

NORTHERN IRELAND INDEX OF SERVICES (EXPERIMENTAL) QUARTER 1 2011

Published 13/07/11

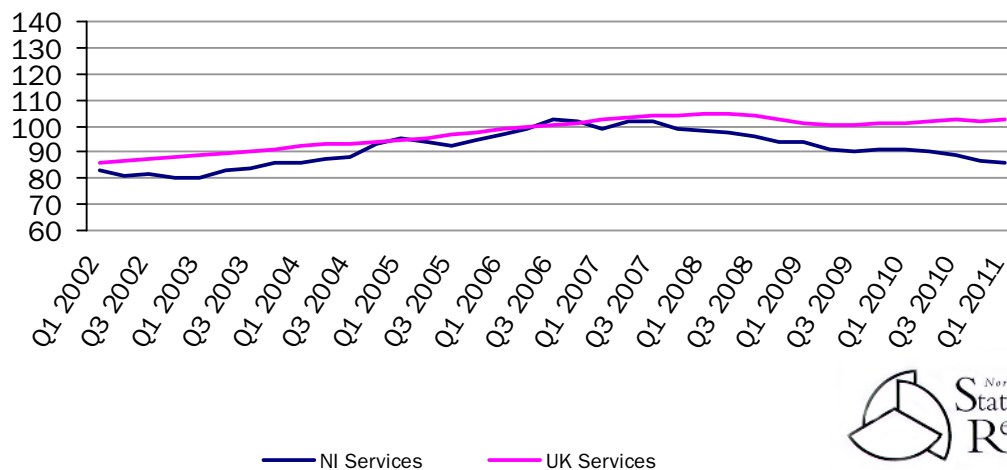
IMPORTANT NOTICE: Users of the IOS should be aware that a new annual chainlinking methodology has been introduced. This has resulted in significant revisions to the Index. Further details and a link to an assessment of the impact are available in sections 1 and 4 of the bulletin.

This Northern Ireland Index of Services (IOS) is an experimental quarterly survey of companies designed to provide a general measure of changes in the output of the private service sector industries in real terms. This publication contains seasonally adjusted NI Index of Services data on a 2006 = 100 basis. These data are provisional and may be subject to change.

- Due to the introduction of a new annual chainlinking methodology there are significant revisions to previous data. The most significant impact is that, whereas previous results indicated that the output for the service sector peaked in 2007 Q2, this quarter's figures indicate that output in Northern Ireland reached a high point in 2006 Q3 and remained relatively flat until 2007 Q3, before gradually declining. More information on the revisions is provided in section 1.
- Provisional results from the Index of Services for the first quarter of 2011 showed that output in NI fell 1.4% compared to the previous quarter. In contrast, the UK index rose 0.9% over the same period.

Index of Services in NI and UK

(2006 =100)



Northern Ireland Statistics & Research
Agency (NISRA)

Northern Ireland Index of Services (Experimental) Quarter 1 2011

July 2011

From the 1st April 2011, the responsibility for the collection of data and production of official labour market and economic statistics transferred from the Department of Enterprise, Trade and Investment to the Northern Ireland Statistics and Research Agency (NISRA), an agency of the Department of Finance and Personnel (DFP). This transfer mirrored the position in Great Britain where most business surveys and labour market data collection and statistical production have been transferred from the departments with policy responsibilities to the Office for National Statistics (ONS). However, it is important to note that there are no planned changes to the production of economic and labour market statistical publications and outputs as a result of the transfer.

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Summary and Commentary

1

Introduction

This bulletin provides provisional data from the Index of Services (IOS) for Northern Ireland (NI). The IOS is an official indicator of the performance of Northern Ireland private sector services and, as such, represents an important short-term measure of change in a significant area of the economy. The contents of this report will be of interest to government policy makers, Members of the Legislative Assembly, the business community, economic commentators, academics and member of the general public with an interest in the state of the NI economy. A summary of recent uses is available on the website at <http://www.detini.gov.uk/deti-stats-index/stats-surveys/stats-ios.htm>

The recently published Department of Enterprise, Trade and Investment Economic Commentary (June 2011) provides an overview of the state of the Northern Ireland economy, setting it in context with the UK and Republic of Ireland. This can be found at <http://www.detini.gov.uk/deti-stats-index/deti-stats-index-4.htm>

