

# Northern Ireland Quarterly Index of Services

Quarter 4 (October – December) 2021

Theme: Economy

Frequency: Quarterly

Geographical Area: Northern Ireland

Date: 16 March 2022

## Introduction

The quarterly Index of Services (IOS) provides a timely indicator of change in output within the private sector services industries in Northern Ireland (NI). IOS indices, along with published quarterly data and unpublished agricultural output data, are used to generate the [Northern Ireland Composite Economic Index \(NICEI\)](#). The NICEI is an experimental quarterly measure of economic activity in NI.

## Key Points

Output estimates are calculated from the IOS aspect of the Quarterly Business Survey (QBS). The IOS has a sample size of approximately 3,600 businesses, covering all private service sector businesses with 100 or more employees and a representative sample of smaller businesses. The latest quarterly estimates are compared to revised Quarter 3 2021 and Quarter 4 2020 estimates.

- Services output in NI saw a quarterly increase of 1.3% in Quarter 4 2021 and an increase of 9.2% over the year.
- UK services output experienced a quarterly increase of 1.3% in Quarter 4 2021 and an increase of 7.1% over the year.
- NI Service output is now 3.5% above the pre Coronavirus pandemic levels seen in Quarter 4 2019 while UK Service output is 0.3% above the Quarter 4 2019 level.
- When the most recent four quarters are compared to the previous four quarters the NI services sector increased by 9.8% while the UK services sector increased by 6.1%.
- NI services output is at a series high and is 35.3% higher than the lowest point (Quarter 2 2020) since the series began.
- The annual increase to Quarter 4 2021 is the third successive annual increase, following a period of five consecutive quarters of annual decline in the NI index.

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## 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 5 August 2011 following a full [Index of Services assessment](#) against the UK [Code of Practice for Statistics](#).

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.
- Improved accessibility of Index of Services Statistics by amending the format and structure of reports in line with accessibility regulations.

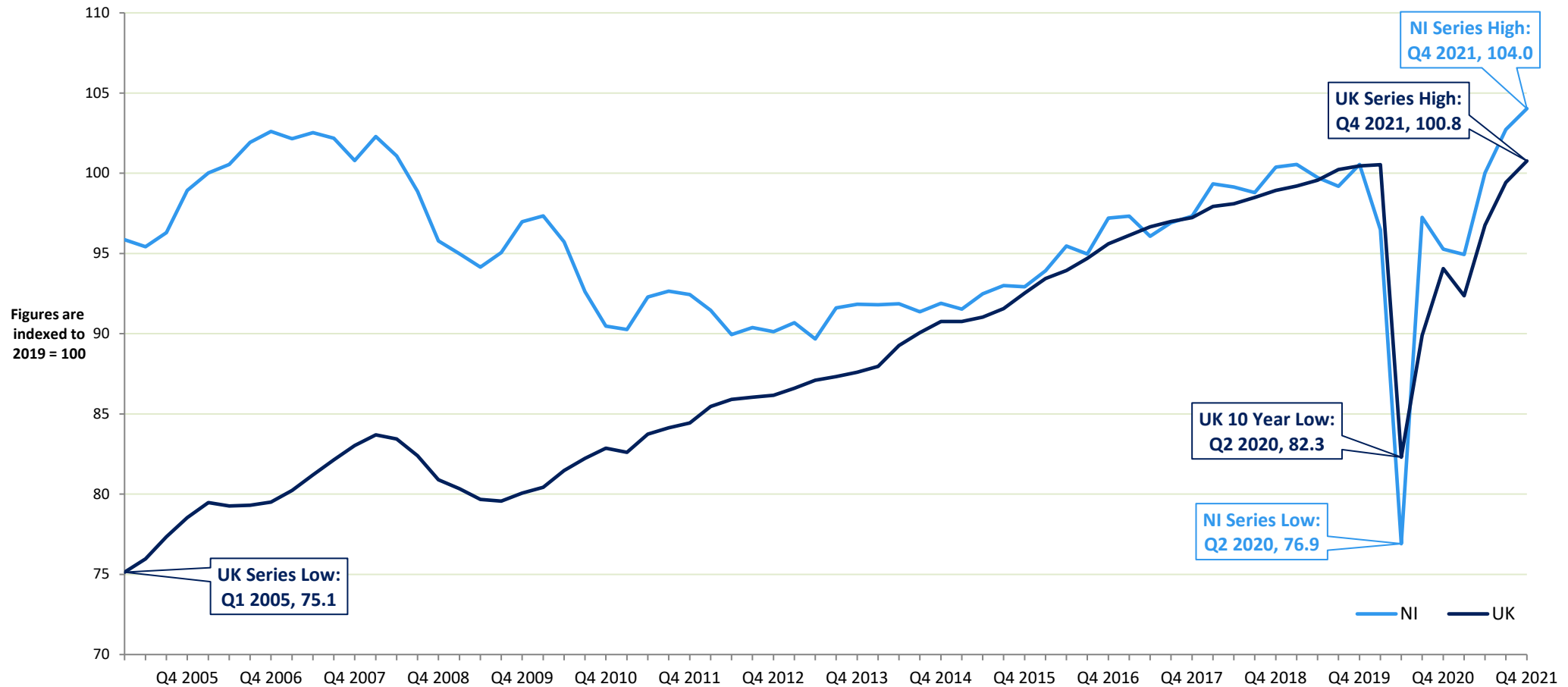
# 1 Summary of Index of Services

## 1.1 Changes in Index of Services

The seasonally adjusted estimate for the NI IOS for Quarter 4 2021 output increased:

- by 1.3% over the quarter from the Quarter 3 2021 estimate;
- by 9.2% over the year from the Quarter 4 2020 estimate; and
- by 9.8% when the most recent four quarters are compared to the previous four quarters.

