DUBLIN ISSUE 15 NOVEMBER 2018 ECONOMIC MONITOR

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LATEST DUBLIN ECONOMIC DATA

IHS MARKIT DUBLIN PMI

KBC/ESRI CONSUMER SENTIMENT

MASTERCARD SPENDINGPULSE

DUBLIN'S RENTAL MARKET FEELS THE HEAT FROM ONGOING HOUSING CRISIS

SPECIAL ARTICLES

JOHN FITZGERALD: TACKLING CLIMATE CHANGE

PAUL REID: THE FINGAL SKILLS STRATEGY





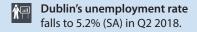


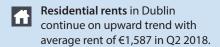


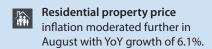














- Housing completions in Dublin totalled 3,011 in the first half of 2018 with a further 3,383 commencements in the same period.
- Dublin Airport welcomed 1.34 million arriving passengers (SA) in June 2018.

The Mastercard Dublin SpendingPulse

Consumer spending in the Dublin economy grew 4.3% YoY (SA) in Q3 2018. Tourism expenditure rose 13.5% (SA) with the UK market registering two consecutive quarters of YoY growth.

- The Dublin MARKIT PMI
 Dublin's private sector output
 increased again in Q3 2018. In line
 with the trend in business activity,
 employment by firms in Dublin has
 now increased on a quarterly basis
 throughout the past six years.
- KBC/ESRI Consumer Sentiment remains positive although the index registered the second consecutive decline of the year in Q3 2018. The common factor driving the downward trend in Dublin, and Nationally, is a continued moderation of consumer expectations.

IMAGE: COURTESY OF COUNTY CREST.
AERIAL VIEW OF COUNTRY CREST/
BALLYMAGUIRE FOODS PRODUCTION FACILITY
AT RATHMOONEY, LUSK, COUNTY DUBLIN.



WELCOME TO THE NOVEMBER 2018 ISSUE OF THE DUBLIN ECONOMIC MONITOR

he Dublin Economic Monitor is a joint initiative on behalf of the four Dublin Local Authorities, and is designed to be of particular interest to those living and doing business in Dublin or considering locating here. It is produced by EYDKM Economic Advisory Services, with KBC/ESRI delivering the Dublin Consumer Sentiment data and IHS MARKIT delivering the Dublin Purchasing Managers' Index (PMI).

We also partner with Mastercard to use their SpendingPulse reports to better understand retail and tourism spending patterns. The SpendingPulse is derived from anonymised and aggregated card transaction data as well as other means of payments such as cash and cheques.

This data helps the city develop new insights on the spending patterns of Dubliners and tourists, as well as comparing the Capital's performance to the whole of Ireland (see centrefold supplement).

The special articles this quarter include one from John Fitzgerald, an adjunct professor in both TCD and DCU, discussing the impact of Climate Change for the region (p12-13) While Paul Reid, Chief Executive of Fingal County Council change to discussing the work they have been doing on identifying and responding to the future requirement of skills in their area (p14).

We hope you find the Monitor useful and welcome any feedback. You can sign up to our quarterly mailing list and access the Monitor resources online at www.dublineconomy.ie. The next release will be published online in February 2019.

Dublin City South Dublin County Fingal County Dún Laoghaire Rathdown Council County Council County Council

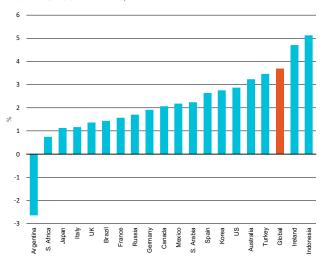
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GLOBAL ECONOMY

2018 began with positive growth expectations across the globe, but with growing uncertainty surrounding geopolitics, trade and Brexit outcomes, a more cautious tone has emerged towards the end of the year. The IMF's latest global forecasts indicate that the expansion identified in previous months may now have peaked, with high levels of uncertainty weighing on overall global growth. Projected economic growth is steady, though less optimistic, at 3.7% for both 2018 and 2019.

US growth remains unchanged at 2.9% for 2018 after a strong two quarters of data, and a sizeable fiscal stimulus. Forecasts have however been revised down to 2.5% in 2019 as the consequences of trade tariffs are expected to impact. The US is expected to grow beyond its potential to 2020, but is expected to dip thereafter as monetary policy tightens.

WORLD GROWTH RATES, 2018



SOURCE: IMF WEO FORECASTS, OCTOBER 2018. NOTE: EY-DKM 2018 GROWTH FORECAST FOR IRELAND 8.2%

The IMF has lowered its Euro Area forecasts on the back of weaker than expected data for the first two quarters of the year, showing a loss of momentum in exports. 2018 is expected to see growth of 2.0%, slowing to 1.9% in 2019. It cited the threat of contagion from volatile emerging market economies as a factor for this.

UK forecasts have also been lowered in recent months. An uncertain lead up to March 2019 is hampering business and investment decisions. A weaker Sterling has been boosting exports, but increasing inflation for consumers and businesses. Annual pay growth of 2.7% means that consumers are barely keeping up with inflation (2.4%). UK GDP is forecast at 1.4% for 2018 and 1.5% for 2019.

MAJOR ECONOMIES GDP GROWTH FORECASTS

	2017	2018	2019
	%	% F	% F
GLOBAL	3.7	3.7	3.7
UK	1.7	1.4	1.5
US	2.2	2.9	2.5
EURO AREA	2.4	2.0	1.9
GERMANY	2.5	1.9	1.9
JAPAN	1.7	1.1	0.9
CHINA	6.9	6.6	6.2
INDIA	6.7	7.3	7.4

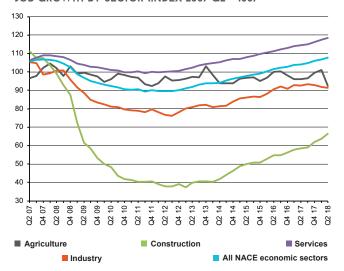
SOURCE: IMF WEO FORECASTS, OCTOBER 2018

NATIONAL ECONOMY

Strong Irish GDP growth is continuing into 2018, reaching 9.0% in the year to Q2, following 7.2% annual growth in 2017. However, there are reservations about the use of GDP as a measure of economic activity. Modified Domestic Modified Domestic Demand (MDD), which removes the effects of aircraft leasing and the import of intellectual property, shows that the economy grew by 4.2% in the year to Q2. GNP increased at a rate of 11.9% in the same period. Personal consumption increased by 4.4% in the year to Q2, driven by jobs growth, while capital investment declined by 32% due to a large decrease in intangible assets.

74,700 new jobs were added on a seasonally adjusted basis (+3.4%) in the year to Q2, while unemployment decreased from 6.6% to 5.4% from August 2017 to 2018. Job growth has been broadly-based, showing growth in 10 of 14 sectors, with construction and retail performing particularly well. The sectoral spread is notably different to the 2007 peak, with construction significantly lower, although now picking up pace. Labour force participation rates have been slower to rise (currently at 62.3%). With 243,000 new jobs forecast over the next 5 years and full employment looming, migration will be required to fill this gap.