The most up-to-date official statistics on the economy and labour market, including those published on the same day as the Northern Ireland index of Services and Index of Production, are available on the Economic Overview page of the DETI website at <http://www.detini.gov.uk/deti-stats-index/deti-stats-index-2.htm>

The Northern Ireland Index of Production (IOP) provides a general measure of changes in the output of the Manufacturing, Electricity, Gas & Water and Mining & Quarrying industries. It is based on up-to-date information about the output and sales of the production industry. Provisional figures for Quarter 1 2011 show that output increased over the quarter (1.0 %) and the year (5.7%). This is the third consecutive quarterly increase in the output of the production industries. The full bulletin can be accessed at <http://www.detini.gov.uk/deti-stats-index/stats-surveys/stats-index-of-production.htm>

The background notes (Section 4) provide detailed 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 Service Sector as a whole and the Distribution, Hotels and Restaurants, Transport, Storage & Communications, Business Services & Finance and Other services sub sectors on a 2006=100 basis giving data up to the most recent available quarter (Quarter 1 2011).

The private service sector is dominated by the Business Services & Finance industries and Distribution (Wholesale and Retail). Together these account for approximately 70% of the sector's total private Gross Value Added at 2008.

Comparative UK data (produced by the Office for National Statistics (ONS)) are presented where these are available.

This publication provides three measures of growth for the Index. 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. We also provide comparisons with the same quarter one year ago and 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.

Northern Ireland Services

Revisions

Results, particularly for the most recent quarter, are provisional and subject to revision as more up-to-date data become available (e.g. through late returns). Figures can also change as a result of the seasonal adjustment process or methodological changes. This quarter we have introduced a new chain linking methodology for the Index and, as a result, all the figures in the series have been revised, with significant implications for the results for this quarter and previous quarters. The most significant change is that the previous methodology indicated that the output for the service sector peaked in 2007 Q2, whilst this quarter's figures indicate that output in Northern Ireland reached a high point in 2006 Q3 and remained relatively flat until 2007 Q3, before gradually declining. The new methodology also indicates that the decline in service sector output has been more marked than previously thought. For example, the decrease over the year (Q4 2009 to Q4 2010) was revised downwards from -1.7% to -4.0%, using the new methodology. Further information on revisions is provided in the background notes (section 4). This also provides a link to a spreadsheet providing measures of the revisions to all the data in this statistical bulletin.

A number of businesses, mainly in the Distribution – wholesale and retail sector, provided revised data for Q4 2010. Partially as a result of this, last quarter's estimate of a 0.1% decline has been revised to a decrease of 1.8%.

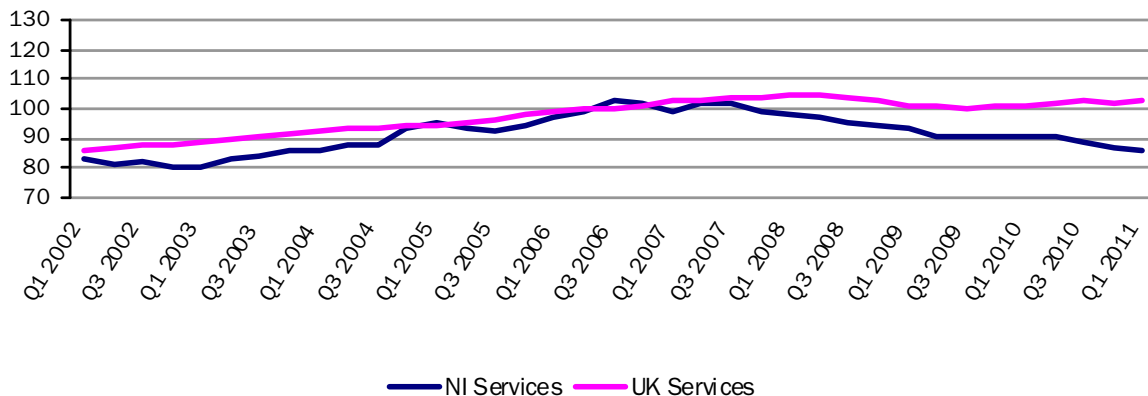
Provisional results for Q1 2011

Provisional results from the Index of Services for the first quarter of 2011 show that Northern Ireland output continues to fall. This is the fourth consecutive fall in output in the last six quarters as measured by the index and is in contrast to the UK as a whole, which has recorded increases in five of the last six quarters. The fall in the services sector in Northern Ireland during 2010 has been driven by declining sales in the Distribution - wholesale and retail sector and, for most of 2010, in the Business Services and Finance sector. This suggests a combination of lower consumer demand and restricted business services activity in the face of continuing uncertainty about the strength of the global economic recovery. The Index of Production <http://www.detini.gov.uk/deti-stats-index/stats-surveys/stats-index-of-production.htm> also reported a decline over the quarter to Q1 2011 in the consumer goods index, suggesting manufacturing businesses are also impacted by lower consumer demand.