**Figure 1.1 IOS, NI & UK, Q1 2005 – Q4 2021**



[Download Figure 1.1 data](#)

## 1.2 Commentary

The coronavirus (COVID-19) pandemic and subsequent measures taken to reduce the transmission of the virus has impacted on the economy since 2020. Further information on restrictions on businesses can be found on NI Direct: [Coronavirus guidance documents](#).

Throughout Quarter 4 2021 COVID-19 continued to have an impact with the Omicron variant leading to a slowdown in the easing of restrictions.

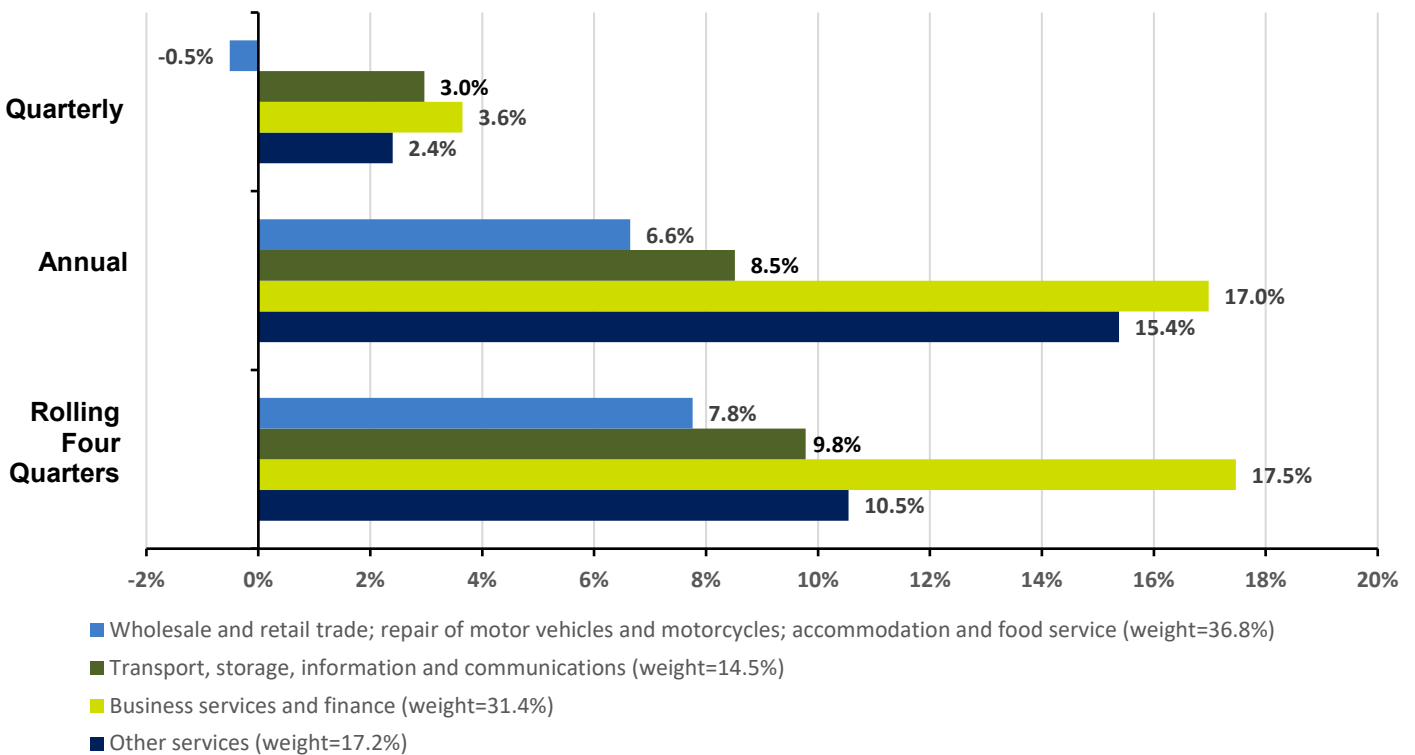
Between Quarter 2 2015 and Quarter 4 2019 the NI Index of Services Output showed consistent growth (nineteen consecutive quarters of annual growth). The IOS fell to its series low in Quarter 2 2020 and has been on an increasing trend since (albeit with two quarterly decreases during 2020).

