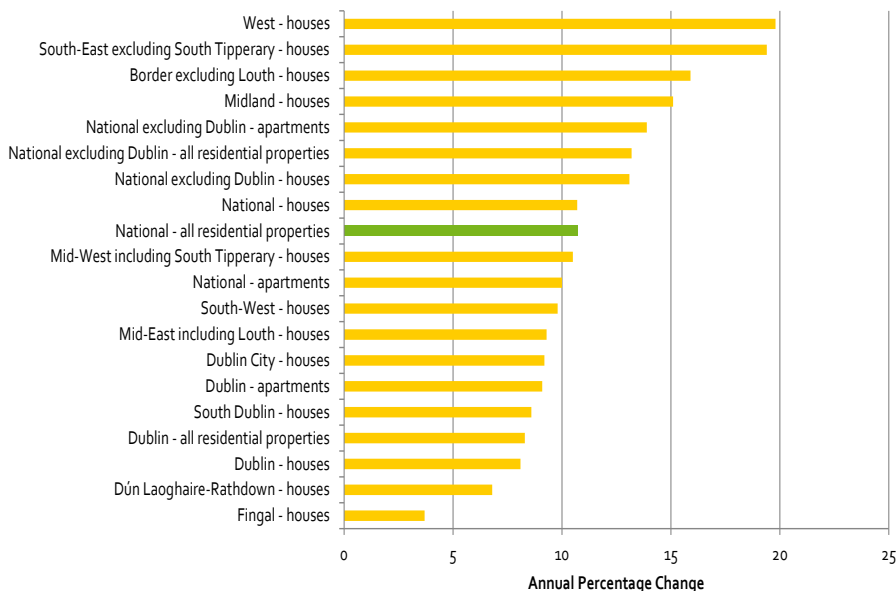
Figure 70: Residential Property Index, Houses and Apartments, Ireland 2007-2017



Residential property prices nationally have increased by 52.1% in the period 2013 to 2017. In the same period, Dublin residential property prices increased by 67.9% and in the Rest of Ireland by 47.9%. The national index is 30.7% lower than its highest level in 2007.

Source: CSO

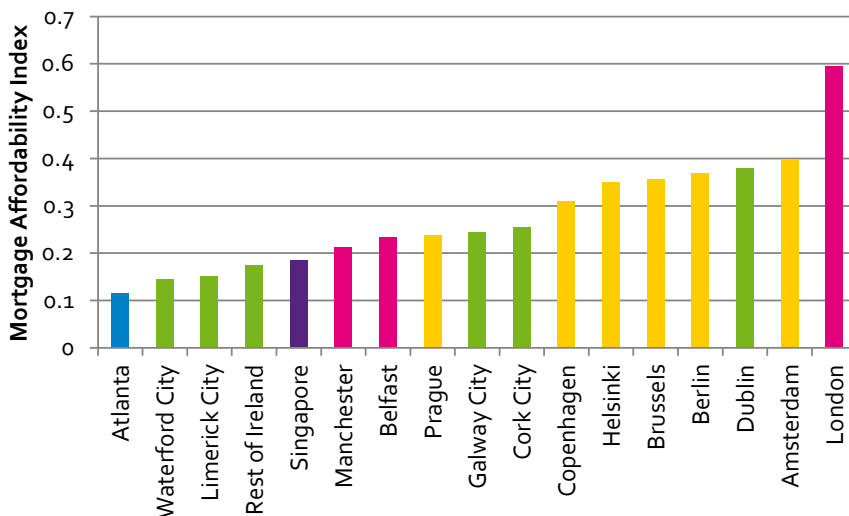
Figure 71: Residential Property Index, Annual Percentage Change, February 2016-2017



In the year to February 2017, residential property prices at national level increased by 10.7% compared with 8.1% in 2016. The rate of increase is highest in the West (19.8%) and lowest in Fingal (3.7%). In Dublin, house prices increased by 8.1% and apartment prices increased by 9.1%. Excluding Dublin, residential property prices were 13.2% higher in the year to February.

Source: CSO

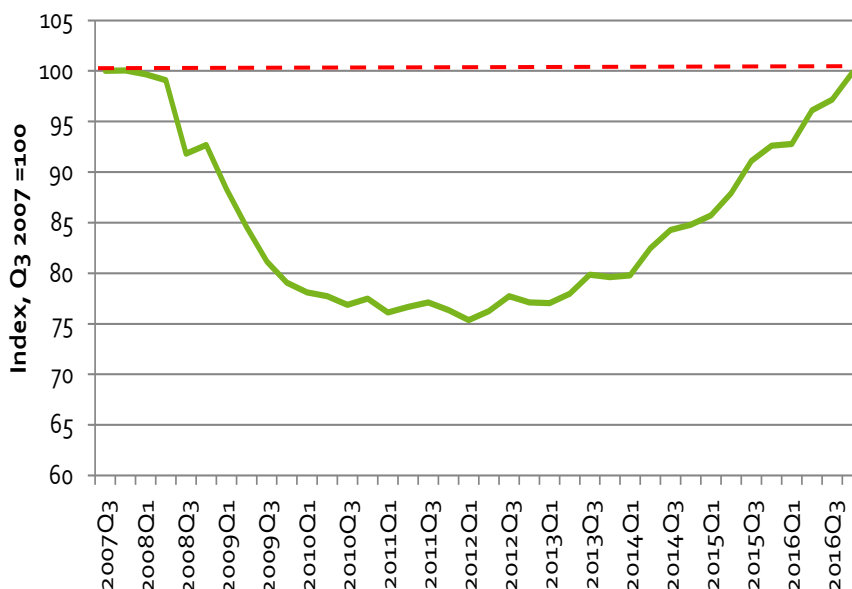
Figure 72: Mortgage Affordability Index 2016



Taking into account the higher cost of mortgage finance in Ireland, only 2 cities had a higher Mortgage Affordability Index⁴⁷ than Dublin. Both indices were in line with the international average for Cork and Galway whereas the other parts of Ireland where the Index was significantly below average.

