

Northern Ireland Quarterly Index of Production

Quarter 3 (July-September) 2018

Date: 13 December 2018

Geographical Area: Northern Ireland

Theme: Economy

Frequency: Quarterly

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 IOP indices along with other published quarterly indices and unpublished agricultural output data are used to generate the Northern Ireland Composite Economic Index (NICEI).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 has increased (2.4%) in Quarter 3 (July-September) for the fourth consecutive quarter. This is the strongest quarterly growth over this period.
- The UK IOP reported growth in output over both the quarter and the year, by 0.9% and 0.7% respectively.
- The quarterly increase in production output has been driven by increases from all four main sectors - Manufacturing (2.5%), Electricity gas, steam and air conditioning supply (4.0%), Water supply, sewerage and waste management (Inc. recycling) (2.6%) and Mining and quarrying sectors (0.4%).
- The annual increase in NI production output of 6.6% was driven by increases in Manufacturing (6.6%), Electricity, gas, steam and air conditioning supply (3.9%), and Water supply, sewerage and waste management (Inc. recycling) (11.7%). This increase was partially offset by a fall in Mining and quarrying (1.9%).
- Manufacturing Productivity has increased 2.5% over the quarter and 3.5% over the year.

The Index of Production (IOP) Bulletin contains the following chapters:

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National Statistics status means that official statistics meet the highest standards of trustworthiness, quality and public value.

All official statistics should comply with all aspects of the Code of Practice for Official Statistics. They are awarded National Statistics status following an assessment by the Authority's regulatory arm. The Authority considers whether the statistics meet the highest standards of Code compliance, including the value they add to public decisions and debate.

It is a producer's responsibility to maintain compliance with the standards expected of National Statistics. If we become concerned about whether these statistics are still meeting the appropriate standards, we will discuss any concerns with the Authority promptly. National Statistics status can be removed at any point when the highest standards are not maintained, and reinstated when standards are restored.

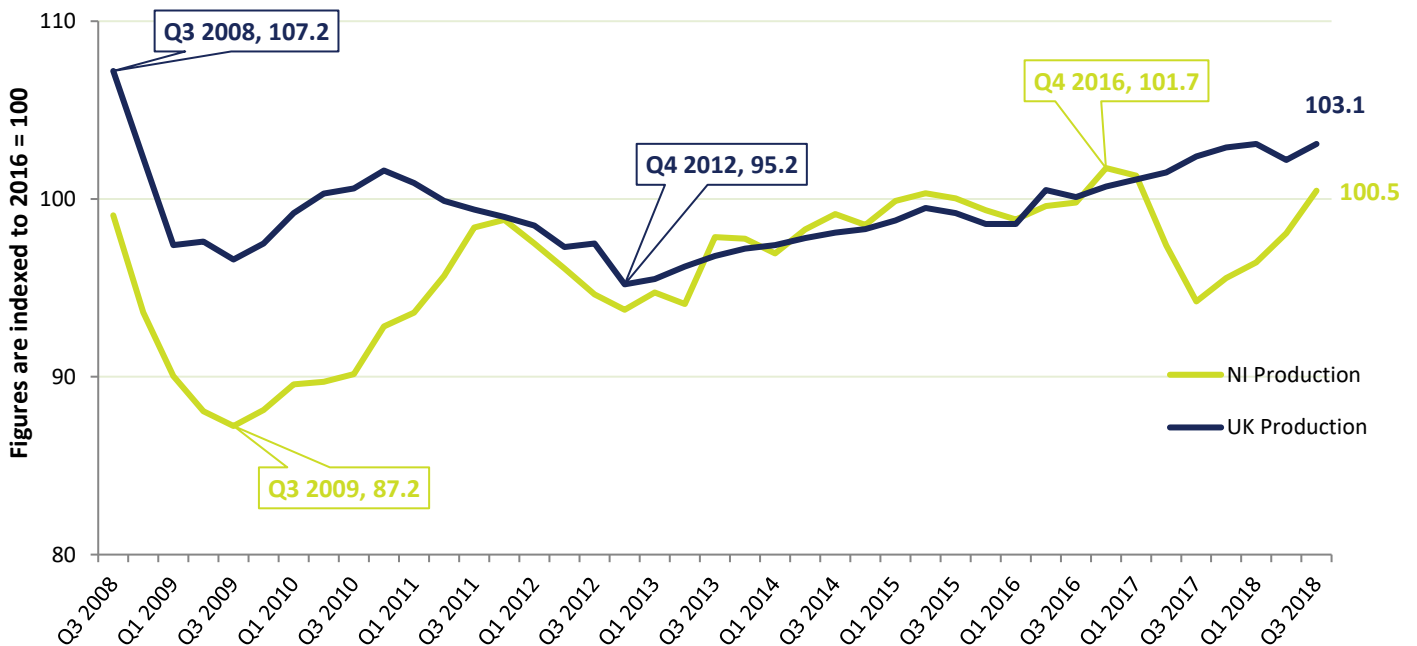
1 Summary of Index of Production

1.1 Change in IOP

The seasonally adjusted estimate for the NI IOP for Quarter 3 2018 showed:

- an increase of 2.4% over the quarter from the Quarter 2 2018 estimate.
- an increase of 6.6% over the year from the Quarter 3 2017 estimate.
- a decrease of 1.0% when the most recent four quarters are compared to the previous four quarters.

Figure 1.1 IOP NI & UK (Q3 2008 – Q3 2018)

