Affordability in the private housing market
in Northern Ireland, 2018

Housing Executive

As part of its programme of research into the housing market in Northern Ireland, the Housing Executive commissioned Ulster University to carry out analysis of affordability in the private (owner occupied) housing market in the region on an annual basis. The research uses data from the Quarterly House Price Index to provide indicators of trends in repayment and deposit affordability in 11 sub-regional housing markets across Northern Ireland.

The most recent analysis was undertaken for 2018. It indicated that:

- Overall, on the basis of **repayment indicators**, affordability decreased in Northern Ireland during 2018, revealing changing market conditions by comparison with the 2015-2017 period.
- On the basis of **deposit indicators**, affordability further deteriorated between 2017 and 2018; this could worsen into 2019 if house prices continue to rise.
- Taking account of **both repayment and deposit indicators**, there was a deterioration in affordability across all dimensions measured between 2017 and 2018. While there was spatial variation in the degree of deterioration, the situation worsened in nine of the eleven housing market areas.
- Key market signals suggest that affordability will continue to deteriorate across the region in 2019.

Background

The Housing Executive first commissioned an affordability index in the early 2000s with the aim of:

- Measuring change in the affordability of homes in Northern Ireland over time; and
- Highlighting geographical differences in affordability at district council level.

The focus of the index was on median income households' ability to purchase a home. It was based on assumptions about typical interest rates, loan-to-value ratios and repayment periods. It was updated on a number of occasions to reflect the prevailing market conditions, and charted the deteriorating level of affordability during Northern Ireland's housing market bubble. By 2008, the 'affordability gap' – the shortfall in median income households' ability to service the payments on an affordable home – had reached £53,122 for Northern Ireland as a whole. However, using the same measure, the situation had changed significantly by 2010. The reduction in average house prices and increase in median incomes meant that, using this measure, there was no longer a shortfall in ability to service mortgage repayments.

Updating the affordability measure

As average house prices decreased from 2010 onwards, simple measures based on house prices and income would have suggested that affordability should have continued to improve. However, it was clear that first time buyers' ability to access the housing market remained problematic due to the requirement for higher deposits. Furthermore, changes in mortgage interest rates indicated that the banking system was becoming detached from base interest movements (i.e. the Bank of England base rate) and moving towards a minimum bank mortgage base rate.

In order to better reflect the complex range of factors influencing first time buyers' ability to purchase a home, the Housing Executive therefore asked Ulster University to revisit the affordability measure in 2012. Seeking to take account of both repayment and access affordability, the University developed two related measures of housing market affordability in Northern Ireland:

1. A **repayment affordability** index, highlighting the level of *unaffordable stock*, based on dwellings sold in each housing market area; and
2. Analysis of **access gap** issues in relation to *deposit requirements*.

Methodology

The new methodology developed by Ulster University for the Housing Executive measures **repayment affordability** using an *affordable limit* concept. This approach captures the maximum allowable loan-to-income ratio, using an upper limit threshold premised on the maximum monthly income that can be dedicated to mortgage payments (30-35%). The measure encompasses the mortgage term, mortgage interest rate and the level of deposit required up-front, and permits a robust estimate of *the percentage of housing stock that is unaffordable relative to the average house price in each housing market area*.

The **access deposit gap** measures the level of deposit required using the first quartile (25th percentile) house price and income[1] adjusted to reflect overall net (disposable) household income after tax deductions and National Insurance. The measure permits the development of a **savings ratio** to determine the length of time it would take to amass a deposit, based on: current market prices; a requirement for a 10 per cent deposit (90% loan-to-value); and the annual *median household income* of prospective home owners, who are assumed to save 30 per cent of income towards the deposit.