JOB GROWTH BY SECTOR (INDEX 2007 Q2 = 100)



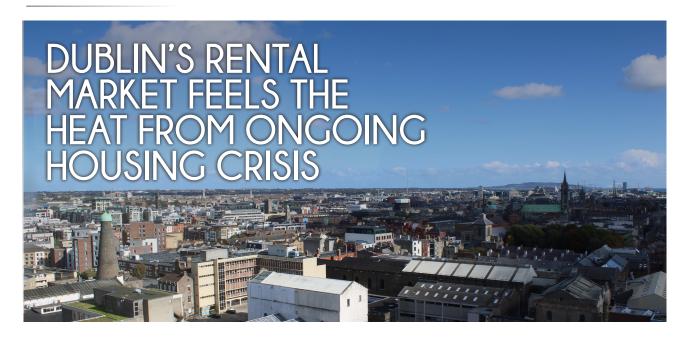
SOURCE: CENTRAL STATISTICS OFFICE. NOTE: SEASONALLY ADJUSTED

Brexit talks now appear closer to a breakthrough with Westminster and Brussels in deep discussions to resolve the issues surround the Irish Border. EU leaders have backed May to build a 'coalition of the reasonable' in parliament to help avoid a no-deal. Although, the admission that the UK could stay a year longer in a transition period has angered her Conservative backbenchers.

IRISH MACROECONOMIC GROWTH FORECASTS

	2017 %	2018 % F	2019 % F
GNP	4.4%	9.0%	4.2%
GDP	7.2%	8.2%	4.4%
MDD	3.2%	3.8%	4.0%
PRIVATE CONSUMPTION	1.6%	3.2%	2.9%
PUBLIC EXPENDITURE	3.9%	3.8%	3.3%
INVESTMENT	-31.0%	-2.9%	7.0%
EXPORTS	7.8%	7.1%	5.9%
IMPORTS	-9.4%	1.0%	6.1%
UNEMPLOYMENT RATE	6.7%	5.4%	4.8%
EMPLOYMENT	2.9%	3.2%	2.7%
CPI INFLATION	0.3%	0.8%	2.1%

SOURCE: EY-DKM FORECASTS. F: FORECASTS



RESIDENTIAL PROPERTY PRICES REACH HIGHEST LEVEL SINCE END 2008.

The number of people employed in Dublin is now at the highest level in the past 20 years. In Q2 2018 there were 697,900 people employed in the capital, an increase of 45,700 in the year with some 200,000 jobs added since Q2 1998. Similarly, the unemployment rate in the city is the lowest recorded since the end of 2007. On a seasonally-adjusted basis the rate of unemployment in Dublin was 5.2% in Q2 2018. Employment growth in the construction sector has slowed marginally in Q2 (+6.1% YoY) compared to double digit annual growth in eight of the last nine quarters.

With employment on an upward trend, so too are pressures on the housing market in Dublin. For employers, the rental crisis in particular has the potential to negatively impact their ability to attract workers from overseas, with the American Chamber of Commerce noting in a 2017 report that more than 30,000 new one and two-bed apartments will be needed in Dublin by 2022 to sustain new jobs in multinational companies. Recent data suggests that the pressures in the market are far from subsiding. The average monthly rent in Dublin City now stands at €1,587, €128 higher than 12 months ago, and the greatest annual increase since the series began in Q3 2007. Dublin's housing prices are also at their highest level since end 2008, having increased by 94.5% since the trough in February 2012. The positive trend in housing completions (+43% YoY in Q2 2018) is coming off a very low base and will take some time to feed through to residential property prices and rents.

The number of passengers using the LUAS surpassed 10 million for the first time in Q2 2018, the second full quarter in which the LUAS Cross City was operational. A considerable boost in passenger arrivals at Dublin Airport was recorded in April, most likely linked to a rebound following flight disruptions during Storm Emma in March. In June, the Airport welcomed 1.34 million passengers, up 8.5% in the year. Meanwhile, throughput at Dublin port reached 9.6 million tonnes in Q3 2018 with CEO Eamonn O'Reilly noting that the "extraordinary" growth at the port is underpinning the need to accelerate the ports capital investment programme to ensure sufficient capacity for future growth.

The latest results from the KBC/ESRI Consumer Sentiment Index signal a heightened sense of caution among consumers around future expectations. Austin Hughes, Chief Economist at KBC Bank Ireland, explains:

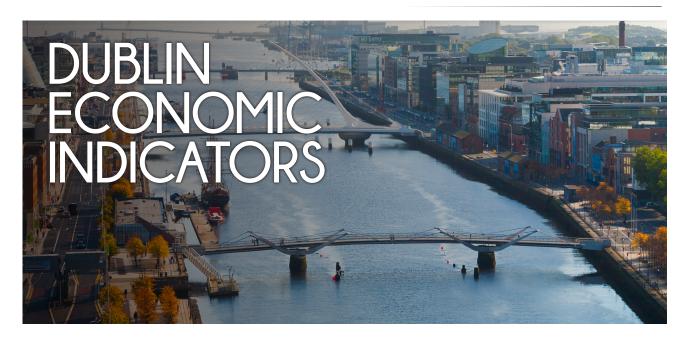
"Dublin consumer sentiment weakened again in the third quarter as concerns about household finances combined with increased worries about Brexit weigh on confidence. My sense is that high profile increases in living costs in areas such as housing and energy coupled with greater uncertainty about the future has prompted a more cautious attitude among Dublin consumers of late."

Further growth in retail sales and tourism spend was recorded in the Mastercard Dublin SpendingPulse for Q3 2018. Michael McNamara, Global Head of SpendingPulse, Mastercard reflects on the latest results stating:

"The autumn Mastercard SpendingPulse shows positive Q3 YoY retail spend growth for Ireland at 3.2% and Dublin at 4.3%. Growth has been driven by impressive sector performances including Entertainment which grew the strongest at 8% for Ireland and 11.7% for Dublin - its highest growth since Q2 2016. Tourism is another strong sector with 10.6% YoY growth Nationally and over 13% in Dublin - influenced by increasing numbers from the US, Germany, France and China."

Dublin's IHS Markit Purchasing Managers' Index (PMI), has been registering quarterly increases for the past six years with the growth of activity remaining elevated in the construction sector. Andrew Harker, Associate Director at IHS Markit, notes:

"Although growth in the Dublin private sector lost some momentum in the third quarter, rates of expansion in output and new orders remained strong and any easing is of little concern at present. Indeed, companies upped their rate of job creation, suggesting they remain confident in the near-term outlook at least. Gains in new business, output and employment also continued apace across the Rest of Ireland as conditions across the economy as a whole remain buoyant."



