

Northern Ireland Quarterly Index of Production

Quarter 1 (January – March) 2020

Theme: Economy

Frequency: Quarterly

Geographical Area: Northern Ireland

Date: 18 June 2020

Introduction

The quarterly Index of Production (IOP) provides a timely indicator of growth in the output of the production industries in Northern Ireland. IOP indices along with other published quarterly data and unpublished agricultural output data are used to generate the [Northern Ireland Composite Economic Index \(NICEI\)](#). NICEI provides a proxy measure of total economic output in the NI economy on a quarterly basis.

Key Points

Output estimates are calculated from the IOP aspect of the Quarterly Business Survey (QBS). The IOP has a sample size of approximately 1,100, covering all production businesses with 40 or more employees and a representative sample of smaller businesses.

- The NI IOP decreased by 3.2% over the quarter (January - March) and by 4.7% over the year.
- The UK IOP reported a decrease over the quarter (2.1%) and a decrease over the year (5.0%).
- The decrease of 3.2% is the largest decrease in NI IOP since a 5.6% decrease in Q3 2017. The NI IOP is at its lowest point since Q4 2017.
- This release captures the first direct effects of the coronavirus (COVID-19) pandemic on the NI economy. The first [government advice on social distancing](#) was published on 12 March 2020, before a formal “lockdown” was announced on 23 March 2020. As this release covers the period January - March 2020, the impact of the Covid-19 pandemic on the economy is only partially reflected in these estimates.

Contents

1. Summary of Index of Production	3-6
- Change in IOP	3-4
- Context	5-6
2. Production output by sector	7-11
- Key findings	7
- Manufacturing	8
- Water supply, sewerage and waste management (Inc. recycling)	9
- Electricity, gas, steam and air conditioning supply	10
- Mining and Quarrying	11
3. Manufacturing subsectors	12-19
- Key findings	12
- Food products, beverages and tobacco	13
- Engineering and allied industries	14
- Total Other manufacturing	15
- Basic and fabricated metal products	16
- Manufacturing of chemical and pharmaceutical products	17
- Textiles, leather and related products	18
- Other notable trends in manufacturing	19
4. Background notes	20-21
5. Index of tables	22



NATIONAL STATISTICS STATUS

National Statistics status means that our statistics meet the highest standards of trustworthiness, quality and public value, and it is our responsibility to maintain compliance with these standards.

These statistics were designated as National Statistics on 5th August 2011 following a full [assessment](#) against the [Code of Practice](#).

Since the assessment by the UK Statistics Authority, we have continued to comply with the Code of Practice for Statistics, and have made the following improvements:

- Removed pre-release access to enhance trustworthiness and also brought the publication date forward as a result;
- Reduced [business burden](#) by offering the option of online data returns.

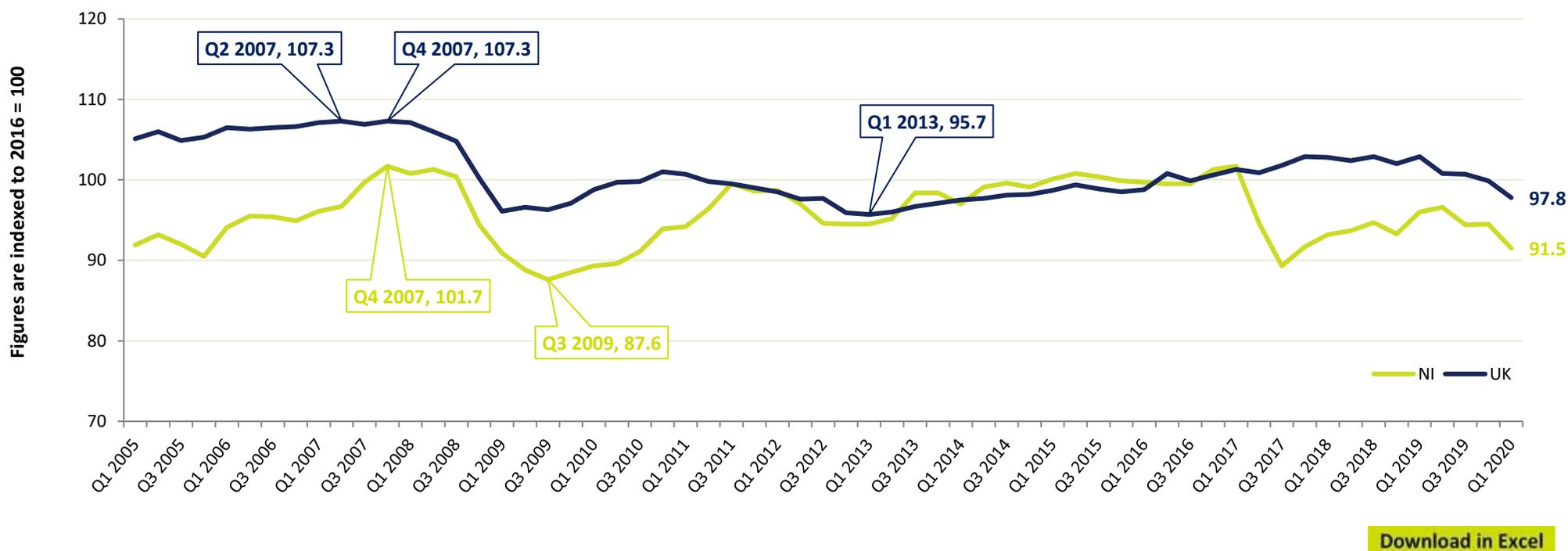
1 Summary of Index of Production

Change in IOP

The seasonally adjusted estimate for the NI IOP for Quarter 1 2020 showed:

- a decrease of 3.2% over the quarter from the Quarter 4 2019 estimate;
- a decrease of 4.7% over the year from the Quarter 1 2019 estimate;
- a decrease of 0.2% when the most recent four quarters are compared to the previous four quarters.

Figure 1.1 IOP NI & UK (Q1 2005 – Q1 2020)



Commentary

Output in the NI Production sector has decreased in real terms by 3.2% over the first quarter of 2020. The UK Production sector has reported a decrease of 2.1% over the same period. There are similar decreases over the year in both NI (4.7%) and UK (5.0%).

The decrease of 3.2% is the largest decrease in NI IOP since a 5.6% decrease in Q3 2017. The NI IOP is at its lowest point since Q4 2017.

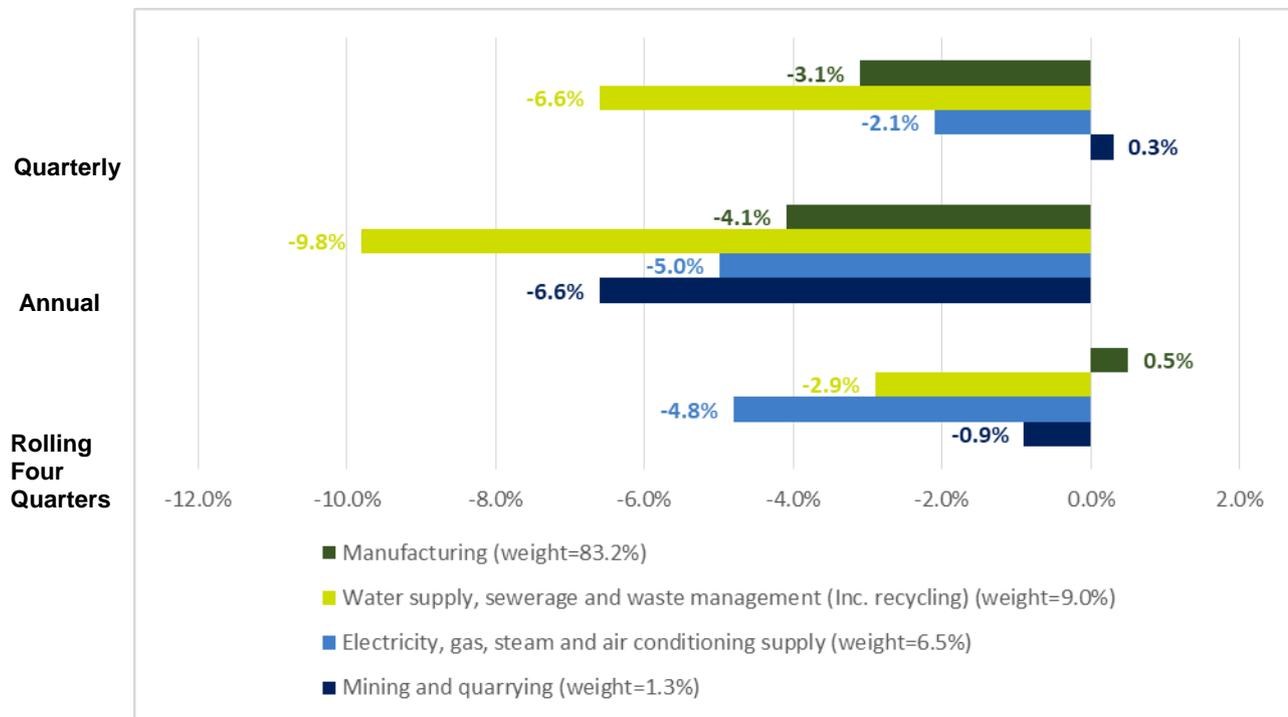
NI output has recovered 4.4% since the series low (Quarter 3 2009). In contrast the UK has recovered 1.6% over the same period. NI Output remains 2.4% higher than the ten year low (Quarter 1 2010) and remains 10.0% lower than its series high (Quarter 4 2007).

