

Article

Housing in construction output statistics, Great Britain: 2010 to 2019

Housing sector overview using our construction output estimates, including the differences in public and private sector housing and the size and geographical location of firms in the industry.

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1 . Main points

- Total housing output has experienced strong growth since 2013, driven by growth in private new housing.
- There has been a divergence in the growth of different types of construction housing output in 2019; the smaller public new housing series has seen strong growth in comparison with a slowing of growth in the larger private new housing series.
- For the larger employment firms (that is, those with 100 or greater employment or an annual turnover greater than £60million), these make up approximately 50% of public new housing compared with 40% in private new housing in Quarter 3 (July to Sept) 2019.
- For the smaller employment firms (that is, those with 0 to 19 employment), these make up approximately 40% of private new housing output compared with 30% of public new housing output in Quarter 3 2019.
- On a sub-national basis, in Quarter 3 2019 we see London as the top region for both public (£382 million) and private new housing (£2,249 million), but the percentage share of both these sectors has decreased over the last two years.
- In private new housing, other countries and regions that have performed strongly in recent quarters are the North West and the South East; this is shown with current quarter-on-quarter a year earlier growth in Quarter 3 2019 9.5% and 8.1% respectively.
- In public new housing, other countries and regions that have performed strongly in recent quarters are Scotland and the East of England; this is shown with current quarter-on-quarter a year earlier growth in Quarter 3 2019 being 19.6% and 55.2% respectively.

2 . Measuring the housing sector in ONS construction output estimates

Construction output is defined as the amount chargeable to customers for building and civil engineering work done in the period excluding Value Added Tax (VAT) and payments to subcontractors with a Great Britain coverage. [Construction output data for Northern Ireland](#) are available. These data then have Office for National Statistics (ONS) statistical processes applied to them, which mean chained volume measure, seasonally adjusted estimates can be calculated. These data are used as the construction element within the compilation of the [output approach to gross domestic product \(GDP\)](#).

The chained volume data published in the release and used in this article are not the number of houses built. The data are the value of work, or construction output, deflated by the [construction output price indices](#), to remove the effect of changes in prices. These are then published on either a seasonally or non-seasonally adjusted periodicity on a monthly, quarterly or annual periodicity.

The treatment of subcontractors in the survey can sometimes be problematic for contributors. We ask to exclude payments to subcontractors to avoid double-counting, as we would not want to capture the same amount of construction output for the main contractor and subcontractor if both are sampled in a reference period.

Using this definition of output, construction work in the housing sector can be split between "new housing" and "repair and maintenance" (Table 1), with a further split provided for both categories by "public" and "private" activity (Table 2).

Table 1: Definitions of new work and repair and maintenance

New Work

This includes:

- new construction work
- demolition
- site preparation

This excludes:

- repair and maintenance
- housing improvements
- major alterations to existing properties
- extensions to existing properties

Repair and maintenance

This includes:

- repair and maintenance
- housing improvements
- major alterations
- conversions (for example, house to multiple flats)
- extensions
- redecoration

This excludes:

- new construction work
- demolition
- site preparation

Source: Office for National Statistics – Construction output and employment, output in the construction industry

Table 2: Definitions of public and private housing

Private new housing

All privately owned buildings owned by either organisations or individuals for residential use.

This includes:

- houses
- flats
- maisonettes
- bungalows
- cottages
- vicarages

This category also includes the provision of services to new housing private developments (that is, roads, gas, water, electricity and sewerage).

Public new housing

Work carried out for the public sector. Examples of public sector clients include housing associations, public authorities, government departments and nationalised industries.

Examples of the type of this work include:

- local authority housing schemes
- hostels
- married quarters for services and police
- care homes

This category also includes the provision of services to new housing public developments (that is, roads, gas, water, electricity and sewerage).

Source: Office for National Statistics – Construction output and employment, output in the construction industry

Notes

1. The definitions of public and private new housing activity will be reviewed as part of the economic statistics transformation programme. [Back to table](#)

One area that is often thought to be considered housing output is student accommodation. Based on the [definitions of type of construction work \(PDF, 76KB\)](#), these may be classified to private commercial new work if privately funded or public other new work if publicly funded.

The breakdowns described in Tables 1 and 2 are used in the [Construction output in Great Britain](#) releases. In practice, the allocation of the data to the categories we require can sometimes be difficult for contributors to provide. This is illustrated with the often-blurred boundaries between the different types of work, typical of the construction industry.

For example, in some cases it can be difficult for contributors to accurately assign the value of work in a reference period to the public and private sector within housing. This may be because the contributor does not always know the final client for whom they are conducting work. Sometimes, even if they know the final client, the boundary between publicly and privately funded activity can sometimes be difficult to distinguish. Another area within housing where caution should be used is the boundary between new work and repair and maintenance. One example specific to housing is the treatment of major alterations, conversions and extensions and its classification to the repair and maintenance sector. Sometimes, businesses will see this as new work, particularly if this also happens to be a new project for a period.

In our data collection, every effort is made through validation and re-contacting the business to quality assure business returns. While these might lead to discrepancies at the lower type of work level, the overall amount of construction output returned is not impacted, only the breakdown of the overall total.

For further information on the methods used in processing this data, please see the [Construction output Quality and Methodology Information \(QMI\) report](#). This covers strengths and limitations of construction output data, recent improvements to the survey, quality characteristics and statistical methods used to produce these data.

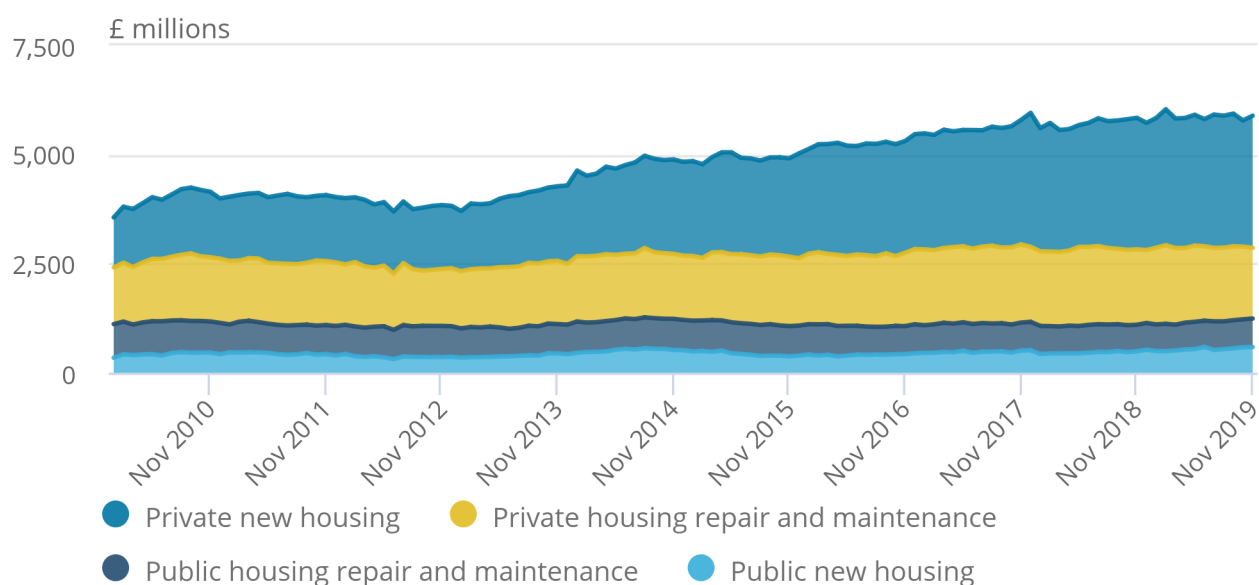
3 . Current construction output data on housing in 2019