The NI Index of Services Quarter 4 2021 output is now 3.5% above the pre-pandemic level seen in Quarter 4 2019, while the UK IOS output is now 0.3% above the pre-pandemic level. Output in the services sector increased by 1.3% over the fourth quarter of 2021 and is 35.3% higher than the series low (Quarter 2 2020). NI services sector output has now outperformed the previous series high shown in the revised Quarter 3 2021 estimate.

The 9.2% annual increase to Quarter 4 2021 is the third successive increase following a period of five consecutive quarters of annual decline in the NI index.

The business services and finance sector has shown the largest increases in output over the quarter, the year and when the current four quarters are compared to the previous four quarters.

**Figure 1.2 NI IOS Quarterly, Annual and Rolling Four Quarter Changes at Sector Level<sup>1</sup>**



**Figure 1.3 NI IOS Quarterly, Annual and Rolling Four Quarter Changes at Sector Level<sup>1</sup>**

Broad Sector	Change		
	Quarter on quarter	Year on year	Rolling four quarter
Wholesale and retail trade; repair of motor vehicles and motorcycles; accommodation and food service	-0.5%	6.6%	7.8%
Transport, storage, information and communications	3.0%	8.5%	9.8%
Business services and finance	3.6%	17.0%	17.5%
Other services	2.4%	15.4%	10.5%

### 1.3 Context

The IOS 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 usage of the NI IOS](#) is available on the NISRA website.

The Department for the Economy (DfE) [Economic Commentary](#) 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](#) dashboard on the [Economic and Labour Market Statistics \(ELMS\) section](#) of the NISRA website.

The IOS is published on a Standard Industrial Classification 2007 (SIC07) basis. IOS data prior to Quarter 2 2011 were collected on a SIC 2003 (SIC03) basis and have been converted to approximate the SIC07 coverage. Volatility can arise when businesses inform NISRA of SIC code changes via business surveys, the Office of National Statistics (ONS) or HM Revenue & Customs (HMRC). This new information helps to improve the industry estimates of services output but can add volatility to quarterly and annual changes.

The [Background notes](#) section of this document provides information on the methodology used to produce these statistics as well as information on the quality and accuracy of the data.

This bulletin contains results for the service sector as a whole and the following four sectors:

- wholesale and retail trade; repair of motor vehicles and motorcycles; accommodation and food service;
- transport, storage, information and communication;
- business services and finance; and,
- other services.

All services sector series are seasonally adjusted on a 2019 = 100 basis using X-13 ARIMA SEATS.

Comparative UK data, produced by the ONS, are presented where these are available. The [latest UK IOS results](#) published on the ONS website.

The IOS is published at the same time as the experimental [Northern Ireland Quarterly Retail Sales Index \(RSI\)](#). The quarterly RSI provides a timely indicator of change in output within the private retail service industries in Northern Ireland (NI). The retail sales sector is a subset of IOS and refers to SIC 47 (Retail trade, except of motor vehicles and motorcycles).

This publication provides three measures of growth for all indices.

<sup>1</sup> For further information on weights see Regional GVA information on page 13

1. **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. **Year-on-year change** compares the current quarter with the same quarter one year ago; and
3. **Rolling four quarter change** compares the most recent twelve months with the twelve months before. This comparison is useful for identifying changes in output over a longer time period than the other two approaches.

#### 1.4 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. A revisable period of the preceding four quarters is applied for late responses for IOS census businesses. Volatility also arises when businesses inform NISRA of SIC code changes via business surveys, ONS or 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.

## 2 Services output by sector

**Output:** turnover, the value of total sales generated from all NI based activity, excluding VAT. Turnover is rounded to the nearest thousand and is then grossed, deflated and seasonally adjusted. This turnover is then converted into an index value which is a convenient form of expressing a series in a way that makes it easier to see changes in that series. The numbers in the series are expressed relatively, in this case the average of the turnover in 2019 chosen to be the 'base' (expressed as 100) and other turnover values being measured relative to this base.

### 2.1 Key Findings:

- The NI IOS increased by:
  - 1.3% over the quarter;
  - 9.2% over the year; and,
  - 9.8% on a rolling four quarters basis.
  
- Output in the NI IOS has now reached a series high.
  
- The 1.3% quarterly increase in NI services output reflected increases in three of the four subsectors, with increases in the Business services and finance sector (3.6%); Transport, storage, information and communications sector (3.0%); and in the Other services sector (2.4%); while the Wholesale and retail trade; repair of motor vehicles and motorcycles; accommodation and food service sector showed a decrease (0.5%).
  
- The 9.2% annual increase in NI services output was caused by increases in all four subsectors, with an increase of 17.0% in the Business services and finance sector; 15.4% in the Other services sector; 8.5% in the Transport, storage, information and communications sector; and an annual increase of 6.6% in the Wholesale and retail trade; repair of motor vehicles and motorcycles; accommodation and food service sector.

