

# Northern Ireland QCE Q1-4 2018 – Correction (Re-published 18<sup>th</sup> July 2019)

## Background information

### 1. How and why did this error occur?

The error occurred during the production process when incorrect seasonal adjustment was applied. This was not an issue with methodology, but a human error in spreadsheets which pulled in the wrong values.

The methodology remains correct but the error was not detected by our usual quality assurance (QA) processes. NISRA is reviewing its QA processes to minimise the risk of such errors occurring in future. New checklists for QA have been added to the manual for the Quarterly Construction Enquiry (QCE).

### 2. Does this correction impact the back series?

The error only affects 2018 Q1-4 publications. Although the correction affects all data in these publications, it did not impact on the overall direction of the trend of the NI Construction sector.

### 3. What are the main differences between the originally published figures and the corrected figures?

The originally published figures for 2018 reported:

Table 1.1 Output in Northern Ireland: Chained Volume Measure (2016) prices, (seasonally adjusted) index numbers – Main Sectors							
Year	Quarter	New Work CVM (NSA)	Quarter on Quarter Growths	Repair & Maintenance CVM (SA)	Quarter on Quarter Growths	All Work CVM (NSA)	Quarter on Quarter Growths
2018	Jan - Mar	98.3	-7.2%	94.9	-12.6%	98.5	-6.9%
	Apr - Jun	98.2	-0.2%	111.4	17.5%	102.6	4.2%
	Jul - Sep	105.3	7.2%	113.6	1.9%	108.2	5.5%
	Oct - Dec	104.8	-0.4%	105.8	-6.8%	104.0	-4.0%

The corrected figures record:

Table 1.1 Output in Northern Ireland: Chained Volume Measure (2016) prices, (seasonally adjusted) index numbers – Main Sectors							
Year	Quarter	New Work CVM (NSA)	Quarter on Quarter Growths	Repair & Maintenance CVM (SA)	Quarter on Quarter Growths	All Work CVM (NSA)	Quarter on Quarter Growths
2018	Jan - Mar	98.5	-7.1%	96.3	-11.3%	98.8	-6.6%
	Apr - Jun	98.2	-0.3%	111.3	15.6%	102.7	4.0%
	Jul - Sep	105.4	7.3%	113.6	2.1%	108.5	5.6%
	Oct - Dec	104.9	-0.5%	105.9	-6.8%	104.0	-4.1%

The originally published figures for 2018 reported:

Table 1.2 Output in Northern Ireland: Chained Volume Measure (2016) prices, (seasonally adjusted) index numbers – Sub-sectors									
Year	Quarter	Housing CVM (SA)	Quarter on Quarter Growths	Infrastructure CVM (SA)	Quarter on Quarter Growths	Other Work CVM (SA)	Quarter on Quarter Growths	All Work CVM (NSA)	Quarter on Quarter Growths
2018	Jan - Mar	108.1	-3.0%	82.5	-3.4%	101.0	-10.1%	98.5	-6.9%
	Apr - Jun	114.1	5.5%	87.6	6.1%	100.8	-0.1%	102.6	4.2%
	Jul - Sep	125.2	9.8%	94.7	8.1%	102.6	1.8%	108.2	5.5%
	Oct - Dec	110.3	-12.0%	107.2	13.3%	94.9	-7.5%	104.0	-4.0%

The corrected figures record:

Table 1.2 Output in Northern Ireland: Chained Volume Measure (2016) prices, (seasonally adjusted) index numbers – Sub-sectors									
Year	Quarter	Housing CVM (SA)	Quarter on Quarter Growths	Infrastructure CVM (SA)	Quarter on Quarter Growths	Other Work CVM (SA)	Quarter on Quarter Growths	All Work CVM (NSA)	Quarter on Quarter Growths
2018	Jan - Mar	107.8	-3.7%	83.0	-2.8%	101.6	-9.5%	98.8	-6.6%
	Apr - Jun	114.0	5.8%	87.8	5.8%	101.2	-0.4%	102.7	4.0%
	Jul - Sep	125.3	9.9%	94.6	7.7%	102.9	1.7%	108.5	5.6%
	Oct - Dec	108.6	-13.3%	108.9	15.2%	96.0	-6.7%	104.0	-4.1%

As we can see from these tables, the chained volume measures and quarter-on-quarter changes are only minimally affected by the correction at both a sectoral and sub-sectoral level.

#### 4. What actions have been taken following this discovery?

A note was added to the website for each of the releases and also on Gov.uk on the 11<sup>th</sup> July 2019, as soon as the error was detected, and additional checks carried out to confirm the nature and extent of the problem. The Bulletins had a note added at that time stating corrected figures would be available alongside the 2019 Q1 publication on 18<sup>th</sup> July 2019.

As required by the Code of Practice for Official Statistics, stakeholders, including a number of media commentators, were informed that the Q1-4 2018 Bulletins had an error and that corrected results were to be released on the 18<sup>th</sup> July 2019.

Users were also informed that NISRA would review its processes to minimise the risk of such errors occurring in the future and to further strengthen quality assurance procedures.

**5. What processes are being put in place to ensure this does not happen again?**

The error was detected during the processing of the information for the Quarterly Construction Enquiry for 2019 Q1. In view of this, more detailed Quality Assurance checklists have been added to the associated manual and guidance documents.

In line with best practice, a wider methodological review of the NI QCE is planned to be undertaken over the next number of months, and will provide the opportunity to explore the extent to which our processes might be streamlined and harmonised in line with the approach deployed on other surveys conducted by the branch. A full update on the methodological assessment will be published alongside any revisions that may occur as a result of the review.