Figure 1: Private new housing output has driven growth in the housing sector since 2013

Chained volume measure, seasonally adjusted, Great Britain, January 2010 to November 2019

Figure 1: Private new housing output has driven growth in the housing sector since 2013

Chained volume measure, seasonally adjusted, Great Britain, January 2010 to November 2019



Source: Office for National Statistics – Construction output and employment, output in the construction industry (Table 2a)

Based on the latest data, published in [Construction output in Great Britain: November 2019](#) on 13 January 2020, private new housing continues to be the largest contributor to the housing sector. This series has driven the growth since the start of 2013 in the total housing series overall (Figure 1). This is shown by total housing output in November 2019 increasing by 58.9% since January 2013. Private new housing accounted for over three-quarters of this increase.

As a percentage of total construction output, total housing output (including both new work and repair and maintenance of both public and private housing) has remained reasonably stable since the monthly series began in January 2010 and currently accounts for just over 40% of the overall industry.

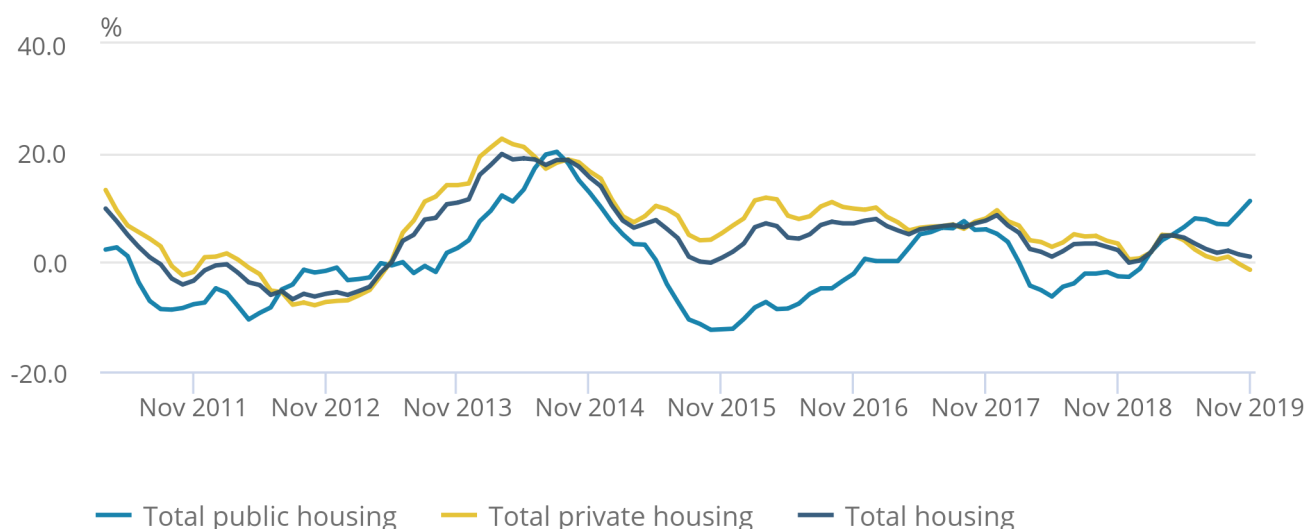
Looking at the latest housing output data, there has been a distinction in recent growth within the housing sector in 2019 (Figure 2).

Figure 2: Since April 2019, public housing growth has continually outstripped growth in private housing growth in the three-month on three-month a year earlier series

Three-month on three-month year earlier growth rates, chained volume measure, seasonally adjusted, Great Britain, March 2011 to November 2019

Figure 2: Since April 2019, public housing growth has continually outstripped growth in private housing growth in the three-month on three-month a year earlier series

Three-month on three-month year earlier growth rates, chained volume measure, seasonally adjusted, Great Britain, March 2011 to November 2019



Source: Office for National Statistics – Construction output and employment, output in the construction industry (Table 3d)

Notes:

1. Total public housing is the sum of both public new housing and public housing repair and maintenance output.
2. Total private housing is the sum of both private new housing and private housing repair and maintenance output.

From April 2019, total public housing has experienced strong and sustained growth rates in comparison with weakening of growth in total private housing (Figure 2). This is unusual when looking back since when the monthly series started in January 2010. Previously, when we have seen strong growth in total public housing, it is usually the case that similar levels of growth in total private housing are also present. The divergence in three-month on three-month a year earlier growth between the two series has never been as large in favour of public new housing.

4 . Size of the construction firms working in the new housing sector

The construction industry is comprised of many differently sized businesses across Great Britain. Our sample is taken from firms' businesses classified to the construction industry ([UK Standard Industrial Classification 2007 \(SIC 2007\)](#) Section F excluding 41.1 - development of building projects) and size of firm based on employment. This section looks at the housing sector broken down by size of firm.

For comparison to the overall economy, the higher percentage of smaller employment firms classified to the construction sector is an important characteristic to note and can be challenging when trying to survey and validate data. For example, in the 0 to 4 employment size band, these firms make up 85.1% of the construction industry, in comparison with 78.2% for the overall economy.