- NI output levels decreased over the previous quarter by 1.4%. (UK: +0.9%)
- NI output levels decreased by 5.5% compared to the same quarter one year ago (UK: +1.4%)
- NI output levels declined by 2.9 % over the most recent four quarters compared to the previous four quarters (UK: +1.4%)
- NI private service sector output has declined by 16.3% from the peak recorded in Q3 2006, whilst the UK reported a decrease of 2.4% over the same time period.
- In historical terms, Northern Ireland Services have increased by 3.1% from Quarter 1 2002 to Quarter 1 2011, compared with an estimated increase of 19.0% for the UK as a whole over the same period

Figure 1: Index of Services in NI and UK

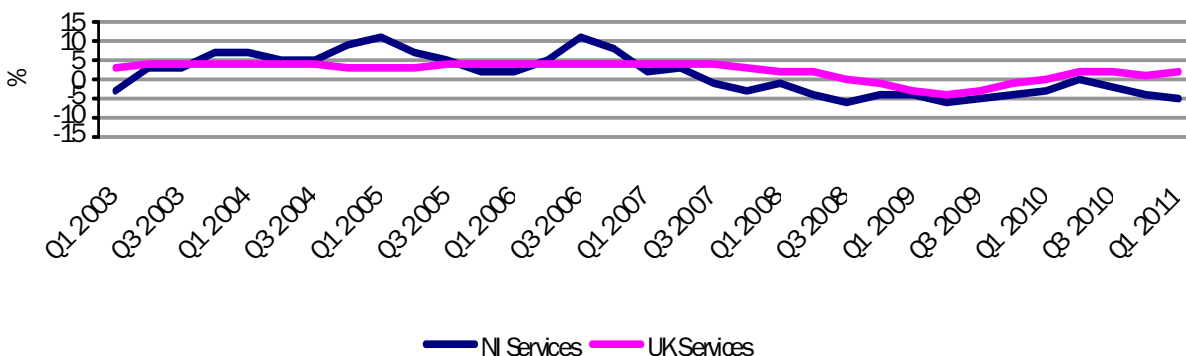
(2006 =100)



Services – year on year trend

Examination of year on year changes for each quarter allows closer examination of the rate of growth over the last eight years. Figure 2 illustrates the annual percentage change in the service sector. In Q1 2003 the annual growth was negative (-3.3%), then from Q2 2003 to Q2 2007 there was positive annual growth. From Q3 2007 there has been negative annual growth. Over the same period in the UK as a whole, negative annual growth did not start until later (Q3 2008) and since Q1 2010 the UK has recorded five consecutive quarters of positive annual growth.

Figure 2 All Services - Percentage change on a year earlier



Services Subsections

The sub-sectors in Northern Ireland make different contributions to the changes in the overall index.

Over the quarter, the sub-sector which contributed most to the decrease in the Index was Distribution – Wholesale and Retail. It fell 1.0%.

The only sector to increase over the quarter was the Business Services and Finance sector – up 3.1%

Over the year, the largest contribution to the decrease in the Index was the Business Services and Finance sector, which fell by 6.4% over the year. The Distribution – wholesale and retail sector had nearly the same impact, falling 10.6%

Over the same period Hotels and Restaurants (3.2%), Transport, Storage and Communication (0.4%) and Other Services (0.1%) sectors reported increases.

Over the latest four quarters, compared to the same period one year earlier (i.e. Q2 2009 – Q1 2010 to Q2 2010 – Q1 2011), the Business Services and Finance sector contributed most to the decrease.

Over the same period the stronger performing sectors were Hotels & Restaurants (7.1%) Transport, Storage and Communication (4.9%) and Other Services (0.5%), which reported increases.

Date of Next publication

The Northern Ireland Index of Services for Quarter 2 2011 will be published on 12th October 2011.