Findings

Figures have been calculated using the updated methodology for each year from 2010 to 2018. The first half of this period – the trough in the property cycle – was characterised by thin markets and slow recovery, and the spatial patterns and trends at that time need to be viewed in the context of weak and highly variable market conditions. The level of activity has subsequently increased, and housing market dynamics are more in line with longer term trends. By the final quarter of 2018 there were some indications of stable price increases throughout the housing market but income levels continued to be relatively constrained. While one of the features of the Northern Ireland housing market since the financial crisis had been improving levels of affordability, largely due to the major correction in house prices, the analysis indicates that affordability deteriorated between 2017 and 2018. This report analyses repayment and access affordability using the latest annual figures for 2018.

Repayment affordability

Table 1 and Figure 1 (page 4) show that in recent years repayment affordability, on a simple house price-to-income measure, has not presented significant problems in most areas of Northern Ireland. Based on the current methodology, only the Belfast market had a negative affordability gap in 2015 and 2016, indicating a shortfall in households' ability to service the payments on an affordable (lower-quartile priced) home.

Thereafter, positive affordability gaps have been recorded in all areas, indicating that servicing the mortgage on an affordable home was, to a greater or lesser degree, within the capacity of a median income household. Nonetheless, recent statistics for 2018 show that whilst remaining positive, the affordability gap reduced across all areas, reflecting house price movements and income trends over the last year.

In 2017, *access* affordability varied within Northern Ireland, as a consequence of the unevenness of house prices and house price change across the 11 market areas used in the analysis. In 2018, the picture was similar; most market areas had relatively comfortable affordability gaps, in terms of borrowing capacity. However, the scale of the gap (where a larger figure represents a more affordable market) varied widely, and Belfast was again the least affordable market, based on this measure.

The slight erosion of the access affordability metrics can also be seen in the Affordable Limit factor for Northern Ireland (see page 2 for more information on this concept) which decreased nominally, from 5.65 in 2017 to 5.49 in 2018, reflecting the realignment of first time buyer interest rates as a result of the movement in the Bank of England (BoE) base rate changes in November 2017. This marginal change resulted in a slight decrease in the maximum ability to borrow, and slightly eroded first time buyer repayment affordability.

[1] The income figures used in this analysis are drawn from the Northern Ireland House Condition Survey and the Northern Ireland Family Resources Survey.

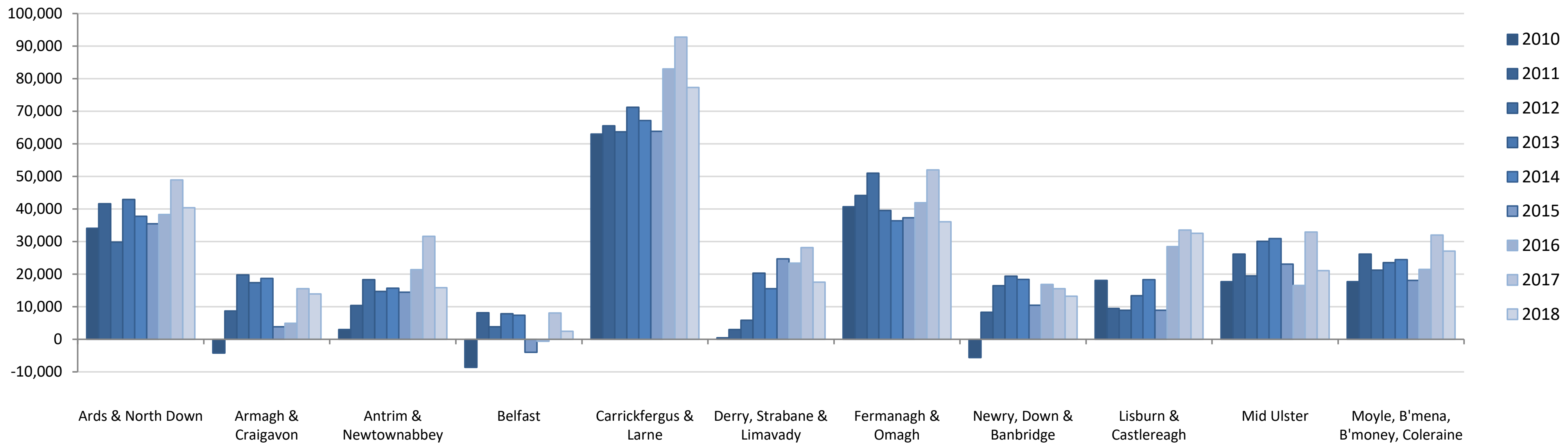
Table 1: Repayment affordability by Area, 2010-2018