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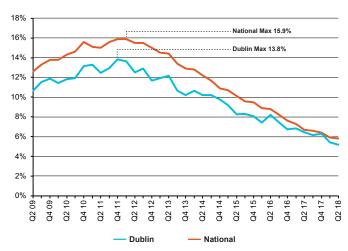
LOWEST UNEMPLOYMENT RATE IN 10 YEARS

	Q2 18
DUBLIN UNEMPLOYMENT (SA)	5.2%
YEAR ON YEAR CHANGE % POINTS (SA)	-1.3
DUBLIN EMPLOYMENT '000s (SA)	697.9
YEAR ON YEAR CHANGE '000s (SA)	+45.7

SOURCE: CSO LABOUR FORCE SURVEY (LFS). DUBLIN SEASONALLY ADJUSTED BY EY-DKM. NOTE: THIS SERIES HAS BEEN RE-CALIBRATED SINCE THE LAST ISSUE

Dublin's unemployment rate fell to 5.2% in Q2 2018, the lowest rate recorded in the Capital since Q1 2008. In the 10 year period the level of unemployment in Dublin reached a high of 13.8% (Q4 2011) and 15.9% Nationally (Q1 2012). Employment levels continue to strengthen with 698,000 now employed in Dublin, an increase of 11,300 in the quarter. Since Q4 2011 an additional 152,600 people have become employed in Dublin.

DUBLIN & NATIONAL UNEMPLOYMENT RATE % (SA)



SOURCE: CSO LFS. DUBLIN SEASONALLY ADJUSTED BY EY-DKM.

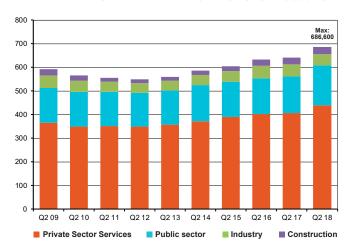
PUBLIC SECTOR KEY DRIVER OF EMPLOYMENT GROWTH IN Q2

	Q2 '18
SERVICES EMPLOYMENT '000s (SA)	609.0
YEAR ON YEAR CHANGE '000s (SA)	46.4
INDUSTRY & CONSTR, EMPLOYMENT '000s (SA)	77.6
YEAR ON YEAR CHANGE '000s (SA)	-1.2

SOURCE: CSO LFS. SEASONALLY ADJUSTED BY EY-DKM.
NOTE: THIS SERIES HAS BEEN RE-CALIBRATED SINCE THE LAST ISSUE

Dublin's private sector added 31,900 new employees in the year to Q2 2018. Within this, administration registered the highest YoY growth of 13% with wholesale trade and transportation growing by 11.8% YoY each. The public sector added an additional 14,600 persons with the greatest annual growth attributable to public administration (+22.8%). Construction registered YoY growth of 6.1% in Q2 with a further 1,800 employed in the sector; Industry by contrast continues to act as a drag with a YoY decline of 6.1%.

EMPLOYMENT BY BROAD SECTOR '000s (SA)



SOURCE: CSO. SEASONALLY ADJUSTED BY EY-DKM
NOTE: INDIVIDUAL SECTOR VALUES MAY NOT SUM TO TOTAL DUE TO ROUNDING

DUBLIN ECONOMIC INDICATORS

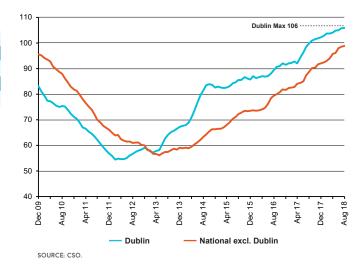
DUBLIN PROPERTY PRICES NOW 94.5% HIGHER THAN TROUGH IN 2012

	AUG '18
PROPERTY PRICE INDEX DUBLIN	106.0
YEAR ON YEAR % CHANGE	+6.1
PROPERTY PRICE INDEX NATIONAL EXCL DUBLIN	98.9
YEAR ON YEAR % CHANGE	+11.4

SOURCE: CSO.
NOTE: THIS INDEX INCLUDES BOTH CASH- AND MORTGAGE-BASED TRANSACTIONS.

Residential property prices in Dublin rose by 6.1% YoY in August 2018, with the index now at its highest level since December 2008. Nationally (excl. Dublin) prices have registered double-digit YoY growth for the past 22 months, representing the longest run of double-digit growth since the series began in 2005. From the trough in the Dublin market in February 2012, residential property prices have increased 94.5% whilst prices Nationally (excl. Dublin) are 76% higher than their trough in May 2013.

RESIDENTIAL PROPERTY PRICE INDEX (2005 = 100)

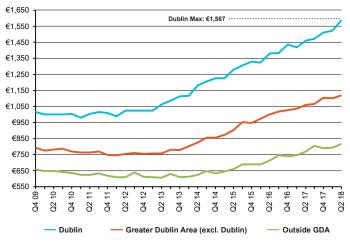


GREATEST ANNUAL INCREASE IN **DUBLIN RENT LEVELS IN 10 YEARS**

Q2 '18 DUBLIN AVG RESIDENTIAL RENT € PER MONTH 1.587 YEAR ON YEAR CHANGE €

Despite rent pressure zones, first introduced in December 2016, private residential rents continue to rise in Dublin at an increasing rate. The average rent grew by 8.8% YoY in Q2 2018 to €1,587. This represents a €128 annual, and €66 (+4.3%) quarterly, increase in average rents - the greatest annual/ quarterly increase in rents since the series period began in Q3 2007. Pressure continues to build outside of Dublin with rents in the GDA and Nationally increasing by 5.6% and 6.4% YoY respectively.

RESIDENTIAL RENTS €



SOURCE: RTB. NOTE: GDA (EX DUBLIN) IS KILDARE. MEATH AND WICKLOW

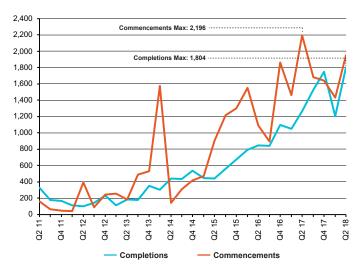
HOUSING COMMENCEMENTS RISE BUT CONTINUE TO EXHIBIT VOLATILITY

	Q2 '18
TOTAL HOUSE COMMENCEMENTS	1,433
YEAR ON YEAR CHANGE	-246
TOTAL HOUSE COMPLETIONS	1,804
YEAR ON YEAR CHANGE	539

SOURCE: DHPLG,CSO

The CSO recorded 1,804 housing completions in Dublin in Q2 2018, a quarterly increase of 49.5% and a YoY increase of 42.6%. The level of new completions is now at its highest level since the CSO series began in Q1 2011. Housing commencements remain very volatile with negative YoY growth recorded in the last three quarters, despite recording the second highest quarterly value in the series. In Q2 2018 there were 1,950 commencements in Dublin, 11.2% lower than the level recorded in Q2 2017.

DUBLIN HOUSING COMMENCEMENTS & COMPLETIONS



SOURCE: DHPLG. NOTE: COMPLETIONS DATA HAS BEEN ADJUSTED TO ACCOMMODATE A 2014 CHANGE IN THE METHOD OF DATA COLLECTION

DUBLIN ECONOMIC INDICATORS

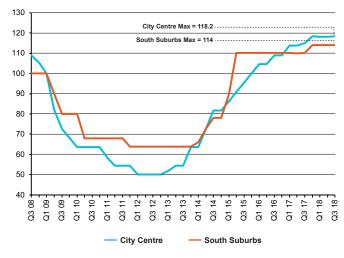
CITY CENTRE OFFICE RENTS 68% HIGHER THAN IN 2012 TROUGH

	Q3 '18
CITY CENTRE OFFICE RENT INDEX	118.2
YEAR ON YEAR % CHANGE	+2.8
SOUTH SUBURBS OFFICE RENT INDEX	114.0
YEAR ON YEAR % CHANGE	+3.6

SOURCE: CBRE

While QoQ rents remain unchanged in Q3 2018, YoY growth of 2.3% and 3.6% has been recorded respectively in the city centre and suburbs. Rent levels in the city centre are now 68% higher than that of the lowest point at the end of 2012. Similarly, rents in the south suburbs are now 50% higher than the trough in 2012.