Comparing the seasonally adjusted NI IOP from Quarter 4 2019 to Quarter 1 2020; three of the four main sectors showed decreases, with the largest decrease of 6.6% reported in the Water supply, sewerage and waste management (Inc. recycling) sector. Only Mining and Quarrying reported an increase over the quarter of 0.3%.

Comparing the seasonally adjusted NI IOP from Quarter 1 2019 to Quarter 1 2020; all four of the main sectors showed decreases, with the largest decrease of 9.8% reported in the Water supply, sewerage and waste management (Inc. recycling) sector.

Comparing the seasonally adjusted NI IOP for Quarter 2 2019 to Quarter 1 2020 with Quarter 2 2018 to Quarter 1 2019; three of the four sectors showed a decrease with the largest decrease of 4.8% reported in the Electricity, gas, steam and air conditioning sector. Only Manufacturing reported an increase of 0.5% over this period.

Figure 1.2 Quarterly, annual and rolling four quarters changes in IOP at sector level Quarter 1 2020¹



Although these estimates show the beginnings of the impact of the Covid-19 crisis on the economy, as the reference period is Jan–March 2020, the full impact of the crisis is not reflected in these figures.

¹ For further information on weights see Regional GVA information on page 19

Context

The IOP is an important short-term measure of change in the output of the production sector of the economy. The contents of this report will be of interest to government policymakers, Members of the Legislative Assembly, the business community, economic commentators, academics and members of the general public with an interest in the NI economy. A [summary of recent uses](#) is available on the NISRA website.

The Department for the Economy (DfE) [Economic Commentary \(Winter 2019\)](#) provides an overview of the NI economy, setting it in context with the UK and Republic of Ireland. The most up-to-date official statistics on the economy and labour market are available on the [Economic Overview section](#) of the [Economic and Labour Market Statistics \(ELMS\) section of the NISRA website](#).

The IOP is published on a Standard Industrial Classification 2007 (SIC07) basis. IOP data prior to Quarter 2 2011 were collected on a SIC03 basis and have been converted to approximate the SIC07 coverage.

The background notes (Section 4) provide information on the methodology used to produce the statistics as well as information on the quality and accuracy of the data. This bulletin contains results for the production sector as a whole, for Manufacturing; Water supply, sewerage and waste management (Inc. recycling); Electricity, gas, steam and air conditioning supply and Mining and quarrying sectors. Production sector series are seasonally adjusted (unless otherwise stated) on a 2016=100 basis, using X-13 ARIMA SEATS, giving data up to the most recent available quarter (Quarter 1 2020).

Comparative UK data, produced by the Office for National Statistics (ONS), are presented where these are available. The [latest UK IOP results](#) can be found on the ONS website.

This publication provides three measures of growth for the index.

1. The quarter-on-quarter change provides the most recent measure of how the sector is changing. It is appropriate to compare consecutive quarters as the indices are seasonally adjusted to remove the effects of changes in output as a result of the time of the year;
2. Comparisons with the same quarter one year ago; and
3. A comparison of the most recent twelve months with the twelve months before. The quarterly comparison over the year provides an additional control on the seasonal effects. The comparison of the rolling annual average is useful for identifying changes in output over a longer time period than the other two approaches.

Revisions

Results are provisional and subject to revision, which can be made for a variety of reasons. The most common include late responses to surveys, estimates being replaced by actual data, revisions to seasonal adjustment factors, methodological changes and changes to business classifications. Volatility also arises when businesses inform NISRA of SIC code changes via business surveys, ONS and HM Revenue & Customs (HMRC). This new information helps to improve the estimates of growth each quarter but also adds volatility to quarterly and annual changes. Only rarely are there avoidable 'errors' such as human or system failures, and such mistakes are made quite clear when they do occur.

This release captures the first direct effects of the coronavirus (COVID-19) pandemic on the NI economy. The first [government advice on social distancing](#) was published on 12 March 2020,

before a formal “lockdown” was announced on 23 March 2020. As this release covers the period January - March 2020, the impact of the Covid-19 pandemic on the economy is only partially reflected in these estimates.

COVID-19 impacted on the data collection and the validation of business data, which are collected on the Quarterly Business Survey. As a result, estimates for quarter 1 2020 are likely to be subject to higher revisions than normal over the coming quarters. Comparisons of provisional March 2020 estimates at lower industry levels in particular should be treated with caution.

2 Production output by sector

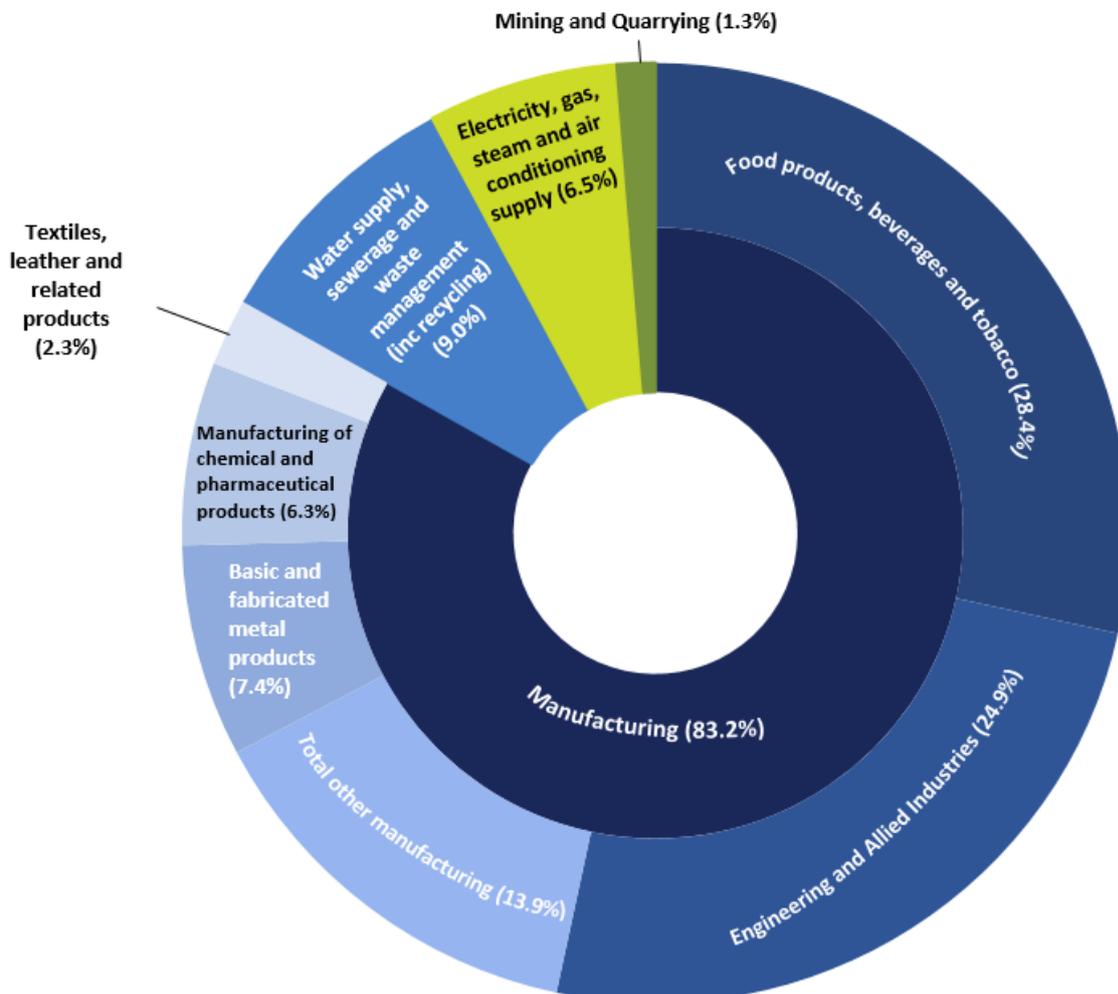
Output: Turnover, defined as the value of total sales generated from all NI based activity, excluding VAT. Turnover is rounded to the nearest thousand and is then deflated and seasonally adjusted.