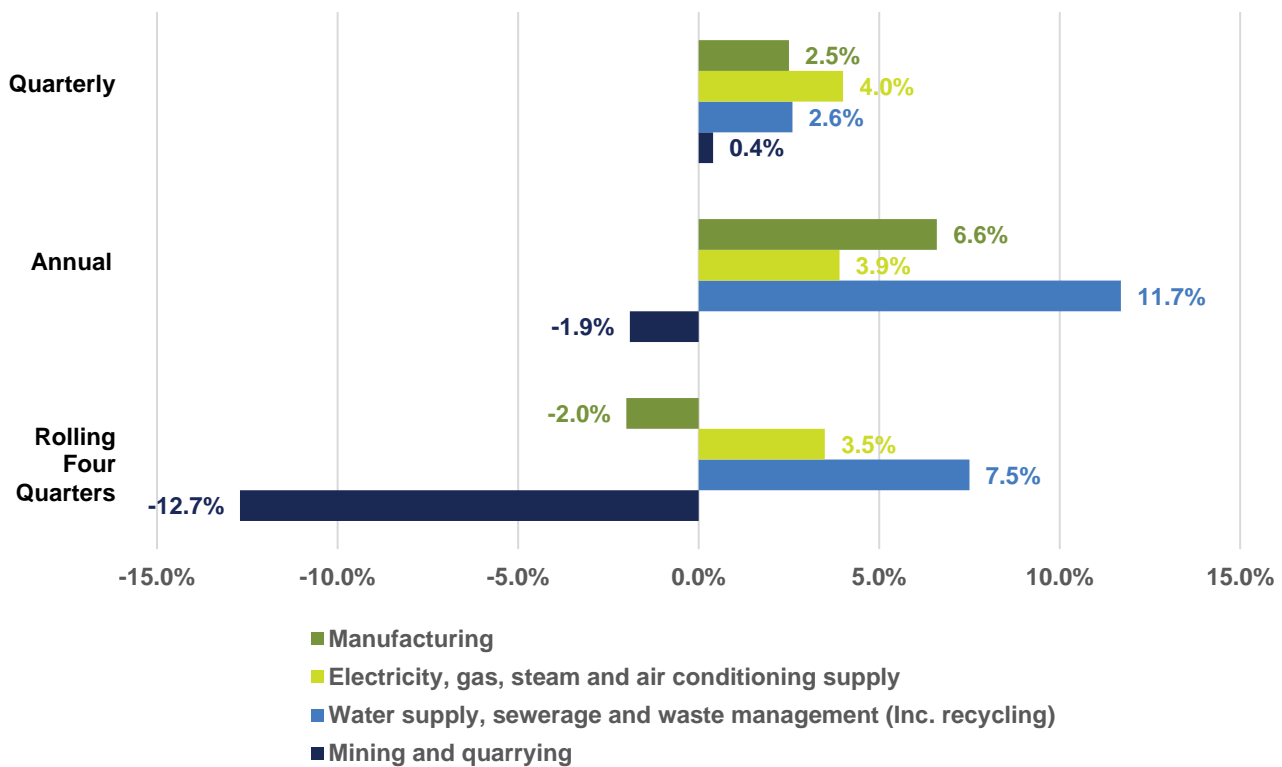


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Commentary

Output in the NI Production sector has increased in real terms by 2.4% over the third quarter of 2018. NI output remains 1.2% lower than its highest value in the last ten years (Quarter 4 (October – December) 2016) and is 1.4% lower than the highest point since the series began (Quarter 4 2007). NI growth over the year (6.6%) was higher than in the UK (0.7%). NI output has recovered 15.2% since its lowest point in ten years (Quarter 3 (July – September) 2009). In contrast the UK has recovered 6.7% over the same period.

Figure 1.2 Quarterly, annual and rolling four quarters changes in IOP at sector level Quarter 3 2018



Changes over the quarter

Comparing the seasonally adjusted NI IOP from Quarter 2 2018 (April-June) to Quarter 3 2018 (July-September) showed:

- an increase in Manufacturing output by 2.5%;
- an increase in Electricity, gas, steam and air conditioning supply output by 4.0%;
- an increase in Water supply, sewerage and waste management (Inc. recycling) output by 2.6%; and,
- an increase in Mining and quarrying output by 0.4%.

Changes over the year

Comparing the seasonally adjusted NI IOP from Quarter 3 2018 to Quarter 3 2017 showed:

- an increase in Manufacturing output by 6.6%;
- an increase in Electricity, gas, steam and air conditioning supply output by 3.9%;
- an increase in Water supply, sewerage and waste management (Inc. recycling) output by 11.7%; and,
- a decrease in Mining and quarrying output by 1.9%.

Changes over a rolling four quarters basis

Comparing the seasonally adjusted NI IOP for Quarter 4 2017–Quarter 3 2018 to Quarter 4 2016–Quarter 3 2017 showed:

- a decrease in Manufacturing output by 2.0%;
- an increase in Electricity, gas, steam and air conditioning supply output by 3.5%;
- an increase in Water supply, sewerage and waste management (Inc. recycling) output by 7.5%; and,
- a decrease in Mining and quarrying output by 12.7%.

1.2 Productivity (Index of Manufacturing Productivity (IOMP))

The seasonally adjusted estimate for Manufacturing Productivity for Quarter 3 2018 showed:

- an increase of 2.5% in Manufacturing Productivity over the quarter;
- an increase of 3.5% over the year from Quarter 3 2017 estimate;
- a decrease of 5.5% over a rolling four quarters basis;
- Productivity remains 13.1% below its highest recorded level in Quarter 3 2011; and
- Productivity is 3.8% above its lowest point recorded in the last ten years in Quarter 1 2018.

1.3 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 [here](#).

The Department for the Economy (DfE) [Economic Commentary \(Autumn 2018\)](#) 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 5) 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, for Electricity, gas, steam and air conditioning supply, for Water supply, sewerage and waste management (Inc. recycling) and for 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 3 2018).

Comparative UK data, produced by the Office for National Statistics (ONS), are presented where these are available. Click [here](#) to see the latest UK IOP results.

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.

2 Production output by sector

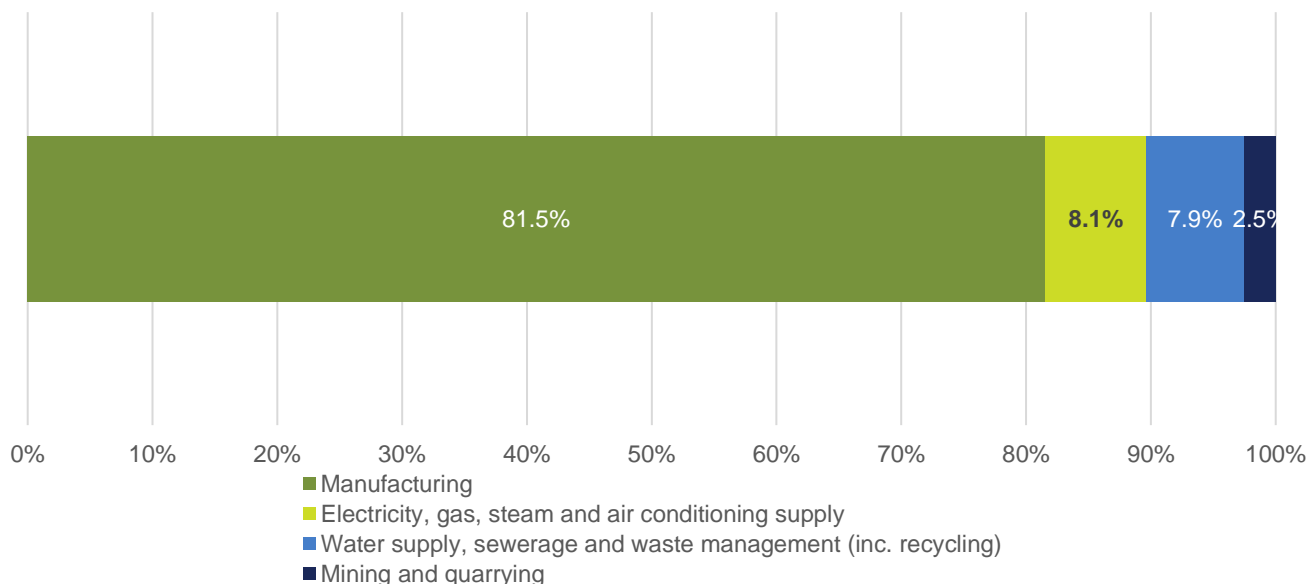
Output: Turnover, defined as the value of total sales generated from all NI based activity, excluding VAT. Turnover is rounded to the nearest thousand and is then deflated and seasonally adjusted.

2.1 Key findings

- The IOP increased 2.4% over the quarter and 6.6% over the year, and decreased 1.0% on a rolling four quarter basis.
- The index continues to recover from Quarter 3 2017, increasing for the fourth successive quarter.
- The quarterly increase in production output has been driven by increases in all four sectors - Manufacturing (2.5%), Electricity, gas, steam and air conditioning supply (4.0%), Water supply, sewerage and waste management (Inc. recycling) (2.6%) and Mining and quarrying (0.4%) sectors.
- The annual increase in NI production output of 6.6% was supported by increases in Manufacturing (6.6%), Electricity, gas, steam and air conditioning supply (3.9%) and Water supply, sewerage and waste management (Inc. recycling) (11.7%). This increase was partially offset by a decrease in Mining and quarrying (1.9%).