DUBLIN OFFICE RENTS INDEX (2006 = 100)



SOURCE: CBRE.

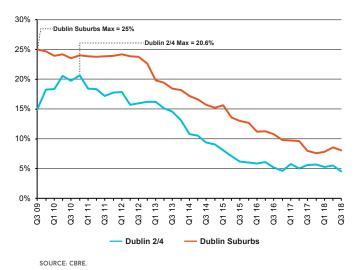
OFFICE VACANCIES IN DUBLIN 2/4 LOWEST SINCE Q2 2007

	Q3 '18
VACANCY RATE % DUBLIN 2/4	4.5
YEAR ON YEAR CHANGE % POINTS	-1.1
VACANCY RATE % DUBLIN SUBURBS	8.0
YEAR ON YEAR CHANGE % POINTS	0.0

SOURCE: CBRE.

Following 24 months of YoY declines in office vacancy rates in the Dublin suburbs, Q3 2018 has seen a stabilisation with no change on Q3 2017. Vacancy rates in the suburbs now stand at 8%. Vacancy rate in the Dublin 2/4 area declined further to 4.5%, a YoY decline of 1.1 percentage points. According to CBRE 38% of office take-up in Dublin in Q3 2018 occurred in the suburbs area.

DUBLIN OFFICE SPACE VACANCY RATES %



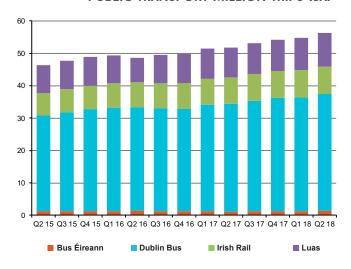
LUAS PASSENGER TRIPS EXCEED 10 MILLION IN Q2

	Q2 '18
PUBLIC TRANSPORT MILLION TRIPS (SA)	56.3
YEAR ON YEAR CHANGE MILLION TRIPS (SA)	+4.6

SOURCE: NTA. SEASONALLY ADJUSTED BY EY-DKM.
NOTE: THIS SERIES HAS BEEN RE-CALIBRATED SINCE THE LAST ISSUE

Dublin's four main public transport systems recorded strong YoY and QoQ growth in Q2 2018. A total of 56.3 passenger trips were made on the four main public transport systems in the quarter, up 8.8% since Q2 2017. In the second full quarter of the LUAS Cross City being operational, the number of passenger trips on the LUAS exceeded 10 million for the first time, with 10.3 million trips recorded. This represents a 12.4% YoY increase and growth of over 50% since Q1 2010.

PUBLIC TRANSPORT MILLION TRIPS (SA)



SOURCE: NTA. SEASONALLY ADJUSTED BY EY-DKM NOTE: THIS SERIES HAS BEEN RE-CALIBRATED SINCE THE LAST ISSUE

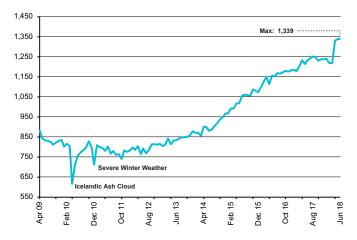
7.7 MILLION PASSENGERS ARRIVE IN DUBLIN AIRPORT IN FIRST HALF OF 2018

	JUN '18
TOTAL ARRIVALS '000s (SA)	1,339
YEAR ON YEAR CHANGE '000s (SA)	105

SOURCE: CSO. SEASONALLY ADJUSTED BY EY-DKM.
NOTE: THIS SERIES HAS BEEN RE-CALIBRATED SINCE THE LAST ISSUE

Following a marginal decline in passenger arrivals at Dublin Airport in March there was a jump of 9.4% in April and a further increase of close to 1% to June. April's boost is likely the result of a rebound to numbers following flight disruptions during Storm Emma in March. A total of 1.339 million passengers arrived into Dublin Airport in June 2018 with 7.7 million arriving in the first six months of the year, up 6% on the first half of 2017.

DUBLIN AIRPORT ARRIVALS '000s (SA)



SOURCE: CSO, SEASONALLY ADJUSTED BY EY-DKM.
NOTE: THE INCREASE RECORDED IN APRIL 2018 IS LIKELY A FUNCTION
OF STORM EMMA IN MARCH 2018 AND IS EXPECTED TO SMOOTH OUT OVER TIME.

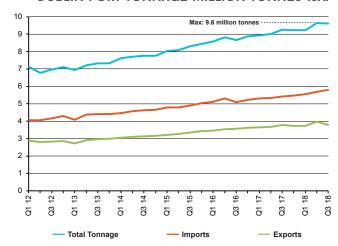
THROUGHPUT STABLE AT DUBLIN PORT IN Q3

	Q3 '18
DUBLIN PORT EXPORTS MILLION TONNES (SA)	3.78
YOY CHANGE MILLION TONNES (SA)	-0.02
DUBLIN PORT IMPORTS MILLION TONNES (SA)	5.80
YOY CHANGE MILLION TONNES (SA)	0.38

SOURCE: DUBLIN PORT. SEASONALLY ADJUSTED BY EY-DKM.
NOTE: IMPORTS AND EXPORTS MAY NOT ADD TO TOTAL THROUGHPUT DUE TO SEASONAL
ADJUSTMENT AND ROUNDING.

In the third quarter of 2018 a total of 9.6 million tonnes of cargo was handled at Dublin Port, a 4% increase in the year since Q3 2017. Imports continue on an upward trend, increasing by a 2% QoQ. The level of exports dipped by 5.1% QoQ however, YoY decline is more marginal at -0.6%.

DUBLIN PORT TONNAGE MILLION TONNES (SA)



SOURCE: DUBLIN PORT. SEASONALLY ADJUSTED BY EY-DKM. NOTE: THIS SERIES HAS BEEN RE-CALIBRATED SINCE THE LAST ISSUE

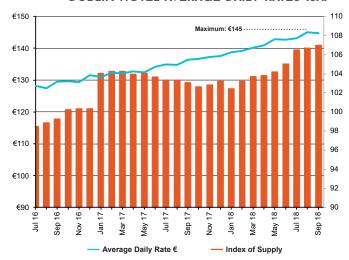
DUBLIN HOTEL RATES UP 6% YOY IN SEPTEMBER 2018

	SEPT '18
HOTEL OCCUPANCY RATE % (SA)	82.9%
YEAR ON YEAR CHANGE %AGE POINT	-0.4
INDEX OF HOTEL ROOM SUPPLY (SA, JULY 2013=100)	107.0
YEAR ON YEAR CHANGE %	3.8%

SOURCE: STR GLOBAL. SEASONALLY ADJUSTED BY EY-DKM.
NOTE: THIS SERIES HAS BEEN RE-CALIBRATED SINCE THE LAST ISSUE.