Table 3: Smaller employment firms make up a larger share of construction, compared with the overall economy
Size of enterprises and percentage share, UK, 2019

Industry	Employment size band							Total
	0 to 4	5 to 9	10 to 19	20 to 49	50 to 99	100 to 249	250+	
Construction (excluding 41.1) – percentage share	85.1%	9.0%	3.6%	1.6%	0.5%	0.2%	0.1%	100.0%
Total economy – percentage share	78.2%	11.3%	5.6%	3.0%	1.0%	0.6%	0.4%	100.0%

Source: Office for National Statistics – UK business; activity size and location: 2019 – Table 4

Notes

1. The data used in this figure are sourced only from the Monthly Business Survey for construction and allied trades. [Back to table](#)

Table 4: Composition of sample by employment size band for Monthly Business Survey – construction and allied trades

Number of questionnaires despatched, Great Britain, November 2019 release

Employment size band	Questionnaire despatched	Percentage of sample (based on forms)
0 to 4	3,300	41.5%
5 to 9	1,350	17.0%
10 to 19	800	10.1%
20 to 99	1,500	18.9%
100+ or annual turnover greater than £60m	1,000	12.6%
Total	7,950	100.0%

Source: Office for National Statistics – Construction output and employment, output in the construction industry

Based on the latest release (November 2019), we have just under 8,000 firms in the sample. We capture a census of all firms for each reference period with 100 or greater employment or annual turnover greater than £60 million, owing to the importance to the survey. A random stratified sample of firms is then taken from the remaining employment size bands, with a decreasing sampling fraction taken as the size bands decrease. All firms are sent the same questionnaire, which asks them for a breakdown of value of work in the reference period by the 11 type of work questions (see [Annex 1 in the Construction output Quality and Methodology Information \(QMI\) report](#)). This is then supplemented with Value Added Tax (VAT) turnover, when available, for a selection of industries.

Using the data obtained from the sample, we can see the composition of construction output by size of firm in private and public new housing is different.

For Quarter 3 (July to Sept) 2019, within public new housing (Figure 3) the larger employment businesses make up just over 50% of the value of work done. The share larger employment business (100+ employment or annual turnover greater than £60 million) of private new housing output has increased from approximately 40% in 2014. The main difference in comparison with private new housing is the share of the smaller employment businesses (0-19 employment) in public new housing. These smaller employment businesses make up a smaller share with just over 30% of share of value of work within this type of work.

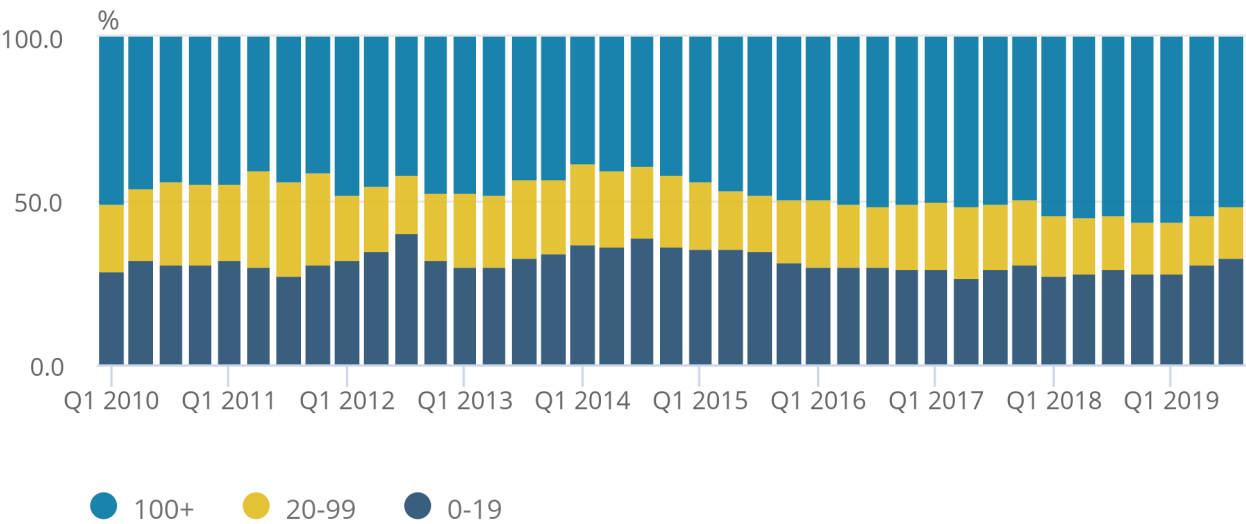
In contrast, for Quarter 3 (July to Sept) 2019, in private new housing (Figure 4) the smaller employment businesses (that is, those with 0 to 19 employment) contribute approximately 40% of the value of work. Since 2010, the share of value of work for larger employment businesses (that is, those with 100 or greater employment or annual turnover greater than £60 million) has increased slightly over time to around 40%. This, in turn, has meant the size of medium-sized firms (that is, those with 20 to 99 employment) have seen their percentage share of work in this type of work reduced to 20%.

Figure 3: Approximately 50% of output in public new housing came from larger employment firms in Quarter 3 (July to Sept) 2019

Percentage share by employment size band in public new housing work, current prices, non-seasonally adjusted, Great Britain, Quarter 1 (Jan to Mar) 2010 to Quarter 3 (July to Sept) 2019

Figure 3: Approximately 50% of output in public new housing came from larger employment firms in Quarter 3 (July to Sept) 2019

Percentage share by employment size band in public new housing work, current prices, non-seasonally adjusted, Great Britain, Quarter 1 (Jan to Mar) 2010 to Quarter 3 (July to Sept) 2019



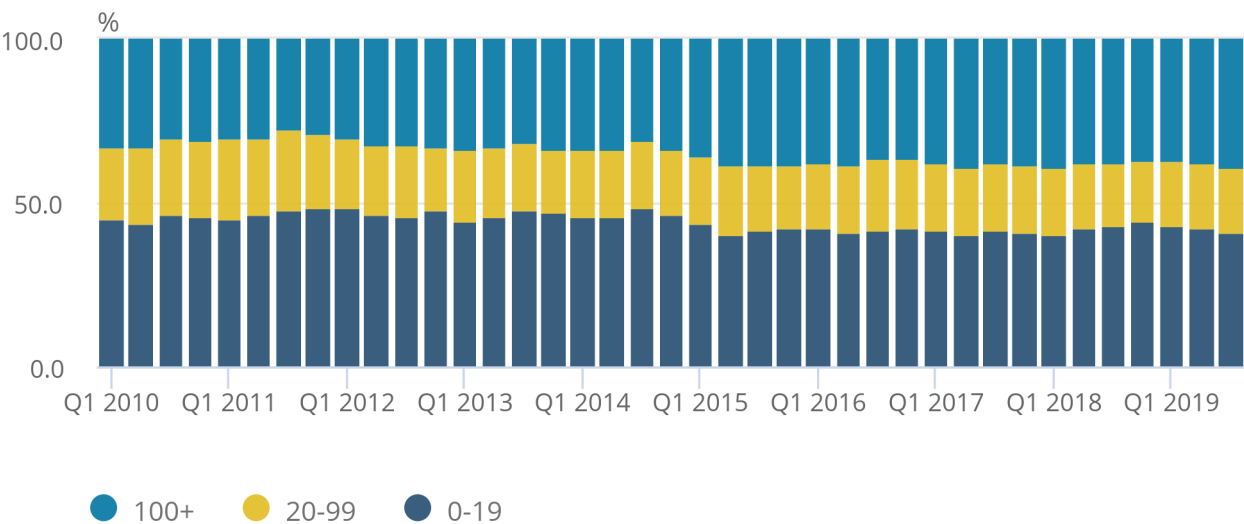
Source: Office for National Statistics – Construction output and employment, output in the construction industry (Table 7)