The Production sector is composed of four sectors but is dominated by Manufacturing, which accounts for approximately 81.5% of total production Gross Value Added (GVA) at 2016. The sectors are listed in order of the importance of their contribution made to the overall IOP.

Figure 2.1 IOP sector split (based on 2016 GVA)



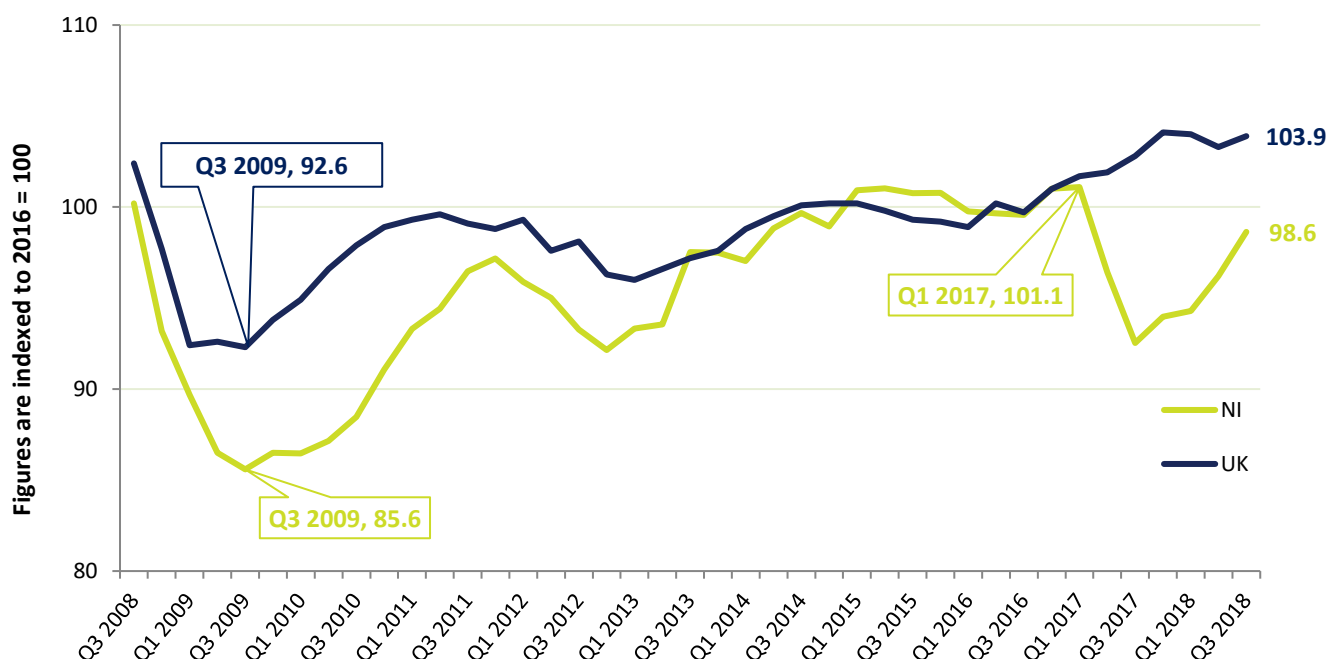
2.2 Manufacturing

Manufacturing sector (SIC07 Section C) - (weight = 81.5% of IOP): Manufacturing involves the transformation of materials into new products (outputs). It is comprised of six subsectors. Sub-sectors are defined and presented in order of the importance of their contribution towards manufacturing in Section 3.

Key findings

- The NI seasonally adjusted figures show increases of 2.5% over the quarter and 6.6% over the year and a decrease of 2.0% on a rolling four quarters basis.
- The UK seasonally adjusted figures show increases of 0.6% over the quarter, 1.1% over the year and 1.9% on a rolling four quarter basis.
- The NI trend is observed to be divergent to the UK over the longer term (rolling four quarter basis).
- NI output is 2.4% below its highest point recorded (Quarter 1 2017) over the ten year period Q3 2008–Q3 2018.
- NI output is 15.2% above its lowest point recorded (Quarter 3 2009) within the past ten years.

Figure 2.2 Manufacturing sector output, NI & UK (Q3 2008–Q3 2018)



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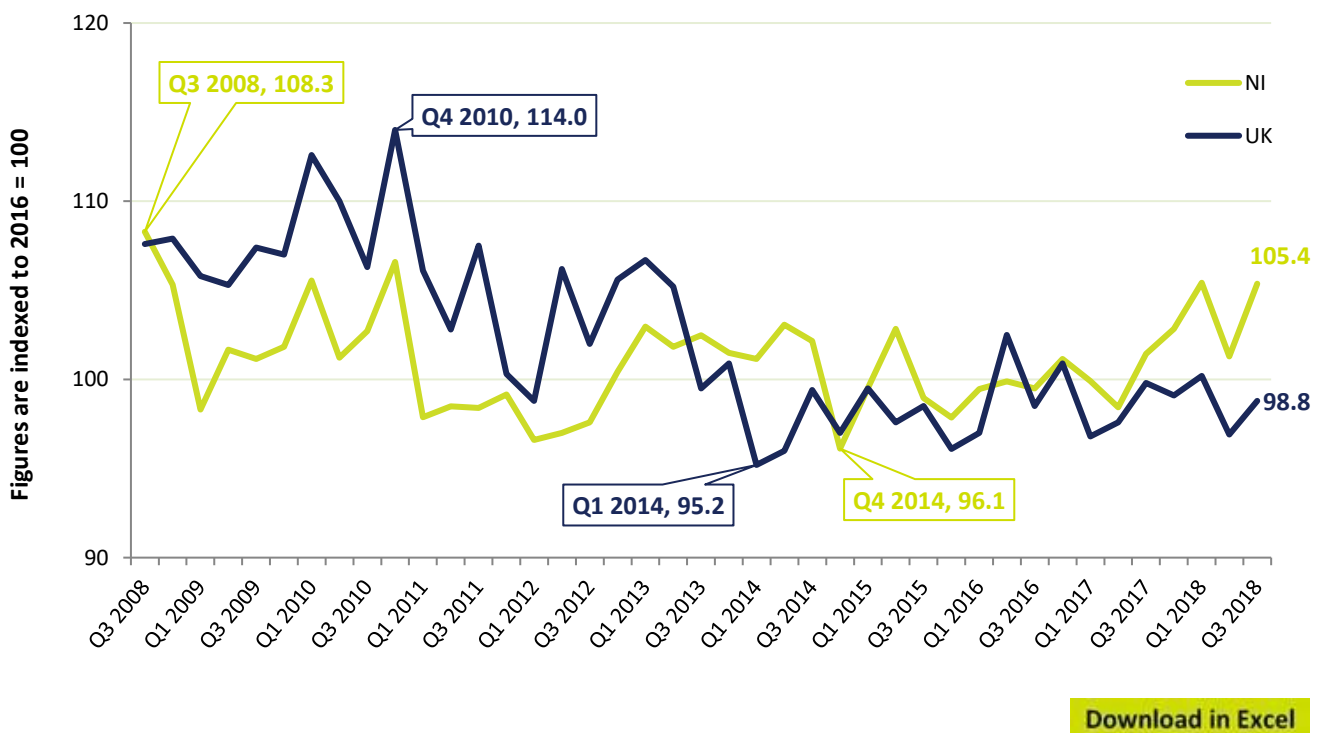
2.3 Electricity, gas, steam and air conditioning supply

Electricity, gas, steam and air conditioning supply (SIC07 Section D) (weight = 8.1% 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 increases of 4.0% over the quarter, 3.9% over the year and 3.5% on a rolling four quarters basis.
- NI trend is observed to be divergent to UK over the mid-term with the UK reporting a decline (1.0%) over the year.
- NI estimate remains below (2.7%) the series high recorded in Quarter 3 2008.
- The NI index is observed to be 9.6% above its lowest point recorded (Quarter 4 2014) in the past ten years and 19.1% above the series low (Quarter 2 2007).