**Table 1 Northern Ireland Index of Services –
Seasonally Adjusted (2006 = 100)**

Sector	All Services	Distribution – Wholesale and Retail	Hotels & Restaurants	Transport, Storage & Communication	Business Services & Finance	Other Services
2006 = 100	G - O	G	H	I	J & K	M, N & O
Weights ⁺	1000	263.4	54.7	68.8	451.5	161.5
2002 Q1	83.2	89.6	103.2	85.6	82.5	74.1
Q2	81.0	89.4	98.9	85.8	77.4	72.0
Q3	81.6	93.5	99.7	86.2	73.2	71.0
Q4	80.0	86.8	91.4	84.5	76.0	78.3
2003 Q1	80.5	86.7	90.2	85.6	77.9	76.1
Q2	83.0	89.1	93.9	85.1	79.5	79.7
Q3	84.1	90.9	89.6	89.2	78.9	76.7
Q4	85.6	92.7	91.9	87.9	81.0	86.9
2004 Q1	86.0	92.7	89.2	86.3	82.5	86.3
Q2	87.4	91.6	91.4	89.7	85.9	83.9
Q3	88.0	91.5	90.0	91.2	84.1	83.3
Q4	93.1	95.6	95.9	91.7	92.4	93.3
2005 Q1	95.1	94.4	99.2	90.4	98.7	92.0
Q2	93.8	96.0	94.9	95.6	95.9	85.5
Q3	92.4	97.5	99.5	96.3	85.5	91.4
Q4	94.7	98.3	105.7	94.1	88.8	101.4
2006 Q1	96.9	99.3	97.7	97.6	97.1	95.2
Q2	98.9	99.1	99.2	98.3	96.3	106.9
Q3	102.5	100.3	109.4	101.7	102.9	97.4
Q4	102.0	101.4	92.5	102.4	103.7	100.5
2007 Q1	98.7	102.4	101.6	101.2	98.7	94.0
Q2	102.0	102.4	104.7	107.5	105.2	91.4
Q3	101.6	101.3	106.7	107.3	98.3	103.2
Q4	98.8	99.1	100.1	106.9	94.2	103.5
2008 Q1	98.0	99.1	107.1	105.2	95.1	102.2
Q2	97.2	97.5	108.0	112.8	91.9	103.6
Q3	95.7	94.5	107.4	112.8	89.3	100.6
Q4	94.2	92.7	113.0	110.0	85.9	102.7
2009 Q1	93.7	91.9	101.9	107.9	87.9	107.9
Q2	90.8	93.4	101.7	108.9	80.4	109.1
Q3	90.4	95.4	101.5	107.3	76.1	110.1
Q4	90.7	97.7	102.3	110.1	74.6	108.3
2010 Q1	90.8	97.6	106.9	110.7	77.8	108.7
Q2	90.5	95.0	111.0	117.0	76.9	109.2
Q3	88.6	93.0	109.3	116.2	71.6	110.2
Q4	87.0	88.1	111.2	113.9	70.6	109.9
2011 Q1	85.8	87.3	110.3	111.1	72.9	108.9

* The regional GVA weights relate to 2008.

Services by Broad Industry Groups

2

This chapter focuses on the overall service sector split into individual industry categories. The private service sector is dominated by the Business Services & Finance industries and Distribution (Wholesale and Retail). Together these account for approximately 70% of the sector's total private Gross Value Added at 2008.

Business Services & Finance

(Weight = 45%)

The Business Services & Finance sector reflects the activity of all financial institutions and also Real Estate, Renting and other Business activities.

The Business Services & Finance index increased by 3.1% over the quarter compared to the UK which increased by 0.4%.

Over the year, the NI Business Services & Finance sector decreased by 6.4% compared to an increase of 1.1% in the UK. (See figure 3)

Over the latest four quarters, compared to the same period one year earlier, the sector decreased by an estimated 5.5% compared to an increase of 1.7% in the UK. The index remains some 30.7% below the peak recorded in Q2 2007.

Distribution (Wholesale & Retail)

(Weight = 26%)

The Distribution sector reflects the activity of the Wholesale and Retail trade; Repair of Motor Vehicles and Personal and Household goods.

The Distribution sector index decreased by an estimated 1.0% over the quarter, compared to an increase of 0.8% in the UK.