2.1 Key findings

- The IOP decreased by 3.2% over the quarter; 4.7% over the year and by 0.2% on a rolling four quarter basis.
- The quarterly decrease in production output of 3.2% has been driven by decreases in three of the four main sectors: Manufacturing (3.1%); Water supply, sewerage and waste management (Inc. recycling) (6.6%); Electricity, gas, steam and air conditioning supply (2.1%) and offset by an increase in Mining and quarrying (0.3%).
- The annual decrease in NI production output of 4.7% was driven by decreases in all four of the main sectors: Manufacturing (4.1%); Water supply, sewerage and waste management (Inc. recycling) (9.8%); Electricity, gas, steam and air conditioning supply (5.0%) and Mining and Quarrying (6.6%).

The Production sector is dominated by Manufacturing, which accounts for approximately 83.2% of total production Gross Value Added (GVA) at 2018 prices.

Figure 2.1 IOP sector split (based on 2018 GVA)



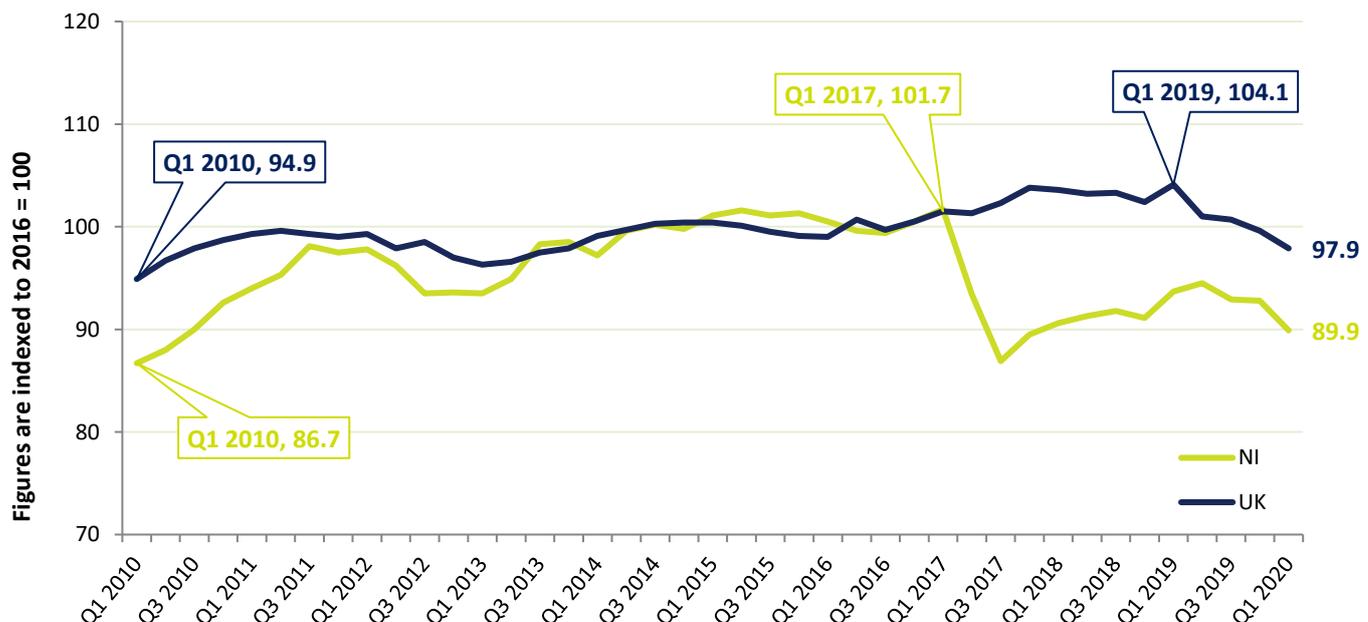
2.2 Manufacturing

Manufacturing sector (SIC07 Section C) - (weight = 83.2% of IOP): Manufacturing involves the transformation of materials into new products (outputs). It is comprised of six subsectors, as shown in Figure 2.1.

Key findings

- The NI seasonally adjusted figures show decreases of 3.1% over the quarter, 4.1% over the year and an increase of 0.5% on a rolling four quarters basis.
- The UK seasonally adjusted figures show decreases of 1.7% over the quarter, 6.0% over the year and 3.3% on a rolling four quarters basis.
- NI output is 11.6% below its highest point recorded (Quarter 1 2017) over the ten year period.
- NI output is 3.6% above the ten year low (Quarter 1 2010).
- Within manufacturing four of the six broad subsectors (as shown in Figure 2.1) are decreasing on a quarterly basis.

Figure 2.2 Manufacturing sector, NI & UK (Q1 2010–Q1 2020)



[Download in Excel](#)

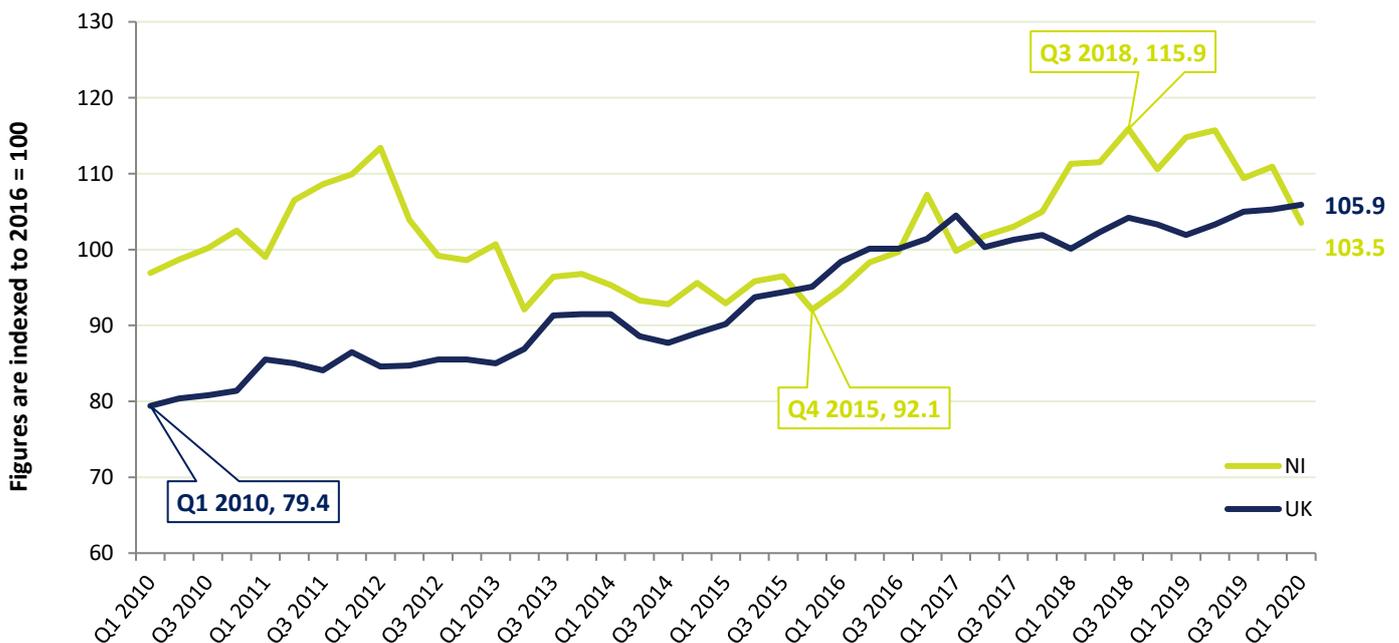
2.3 Water supply, sewerage and waste management (Inc recycling)