Figure 2.3 Electricity, gas, steam and air conditioning supply, NI & UK (Q3 2008–Q3 2018)



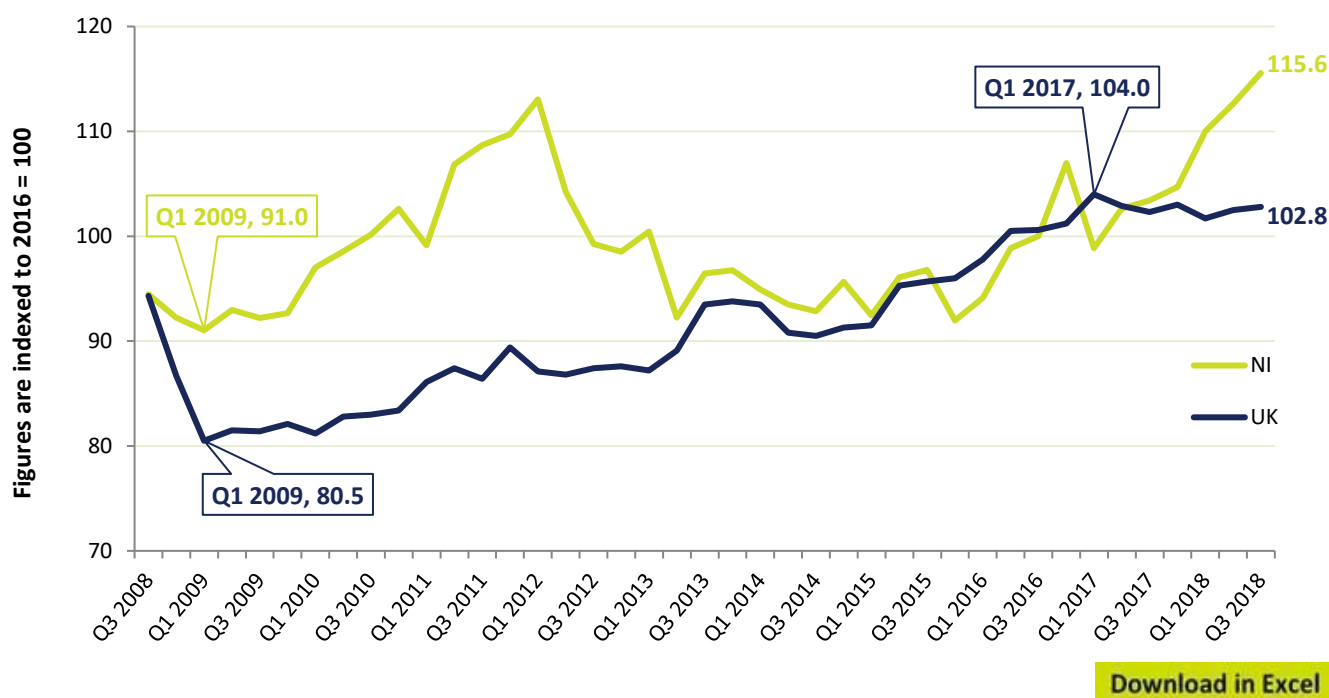
2.4 Water supply, sewerage and waste management (Inc recycling)

Water supply, sewerage, and waste management (Inc. recycling) (SIC07 Section E) (weight = 7.9% 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 an increase of 2.6% over the quarter, 11.7% over the year and 7.5% on a rolling four quarters basis.
- When compared to UK, NI growth is observed to be stronger. The UK reports increases of 0.3% over the quarter and 0.5% over the year and a decrease of 0.1% on a rolling four quarters basis.
- NI output is at a series high following quarterly growth over the last six consecutive quarters.
- NI output was observed to be 27.0% above its lowest point recorded (Quarter 1 2009) in ten years.

Figure 2.4 Water supply, sewerage and waste management (Inc. recycling), NI & UK (Q3 2008–Q3 2018)