The supply of hotel accommodation in Dublin continues on a gradual upward trend in September 2018. The supply index now stands at 107 points, up 3.8% YoY. Fáilte Ireland indicates that while 5,400 rooms are due to be added to the market by 2020, demand is likely to outstrip supply by 1,100 rooms by that time. Average Daily Rates (ADR) have stabilised in the month to September however the current ADR of $\[\in \]$ 145 is 6.1% higher than in September 2017.

DUBLIN HOTEL AVERAGE DAILY RATES (SA)



SOURCE: STR GLOBAL. SEASONALLY ADJUSTED BY EY-DKM.

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DUBLIN ECONOMIC MONITOR

Mastercard SpendingPulse

Dublin Mastercard SpendingPulse Delivering Unique Insights for Consumer and Tourism Spend.

KEY HIGHLIGHTS YEAR-ON-YEAR Q3 2018*







NECESSITIES



DISCRETIONARY



HOUSEHOLD GOODS



ENTERTAINMENT



*RETAIL SALES VALUE (SA)

ECOMMERCE



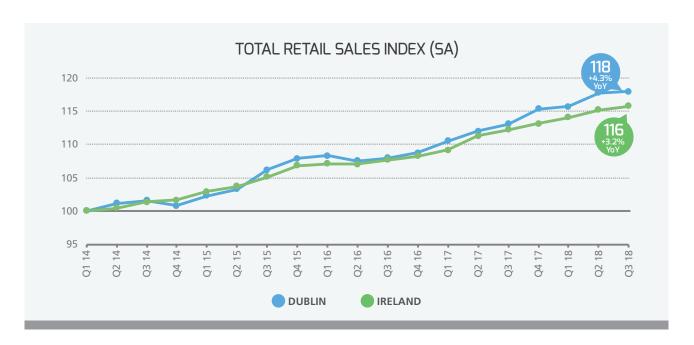












Total sales in the Dublin economy grew by 4.3% YoY (SA) in the third quarter of 2018. Retail Spend in Dublin continues to exceed that at a National (including Dublin) level with a YoY increase of 3.2% (SA) ex Dublin.

Both series continue to maintain a strong upward trend though data for Q3 2018 suggests a mild tapering in growth with sales in both Dublin and Nationally (including Dublin) registering QoQ growth of just 0.2% (SA) and 0.5% (SA) respectively. That being said, both indices are now at their highest levels since data collection began in Q1 2014.

"The autumn Mastercard SpendingPulse shows positive Q3 YoY retail spend growth for Ireland at 3.2% and Dublin at 4.3%. Growth has been driven by impressive sector performances including Entertainment with grew the strongest at 8% for Ireland and 11.7% for Dublin - its highest growth since Q2 2016. Tourism is another strong sector with 10.6% YoY growth Nationally and over 13% in Dublin - influenced by increasing numbers from the US, Germany, France and China."

Michael McNamara GLOBAL HEAD OF SPENDING PULSE, MASTERCARD



METHODOLOGY

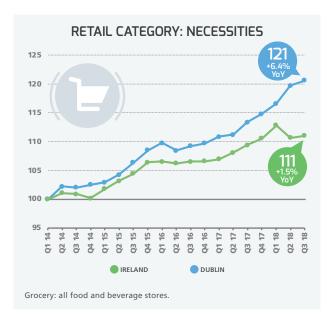
A macro-economic indicator, SpendingPulse™ reports on national and Dublin retail sales and is based on aggregate sales activity in the Mastercard payments network, coupled with estimates for all other payment forms, including cash and cheque. This information has been grossed up to present an estimate of the total retail sales of retail businesses in Ireland and Dublin to both residents and tourists. Data is seasonally adjusted but is not adjusted for inflation. Mastercard SpendingPulse™ does not represent Mastercard financial performance. SpendingPulse™ is provided by Mastercard Advisors, the professional services arm of Mastercard International Incorporated. See www.dublineconomy.ie for more info on methodology.

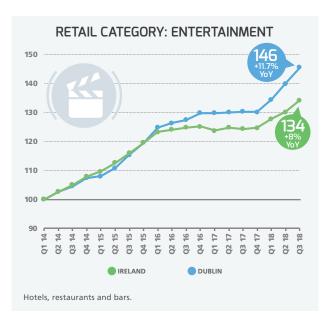
METHOD: ECOMMERCE <u>∞</u> 92 93 Non store Retailers including Electronic Shopping and Mail-Order Houses, Direct Selling Establishments

SPENDINGPULSE: SELECTED SUB-SECTORS

Dublin Consumer Spending in Q3 2018 was positively influenced by growth in all four of the sectors covered in the MasterCard SpendingPulse. Growth was particularly strong in Entertainment sales, increasing 11.7% YoY (SA) and 4.1% QoQ (SA). Spend on entertainment Nationally (including Dublin) was similarly strong (+8% YoY) and represented the fastest growing of the four sectors. Sales of household goods – which can be interpreted as a proxy for consumer confidence – grew marginally in Dublin (+0.7% QoQ) and declined Nationally (including Dublin) by 1.1% (SA). This echoes findings in the latest KBC/ESRI Consumer Sentiment Index regarding consumers' uncertainty regarding their future outlook. The use of eCommerce continues to grow, especially in Dublin where online sales increased by 9% YoY (SA) and Nationally (including Dublin) by 7.5% YoY (SA).





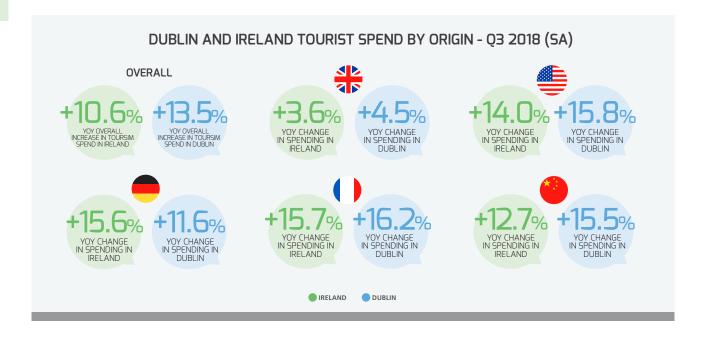




Growth in tourism expenditure in Dublin in Q3 2018 was largely driven by the US, French and Chinese markets. Overall YoY growth of 13.5% (SA) was recorded in the Capital, the highest rate of growth since Q1 2016. Expenditure by French tourists grew by 16.2% YoY (SA) while the US and China contributed 15.8% (SA) and 15.2% (SA) to overall growth respectively. Following six successive quarters of negative YoY growth in the Chinese market a rebound is currently underway with three consecutive quarters of double-digit growth now having been recorded. This is likely linked to the new non-stop direct flights operating between Hong Kong and Dublin. The UK market is also starting to show signs of recovery following five months of back-to-back negative YoY growth. In Q3 2018 the UK tourist market grew by 4.5% YoY (SA) following annual growth of

1.2% in Q2. On a quarterly basis the recovery is more evident with four straight quarters of QoQ growth in the market.