Figure 4: Smaller employment firms made up over 40% of output in private new housing in Quarter 3 (July to Sept) 2019

Percentage share by employment size band in private new housing work, current prices, non-seasonally adjusted, Great Britain, Quarter 1 (Jan to Mar) 2010 to Quarter 3 (July to Sept) 2019

Figure 4: Smaller employment firms made up over 40% of output in private new housing in Quarter 3 (July to Sept) 2019

Percentage share by employment size band in private new housing work, current prices, non-seasonally adjusted, Great Britain, Quarter 1 (Jan to Mar) 2010 to Quarter 3 (July to Sept) 2019



Source: Office for National Statistics – Construction output and employment, output in the construction industry (Table 7)

Notes:

1. The data used in this figure are sourced only from the Monthly Business Survey for construction and allied trades.

5 . How new housing output has changed across the English regions, Scotland and Wales

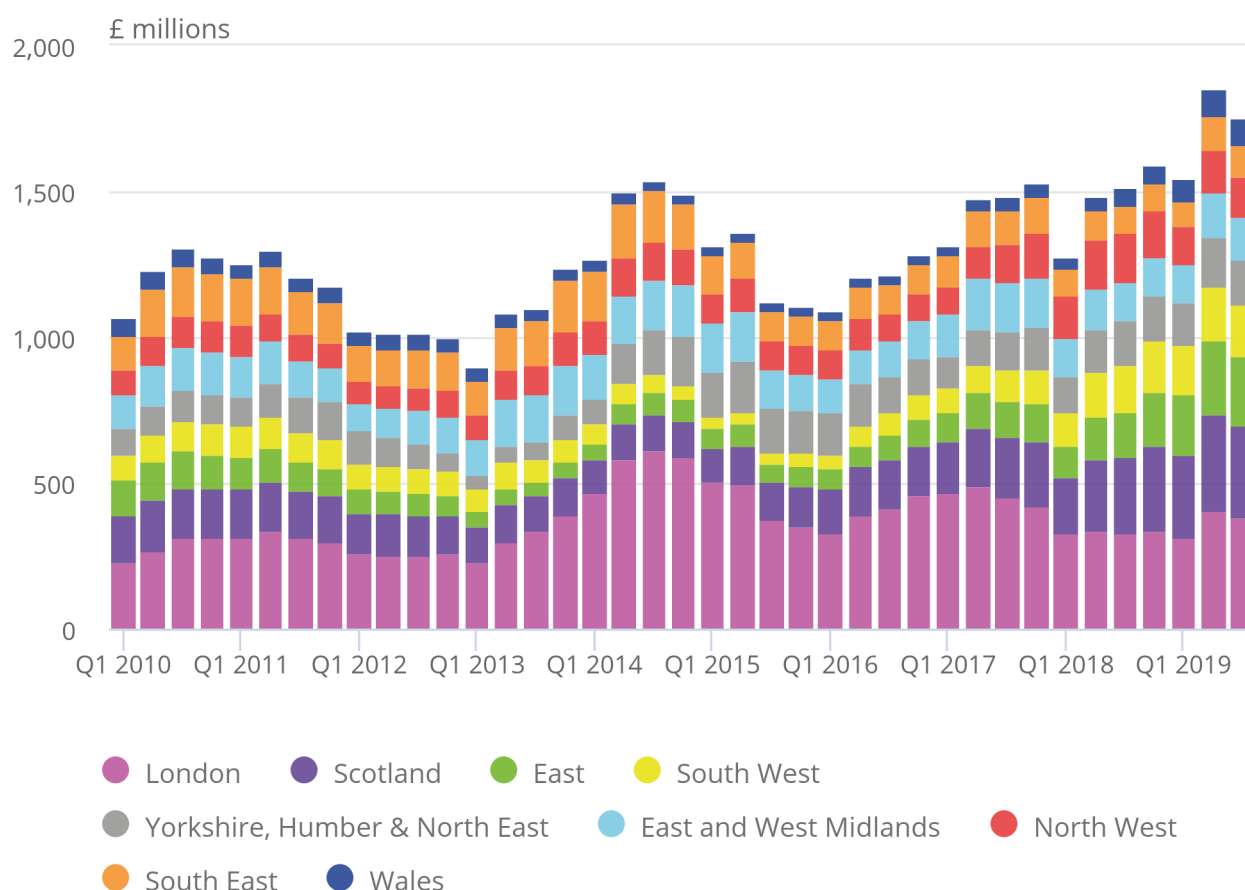
This section looks at the new housing data for the English regions, Scotland and Wales, broken down by public and private new housing.

Figure 5: Over half of public new housing output in Quarter 3 (July to Sept) 2019 was concentrated in London, Scotland and the East of England

Value of public new housing work by subnational region, current prices, non-seasonally adjusted, Great Britain, Quarter 1 (Jan to Mar) 2010 to Quarter 3 (July to Sept) 2019

Figure 5: Over half of public new housing output in Quarter 3 (July to Sept) 2019 was concentrated in London, Scotland and the East of England

Value of public new housing work by subnational region, current prices, non-seasonally adjusted, Great Britain, Quarter 1 (Jan to Mar) 2010 to Quarter 3 (July to Sept) 2019



Source: Office for National Statistics – Construction output and employment, output in the construction industry: subnational and sub-sector (Table 2)

Notes:

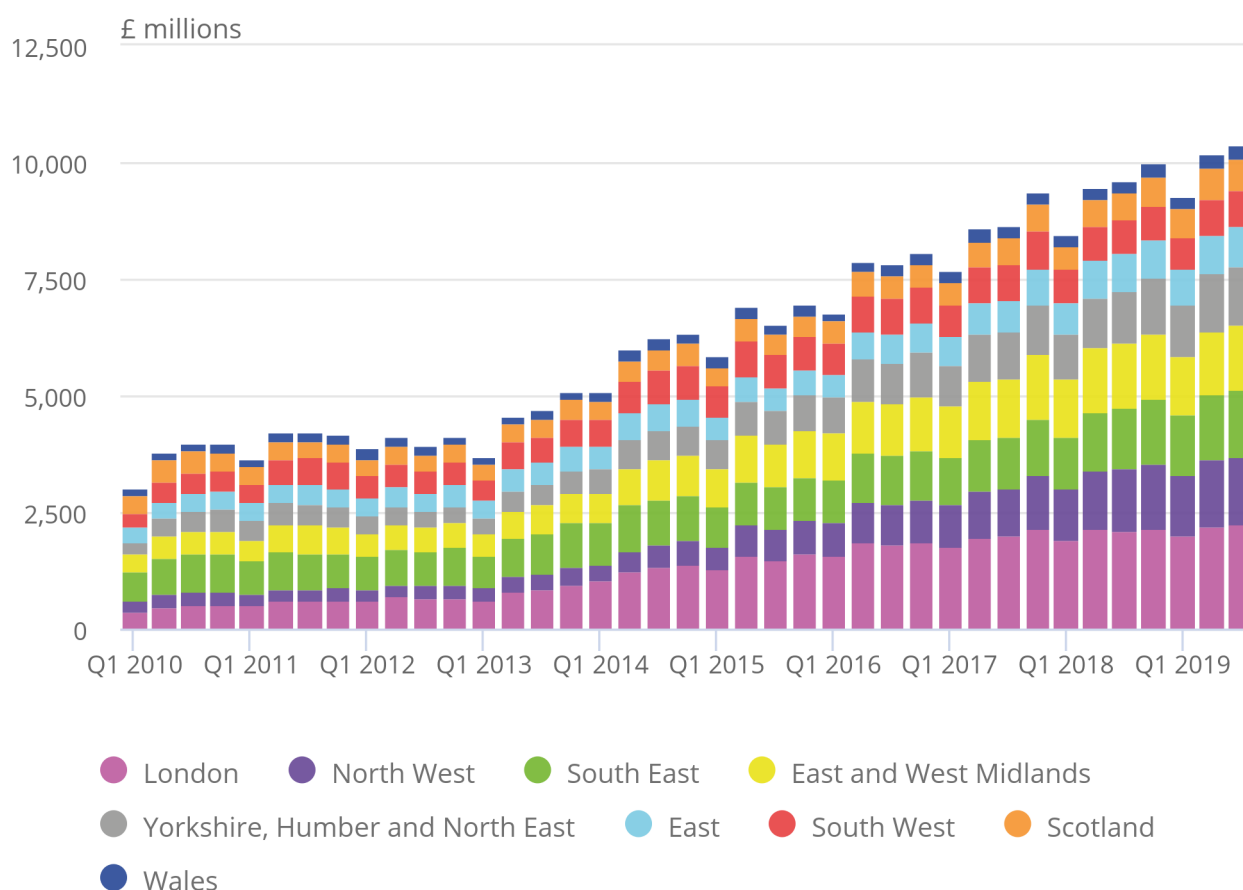
1. These subnational output estimates are not designated as National Statistics. They are produced via a model using new orders data sourced from Barbour ABI. For further information on the model, please see the article "Construction development: improvements to regional and sub-sector level estimates, June 2018".
2. The data used in this figure are sourced from a combination of the Monthly Business Survey for construction and allied trades and Value Added Tax (VAT) turnover data.

Figure 6: An upward trend in private new housing since the start of Quarter 1 (Jan to Mar) 2013 has been driven by growth in London and the North West

Value of private new housing work by subnational region, current prices, non-seasonally adjusted, Great Britain, Quarter 1 (Jan to Mar) 2010 to Quarter 3 (July to Sept) 2019

Figure 6: An upward trend in private new housing since the start of Quarter 1 (Jan to Mar) 2013 has been driven by growth in London and the North West

Value of private new housing work by subnational region, current prices, non-seasonally adjusted, Great Britain, Quarter 1 (Jan to Mar) 2010 to Quarter 3 (July to Sept) 2019



Source: Office for National Statistics – Construction output and employment, output in the construction industry: subnational and sub-sector (Table 2)

Notes:

1. These subnational output estimates are not designated as National Statistics. They are produced via a model using new orders data sourced from Barbour ABI. For further information on the model, please see the article “Construction development: improvements to regional and sub-sector level estimates, June 2018”.
2. The data used in this figure are sourced from a combination of the Monthly Business Survey for construction and allied trades and Value Added Tax (VAT) turnover data.

Figure 5 illustrates the profile of subnational trends in public new housing output. London has always contributed the most to public new housing, with close to 40% of public housing output across 2014 taking place there. However, in the latest quarters, London's share of public new housing has fallen to just over 20% of the sector. Across the period, public new housing work has had a volatile pattern. London is the main contributor to the volatile pattern, but this profile is also present in North West and South East.

Growth in public new housing since Quarter 1 (Jan to Mar) 2013 (the lowest quarter since monthly records began in January 2010) has increased by £855 million (95.2%). This has been driven by increases in Scotland (£200 million), the East of England (£185 million) and London (£148 million).

The two regions that have increased their share noticeably since 2014 are Scotland and the East of England. In comparison with Quarter 1 2014, Scotland's share has increased from 9% to 18%, and the East of England's share has increased from 4% to 14% in the latest quarter. Also, although a relatively smaller series, Wales has seen a notable increase in its share of public new housing, increasing from 3% in Quarter 1 2014 to just over 5% in Quarter 3 (July to Sept) 2019.

For Quarter 3 2019, London, Scotland and the East of England together accounted for over 50% of the share of output in public new housing.

In comparison, London, the North West and the South East account for about half of private new housing output in Quarter 3 2019. Figure 6 shows that prior to 2013, London contributed approximately 15% of private new housing output, though this share has grown to more than 20% in more recent periods.

It is worth noting the growth we have seen in Great Britain in private new housing. Unlike the cyclical pattern found in public new housing, private new housing work has experienced strong growth since Quarter 1 2013, growing by £6,701 million (181.9%). This growth since Quarter 1 2013 has been driven by increases in London (£1,621 million), the North West (£1,193 million) and the South East (£728 million).