Water supply, sewerage, and waste management (Inc. recycling) (SIC07 Section E) (weight = 9.0% of IOP): This section covers activities related to the management (including collection, treatment and disposal) of various forms of waste, such as solid or non-solid industrial or household waste, as well as contaminated sites. Activities of water supply are also grouped in this section since they are often carried out in connection with, or by units also engaged in, the treatment of sewage.

Key findings

- The NI seasonally adjusted figures show decreases of 6.6% over the quarter, 9.8% over the year and 2.9% on a rolling four quarters basis.
- The UK reports increases of 0.6% over the quarter, 3.9% over the year and 1.9% on a rolling four quarters basis. The UK has reached a series high in this sector.
- The NI estimate is 10.7% below the series high recorded in Quarter 3 2018.
- NI output is 12.4% above the lowest point in the past ten years (Quarter 4 2015).

Figure 2.3 Water supply, sewerage and waste management (Inc. recycling), NI & UK (Q1 2010–Q1 2020)



[Download in Excel](#)

Until recent quarters, both NI and the UK had generally shown an upward trend in Water supply, sewerage and waste management (Inc. recycling).

NI has shown decreases in two of the last four quarters, whereas UK has shown four continuous increases to reach a series high in Q1 2020.

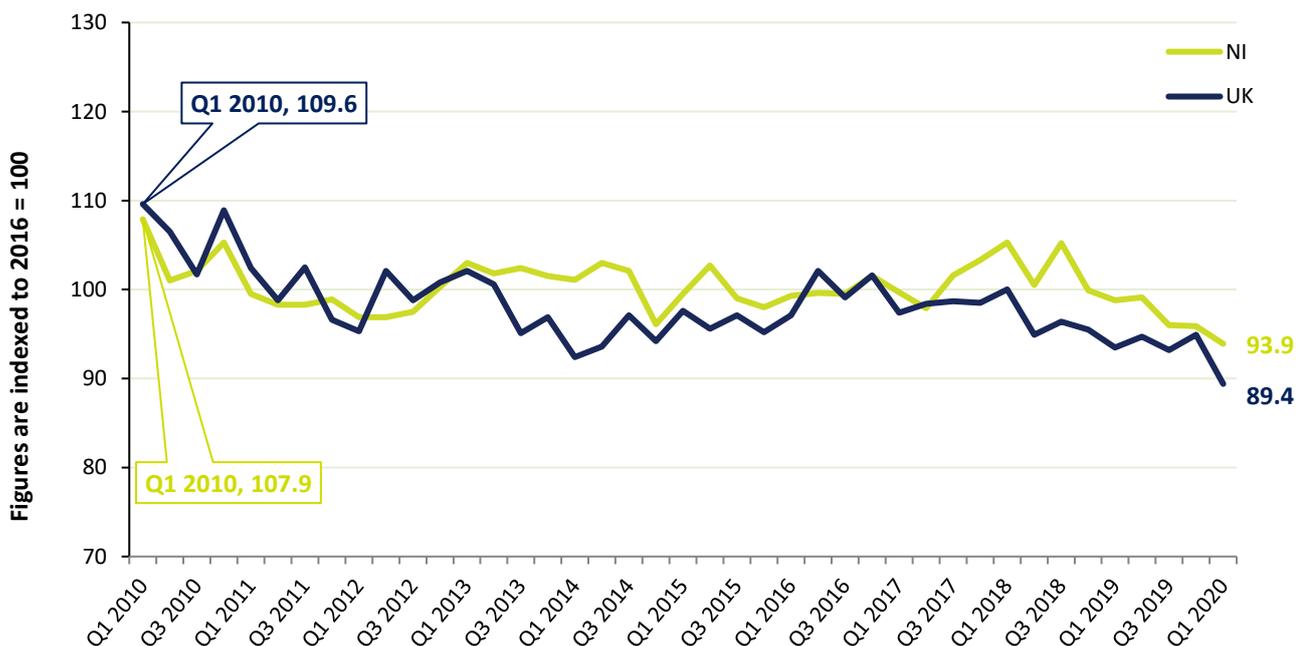
2.4 Electricity, gas, steam and air conditioning supply

Electricity, gas, steam and air conditioning supply (SIC07 Section D) (weight = 6.5% of IOP): This sector includes the activity of providing electric power, natural gas, steam, hot water and the like through a permanent infrastructure (network) of lines, mains and pipes. Also included is its distribution in industrial parks or residential buildings. Therefore, the operation of electric and gas utilities are included.

Key findings

- The NI seasonally adjusted figures show decreases of 2.1% over the quarter, 5.0% over the year and 4.8% on a rolling four quarters basis.
- The seasonally adjusted figures for the UK show decreases of 5.8% over the quarter, 4.4% over the year and a decrease of 2.1% on a rolling four quarters basis. The UK has reached a series low in this sector.
- The NI estimate remains 12.9% below the series high recorded in Quarter 1 2010.
- The NI index is 6.1% above the series low (Quarter 2 2007).
- The NI index has reached a ten year low in this sector.

Figure 2.4 Electricity, gas, steam and air conditioning supply, NI & UK (Q1 2010–Q1 2020)



[Download in Excel](#)

NI and the UK have followed similar trends in the Electricity, gas, steam and air conditioning supply sector throughout the series, with recent decreases resulting in the UK reaching a series low in this sector and NI reaching a 10 year low.