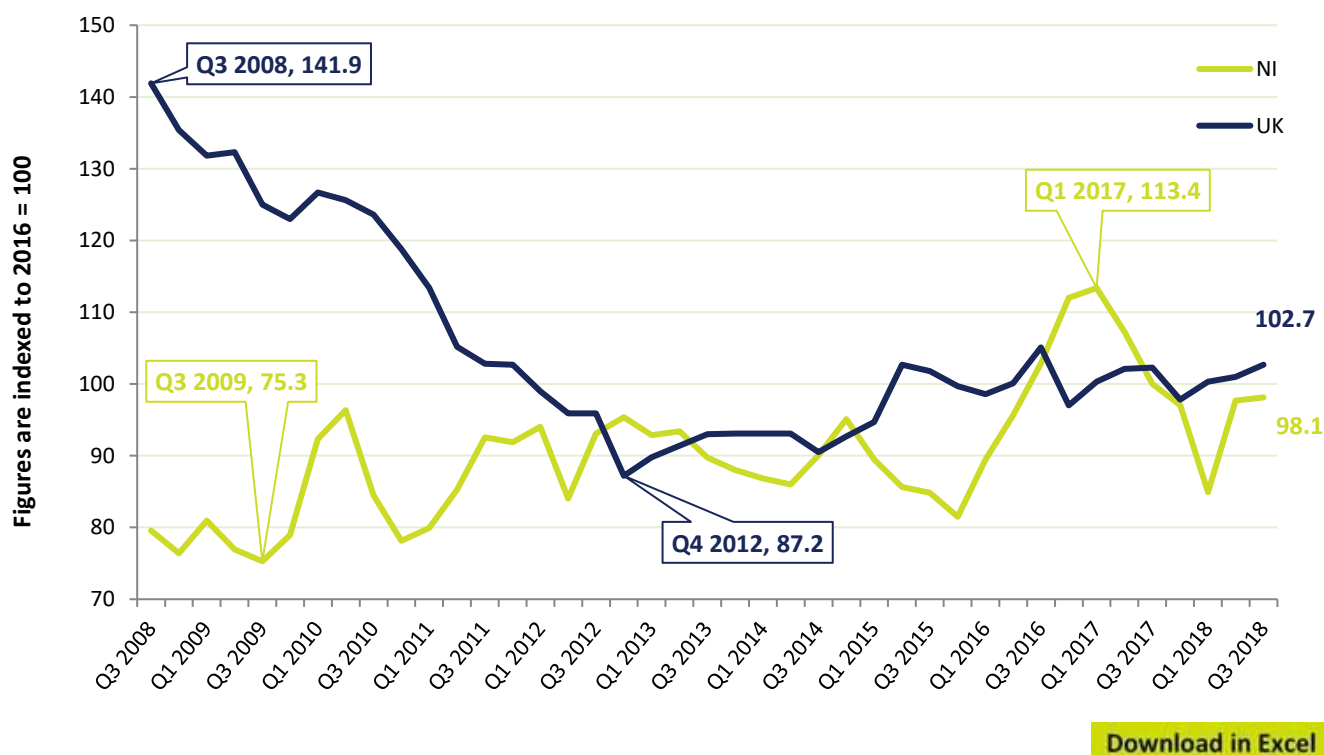
2.5 Mining and quarrying

Mining and quarrying (SIC07 Section B) (weight = 2.5% 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 a substantially weaker increase of 0.4% in comparison to the previous quarter. Output decreased over the year (1.9%) and on a rolling four quarters basis (12.7%).
- The UK seasonally adjusted figures show a stronger increase over the quarter (1.7%), an increase over the year (0.4%) and remains stable (0.0%) over a rolling four quarter basis.
- NI output is 13.5% below the series high (Quarter 1 2017).
- NI output is 30.3% above the lowest reported level (Quarter 3 2009) in the last decade.

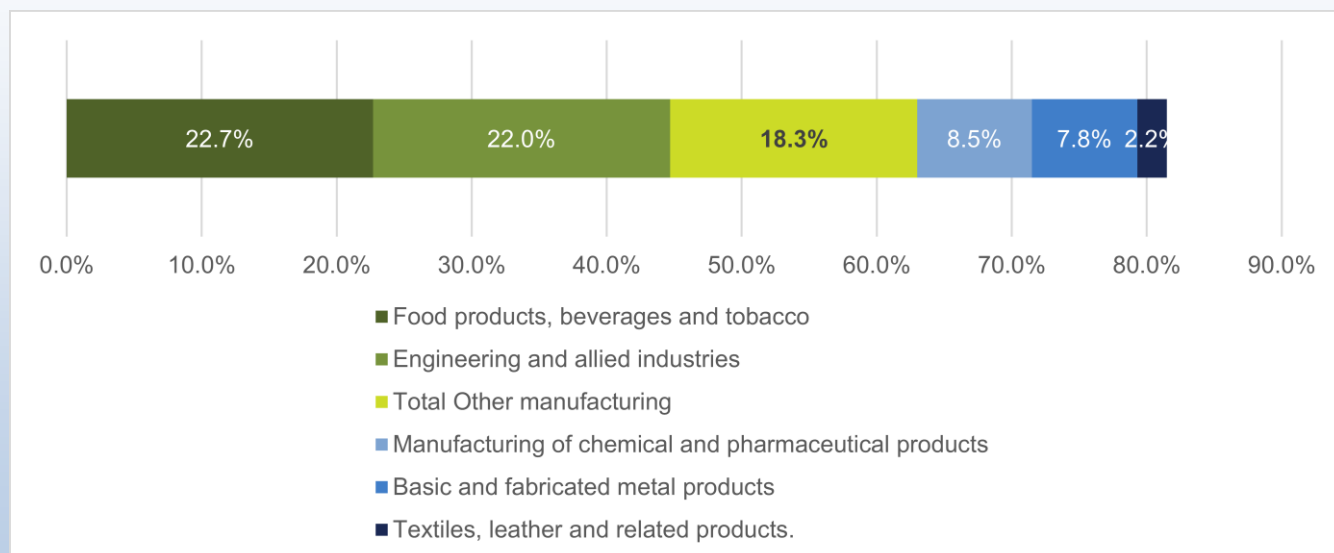
Figure 2.5 Mining and quarrying output, NI & UK (Q3 2008–Q3 2018)



3 Manufacturing sub-sectors

Manufacturing sub-sectors: Manufacturing is comprised of six sub-sectors. Figure 3.1 shows the contribution of each to the Production sector. The six sub-sectors make up 81.5% of the Production sector.

Figure 3.1 Manufacturing sub-sectors



*Total Other includes Manufacture of wood, paper products & printing and Rubber, plastic products & non-metallic mineral products

3.1 Key findings

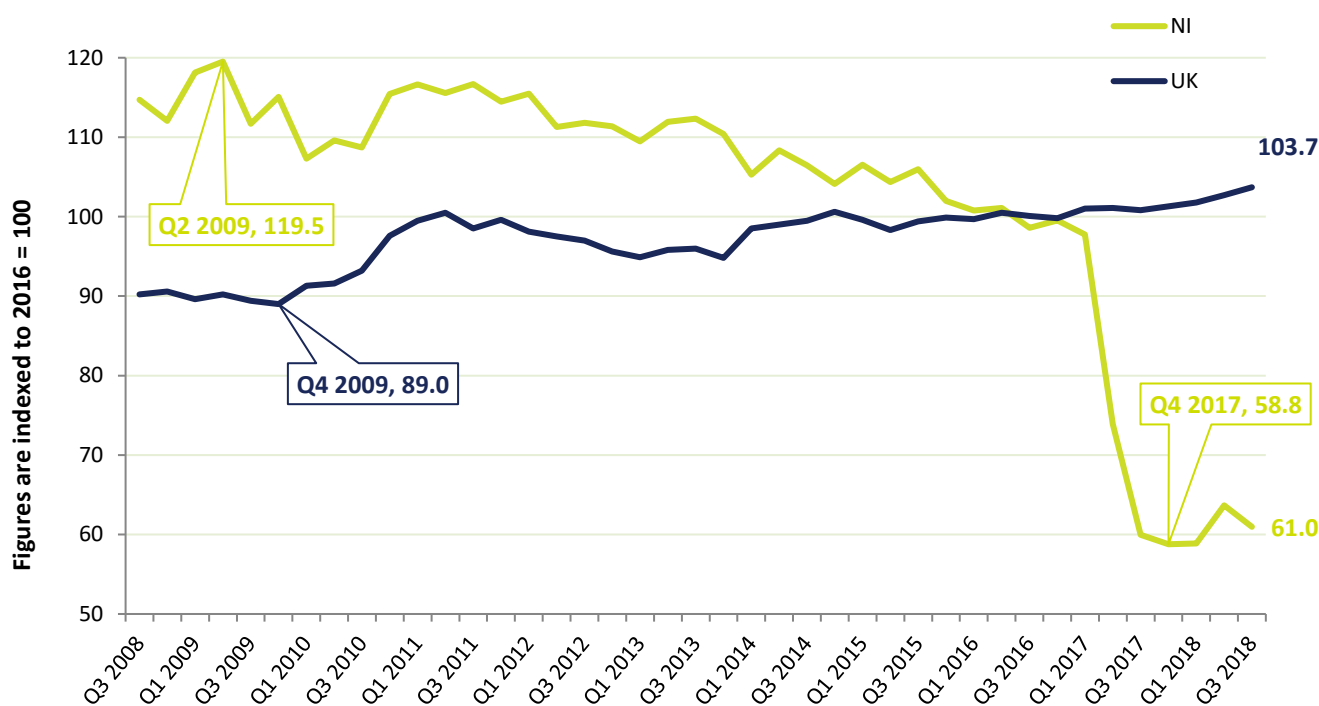
- The quarterly increase in Manufacturing output was driven by increases from the Engineering and allied industries (2.2%), Total other manufacturing (1.3%), Manufacturing of chemical and pharmaceutical products (7.9%), and Textiles, leather and related products (5.3%) subsectors.
- This increase was partially offset by the decreases from Food products, beverages and tobacco (4.3%) and Basic and fabricated metal products (4.5%).
- Similarly, over the year the increases in Manufacturing were supported by increases in all six sub-sectors. The strongest growth was recorded for Manufacturing of chemical and pharmaceutical products (17.9%).