Source: NCC/Indecon

Figure 73: Residential Tenancies Board, National Rent Index, 2007-2016

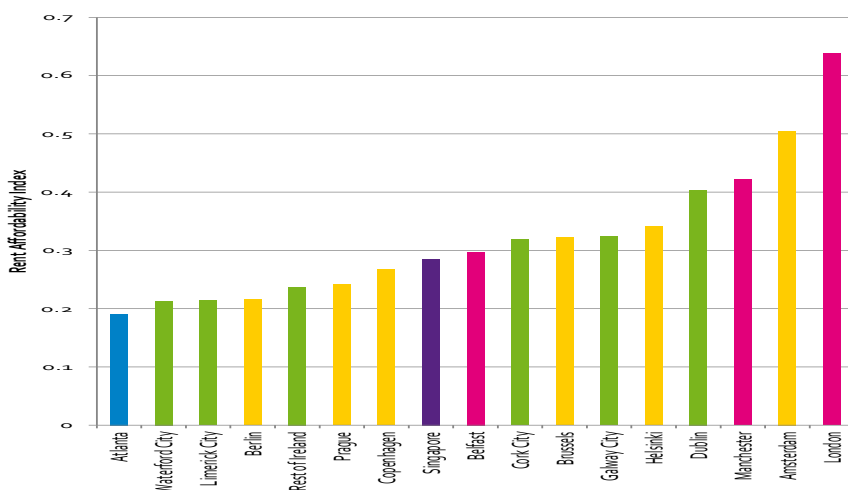


Residential Tenancies Board data for 2016 indicates that private sector rents continued to trend upwards. At a national level, annual growth was 7.8% in Quarter 4, 2016; this compares to 6.6% annual growth in Q3 2016. The standard national average rent in Q4 2016 stood at €986 per month. This is €2 lower than peak rents in 2007.

Source: Residential Tenancies Board

⁴⁷ The rationale for the Mortgage Affordability Index (MAI) is to capture the cost of a newly purchased dwelling to a household earning the average household income for that region. The index as calculated is based on a standardised housing unit and takes account of differences in Mortgage Cost. For more see NCC/Indecon, A Study to Examine the Affordability of Irish Housing, July 2016.

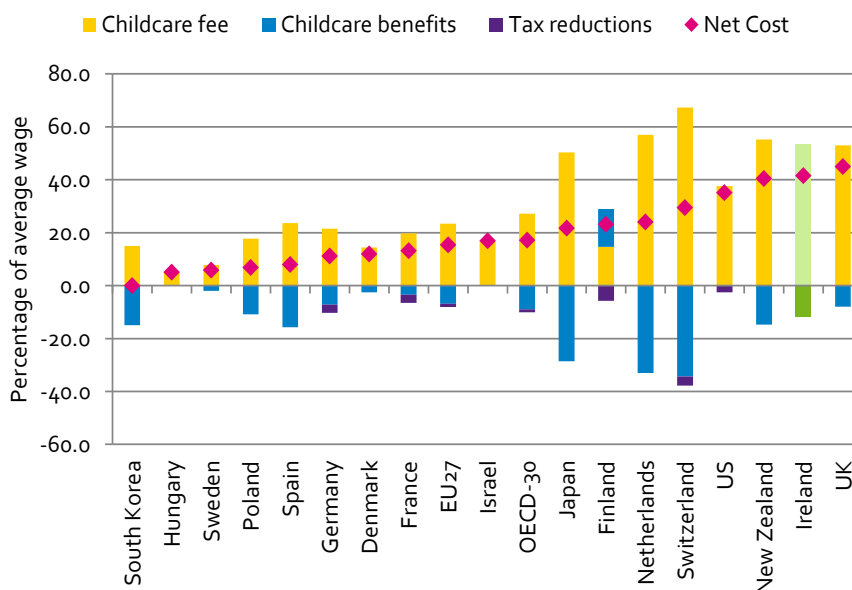
Figure 74: Rental Affordability Index 2016⁴⁸



In terms of rent as a percentage of income, three international cities were found to be less affordable than Dublin. Rental affordability is increasingly challenging for renters who aspire to purchase and must save a significant deposit whilst simultaneously paying relatively high rents.

Source: NCC/Indecon

Figure 75: Childcare-related costs and benefits, 167 percentage of average wage⁴⁹, 2012⁵⁰



Irish childcare costs as a percentage of income are amongst the highest in the OECD for couples and the second highest for persons on 67% of the average wage. Figure 75 illustrates the net costs of childcare, taking account of fees, child benefit and relevant tax reductions⁵¹.

Source: OECD

⁴⁸ The rationale for the Rental Affordability Index is to capture the cost of rent to a household with the average household income for that region. It is calculated assuming a standard rental unit of 70 square meters, regardless of the type of housing (e.g., apartment or a house), and assumes a two-person household, each on 80 per cent of average disposable income. For more see NCC/Indecon, A Study to Examine the Affordability of Irish Housing, July 2016.
⁴⁹ Data for couples refers to a situation where the first earner earns 100% of the average wage and the second earns 67% of the average wage. EU and OECD averages exclude Chile, Italy, Mexico and Turkey.
⁵⁰ The most recent internationally comparable data is for 2012.
⁵¹ For couples on 167% of the average wage, Ireland is the 2nd most expensive country benchmarked.

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