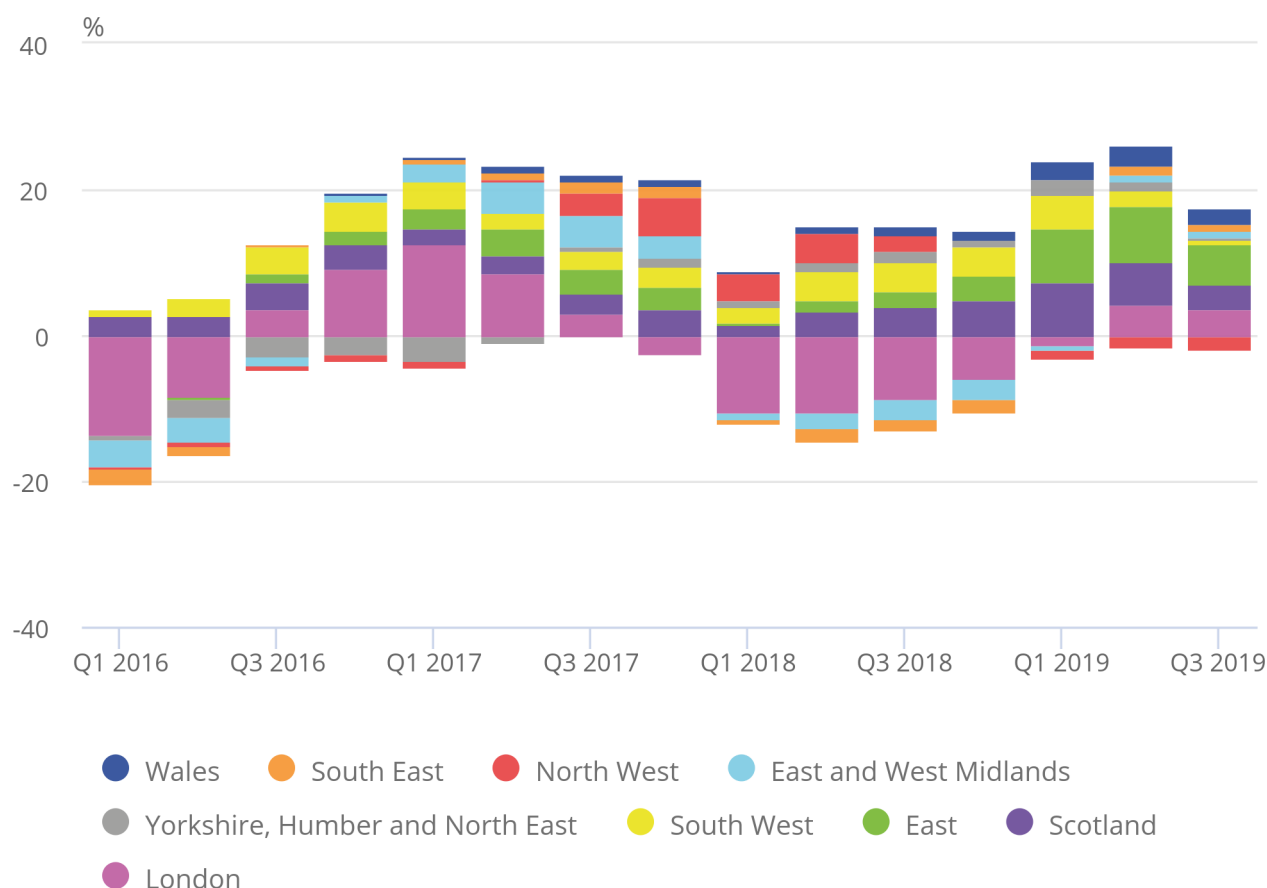
The regions that have experienced a decline in terms of their share within private new housing are Scotland and the South East, which accounted for approximately 9% and 19% of private new housing output in Quarter 1 2013 respectively. These percentage shares have fallen to approximately 7% and 14%, respectively, in Quarter 3 2019. While their share of private new housing has decreased, they have still increased private new housing over the period, albeit not at a rate as quick as the other regions.

Figure 7: Recent quarter-on-quarter a year earlier growth in public new housing is driven by the East of England, London and Scotland

Quarter-on-quarter a year earlier public new housing growth, current prices, non-seasonally adjusted, Great Britain, Quarter 1 (Jan to Mar) 2016 compared with Quarter 3 (July to Sept) 2019

Figure 7: Recent quarter-on-quarter a year earlier growth in public new housing is driven by the East of England, London and Scotland

Quarter-on-quarter a year earlier public new housing growth, current prices, non-seasonally adjusted, Great Britain, Quarter 1 (Jan to Mar) 2016 compared with Quarter 3 (July to Sept) 2019



Source: Office for National Statistics – Construction output and employment, output in the construction industry: subnational and sub-sector (Table 2)

Notes:

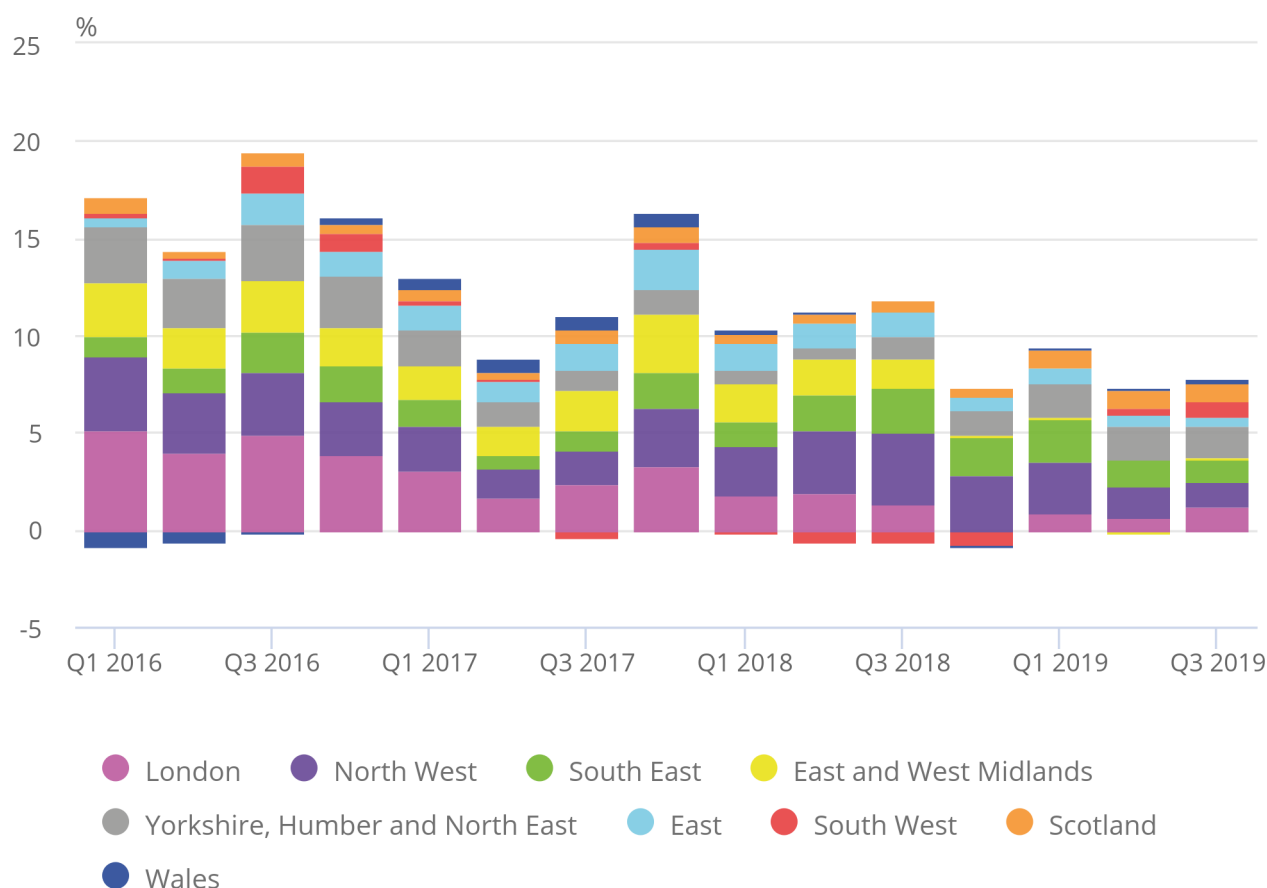
1. These subnational output estimates are not designated as National Statistics. They are produced via a model using new orders data sourced from Barbour ABI. For further information on the model, please see the article "Construction development: improvements to regional and sub-sector level estimates, June 2018".
2. The data used in this figure are sourced from a combination of the Monthly Business Survey for construction and allied trades and Value Added Tax (VAT) turnover data.
3. Quarter-on-quarter a year earlier growth rates have been used in the chart to illustrate non-seasonally adjusted data.