Over the year, the NI Distribution Sector decreased by 10.6% compared to an increase of 2.1% in the UK. (See figure 4)

Over the latest four quarters compared to the same period one year earlier, the sector decreased by an estimated 5.4% compared to an increase of 2.5% in the UK.

Figure 3: Business Services & Finance

(2006 =100)

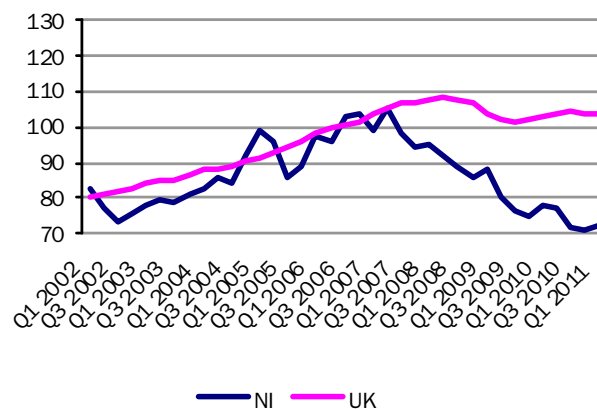
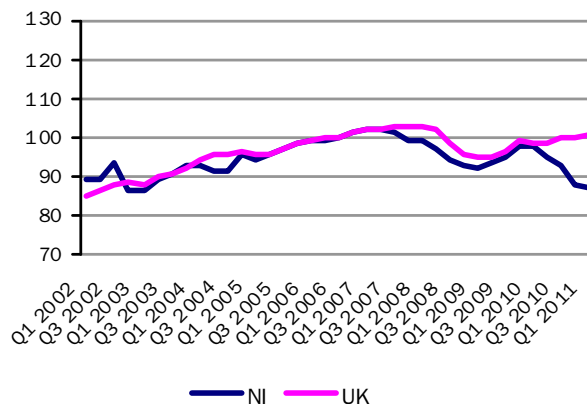


Figure 4: Distribution - Wholesale & Retail

(2006 =100)



Other Services

(Weight = 16%)

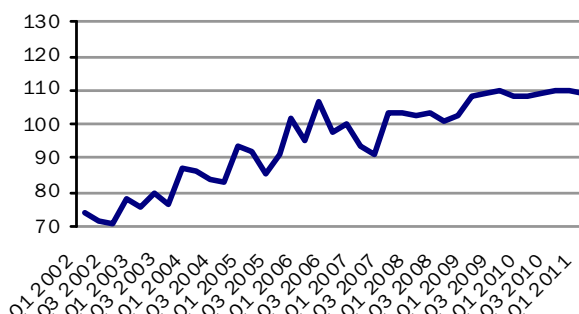
The “Other Services” sector is comprised of Education, Health & Social Work and Other Community, Social and Personal Service activities.

Over the quarter, the Other Services index decreased by 1.0%, while over the year it increased by 0.1%. (See figure 5)

The sector increased by an estimated 0.5% when measured over the latest four quarters compared to the same four quarters one year earlier. There are no comparable UK figures for Other Services.

Figure 5: Other Services

(2006 =100)



Transport, Storage & Communication

(Weight = 7%)

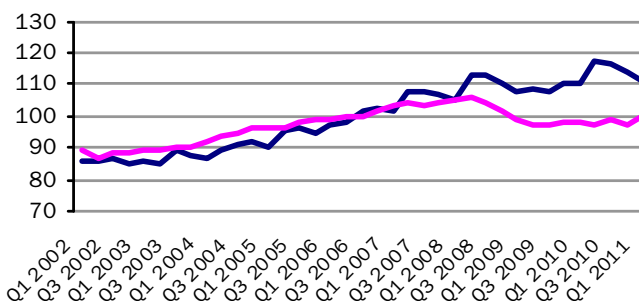
The Transport, Storage & Communication sector reflects the activity of Land, Air & Sea transport operators along with Travel Agencies and Post & Telecommunications businesses.

The Transport, Storage & Communication sector decreased by an estimated 2.5% over the quarter compared to an increase of 2.5% in the UK.

Over the year, the NI Transport, Storage & Communication sector increased by 0.4% while the UK reported an increase of 2.1%. (See figure 6)

Figure 6: Transport, Storage & Communication

(2006 =100)



Over the latest four quarters compared to the same period one year earlier, the sector increased by an estimated 4.9% whereas the UK figure increased by an estimated 0.7%.