3.2 Food products, beverages and tobacco

Key findings

- NI output decreased by 4.3% from Quarter 2 2018.
- Seasonally adjusted figures show an increase over the year (1.7%) with a decrease of 26.8% on a rolling four quarters basis.
- The UK estimated increases of 1.0% over the quarter, 2.9% over the year and 1.7% on a rolling four quarters basis.
- NI trend is divergent to UK over the quarter and on a rolling four quarters basis.
- NI output is estimated to be 3.7% above the series low (Quarter 4 2017).
- NI output has fallen 49.0% below its peak (Quarter 2 2009).

Figure 3.2 Food products, beverages and tobacco, NI & UK (Q3 2008–Q3 2018)



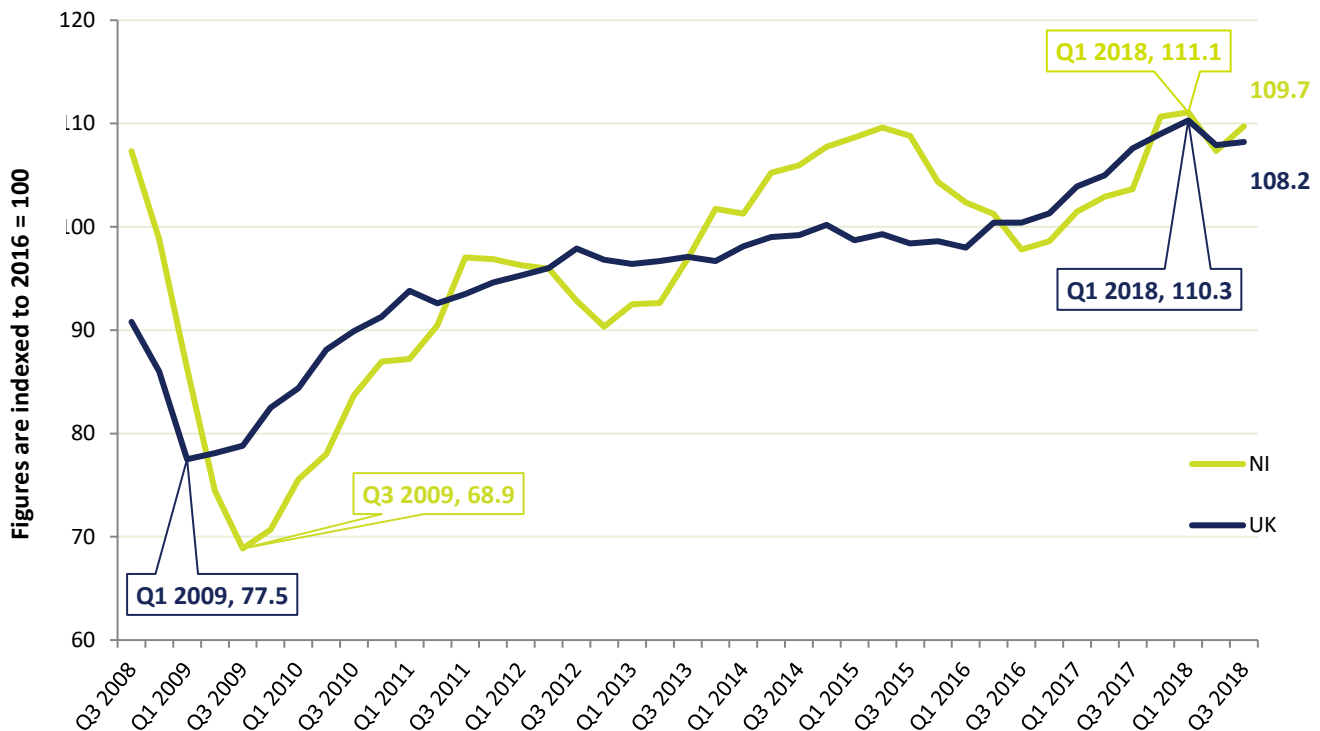
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3.3 Engineering and allied industries

Key findings

- NI seasonally adjusted figures show an increase over the quarter of 2.2% and stronger increases over the year (5.9%) and on a rolling four quarters basis (7.9%).
- The UK estimated weaker increases of 0.3% over the quarter, 0.6% over the year and 4.2% on a rolling four quarters basis.
- Homogeneous and stronger growth observed for NI in comparison to UK over all comparable time periods.
- NI output is estimated to be 1.2% below its highest point (Quarter 1 2018) in ten years.
- NI output is 59.3% above the series low recorded (Quarter 3 2009) in ten years.

Figure 3.3 Engineering and allied industries NI & UK (Q3 2008–Q3 2018)



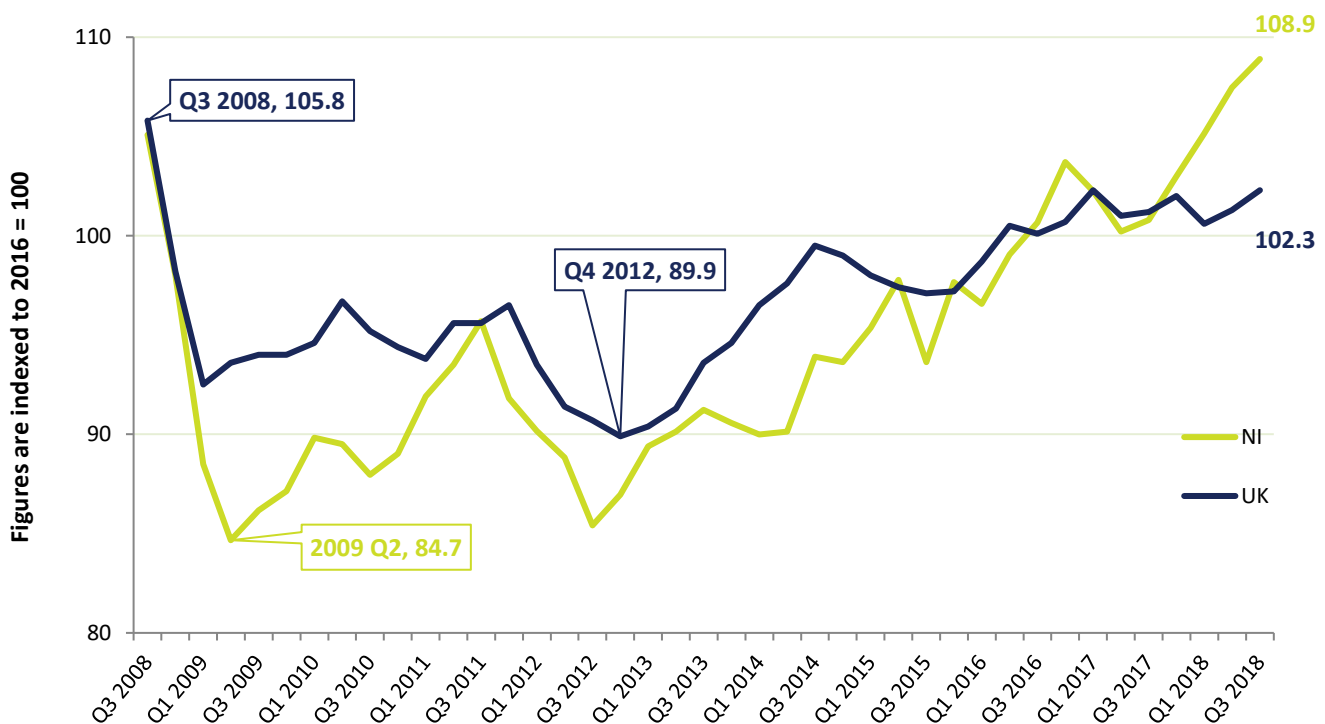
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3.4 Total Other Manufacturing