Area	2010		2011		2012		2013		2014		2015		2016		2017		2018	
	AG (£)	% Un	AG (£)	% Un	AG (£)	% Un	AG (£)	% Un	AG (£)	% Un	AG (£)	% Un	AG (£)	% Un	AG (£)	% Un	AG(£)	% Un
Ards/North Down	34,089	47	41,609	45	29,821	58	42,860	46	37,717	52	35,411	51	38,620	49	48,897	41	40,331	45
Armagh/Craigavon	-4,228	77	8,634	69	19,739	58	17,358	55	18,657	57	3,812	73	4,909	71	15,518	65	13,899	64
Antrim/ Newtownabbey	2,960	73	10,378	70	18,277	66	14,633	63	15,706	59	14,425	63	21,329	58	31,609	53	15,830	61
Belfast	-8,629	78	8,167	69	3,820	73	7,817	68	7,400	67	-4,012	77	-601	75	8,072	71	2,444	73
Carrick/ Larne	62,951	24	65,505	23	63,691	25	71,181	27	67,140	25	63,848	33	82,935	23	92,751	25	77,249	29
Derry/ Strabane/Limavady	435	73	2,987	72	5,832	68	20,281	60	15,524	68	24,661	52	23,385	50	28,166	52	17,505	65
Fermanagh/Omagh	40,667	46	44,101	47	50,949	27	39,538	38	36,342	38	37,309	52	41,927	43	51,957	35	36,081	39
Newry/ Down/Banbridge	-5,602	79	8,274	71	16,408	63	19,356	59	18,370	62	10,437	71	16,860	66	15,553	58	13,236	63
Lisburn/Castlereagh	18,061	61	9,410	66	8,920	69	13,351	66	18,321	63	8,937	69	28,470	58	33,547	53	32,532	50
Mid Ulster	17,667	51	26,101	62	19,461	58	30,038	45	30,867	45	23,059	55	16,552	58	32,907	40	21,031	55
Moyle/Bmena/Bmoney/Craine	17,667	55	26,151	58	21,199	57	23,538	51	24,467	53	18,084	60	21,427	54	31,957	45	27,031	48

AG: Affordability Gap
% Un: % Unaffordable

Figure 1: Affordability Gap by Housing Market Area (£), 2010-2018

*The greater the **positive** figure, the greater the borrowing capacity beyond the lower quartile house price*



The changes in the BoE base rate, coupled with overall house price increases over the course of 2018, have impacted on the affordability gap. Whilst the affordability gap remains positive across all markets, the continued rate of house price inflation combined with the potential for further interest rate changes, poses mounting challenges moving forward into 2019. Indeed, this is already apparent across a number of market areas, which have seen sizeable erosion of their affordability gap. In 2018 the Belfast market showed a gap of £2,444, which had decreased from £8,072 in 2017. Any further changes in house prices or borrowing rates will almost certainly push this into negative territory. Similarly, the affordability gap in Antrim and Newtownabbey halved from £31,609 to £15,830 between 2017 and 2018, and Mid-Ulster and Fermanagh and Omagh also showed marked decreases from 2017 figures (£32,907 to £21,031 and £51,957 to £36,081 respectively). Although the affordability gap did not decrease to such an extent across all areas, there was an overall trend of waning affordability; the variations in the scale of the affordability gap simply continue to reflect the differences in income profiles and the nature of house price behaviour across areas.