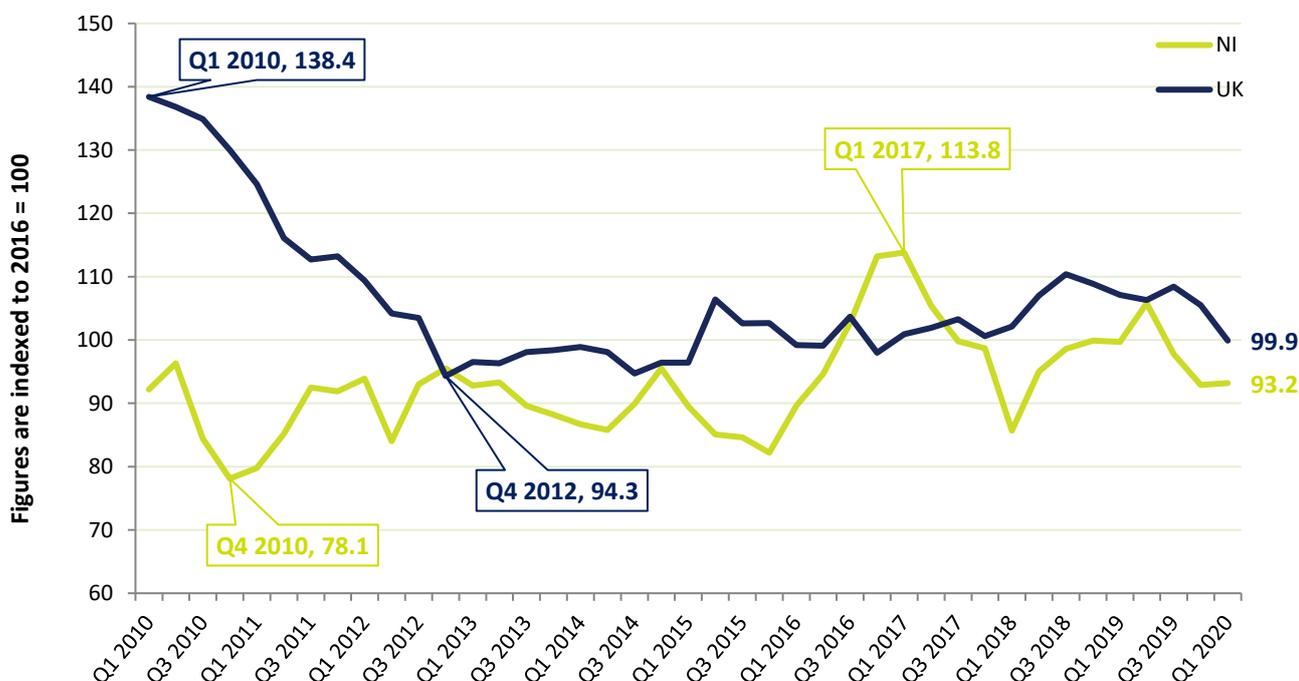
2.5 Mining and quarrying

Mining and quarrying (SIC07 Section B) (weight = 1.3% of IOP): This section covers the extraction of minerals occurring naturally as solids (coal and ores), liquids (petroleum) or gases (natural gas). Extraction can be achieved by different methods such as underground or surface mining, well operation, seabed mining, etc.

Key findings

- The NI seasonally adjusted figures show an increase of 0.3% over the quarter, a decrease of 6.6% over the year and a 0.9% decrease on a rolling four quarters basis.
- The UK seasonally adjusted figures show decreases of 5.3% over the quarter, 6.7% over the year and 3.1% over a rolling four quarters basis.
- NI output is 18.1% below the series high (Quarter 1 2017).
- NI output is 19.2% above the lowest reported level (Quarter 4 2010) in the last decade.

Figure 2.5 Mining and quarrying, NI & UK (Q1 2010–Q1 2020)



[Download in Excel](#)

Both NI and the UK have shown volatility in the Mining and Quarrying sector. The UK has generally performed better over the series, with the exception of Quarter 4 2012 and the period between Quarter 4 2016 and Quarter 2 2017.

3 Manufacturing subsectors

3.1 Key findings

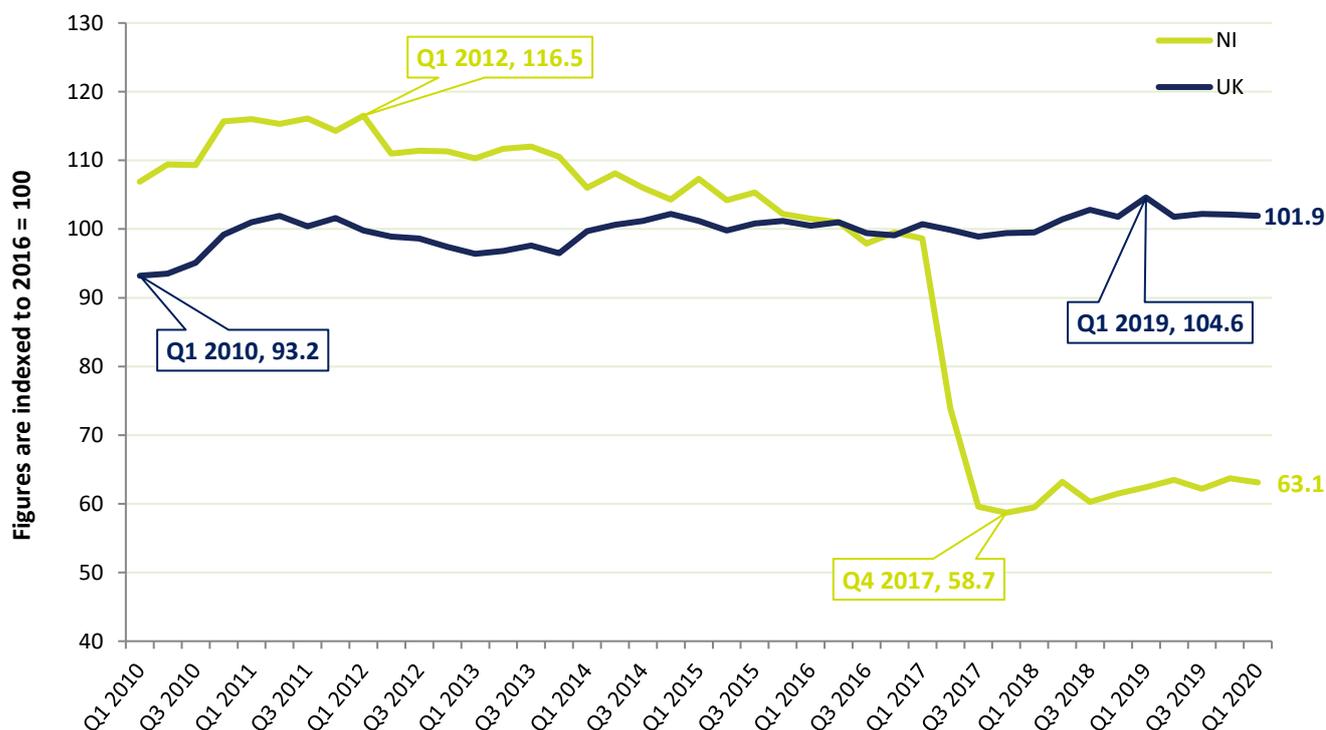
- The quarterly decrease in manufacturing output was driven by decreases from the Manufacture of textiles, leather and related products (6.5%); Engineering and allied industries (6.0%); Manufacture of chemical and pharmaceutical products (3.6%) and Food products, beverages and tobacco (1.0%) subsectors.
- This quarterly decrease was partially offset by increases in the Basic metals and fabricated metal products (2.9%) and Total other manufacturing (2.3%) subsectors.
- Over the year, the decrease in Manufacturing is driven by decreases in the Manufacture of chemical and pharmaceutical products (11.2%); Engineering and allied industries (10.6%); Basic metals and fabricated metal products (8.7%) and Manufacture of textiles, leather and related products (4.1%) subsectors and offset by increases in the Total other manufacturing (4.1%) and Food products, beverages and tobacco (1.1%) subsectors.

3.2 Food products, beverages and tobacco (Weight=28.4%)²

Key findings

- NI output decreased by 1.0% from Quarter 4 2019, increased by 1.1% over the year and increased by 2.1% on a rolling four quarters basis.
- The UK estimated decreases of 0.2% over the quarter, 2.6% over the year and 0.6% on a rolling four quarters basis.
- NI output is estimated to be 7.5% above the series low (Quarter 4 2017).
- NI output remains 45.9% below its ten year high (Quarter 1 2012).