Key findings

- Seasonally adjusted figures show a weaker increase over the quarter of 1.3%, compared to the previous quarter. Increases were stronger over the year (8.0%) and on a rolling four quarters basis (4.3%).
- The UK had weaker increases over the quarter (1.0%), over the year (1.1%) and on a rolling four quarters basis (0.2%).
- The NI index shows stronger growth than UK.
- NI output is estimated to be at series high of the past ten years.
- NI output is estimated to be 28.6% above its lowest point recorded (Quarter 2 2009) in the last ten years.

Figure 3.4 Total Other manufacturing, NI & UK (Q3 2008–Q3 2018)



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3.5 Manufacturing of chemical and pharmaceutical products¹

Key findings

- The NI non-seasonally adjusted figures show an increase of 7.9% over the quarter, 17.9% over the year and 3.9% on a rolling four quarters basis.
- The UK figures show a decrease of 0.7% over the quarter, and weaker increases than NI of 1.4% over the year, and of 0.2% on a rolling four quarters basis.
- NI output for this sector has reached a series high.
- NI output is 89.3% above the series low reported (Quarter 4 2008) within the past ten years.

Figure 3.5 Manufacturing of chemical and pharmaceutical products, NI & UK (Q3 2008–Q3 2018)



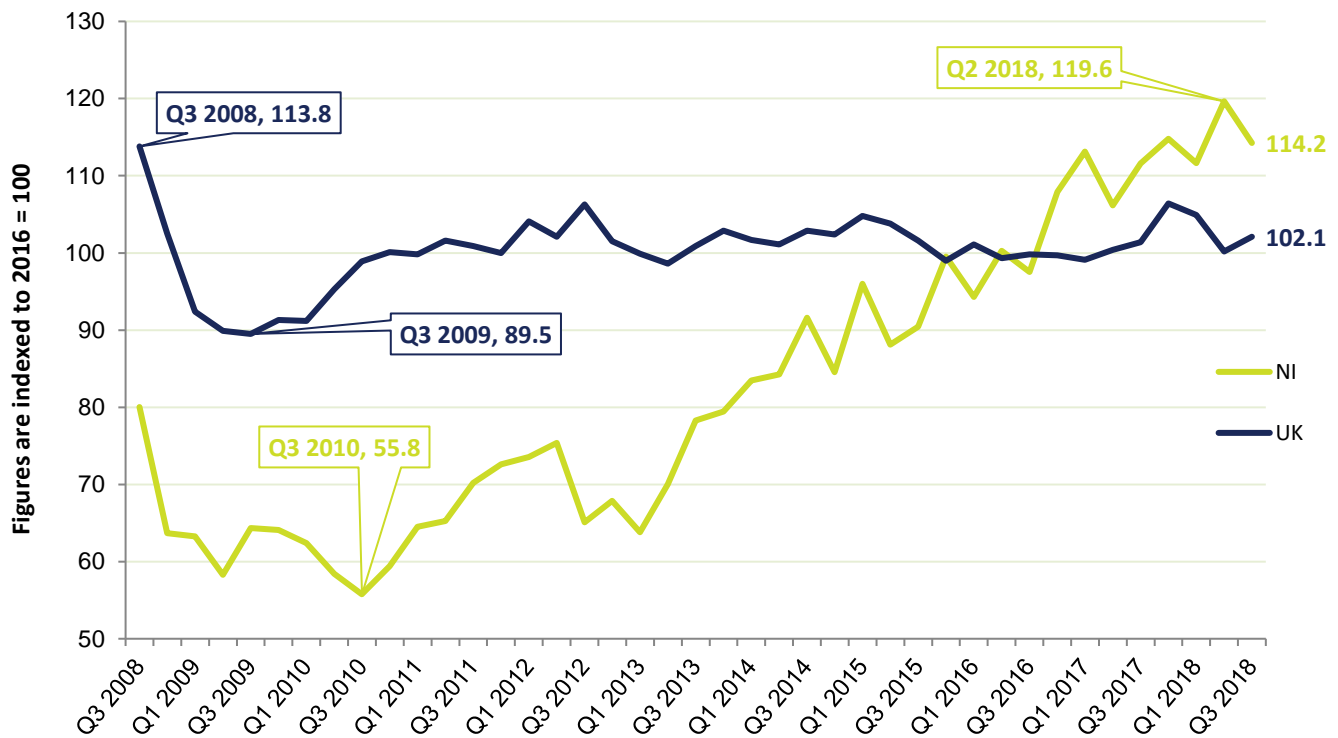
¹ The Manufacturing of chemical and pharmaceutical products sub-sector has not been seasonally adjusted.

3.6 Basic and fabricated metal products

Key findings

- The NI seasonally adjusted figures show a decrease of 4.5% over the quarter, and increases of 2.4% over the year and 4.9% on a rolling four quarters basis.
- UK seasonally adjusted figures show an increase of 1.9% over the quarter, an increase of 0.7% over the year and an increase of 3.2% on a rolling four quarters basis.
- NI output is observed to be following a divergent trend to the UK over the quarter and reports stronger growth over the year and on a rolling four quarter basis.
- NI output is 104.8% above its lowest point recorded in ten years (Quarter 3 2010).

Figure 3.6 Basic and fabricated metal products, NI & UK (Q3 2008–Q3 2018)