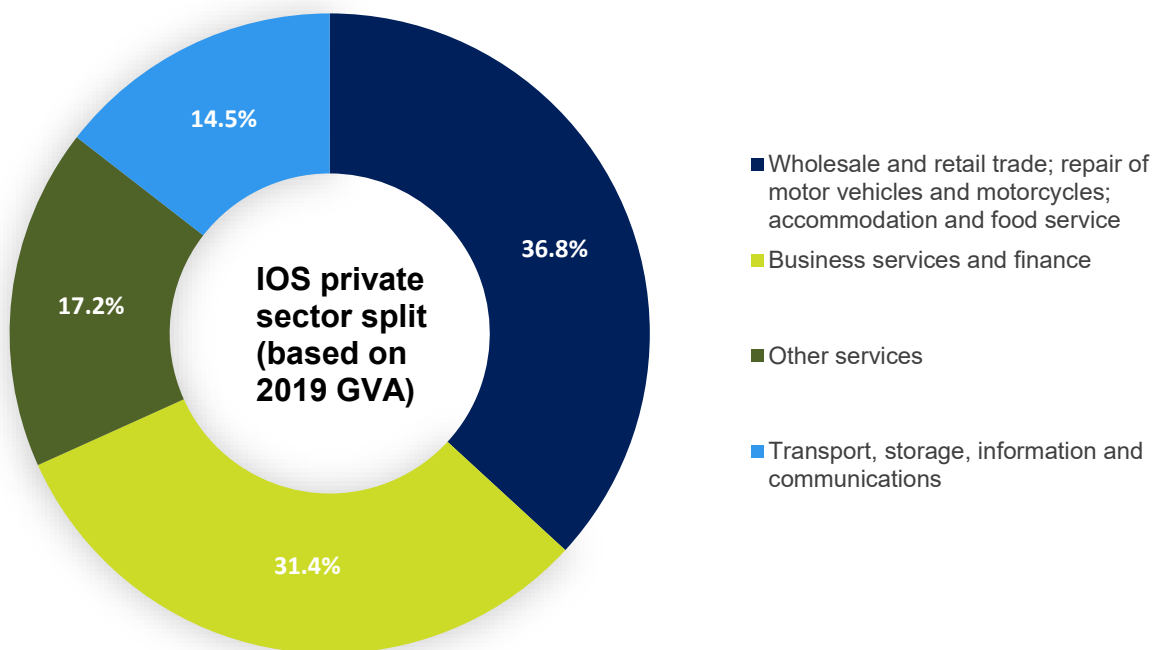
The private service sector is comprised of four sectors but is dominated by the:

- i. wholesale and retail trade; repair of motor vehicles and motorcycles; accommodation and food services; and
- ii. business services and finance sectors.

Together these two sectors account for 68.3% of total private services Gross Value Added (GVA) at 2019 prices. The sectors are listed in order of importance of their contribution made to the overall IOS.

Figure 2.1

IOS private sector split (based on 2019 GVA)<sup>2</sup>



<sup>2</sup> May not add to 100% due to rounding



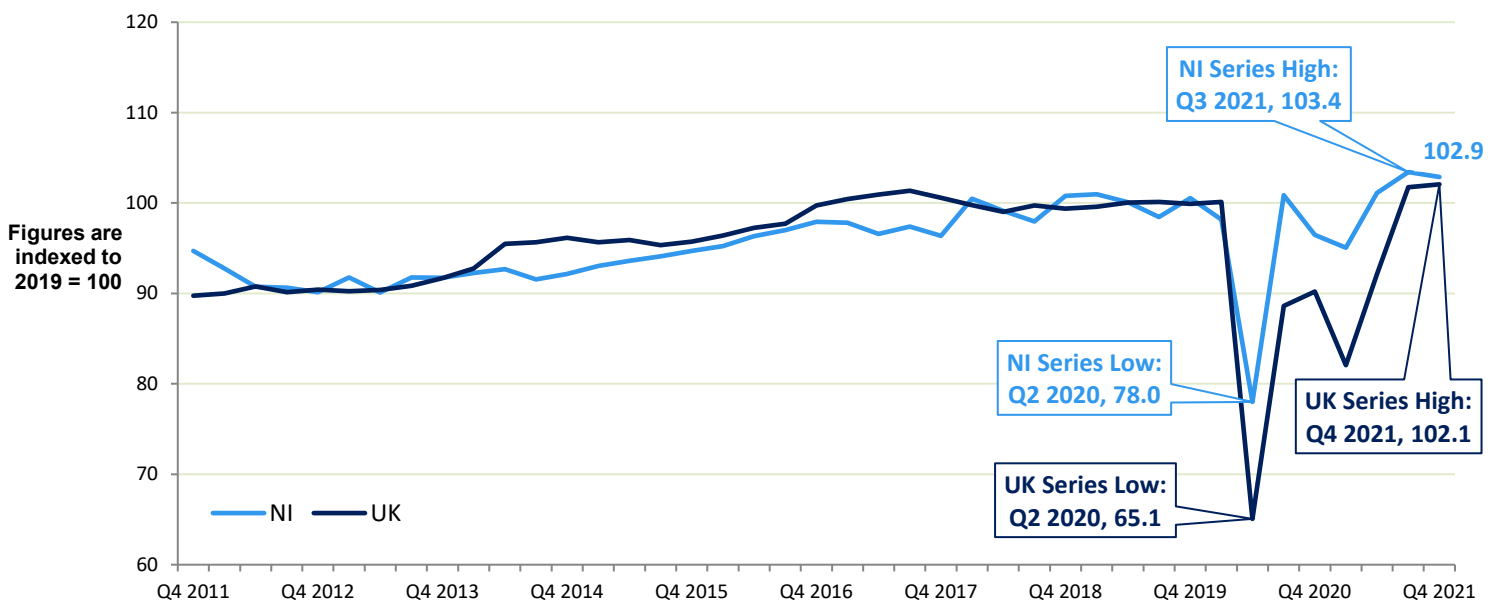
## 2.2 Wholesale and retail trade; repair of motor vehicles and motorcycles; accommodation and food service sector