The ***percentage unaffordable*** indicator shows the percentage of properties selling within a given market at prices above the maximum borrowing capacity (based on median household income). As with the affordability gap measure, the percentage unaffordable indictor also eroded between 2017 and 2018: the proportion of the stock on the market that was deemed unaffordable increased in nine of the 11 housing market areas. Only two areas – Armagh & Craigavon and Lisburn & Castlereagh – showed a slight decrease (one and 3 percentage points respectively) in the proportion of stock deemed unaffordable according to this indicator between 2017 and 2018, while in all other areas the proportion of stock deemed unaffordable **increased by** between two (Belfast) and fifteen (Mid Ulster) percentage points.

Table 1 shows that the overall proportion of stock on the market deemed unaffordable varied considerably across Northern Ireland. The Carrickfergus and Larne market area remained the most affordable in 2018 in terms of market stock, with 29% being above the maximum borrowing capacity, while the Belfast market remained the most unaffordable (73%). Whilst these markets were relatively similar in terms of price structure, the difference in unaffordability was a consequence of much lower income profiles in the Belfast area compared with the Carrickfergus and Larne market area. The most notable decreases in the level of affordable stock on the market in 2018 were in the Derry/Strabane/Limavady and Mid-Ulster areas, where the proportion of properties sold that were unaffordable increased from 40% to 55% and from 52% to 65% respectively between 2017 and 2018. This meant that only the Belfast area had less affordable housing on the market than the Derry/Strabane/Limavady region. Overall, the average decrease in affordable stock amounted to 4.9% across the housing market areas, signalling a general deterioration in the level of affordable stock on the market.

Overall, the figures indicate that, on the basis of **repayment indicators**, affordability **worsened** in Northern Ireland during 2018, revealing changing market conditions by comparison with the 2015-2017 period.

The Deposit Gap

Measuring the proportion of annual income required as a 10 per cent deposit – and the length of time it would take households to save this amount of money – provides further insights into the accessibility of owner occupation for prospective buyers. Assuming that households saving for a deposit on a home could set aside 30 per cent of their annual disposable income for this purpose, Table 2 and Figure 2 show that the proportion of annual income required as a deposit decreased in all areas of Northern Ireland between 2011 and 2013, reflecting the drop in average house prices during the period, with increases evident from 2013 onwards.

The most recent analysis for 2018 indicates that both the proportion of annual income required for a deposit, and the length of time that it would take to save this amount, increased in eight of Northern Ireland's eleven housing market areas between 2017 and 2018 and were appreciably higher, reflecting short-term trends.

In 2018 deposit requirements were lowest in the Carrick market area, equating to 29.2% of annual income, while the deposit requirement as a proportion of annual income was highest in the Belfast market (53.6%). Across all market areas the average percentage of income needed for a deposit equated to 44.5%. Overall, the figures show that the proportion of average income required as a deposit continued to increase during 2018, suggesting that the affordability challenge facing prospective home-buyers remains focused on having sufficient resources for a deposit to access the mainstream housing market (Table 2 and Figure 2).