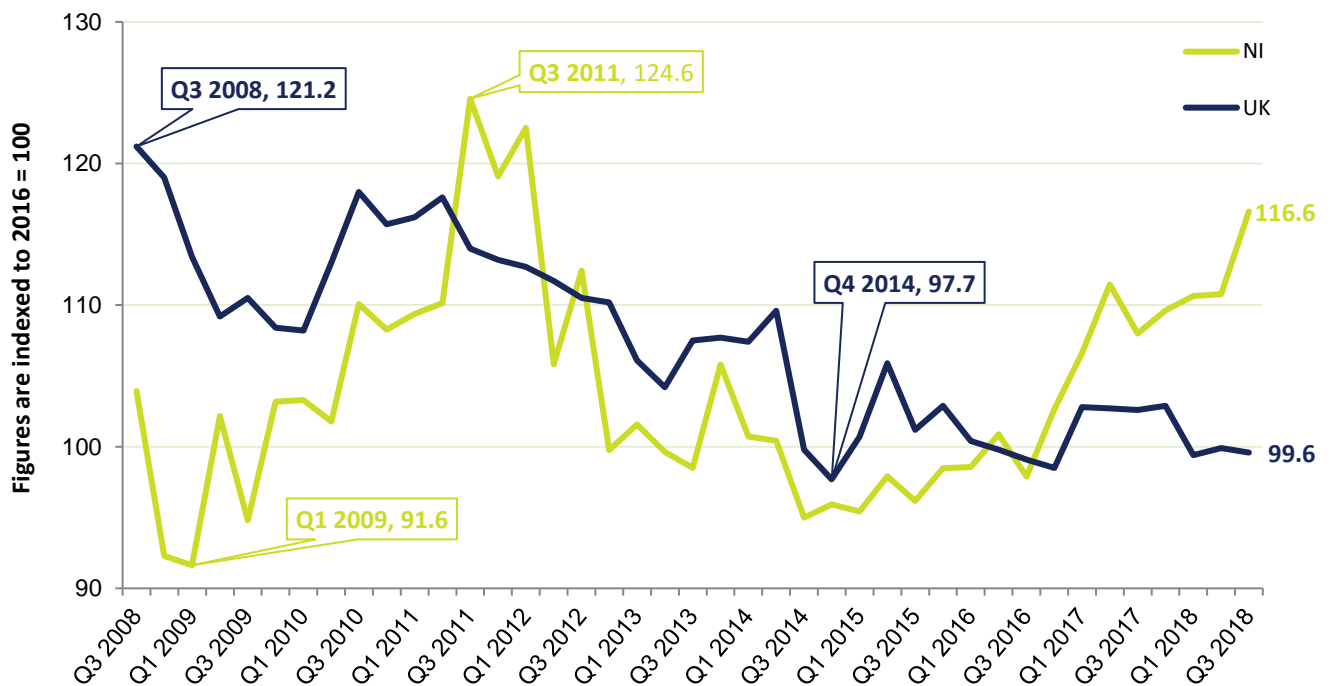
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3.7 Textiles, leather and related products

Key findings

- The NI seasonally adjusted figures show increases over the quarter (5.3%), over the year (8.0%), and on a rolling four quarters basis (4.4%).
- UK seasonally adjusted figures show a decrease of 0.3% over the quarter, 2.9% over the year and 1.2% on a rolling four quarters basis.
- NI output was observed to be following a divergent upward trend in comparison to the UK.
- NI output is 6.4% below its highest point recorded in ten years (Quarter 3 2011).
- NI output is 27.3% above its lowest point recorded in ten years (Quarter 1 2009).

Figure 3.7 Textiles, leather and related products, NI & UK (Q3 2008–Q3 2018)



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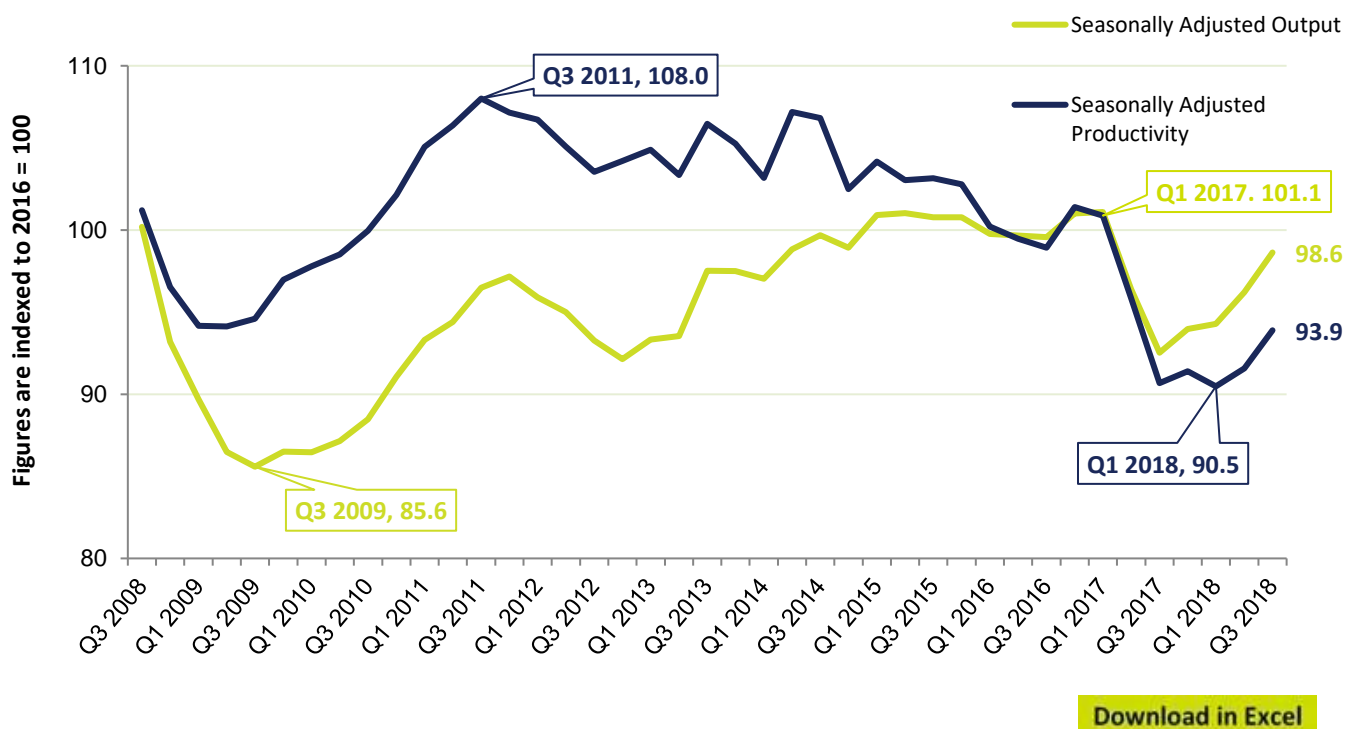
4 NI Index of manufacturing productivity

Index of Manufacturing Productivity (IOMP): IOMP is a measure of efficiency of labour hours in producing output for the NI Production industry. IOMP is seasonally adjusted to provide a measure of the number of units of output produced per person per paid hour. The index includes seasonally adjusted employees in employment, the seasonally adjusted Manufacturing index and average weekly hours (based on hours worked for full-time adult manufacturing workers, including overtime, from the Annual Survey of Hours and Earnings).

Key findings

- NI seasonally adjusted figures show increases in productivity of 2.5% over the quarter and 3.5% over the year, and a decrease of 5.5% on a rolling four quarters basis.
- The most notable change is observed on a rolling four quarters basis (-5.5%).
- Consistent with the trends in output, productivity has shown an increase over the quarter.
- Manufacturing productivity remains 13.1% below its highest recorded level in Quarter 3 2011.
- Recently published Quarterly Employment Survey (QES) seasonally adjusted figures for September 2018 reported no change (0.0%) over the quarter in employee jobs in the Manufacturing sector and an increase of 2.9% over the year.

Figure 4.1 NI Index of manufacturing productivity Q3 2008–Q3 2018



[For historical average annual figures please see Table 6.14.](#)

5 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 2016 these production industries accounted for 18% of Regional GVA. For further information please see the [Methodology for the NI Index of Production \(IOP\)](#).

Background

The IOP is a statutory survey with an average response rate of 79%.

Gross Value Added (GVA)

Up until Quarter 3 2017 indices were calculated using income based GVA for weighting purposes. From Quarter 4 2017 however, weighting is 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 2016 GVA which became available on 20th December 2017.

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 4th December 2018. Details on the changes to the ONS deflators methodology can be found [here](#).

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 21st March 2019.

The ELMS publication schedule is available [here](#).

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