Figure 8: Slowing of quarter-on-quarter a year earlier growth in private new housing growth can be seen across most regions

Quarter-on-quarter a year earlier private new housing growth, current prices, non-seasonally adjusted, Great Britain, Quarter 1 (Jan to Mar) 2016 compared with Quarter 3 (July to Sept) 2019

Figure 8: Slowing of quarter-on-quarter a year earlier growth in private new housing growth can be seen across most regions

Quarter-on-quarter a year earlier private new housing growth, current prices, non-seasonally adjusted, Great Britain, Quarter 1 (Jan to Mar) 2016 compared with Quarter 3 (July to Sept) 2019



Source: Office for National Statistics – Construction output and employment, output in the construction industry: subnational and sub-sector (Table 2)

Notes:

1. These subnational output estimates are not designated as National Statistics. They are produced via a model using new orders data sourced from Barbour ABI. For further information on the model, please see the article "Construction development: improvements to regional and sub-sector level estimates, June 2018".
2. The data used in this figure are sourced from a combination of the Monthly Business Survey for construction and allied trades and Value Added Tax (VAT) turnover data.
3. Quarter-on-quarter a year earlier growth rates have been used in the chart to illustrate non-seasonally adjusted data.

Examining the percentage contributions to the quarter-on-quarter a year earlier growth by each region in both public and private housing further highlights the divergence between the two sectors since 2016.

As seen in Figure 7, public new housing growth in this series experienced a slowdown from the end of 2017 until a recovery in the first half of 2019. Public new housing growth tends to be driven by London, which is cyclical, with several periods of growth followed by several periods of decline. In comparison, growth in 2019 has been mostly driven by the East of England and Scotland.

Private new housing is a much larger series compared with public new housing, and Figure 8 shows private new housing growth has slowed across most sectors since Quarter 4 (Oct to Dec) 2017, particularly London. Another feature, which is in contrast to recent public new housing growth, is that the profile of growth in private new housing tends to be more consistent across the regions.

6 . Additional housing sources in 2019

This section provides additional housing data sources that have been provided to the Office for National Statistics (ONS) by survey respondents as anecdotal evidence when survey returns have been validated. This section is not exhaustive and other factors may have impacted housing in 2019.

House prices

Figure 9 shows private new housing output and the House Price Index (HPI) for Great Britain in a three-month on three-month a year earlier series. Neither has seen negative growth since March 2013 and March 2012 respectively. Anecdotal evidence from contributors to the survey has suggested this may be a factor in the slowdown in housing output.

Both have seen a long-term downward trend since 2014, with the HPI in August 2019 at the lowest level since May 2012 in the series. Since August 2019, the HPI has seen three consecutive periods of growth, with the growth in November 2019 the largest since January 2019 in the three-month on three-month a year earlier series.

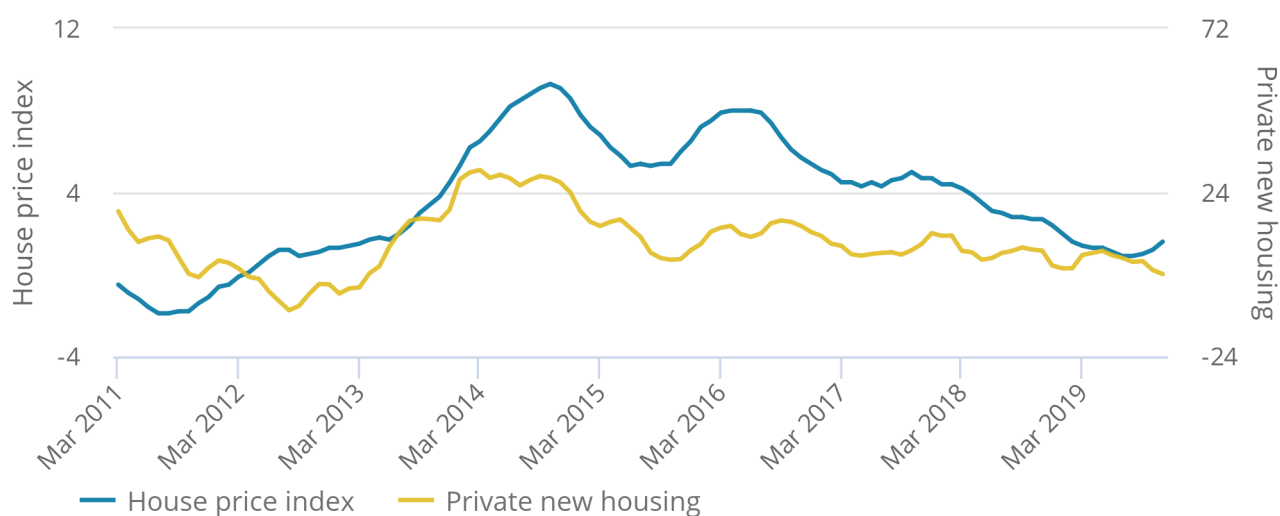
In comparison, private new housing output grew by 0.1% in November 2019, which was the lowest growth rate since March 2013.