Nationally (including Dublin) tourism spend was up 10.6% YoY (SA) in Q3 2018, driven mainly by the French (+15.7%), German (+15.6%) and US (+14%) markets, while the growth in expenditure by Chinese tourists is marginally lower than that recorded in Dublin at 12.7% (SA). The rate of growth in UK tourist expenditure is lower Nationally (including Dublin) compared to Dublin though the market has recorded YoY growth for three consecutive quarters now, having previously exhibited a negative trend. The data presented for Q3 2018 suggests that UK tourists have regained confidence in overseas spending following an initial dip around the Brexit vote.









Internationally published benchmarks are a useful means of measuring a city's performance relative to its peers, and recent indicators for Dublin confirm the city's strong showing across a range of dimensions (see table below).

In August, the Economist Intelligence Unit ranked Dublin 41st in the Global Liveability Index. The city scored 90.7 out of a possible 100 meaning there are "few, if any challenges to living standards". Dublin's two place improvement, over the 2017 Index, sees the Capital overtake London (48th) and New York (57th) in the ranking.

Dublin's strong government-backed promotion, particularly towards US companies, has played a part in the city achieving 3rd place in the CBRE EMEA Tech Cities Index. Dublin's high ranking is linked to large and small tech companies expanding

and looking to secure accommodation in the city. CBRE Executive Director Paddy Conlon said of Dublin's ranking:

"More than 40% of overall office takeup in Dublin in the first half of 2018 was accounted for by tech occupiers, most of whom were expanding existing operations, which is indicative if their positive experience in the [...] capital."

Dublin meanwhile ranked 37th in the Global Financial Centres Index, down six places from the March Index, reflecting respondents' views of the city's future prospects and the likely impact from Brexit. New York has overtaken London as the world's most attractive financial centre, with London falling by eight points from six months ago, the biggest decline amongst the top countries. The drop reflects uncertainty around Brexit and

whether London will be able to trade with all other European financial centres once the exit occurs.

Dublin maintained its 7th place position in Tholons Services Globalization Index 2018. The Index, which focuses on innovation, startup ecosystem and digital transformation, had Bangalore, Mumbai, Delhi and Hyderabad (India) and Manila (Philippines) in the top five positions in both 2017 and 2018.

The QS Best Student Cities ranking places Dublin in 34th position, a three point fall on 2017. The city performed particularly badly for affordability, ranking 129th, with London faring better in 113th position. Dublin's strongest score was for student mix, which the index said reflected "its high concentration of students and high ratio of international students".

DUBLIN'S LATEST INTERNATIONAL RANKINGS				
SOURCE	BENCHMARK CRITERIA	YEAR	RANKING	CHANGE [†]
Tholons Services Globalization Index	Innovation, startup ecosystem and digital transformation	2018	7	-
The Economist Intelligence Unit Global Liveability Index	Stability, healthcare, culture & environment, education, infrastructure	2018	41	A
The Economist Intelligence Unit Worldwide Cost of Living 2018	Price comparison across 160 products and services	2018	19	▼
IESE Cities in Motion Index	Governance, urban planning, technology, the environment, international outreach, social cohesion, human capital, mobility and transportation, and economy	2018	30	A
Global Talent Competitiveness Index	Regulatory, market and business/labour landscape, external and internal openness, education and access to growth opportunities and, sustainability and lifestyle	2018	7	-
QS Best Student Cities	Desirability, employer activity, affordability, student view, student mix and university rankings	2018	34	▼
Mercer 2018 Cost of Living Survey	Cost of consumer goods and services	2018	32	▼
Mercer 2018 Quality of Living Survey	Environmental/socio-economic	2018	34	-
QS World University Rankings	University quality	2018	104*	▼
Global Financial Centres Index (GFCI)	Business environment, financial sector development, infrastructure, human capital, reputational & general factors; online survey	2018	37	•
WorldFirst European Buy-to-Let League	Property and rental prices	2017	1	-
fDi Intelligence Global Cities and Regions of the Future	Socio-economic indicators	2018	2	A
CBRE EMEA Tech Cities	Scale, extent of technology sector concentration and growth characteristics	2018	3	-

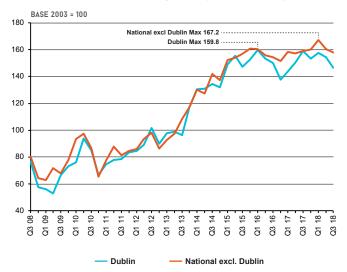
^{*} TCD. ‡CHANGE ON PREVIOUS PUBLICATION OF THE RELEVANT BENCHMARK. AN UPWARD-POINTING ARROW DENOTES AN IMPROVEMENT

CONSUMER SENTIMENT DECLINES FURTHER IN Q3 2018

CONSUMER SENTIMENT	DUBLIN	NATIONAL EXCL. DUBLIN
Q3 2018	146.6	158.0
YEAR ON YEAR CHANGE	-12.6	-1.0
QUARTER ON QUARTER CHANGE	-7.7	-2.4

The overall Dublin Consumer Sentiment Index decreased annually by 12.6 index points, and by 1.0 index points outside of Dublin. Although sentiment remains positive, recent declines signal a heightened sense of caution among consumers around future expectations. Outside Dublin, an improvement in current financial situations and a greater appetite for major household purchases meant the index fell only marginally.

DUBLIN SENTIMENT OVERALL

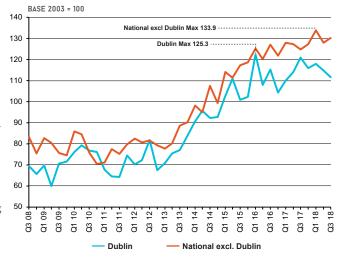


DUBLIN CONFIDENCE ON CURRENT CONDITIONS WEAKENS FURTHER

CURRENT CONDITIONS	DUBLIN	NATIONAL EXCL. DUBLIN
Q3 2018	111.6	130.3
YEAR ON YEAR CHANGE	-9.3	+5.4
QUARTER ON QUARTER CHANGE	-3.2	+2.3

The Index of Current Conditions in the Dublin region fell annually by 9.3 points in Q3 2018 while current conditions outside of Dublin improved by 5.4 points. This has widened the spread of sentiment between the two regions to its largest extent since 2009. A fall in demand for major household goods acted as the main driver of change in current conditions in Dublin while contributing positively to sentiment outside of Dublin.

DUBLIN CURRENT CONDITIONS

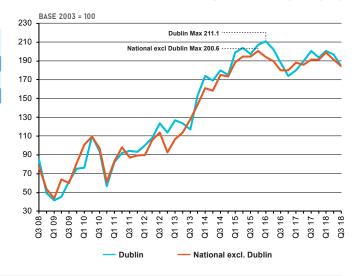


CONSUMER EXPECTATIONS SLIP FURTHER IN Q3 2018

CONSUMER EXPECTATIONS	DUBLIN	NATIONAL EXCL. DUBLIN
Q3 2018	184.4	184.5
YEAR ON YEAR CHANGE	-16.1	-7.1
QUARTER ON QUARTER CHANGE	-12.6	-6.8

The Consumer Expectations Index faltered in Q3 2018, falling annually in Dublin and outside Dublin by 16.1 and 7.1 points, respectively. Dublin's increased concerns focused mainly on financial situations in 12 months' time and the general economic outlook. Outside Dublin, concerns about the general economy and expected labour market performance experienced a significant decline. This marks the first annual decline in expectations since the period just after the Brexit referendum when five quarters of consecutive YoY losses were recorded.