**(SIC 07 Section GI) – (weight = 36.8% of IOS):** includes the wholesale and retail sale and the supply of services incidental to the sale of merchandise as well as the repair of motor vehicles and motorcycles. This sector also includes the provision of short-stay accommodation for visitors and the provision of complete meals and drinks fit for immediate consumption.

### Key Findings:

- The NI seasonally adjusted figures:
  - decreased by 0.5% over the quarter;
  - increased by 6.6% over the year; and,
  - increased by 7.8% on a rolling four quarter basis.
- The UK seasonally adjusted figures increased by:
  - 0.3% over the quarter;
  - 13.2% over the year; and,
  - 9.9% on a rolling four quarter basis.
- NI output in Quarter 4 2021 is 31.9% higher than the series low (Quarter 2 2020).
- NI output is 0.5% below the series high seen in the revised Quarter 3 2021 estimate.
- NI output in this sector is 2.3% above the pre-pandemic level seen in Quarter 4 2019.

**Figure 2.2 Wholesale and retail trade; repair of motor vehicles and motorcycles; accommodation and food service sector, NI & UK, Q4 2011 – Q4 2021**



[Download Figure 2.2 data](#)

The UK index outperformed the NI index in this sector from Quarter 1 2014 until Quarter 4 2017. After this the UK and NI indices maintained a similar level until Quarter 3 2020 when the impact of COVID-19 restrictions was seen to be greater on the UK index than the NI index. The UK index has continued its recovery to a second successive series high in Quarter 4 2021 and is now 2.2% above the pre-pandemic level seen in Quarter 4 2019, while the NI index is now 0.5% down from the series high seen in Quarter 3 2021.

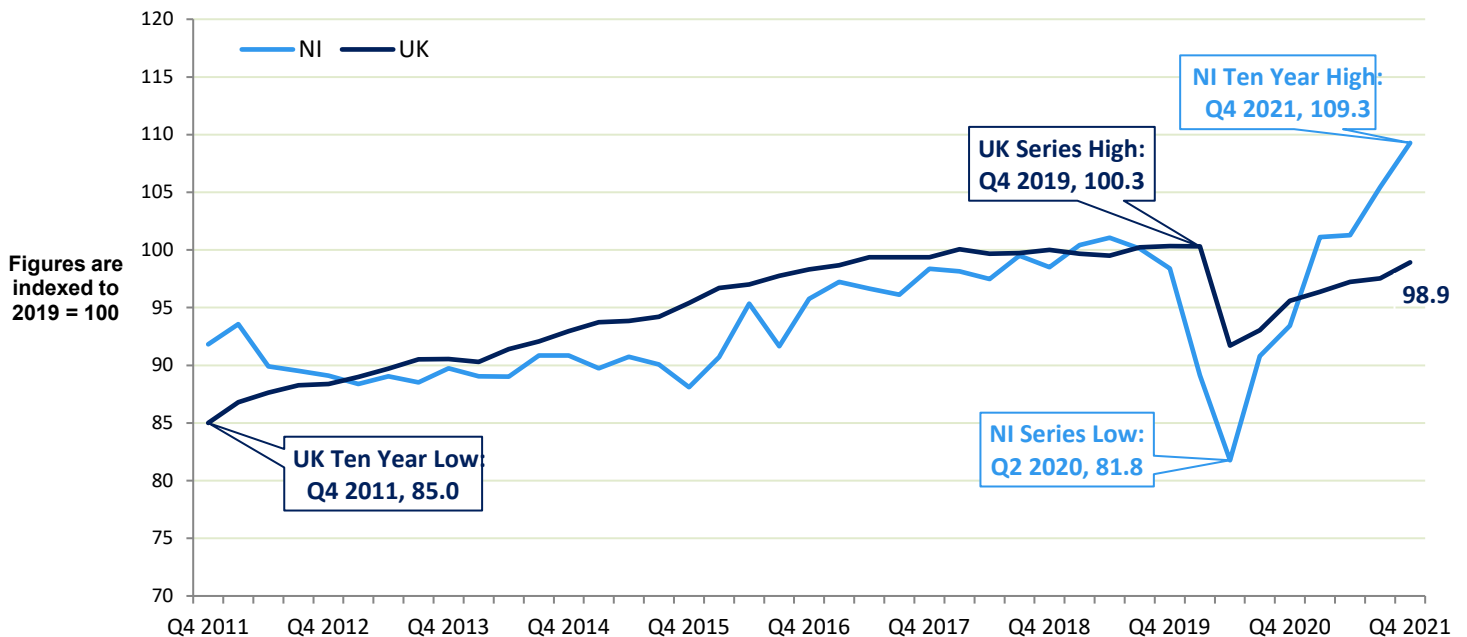
## 2.3 Business services and finance sector

**(SIC 07 Section KLMN) - (weight = 31.4% of IOS):** includes financial service activities, real estate activities, specialised professional, scientific and technical activities and a variety of activities that support general business operations.