Figure 3.2 Food products, beverages and tobacco, NI & UK (Q1 2010–Q1 2020)



[Download in Excel](#)

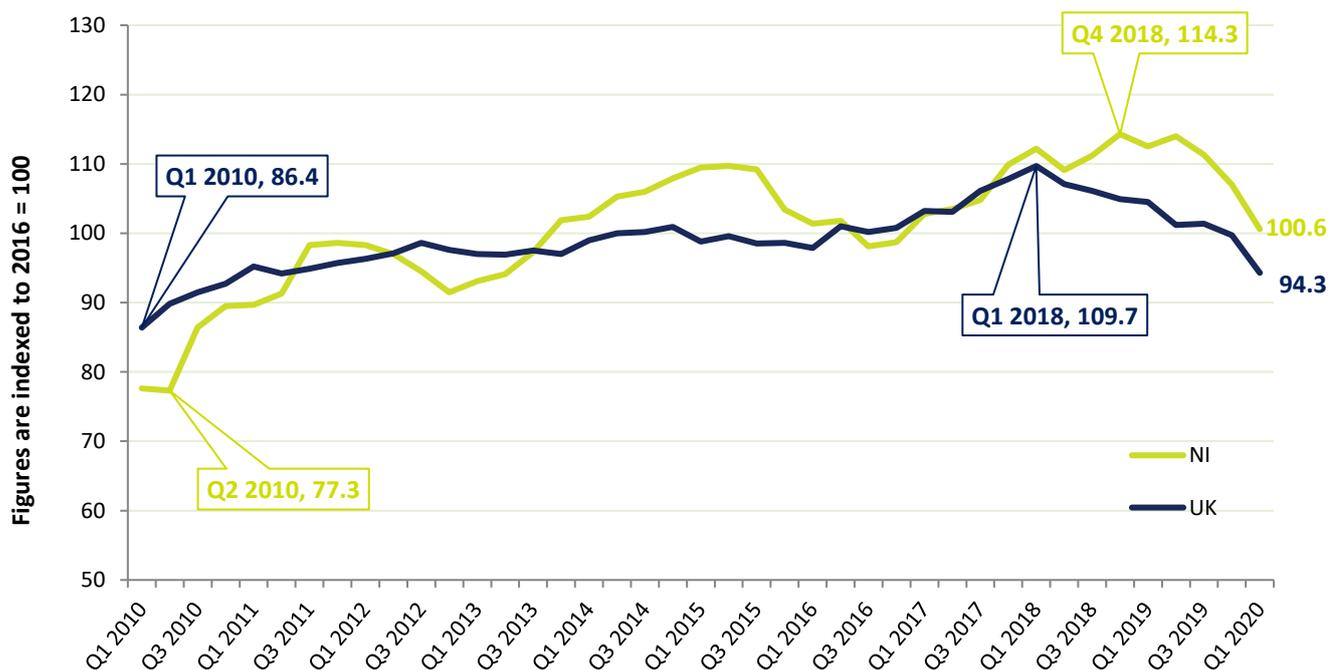
² Please note that estimates at subsector level can fluctuate due to sampling variability and also due to businesses moving industrial classification.

3.3 Engineering and allied industries (Weight=24.9%)³

Key findings

- NI seasonally adjusted figures show a decrease over the quarter of 6.0%, a decrease over the year (10.6%) and a decrease on a rolling four quarters basis (3.2%).
- The UK estimate shows decreases of 5.4% over the quarter, 9.8% over the year and 6.2% on a rolling four quarters basis.
- NI output is 12.0% below its highest point recorded (Quarter 4 2018).
- NI output is 42.9% above the series low recorded (Quarter 3 2009).

Figure 3.3 Engineering and allied industries NI & UK (Q1 2010–Q1 2020)



[Download in Excel](#)

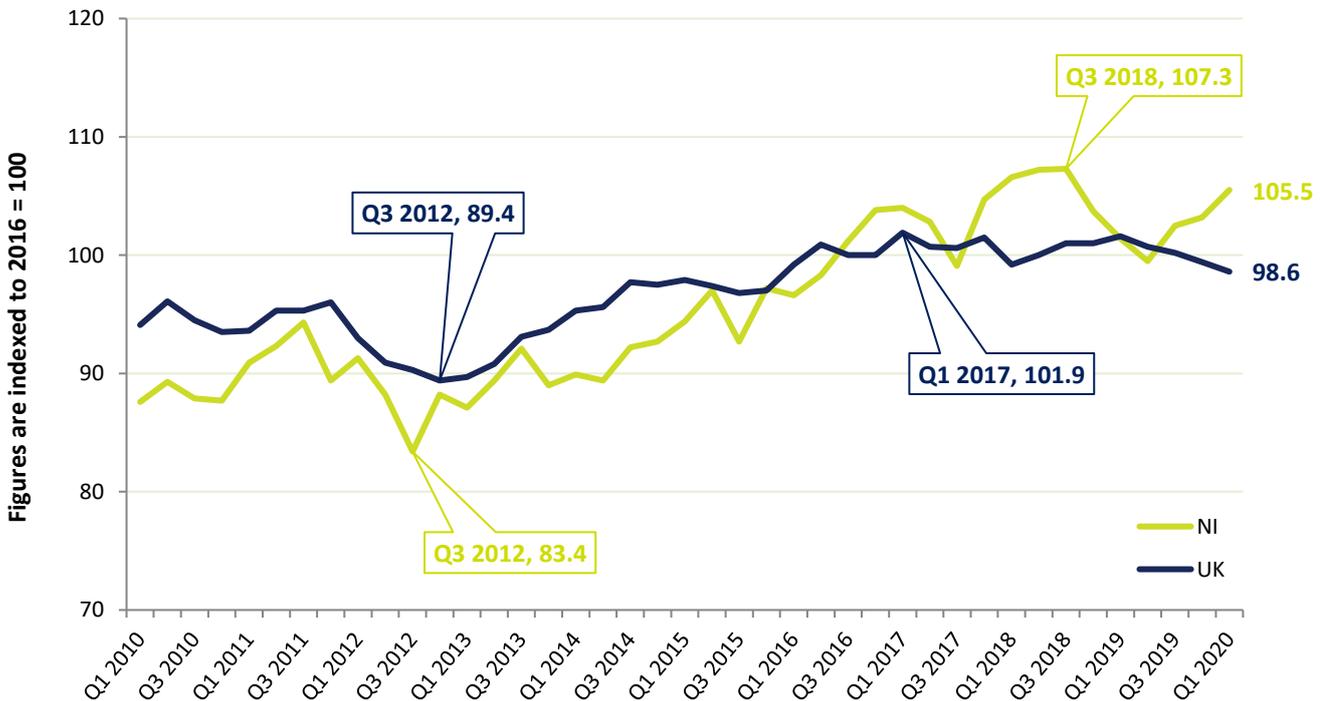
³ Please note that estimates at subsector level can fluctuate due to sampling variability and also due to businesses moving industrial classification.

3.4 Total Other Manufacturing (Weight=13.9%)⁴

Key findings

- Seasonally adjusted figures show an increase of 2.3% over the quarter. There was an increase over the year (4.1%) and a decrease on a rolling four quarters basis (2.2%).
- The UK had decreases over the quarter (0.8%), over the year (3.0%) and on a rolling four quarters basis (1.2%).
- NI output is estimated to be 1.7% below the highest point of the past ten years (Quarter 3 2018).
- NI output is estimated to be 26.5% above its series low (Quarter 3 2012).

Figure 3.4 Total Other Manufacturing, NI & UK (Q1 2010–Q1 2020)



[Download in Excel](#)