DUBLIN EXPECTATIONS



ABOUT

The KBC/ESRI sentiment index is based on responses from consumers about general economic conditions and their household finances. A more detailed commentary is available at www.kbc.ie/blog

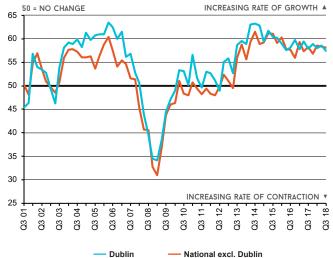


ACTIVITY IN DUBLIN RISES MARKEDLY AGAIN

OVERALL IHS MARKIT PMI	DUBLIN	NATIONAL EXCL. DUBLIN
Q3 2018	57.3	58.2
YEAR ON YEAR CHANGE	-0.5	-0.1
QUARTER ON QUARTER CHANGE	-1.2	-0.1

As has been the case on a quarterly basis throughout the past six years, Dublin's private sector output increased in the third quarter of 2018. The Dublin PMI posted 57.3 in Q3 and thereby signalled another sharp expansion of business activity. That said, the reading was down from 58.5 in Q2 and pointed to the weakest rise in output since Q2 2013. Growth of activity remained elevated in the construction sector. Meanwhile, marked increases were seen in manufacturing and services, albeit with rates of expansion softening.

OVERALL IHS MARKIT PMI (SA)

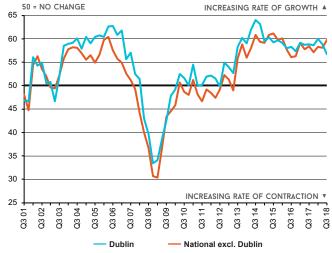


WEAKER EXPANSION OF NEW ORDERS

NEW ORDERS	DUBLIN	NATIONAL EXCL. DUBLIN
Q3 2018	56.7	59.8
YEAR ON YEAR CHANGE	-2.2	+1.4
QUARTER ON QUARTER CHANGE	-2.1	+1.7

Growth of business activity was supported by a further marked expansion of new business in Dublin during the third quarter. As was the case with output, the rate of expansion in new orders softened from Q2. The increase in new business was the slowest since Q2 2013. Meanwhile, the Rest of Ireland posted the fastest rise in new orders for two-and-a-half years.

OVERALL PMI NEW ORDERS (SA)

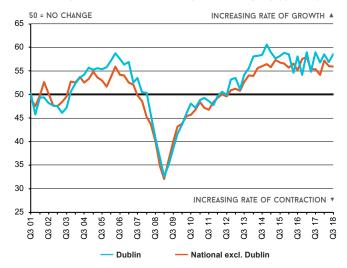


RATE OF JOB CREATION ACCELERATES

EMPLOYMENT GROWTH	DUBLIN	NATIONAL EXCL. DUBLIN
Q3 2018	58.7	55.9
YEAR ON YEAR CHANGE	-0.3	+0.5
QUARTER ON QUARTER CHANGE	+1.7	-0.2

In line with the trend in business activity, employment among companies in Dublin has increased on a quarterly basis throughout the past six years. Q3 signalled a substantial rise in staffing levels, sharpest seen in the last year. Jobs growth in Dublin outpaced that seen across the Rest of Ireland, where employment increased at a broadly similar pace to that seen in Q2.

OVERALL PMI EMPLOYMENT GROWTH (SA)



ABOUT

The Dublin Purchasing Managers' Index* (PMI) series is produced by IHS Markit Economics, an independent research company that produces highly-regarded surveys of business conditions in nations around the world www.markit.com







Climate change represents one of the largest threats to the National and Regional Economy. A new approach is needed to ensure that Ireland can feasibly reach our 2030 emission reduction targets.

The major problem for policy makers is that the costs of taking action today are not insignificant, while the huge long-term benefits for humanity of halting the progress of climate change will arise over future decades and centuries."

The major policy problems that face modern society are normally resolved by compromises involving many winners and some losers. However, climate change poses a rather different challenge. While we are all experiencing some of the effects of global warming, the consequences to date have not been that severe. However, if we fail to take action across the globe today, the situation will steadily deteriorate, with increasing costs and disruption for future generations.

The major problem for policy makers is that the costs of taking action today are not insignificant, while the huge long-term benefits for humanity of halting the progress of climate change will arise over future decades and centuries. This makes it difficult to build a coalition in support of action involving some costs, albeit limited, for us all. The voters who will gain the most from urgent action are not yet born, while many of us alive today will never experience the worst effects of climate change. Thus politicians must appeal to altruism, rather than our pockets, if we are to succeed in halting the climate juggernaut.

We have seen that in the Budget for 2019 the government shied away from implementing even a limited increase in the carbon tax, in spite of the fact that such a tax would be a vital building block for any policy platform to tackle climate change. Hopefully, next year will see action in this regard. A no-action scenario risks reputational damage, as the Taoiseach Leo Varadkar has admitted that Ireland is a 'climate laggard'.

The Climate Change Advisory Council (CCAC) is an independent body established by law to provide advice to government on how Ireland can best tackle the problem of climate change. In its Annual Review, the CCAC expressed serious concern that, due to the absence of a suitable policy response,



Irish greenhouse gas emissions are rising at an alarming rate, rather than falling as planned. While the target that Ireland has set itself requires long-term cuts in emissions of 80% by 2050, emissions in 2016 were rising rather than falling. An increase in greenhouse gas emissions is evident across all sectors, with the largest increases in energy industries, transport and agriculture.

Failing to meet our 2030 target for reducing emissions could be very costly. Ireland could face very significant penalties and, simultaneously, it would have to implement a huge catch-up programme of investment to tackle the problem.

The key area where climate change policy has been successful has been in the deployment of renewable electricity, principally derived from windmills. Research shows that up to at least 2012, while our electricity bills included a subsidy for renewable electricity, the resulting abundance of wind energy reduced the actual electricity price by more than the cost of the subsidy. This was a win for consumers and a win for climate policy. The task of policy-makers is to find and implement the easy wins as rapidly as possible before moving on to tackle some of the harder tasks.

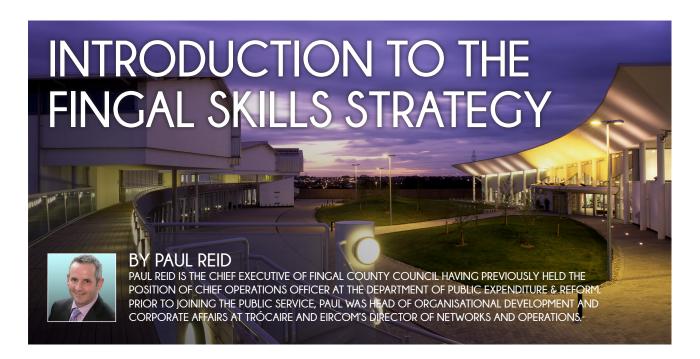
Local Authorities have a key role both in reducing emissions and also in preparing us for the growing disruption that the changing climate is bringing.