Table 2: The affordability deposit gap, 2010-2018

Area	2010		2011		2012		2013		2014		2015		2016		2017		2018	
	%	Y	%	Y	%	Y	%	Y	%	Y	%	Y	%	Y	%	Y	%	Y
Ards/North Down	44.8	1.49	38.8	1.29	37.9	1.26	33.1	1.10	35.6	1.19	36.0	1.20	38.8	1.29	39.9	1.33	41.6	1.36
Armagh/Craigavon	60.7	2.02	49.6	1.65	37.2	1.24	38.9	1.30	38.6	1.29	46.4	1.55	49.4	1.65	48.1	1.60	47.6	1.59
Antrim/Newtownabbey	56.5	1.88	49.5	1.65	39.7	1.32	41.8	1.39	41.6	1.39	41.5	1.38	42.0	1.40	41.8	1.39	47.8	1.59
Belfast	63.8	2.13	49.6	1.65	47.0	1.57	44.4	1.48	44.9	1.50	50.9	1.70	52.5	1.75	51.8	1.73	53.6	1.79
Carrick/Larne	33.5	1.12	29.4	0.98	24.6	0.82	22.2	0.74	24.7	0.82	25.9	0.86	23.3	0.78	24.9	0.83	29.2	0.97
Derry/Strabane/Limavady	57.8	1.93	53.1	1.77	45.8	1.53	37.0	1.23	40.3	1.34	34.5	1.15	39.1	1.30	41.1	1.37	45.6	1.52
Fermanagh/Omagh	38.8	1.29	34.1	1.14	25.3	0.84	31.1	1.04	33.3	1.11	32.5	1.08	34.5	1.15	35.0	1.17	40.4	1.35
Newry/Down/Banbridge	61.0	2.03	50.8	1.69	41.1	1.37	40.0	1.33	40.7	1.36	43.7	1.46	44.5	1.49	49.6	1.65	49.3	1.64
Lisburn/Castlereagh	50.7	1.69	51.2	1.70	45.8	1.53	44.1	1.47	42.4	1.41	45.2	1.51	41.8	1.39	44.5	1.48	43.6	1.45
Mid Ulster	49.8	1.66	42.6	1.42	40.3	1.34	35.5	1.18	35.7	1.19	38.6	1.29	45.2	1.51	42.9	1.43	46.5	1.55
Moyle/Ballymena/Ballymoney/Coleraine	49.8	1.66	42.6	1.42	39.4	1.31	38.6	1.28	38.6	1.29	40.8	1.36	43.1	1.44	43.3	1.44	44.1	1.47

%: proportion of annual income required as a deposit
Y: Years to save this amount

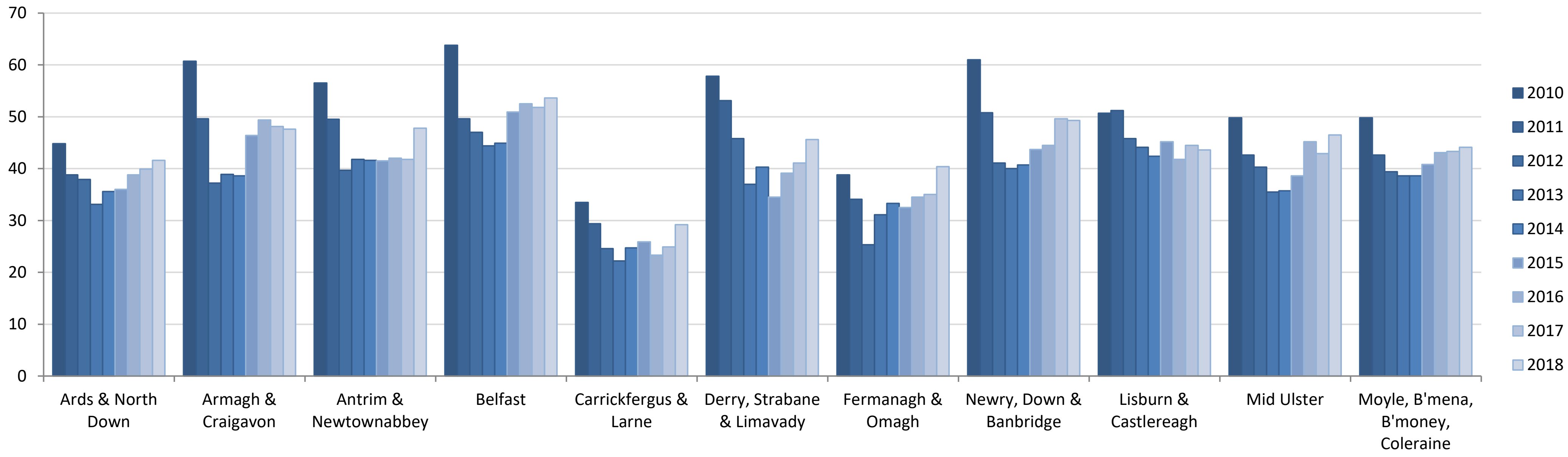
Both the proportion of annual disposable income required as a deposit, and the length of time required to save this amount, have generally increased since 2013.