Figure 9: A slowdown in private new housing output has coincided with a slowing of growth in the House Price Index

Three-month on three-month year earlier growth rates, chained volume measure, seasonally adjusted, Great Britain, March 2011 to November 2019

Figure 9: A slowdown in private new housing output has coincided with a slowing of growth in the House Price Index

Three-month on three-month year earlier growth rates, chained volume measure, seasonally adjusted, Great Britain, March 2011 to November 2019



Source: Office for National Statistics – Construction output and employment, output in the construction industry (Table 3d); Office for National Statistics – House Price Index: November 2019, individual attributes files (UK HPI full file)

The Bank of England (BoE) publishes quarterly reports compiled by its agents based at 12 regional agencies across the UK. In [Quarter 1 \(Jan to Mar\) 2019](#), the BoE's Agents' summary reported that weakening housing market conditions contributed to the slowdown of construction output growth, and contacts reported Brexit-related uncertainty deterred many buyers, with excess supply leading to a widening between asking and offered prices.

Help to Buy scheme

The BoE's Agents' summary for [Quarter 3 \(July to Sept\) 2019](#) reported that the development of lower-priced properties remained strong, with this being attributed in part to the Help to Buy scheme and construction of social and affordable housing being supported by increased funding from central government.

[English](#), [Welsh](#) and [Scottish](#) Help to Buy statistics are available.

Housing market activity

In [Quarter 2 \(Apr to June\) 2019](#), the BoE's agents reported construction growth continuing to slow, with housing projects continuing to be scaled back because of weaker housing market activity. In comparison, growth in social and affordable housing remained relatively strong.

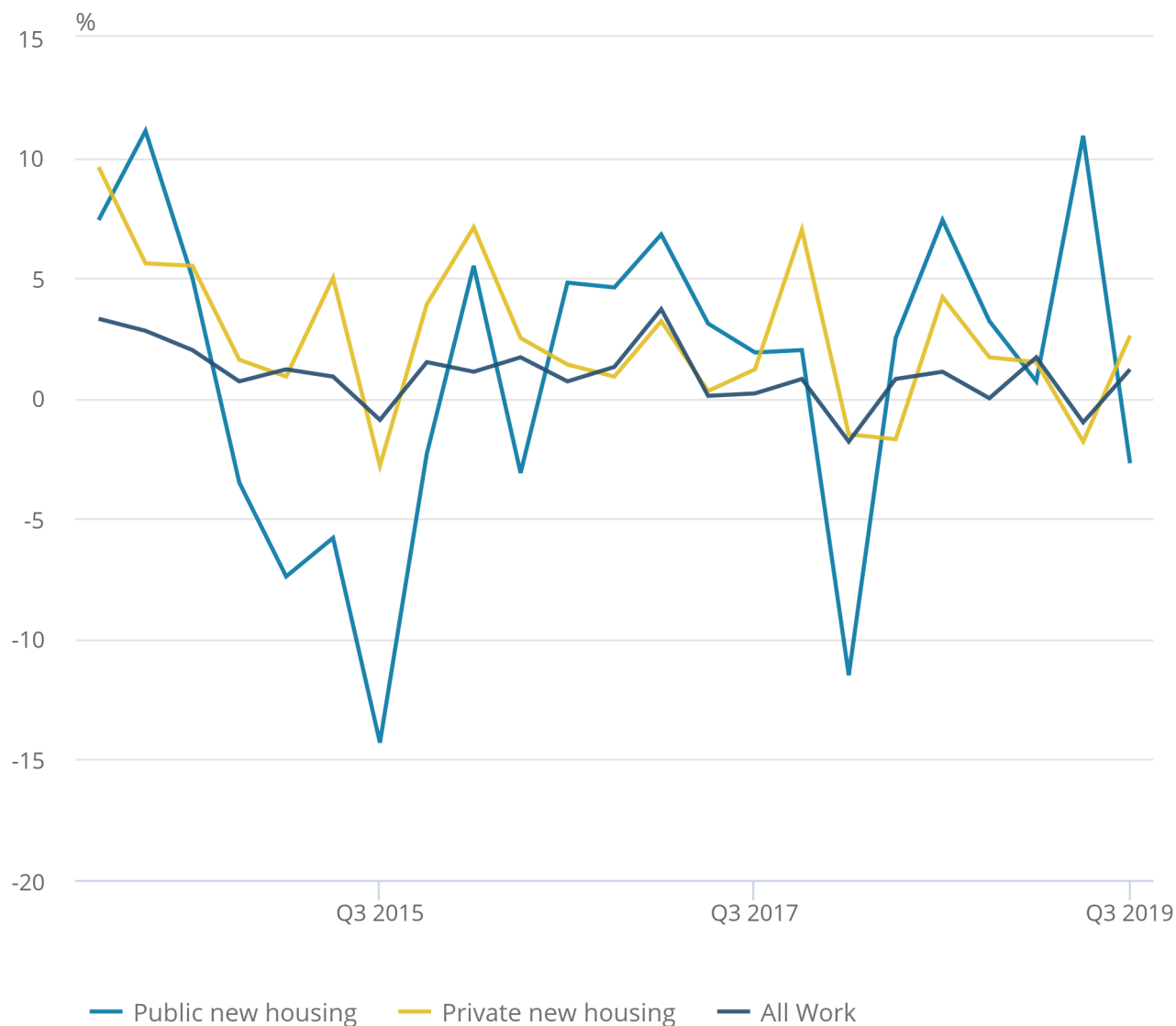
This was reflected by ONS data showing construction output recording growth of negative 1.0% in Quarter 2 2019. Figure 10 shows that while private housing new work fell by 1.8%, public new housing grew 10.9%, which was the highest growth rate in this series since Quarter 2 2014.

Figure 10: Public new housing output performed strongly in Quarter 2 (Apr to June) 2019, in contrast with private new housing and all-work output

Quarter-on-quarter growth rates, Great Britain, Quarter 1 (Jan to Mar) 2014 to Quarter 3 (July to Sept) 2019

Figure 10: Public new housing output performed strongly in Quarter 2 (Apr to June) 2019, in contrast with private new housing and all-work output

Quarter-on-quarter growth rates, Great Britain, Quarter 1 (Jan to Mar) 2014 to Quarter 3 (July to Sept) 2019



Source: Office for National Statistics – Construction output and employment, output in the construction industry (Table 3a)