### Key Findings:

- The NI seasonally adjusted figures increased:
  - by 3.6% over the quarter;
  - by 17.0% over the year; and
  - by 17.5% on a rolling four quarter basis.
- The UK seasonally adjusted figures increased:
  - by 1.4% over the quarter;
  - by 3.5% over the year; and
  - by 2.5% on a rolling four quarter basis.
- NI output in Quarter 4 2021 is the highest point recorded over the past ten years but remains 17.5% below the highest point since the series began (Quarter 3 2006).
- NI output in Quarter 4 2021 is 33.6% above the series low seen in Quarter 2 2020.
- The NI level is now 11.0% above the pre-pandemic level seen in Quarter 4 2019.

**Figure 2.3 Business services and finance sector, NI & UK, Q4 2011 – Q4 2021**



[Download Figure 2.3 data](#)

The UK index in the Business services and finance sector has generally been outperforming the NI index since Quarter 1 2013. NI output saw a substantially larger decrease in 2020 than UK output and reached a series low in Quarter 2 2020, but has grown in 2021 to outstrip the UK level and reach a ten-year high in Quarter 4 2021. The UK Quarter 4 2021 level remains 1.4% below the pre-pandemic level seen in Quarter 4 2019.

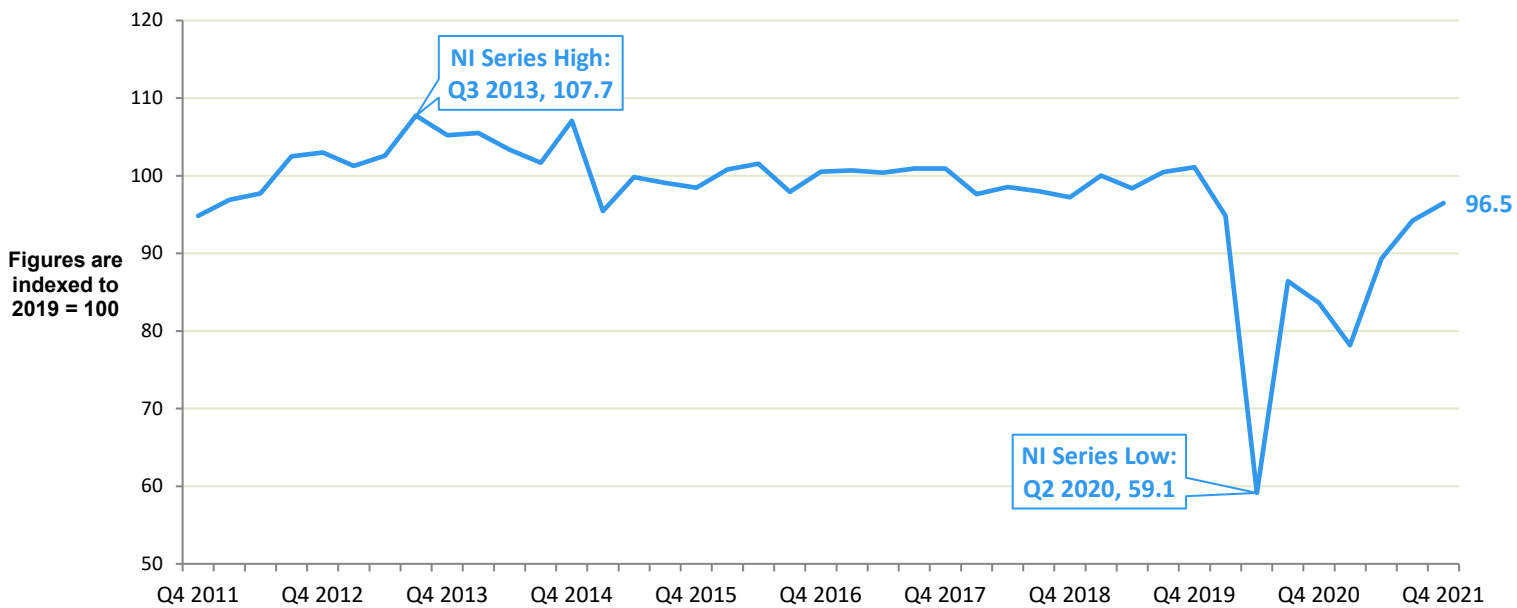
## 2.4 Other services sector<sup>3</sup>

**(SIC 07 Section PQRS) - (weight 17.2% of IOS):** includes other activities not covered elsewhere - education, health & social work, arts, entertainment and recreation and other services.