- Between 2017 and 2018, the greatest increase in the proportion of annual income required as a deposit was in the Antrim/Newtownabbey area (six percentage points). This was followed closely by Fermanagh/Omagh, Derry/Strabane/Limavady and Carrick/Larne which showed increases of 5.4 percentage points, 4.5 percentage points and 4.3 percentage points respectively.
- On the other hand, the proportion of annual disposable income required as a deposit *decreased* marginally between 2017 and 2018 in Lisburn and Castlereagh (-0.9 percentage points), Armagh/Craigavon (-0.5 percentage points) and Newry, Down and Banbridge (-0.3 percentage points).
- There was similar variation in the savings ratio (number of years required to save the necessary deposit), which increased again between 2017 and 2018 in the majority of market areas. Not surprisingly, the period of time required to save a 10 per cent deposit was longest in

Belfast (1.79 years, up slightly from 1.73 years in 2017). Other locations with a relatively high savings ratio in 2018 were Newry, Down and Banbridge (1.64 years), and Armagh and Craigavon and Antrim and Newtownabbey (both 1.59 years). The greatest increase in the duration of time needed to save the necessary deposit was in Antrim and Newtownabbey (1.39 years in 2017, rising to 1.59 in 2018).

- While the Carrick/Larne housing market remained the most accessible in terms of deposit requirements, the proportion of income and time needed to save the necessary deposit increased between 2017 and 2018. In 2017, prospective purchasers on a median income needed to save around a quarter (25%) of their annual income over a period of less than a year for the deposit on an affordable home, but the proportion increased to 29% in 2018.

Figure 2: Percentage of annual disposable income required as a deposit, 2010-2018



On the basis of **deposit indicators**, affordability further **deteriorated** over the period 2017 and 2018. There appear to be challenging signals that this could worsen into 2019, as house prices continue to rise.

Composite affordability indicator: the 'multiplier weighting ratio'

Finally, the Ulster University team produced a single, relative measure of affordability by using the savings ratio to weight the proportion of homes unaffordable, producing a 'multiplier weighting ratio' for each market area to take account of both repayment and deposit issues: *the higher the ratio, the greater the overall affordability problem*. The results for 2013 to 2018 are set out in Table 3 and Figure 3, which illustrate the complexity of affordability indicators and the extent of variation over time and across the housing market areas in Northern Ireland.

On the basis of this measure, the most recent analysis indicates that:

- There has been a near uniform decline in the level of affordability across Northern Ireland, with only two market areas (Armagh and Craigavon and Lisburn and Castlereagh) showing improvements and all other market areas showing sizeable decreases in affordability levels. Carrickfergus and Larne remained, by a significant extent, the most affordable housing market area in the region in 2018.
- The most prominent decreases in affordability between 2017 and 2018 – represented by the degree of negative variation in the final column of Table 3 – were in the Mid Ulster
- (-0.2804), Derry, Strabane and Limavady (-0.2771) and Antrim and Newtownabbey (-0.2338) market areas.
- The Belfast market remained relatively unchanged on this composite measure between 2017 and 2018, showing effectively a -7.87 percentage point decrease in affordability and remaining the least affordable market in Northern Ireland.
- The findings show persistent challenges in the market, which reflect the more precarious interest rate environment, ongoing house price increases and the limited supply of affordable stock, and which do not point towards positive signals moving forward.