The State, through the Local Authorities, is Ireland's largest landlord. It is the task of all landlords to undertake major upgrades of their stock of dwellings so that the energy demands and greenhouse gas emissions from dwellings are almost eliminated. With a stock of over 100,000 dwellings, implementing the necessary investment in climate–proofing its housing stock will be a massive challenge for Local Authorities over the coming decades. The cost will amount to billions of euro at a time when there are many other challenges. Apart from the financial pressures that upgrading the social housing stock will pose, the logistical challenge will also be very significant.

The model of development pursued up to the crash was utterly unsustainable. Housing was spread out in low-density developments or dotted across rural areas, while the increase in employment was occurring in urban areas. The result was increasing congestion and a huge increase in emissions of greenhouse gases from transport.

As set out in the National Planning Framework, the future has to be different. The bulk of new dwellings to serve the population working in Ireland's cities needs to be built much closer to people's work place. This will simultaneously reduce congestion and reduce emissions of greenhouse gases. This model will also require substantial investment in public transport to get people to work rapidly in an environmentally sustainable manner.

The increasing frequency of extreme weather poses huge challenges for us all. However, the task of organising our response falls to Local Authorities. To undertake this task they will need all the help they can get, including the support of the newly established regional climate offices, as well as the financial resources to undertake the necessary investment.



Fingal County Council has recently undertaken an innovative research project, firstly forecasting the skills demand over the next seven years, and subsequently developing a strategy to meet it.

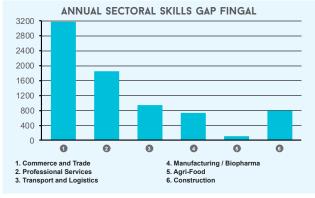
Fingal County Council (FCC) recognises that the availability of skilled workers, particularly in high value adding sectors, is key to maintaining competitiveness and attracting investment in to the County. At the other end of the spectrum, despite low unemployment rates, there are concentrations of people across the county who are significantly disengaged from the labour market. To this end, realising the need for a consolidated skills strategy for Fingal, FCC brought together leaders from education providers, the policy making sphere and academia to form a working group that has developed an innovative, county specific, skills strategy for Fingal.

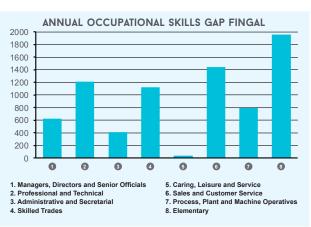
This has been a comprehensive exercise, first forecasting replacement and expansion demand over the next seven years, under three different growth scenarios, and subsequently mapping it against the supply-side pipeline to produce a 'labour market balance sheet' for the County.

Over the horizon, it is forecast that 94,000 vacancies will be filled in total, with 29% of these being new jobs resulting from increased investment. Approximately 53% of these jobs will be met by the current supply pipeline. However, the modelling conducted in this study estimates that each year, there will be a supply deficit of approximately 7,600 jobs. When disaggregating the results by individual sector, the greatest gap between supply and demand will be experienced by the commerce and trade (42% of latent demand) and professional services sectors respectively (24%).

The study also examines the occupational skills groups that will be most in demand. Within commerce and trade, the largest skills gap will be in elementary occupations (such as labourers, cleaners, porters, sorters etc), of which an additional 1,231 above the current supply pipeline will be demanded per annum. Within the professional services sector, the skills that will be most in demand are those within the professional and technical occupations and administrative and secretarial occupational groupings. Across all sectors, the largest demand will be for elementary occupations (26% of latent demand), sales and customer services (19%) and professional and technical occupations (16%).

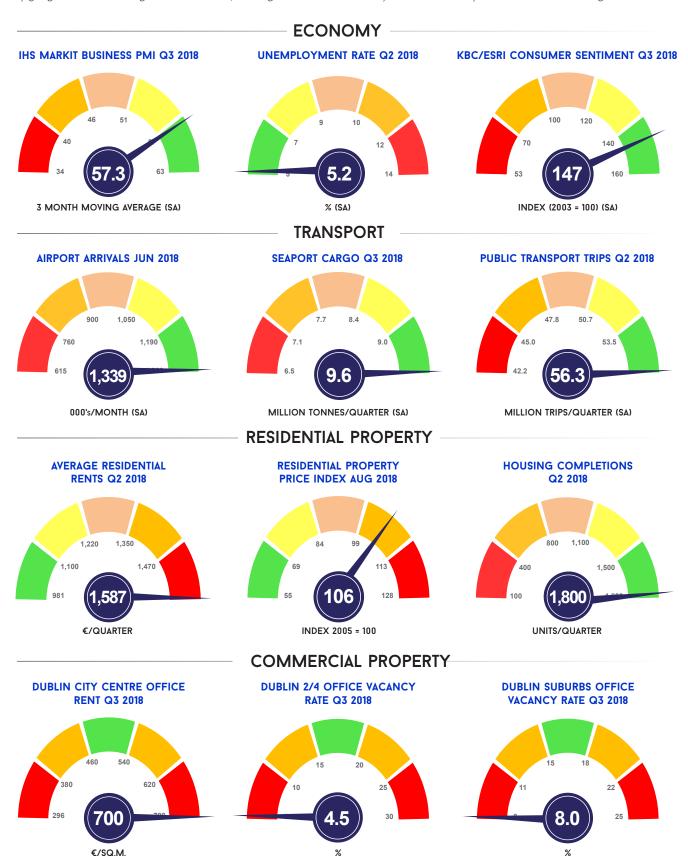
When looking at the analysis, it is encouraging that a strong mix of both high and low skilled jobs will be created in Fingal over the coming seven years, proving employment opportunity for almost everyone across the County. Nonetheless, addressing the skills gap as estimated in the Strategy will require a proactive approach by FCC, education providers, industry and central government. The strategy contains a series of specific, targeted actions, committed to by stakeholders, which are designed to close the skills gap that will otherwise emerge over the coming seven years.





DUBLIN: ECONOMIC SCORECARD NOV 2018

Note: These "petrol gauge" charts present the performance of the particular indicator relative to a range of performances from most positive (green) to least positive (red). Each gauge presents the latest value compared to the peak value and the trough value over the last decade (except for public transport trips which cover the past 5 years and housing completions which cover the past 6 years). The Commercial Property gauges are red at the high and low extremes, in recognition of the undesirability of rents or vacancy rates that are either too high or too low.



SOURCES: CSO, EXCEPT CONSUMER SENTIMENT KBC/ESRI: PMI MARKIT; SEAPORT CARGO DUBLIN PORT; PUBLIC TRANSPORT NTA; RESIDENTIAL RENTS PRTB; COMMERCIAL PROPERTY CBRE RESEARCH