### Key Findings:

- The NI seasonally adjusted figures increased:
  - by 2.4% over the quarter;
  - by 15.4% over the year; and
  - by 10.5% on a rolling four quarter basis.
- NI output in Quarter 4 2021 is 10.5% below the highest point (Quarter 3 2013) since the series began.
- NI output in Quarter 4 2021 is 63.1% above the lowest point since the series began (Quarter 2 2020).
- The NI level remains 4.6% below the pre-pandemic level seen in Quarter 4 2019.

**Figure 2.4 Other services sector, NI, Q4 2011 – Q4 2021**



[Download Figure 2.4 data](#)

The NI index has followed a very consistent trend in this sector since Quarter 3 2015. Following restrictions on businesses due to the Covid-19 pandemic, the index fell to a series low in Quarter 2 2020. The index has seen a recovery since then and is now 4.6% below the pre-pandemic level seen in Quarter 4 2019.

<sup>3</sup> The UK does not publish results on the same basis as NI so there are no UK results to compare against.

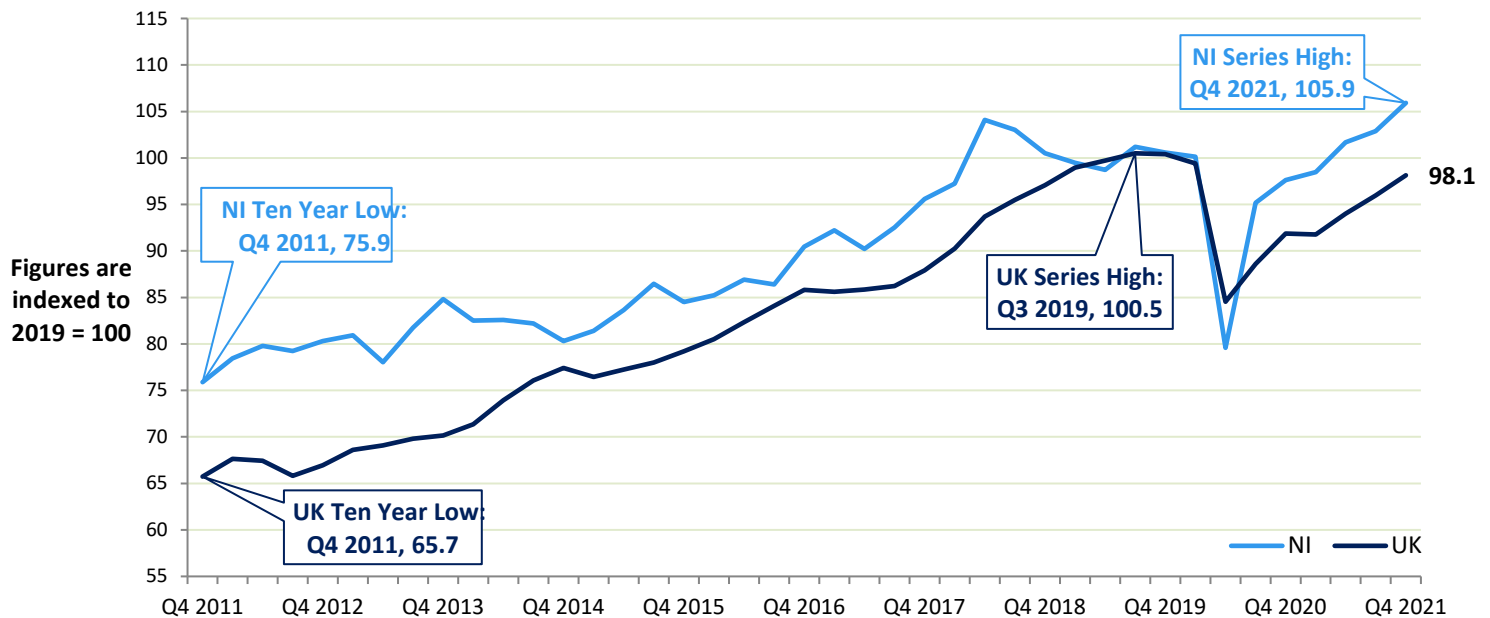
## 2.5 Transport, storage, information and communications sector

**(SIC 07 Section HJ) - (weight 14.5% of IOS)** : includes the provision of passenger or freight transport and associated activities, postal and courier activities, the production and distribution of information and cultural products, as well as data or communications, information technology activities and the processing of data and other information service activities.

### Key Findings:

- The NI seasonally adjusted figures increased by :
  - 3.0% over the quarter;
  - 8.5% over the year; and
  - 9.8% on a rolling four quarter basis.
- The UK seasonally adjusted figures increased by:
  - 2.3% over the quarter;
  - 6.8% over the year; and
  - 4.2% on a rolling four quarter basis.
- NI output in Quarter 4 2021 is now at a series high.
- NI output in Quarter 4 2021 is 39.6% above the lowest point (Quarter 4 2011) recorded over the past ten years and is 74.6% above the lowest point (Quarter 1 2005) recorded since the series began.
- The NI level is now 5.3% above the pre-pandemic level seen in Quarter 4 2019.