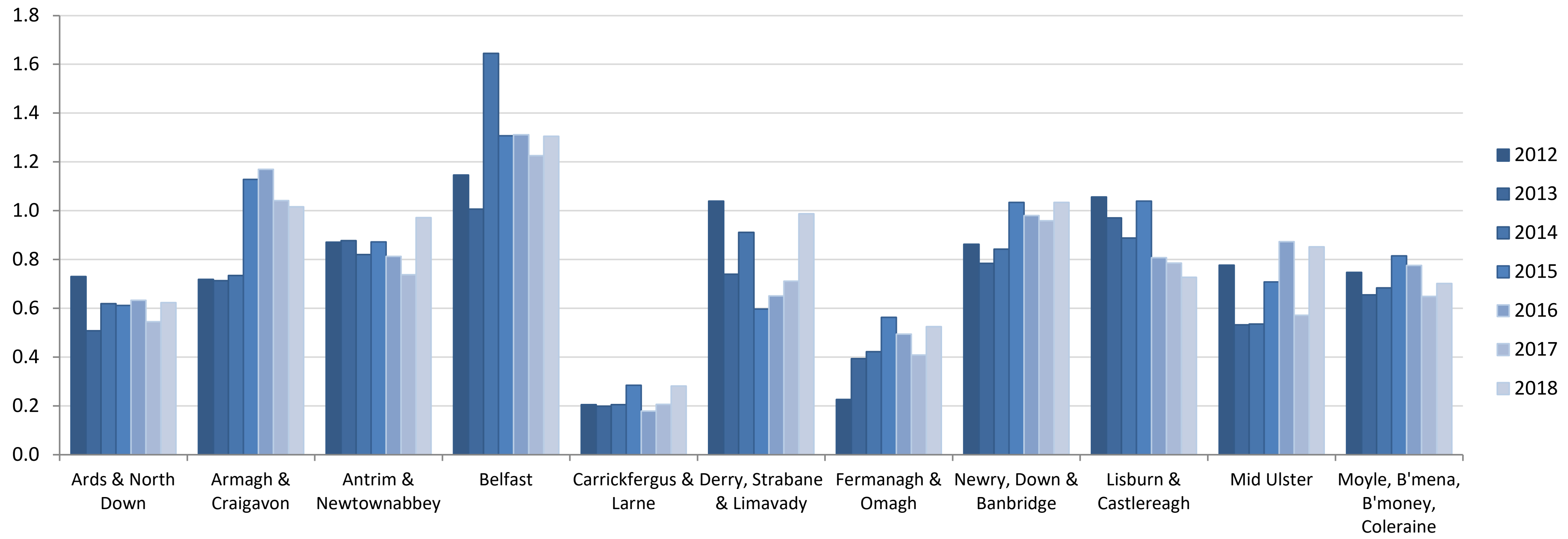
Table 3: Composite affordability indicator – the multiplier weighting ratio, 2012-2018

	Multiplier weighting ratio							Variation
Housing Market Area	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2017-2018***
Ards/North Down	0.731	0.508	0.619	0.612	0.633	0.545	0.624	-0.0787
Armagh/Craigavon	0.719	0.714	0.735	1.128	1.170	1.042	1.016	0.0257
Antrim/Newtownabbey	0.871	0.878	0.820	0.872	0.813	0.738	0.972	-0.2338
Belfast	1.146	1.007	1.645	1.307	1.312	1.226	1.305	-0.0787
Carrickfergus/Larne	0.205	0.199	0.205	0.285	0.179	0.207	0.282	-0.0752
Derry/Strabane/Limavady	1.04	0.74	0.911	0.597	0.651	0.711	0.988	-0.2771
Fermanagh/Omagh	0.227	0.394	0.422	0.563	0.494	0.409	0.525	-0.1163
Newry/Down/Banbridge	0.863	0.784	0.843	1.034	0.980	0.959	1.034	-0.0755
Lisburn/Castlereagh	1.056	0.971	0.888	1.040	0.808	0.786	0.727	0.0587
Mid Ulster	0.777	0.533	0.536	0.708	0.873	0.572	0.852	-0.2804
Moyle/Ballymena/Ballymoney/Coleraine	0.747	0.655	0.684	0.815	0.776	0.649	0.702	-0.0561

** A negative figure denotes a **deterioration in the level of affordability**, based on this indicator*

Figure 3: Composite affordability indicator: the multiplier weighting ratio, 2012-2018

[The higher the ratio, the greater the overall affordability problem]



Taking account of both repayment and deposit indicators, affordability generally decreased across the Northern Ireland housing market and, importantly, across all dimensions measured, during 2018. Key market signals suggest that affordability will continue to deteriorate across the region into 2019.

*For more information on **house prices** and trends in the **private rental** market, visit the **Research** section of the **Housing Executive website***