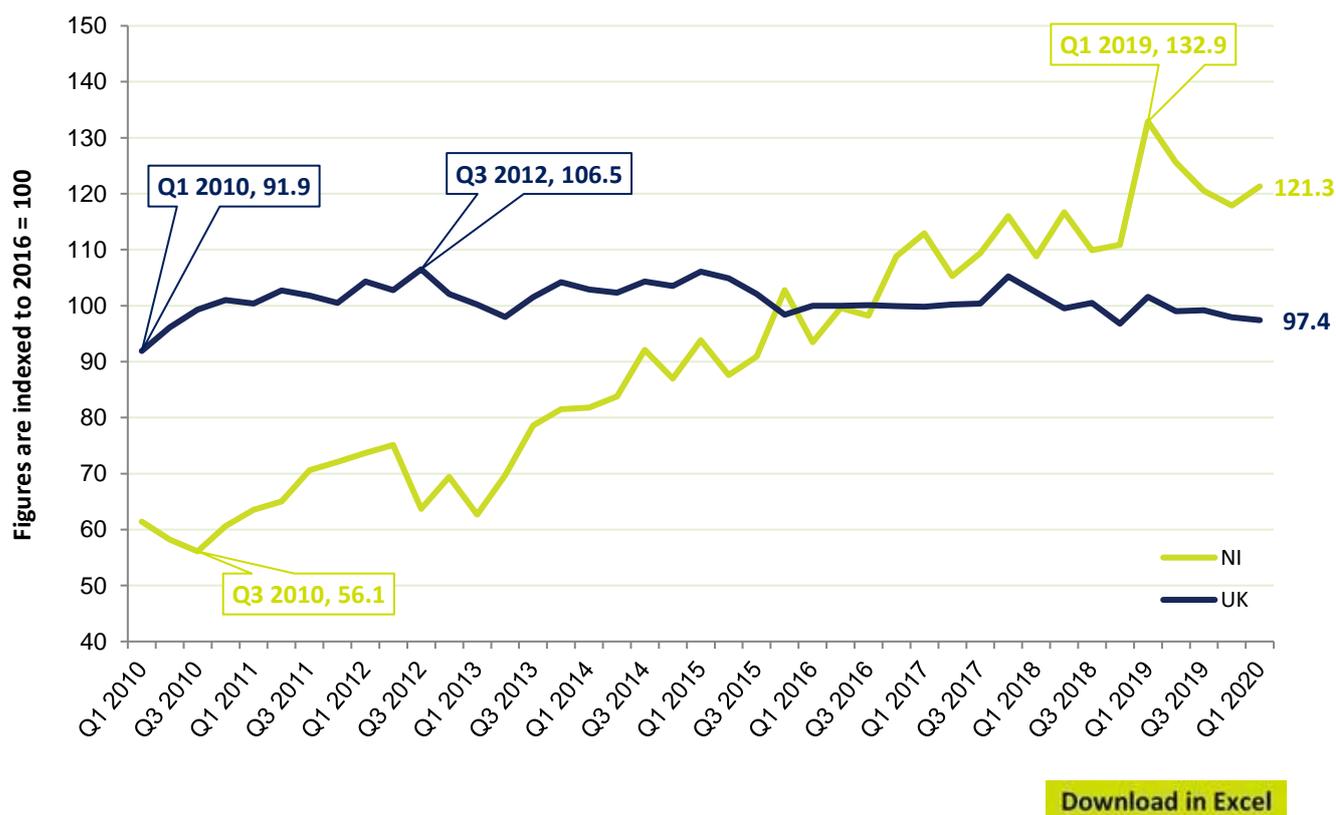
⁴ Please note that estimates at subsector level can fluctuate due to sampling variability and also due to businesses moving industrial classification.

3.5 Basic and fabricated metal products (Weight=7.4%)⁵

Key findings

- The NI seasonally adjusted figures show an increase of 2.9% over the quarter, a decrease of 8.7% over the year and an increase of 3.2% on a rolling four quarters basis.
- UK seasonally adjusted figures show decreases of 0.5% over the quarter, 4.1% over the year and 1.2% on a rolling four quarters basis.
- NI output has fallen 8.7% below its peak (Quarter 1 2019).
- NI output is 116.0% above the series low (Quarter 3 2010).

Figure 3.5 Basic and fabricated metal products, NI & UK (Q1 2010–Q1 2020)



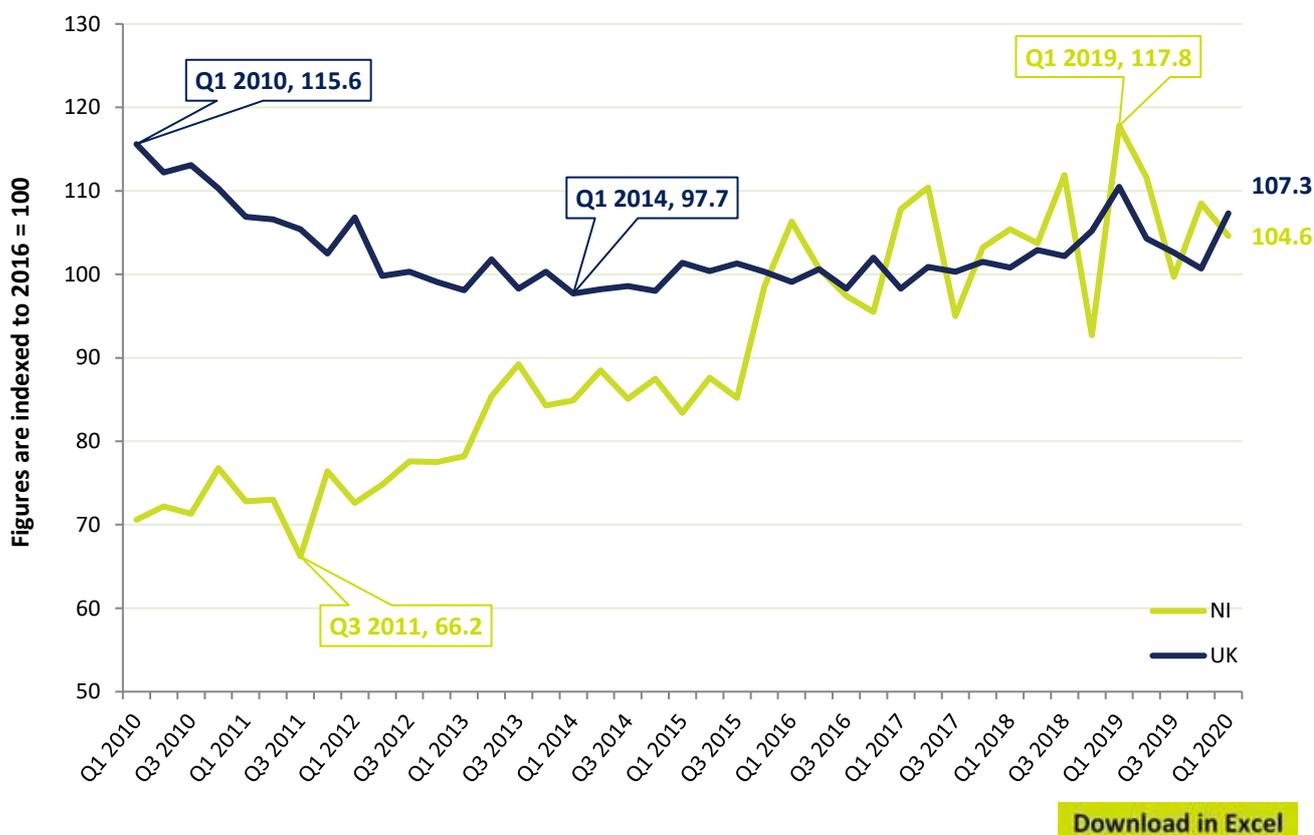
⁵ Please note that estimates at subsector level can fluctuate due to sampling variability and also due to businesses moving industrial classification.

3.6 Manufacturing of chemical and pharmaceutical products (Weight=6.3%)⁶

Key findings

- The NI non-seasonally adjusted figures show decreases of 3.6% over the quarter, 11.2% over the year and 0.4% on a rolling four quarters basis.
- The UK figures show an increase of 6.6% over the quarter, a decrease of 2.9% over the year and a decrease of 1.4% on a rolling four quarters basis.
- NI output is 11.2% below its highest point recorded (Quarter 1 2019).
- NI output is 58.1% above the ten year low point (Quarter 3 2011).

Figure 3.6 Manufacturing of chemical and pharmaceutical products, NI & UK (Q1 2010–Q1 2020)



⁶ Please note that estimates at subsector level can fluctuate due to sampling variability and also due to businesses moving industrial classification.