**Figure 2.5 Transport, storage, information and communications, NI & UK, Q4 2011 – Q4 2021**



[Download Figure 2.5 data](#)

The NI and UK indices have followed similar trends in the Transport, storage, information and communications sector throughout the series. The NI index has outperformed the UK index in this sector with the exceptions of Quarter 2 2019 and Quarter 2 2020, and is now 5.3% above the pre-pandemic level seen in Quarter 4 2019 while the UK Quarter 4 2021 level remains 2.3% below the pre-pandemic level.

## 3 Background notes

### Background

The quarterly IOS provides a measure of changes in the output of the private sector service industries in NI (this is defined as SIC07 sections G to S). Based on 2019 employee jobs figures these private sector service industries accounted for 62.3% of all service sector Regional GVA. For further information please see the [Methodology for the NI Index of Services \(IOS\)](#).

### Impact of coronavirus (COVID-19) on data collection and estimates

The Covid-19 pandemic 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 IOS coverage response rates for Quarter 4 2021, compared to the median rates in 2019 and 2020:

	Quarter 4 2021	2020 (median)*	2019 (median)*
Coverage response rate ( <i>returned turnover</i> )	66%	60%	79%

\*median value achieved at IOS database closure of quarters 1 to 4 for 2019 and 2020.

The Covid-19 pandemic has resulted in a decrease in coverage response rates in 2020 and 2021 when compared to 2019 figures, primarily due to the restrictions in place for businesses. As a result the estimates for Quarter 4 2021 may be subject to higher revisions than normal over the coming quarters. Comparisons of provisional 2020 and 2021 estimates at lower industry levels in particular should be treated with caution.

### Gross Value Added (GVA)

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 2019 GVA which became available on 26 May 2021.

### Deflation

All series are measured at a constant market price (2019 = 100). Deflators adjust the value series, taking out the effect of price change, to create the volume series. The deflators used in this bulletin were provided by ONS on 7 March 2022. Details on [deflation improvements in the UK national accounts](#) can be found on the archived section of the ONS website.

### Seasonal Adjustment Review

Following the seasonal adjustment review conducted in March 2021 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 June 2021 are available on the NISRA website.

## Changes to recent releases

Quarter	Change	Detail
Quarter 1 2019	Seasonal Adjustment Review	Following the 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.
Quarter 4 2019	2018 GVA	Figures in this publication are weighted using 2018 GVA which became available on 19th December 2019.
Quarter 3 2020	ONS Deflation Methodology Change	As recommended by Eurostat, previous method of rebasing for price statistics was changed to an <a href="#">annual chain-linked business price methodology</a> .
Quarter 3 2020	NI Index Rebased to 2018	Figures rebased to 2018 = 100 in line with ONS. For further information on this please see the <a href="#">Quarter 3 2020 Rebasing Notice</a> .
Quarter 1 2021	Seasonal Adjustment Review	Following the seasonal adjustment review conducted in March 2021 changes have been made to some regressors and models used to seasonally adjust (where applicable) time series using X13 ARIMA SEATS.
Quarter 1 2021	2019 GVA	Figures in this publication are weighted using 2019 GVA which became available on 26th March 2021.
Quarter 1 2021	Housing Association businesses added to IOS sample and universe.	Following passage of the <a href="#">Housing (Amendment) Act (Northern Ireland) 2020</a> , an assessment of registered housing associations (RHAs) in Northern Ireland concluded that, in the context of international rules laid out in the European System of Accounts 2010 and the accompanying Manual on Government Deficit and Debt 2019, RHAs in Northern Ireland are private non-financial corporations and as such they will be reclassified to the Business Services and Finance Sector (KLMN) for the purpose of national accounts and other economic statistics.
Quarter 3 2021	NI Index Rebased to 2019	Figures rebased to 2019 = 100 in line with ONS. For further information on this please see the <a href="#">Quarter 3 2021 Rebasing Notice</a> .
Quarter 3 2021	Double deflation methods and deflator improvements	The UK National Accounts Blue Book 2021 was published on 29 <sup>th</sup> October 2021. This introduced a number of improvements to methods, including implementing <a href="#">double deflation</a> using Supply and Use Tables (SUTs). Double deflation is recognised as the best approach for producing volume estimates of GVA. These changes may result in some revisions to the backseries data. These changes are part of the wider <a href="#">development plan</a> for UK Economic Accounts.

## **Publications policy**

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

Future IOS publications are due to be published on the same day as the [Index of Production](#) and the experimental [Northern Ireland Quarterly Retail Sales Index \(RSI\)](#) in March, June, September and December of each year. The [ELMS Publication Schedule](#) is available on the NISRA website.

## **Next publication**

The next bulletin is due to be published on 16 June 2022.

## **If you require any further information please contact:**

Nigel Pearson  
Economic and Labour Market Statistics Branch  
Floor 1  
Stranmillis Court  
Colby House  
Belfast, BT9 5RR

Tel: (028) 9052 9344  
Email: [economicstats@nisra.gov.uk](mailto:economicstats@nisra.gov.uk)  
Twitter: [@NISRA](https://twitter.com/NISRA)

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