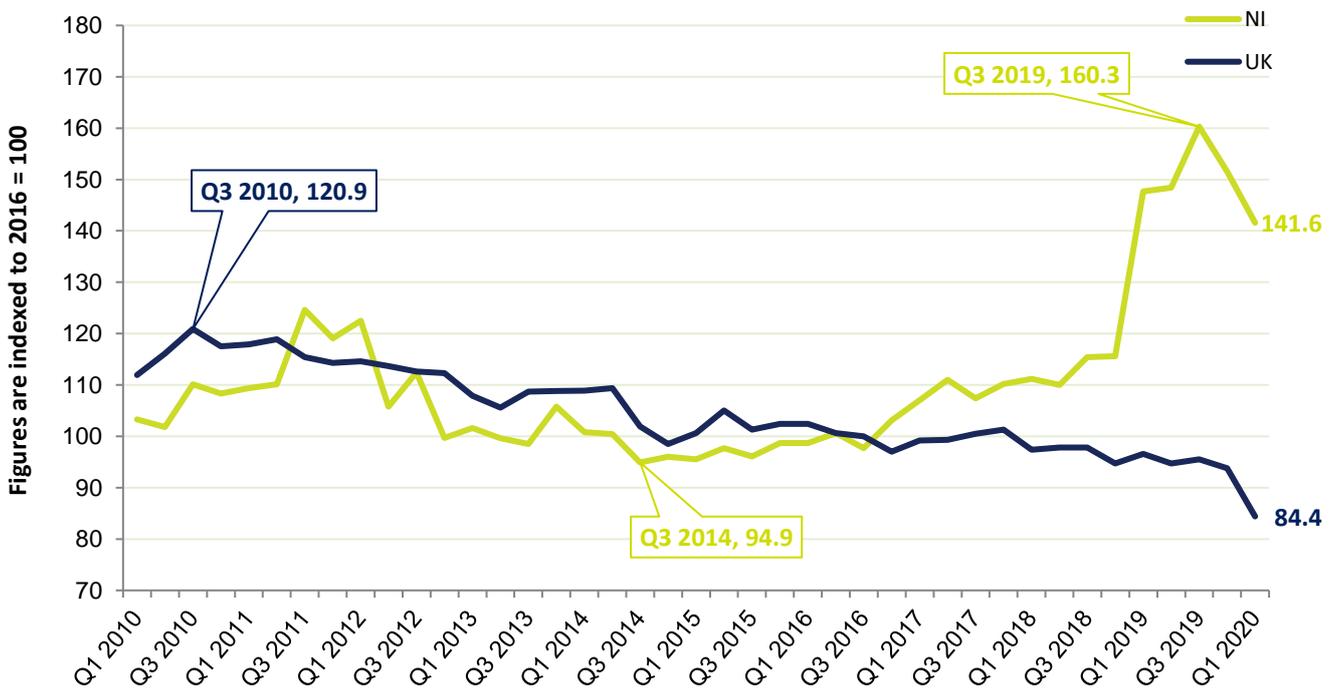
The Manufacturing of chemical and pharmaceutical products subsector has not been seasonally adjusted as this subsector shows no evidence of seasonality. The UK data has been seasonally adjusted.

3.7 Textiles, leather and related products (Weight=2.3%)⁷

Key findings

- The NI seasonally adjusted figures show a decrease over the quarter (6.5%), a decrease over the year (4.1%) and an increase on a rolling four quarters basis (23.2%).
- UK seasonally adjusted figures show decreases over the quarter (10.0%), over the year (12.6%) and on a rolling four quarters basis (4.8%). The UK is currently experiencing a series low in this subsector.
- NI output is 11.6% below its series high (Quarter 3 2019).
- NI output is 49.2% above the ten year low (Quarter 3 2014).

Figure 3.7 Textiles, leather and related products, NI & UK (Q1 2010–Q1 2020)



[Download in Excel](#)

⁷ Please note that estimates at subsector level can fluctuate due to sampling variability and also due to businesses moving industrial classification.

3.8 Other notable trends in manufacturing⁸

The six broad subsectors within manufacturing can be further broken down into ten more detailed subsectors that are not reported elsewhere in this bulletin, but are reported on within the IOP tables.

This section summarises any notable trends in these manufacturing sectors.

The following subsector is at a ten year low:

- Manufacture of computer, electronic, electrical & optical products ([Table 5.4](#)). This subsector has experienced decreases in five of the last six quarters. There is no comparable UK data in this subsector.

⁸ Please note that estimates at subsector level can fluctuate due to sampling variability and also due to businesses moving industrial classification.

4 Background notes

Background

The quarterly IOP provides a measure of change in the output of the production industries in NI (this is defined as SIC07 sections B to E). In 2018 these production industries accounted for 18% of Regional GVA. For further information please see the [Methodology for the NI Index of Production \(IOP\)](#).

Impact of COVID-19 on data collection and estimates

COVID-19 impacted on the data collection and the validation of turnover data, which are collected on the Quarterly Business Survey.

The following provides an overview of the coverage response rates for 2019, compared to Quarter 1 2020:

	Quarter 1 2020	2019 (median*)
Coverage response rate (<i>returned turnover</i>)	59%	80%

*median value achieved at IOP database closure of quarter 1, quarter 2, quarter 3 and quarter 4 2019.

COVID-19 has resulted in a decrease in coverage response rates in Quarter 1 2020 when compared to 2019 figures, primarily due to the restrictions in place for businesses.

As a result, the estimates for Quarter 1 2020 are likely to be subject to higher revisions than normal over the coming quarters. Comparisons of provisional March 2020 estimates at lower industry levels in particular should be treated with caution.

Gross Value Added (GVA)

From Quarter 4 2017, weighting has been carried out using the balanced GVA approach which balances the income and production approaches to measuring the economy into a single estimate. For more information please see [Regional GVA information](#). Figures in this publication are weighted using 2018 GVA which became available on 19th December 2019.

Deflation

All series, unless otherwise quoted, are measured at a constant market price (2016 = 100). Deflators adjust the value series to take out the effect of price change to give the volume series. The deflators used in this bulletin were sent directly by ONS on 8th June 2020. Details on the changes to the [ONS deflators methodology](#) can be found on the ONS Website.

Seasonal adjustment Review

Following the annual seasonal adjustment review conducted in November 2018 changes have been made to some regressors and models used to seasonally adjust (where applicable) time series using X13 ARIMA SEATS. This improves the reliability of results. Further details on [this review and other methodological changes](#) implemented in March 2019 are available on the NISRA website.

Productivity

The NI Index of Manufacturing Productivity has been removed from the Index of Production report. We are currently reviewing the methodology as part of a wider review of productivity.

Publications policy

All ELMS publications are available to download free of charge from the [ELMS section of the NISRA website](#).

The IOP bulletin and tables from the current publication, which includes all the data from the start of the series in 2005, are available in Excel and Open Document format to download free of charge from the [IOP section of the NISRA website](#).

Future IOP publications are due to be published on the same day as the Index of Services in March, June, September and December of each year.

Next publication

The next bulletin is due to be published on 17 September 2020.

The [ELMS publication schedule](#) is available on the NISRA website.

If you require any further information please contact

Rosemary Breen

Economic and Labour Market Statistics Branch,

Floor 1,

Colby House,

Stranmillis Court,

Belfast BT9 5RR

Tel: (028) 9052 9779

Email: economicstats@nisra.gov.uk

Web: [Index of Production](#)

Twitter: [@NISRA](#)

5 Index of tables

NI Quarterly IOP

- [1.1 IOP NI & UK](#)
- [2.2 Manufacturing sector output, NI & UK](#)
- [2.3 Water supply, sewerage and waste management \(Inc. recycling\), NI & UK](#)
- [2.4 Electricity, gas, steam and air conditioning supply, NI & UK](#)
- [2.5 Mining and quarrying output, NI & UK](#)
- [3.2 Food products, beverages and tobacco, NI & UK](#)
- [3.3 Engineering and allied industries, NI & UK](#)
- [3.4 Total Other Manufacturing, NI & UK](#)
- [3.5 Basic and fabricated metal products, NI & UK](#)
- [3.6 Manufacturing of chemical and pharmaceutical products, NI & UK](#)
- [3.7 Textiles, leather and related products, NI & UK](#)
- [4.1 NI Market Sector Goods](#)
- [5.1 IOP by Market Sector Goods \(annual data\)](#)
- [5.2 IOP by Market Sector Goods percentage change, NI](#)
- [5.3 IOP – Quarterly, annual and rolling annual average changes by sector, NI](#)
- [5.4 NI Manufacturing Index – Quarterly](#)
- [5.5 NI Manufacturing Index - Annual Average](#)
- [5.6 NI IOP by Manufacturing Broad Sub-sectors – Quarterly](#)
- [5.7 NI IOP by Manufacturing Broad Sub-sectors - Annual Average](#)