Hotels & Restaurants

(Weight = 6%)

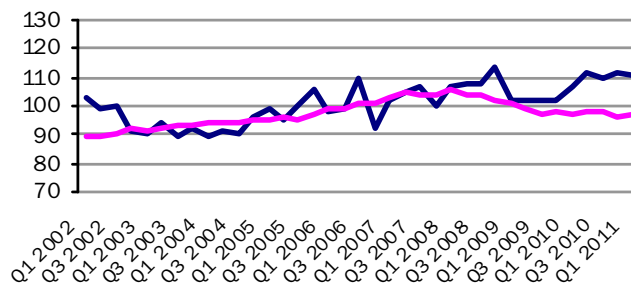
Over the quarter, the Hotels & Restaurants index decreased by an estimated 0.9% in NI, this compares with the UK which increased by 0.9% over the same period. (See figure 7)

Over the year the sector increased by an estimated 3.2% compared to an increase of 0.1% in the UK.

Over the latest four quarters compared to the same period one year earlier, the sector increased by an estimated 7.1% while the UK figure decreased by an estimated 0.2%.

Figure 7: Hotels & Restaurants

(2006 =100)



Quarterly/ Annual/ Rolling Annual Average Changes

3

**Table 2 – Northern Ireland Index of Services – Quarterly, Annual and Rolling Annual average^{*1} changes by sector
Seasonally Adjusted (2006 = 100)**

2006 = 100	All Services				Distribution – Wholesale and Retail				Hotels & Restaurants				Transport, Storage & Communication				Business Services & Finance				Other Services			
	G - O				G				H				I				J & K				M,N & O			
	Index	Quarter Change (%)	Annual Change (%)	Rolling Annual* Change (%)	Index	Quarter Change (%)	Annual Change (%)	Rolling Annual* Change (%)	Index	Quarter Change (%)	Annual Change (%)	Rolling Annual* Change (%)	Index	Quarter Change (%)	Annual Change (%)	Rolling Annual* Change (%)	Index	Quarter Change (%)	Annual Change (%)	Rolling Annual* Change (%)	Index	Quarter Change (%)	Annual Change (%)	Rolling Annual* Change (%)
Weights ^{*2}	1000				263.4				54.7				68.8				451.5				161.5			
2002 Q1	83.2	-	-	-	89.6	-	-	-	103.2	-	-	-	85.6	-	-	-	82.5	-	-	-	74.1	-	-	-
Q2	81.0	-2.6	-	-	89.4	-0.1	-	-	98.9	-4.2	-	-	85.8	0.3	-	-	77.4	-6.2	-	-	72.0	-2.8	-	-
Q3	81.6	0.7	-	-	93.5	4.5	-	-	99.7	0.8	-	-	86.2	0.4	-	-	73.2	-5.4	-	-	71.0	-1.4	-	-
Q4	80.0	-1.9	-	-	86.8	-7.1	-	-	91.4	-8.4	-	-	84.5	-1.9	-	-	76.0	3.8	-	-	78.3	10.4	-	-
2003 Q1	80.5	0.5	-3.3	-	86.7	-0.1	-3.2	-	90.2	-1.2	-12.6	-	85.6	1.3	0.1	-	77.9	2.5	-5.5	-	76.1	-2.9	2.7	-
Q2	83.0	3.2	2.5	-	89.1	2.8	-0.4	-	93.9	4.0	-5.1	-	85.1	-0.7	-0.9	-	79.5	2.1	2.8	-	79.7	4.8	10.7	-
Q3	84.1	1.3	3.1	-	90.9	2.0	-2.8	-	89.6	-4.5	-10.1	-	89.2	4.8	3.5	-	78.9	-0.8	7.9	3.7	76.7	-3.8	8.0	6.0
Q4	85.6	1.8	7.0	2.3	92.7	2.0	6.8	0.0	91.9	2.5	0.5	-7.0	87.9	-1.5	3.9	1.6	81.0	2.7	6.7	4.6	86.9	13.3	10.9	8.1

*1 The change in the rolling annual average measures the change in the average of the latest four quarters against the same four quarters one year previous.

*2 The regional GVA weights relate to 2008.

**Table 2 continued – Northern Ireland Index of Services – Quarterly, Annual and Rolling Annual average^{*1} changes by sector
Seasonally Adjusted (2006 = 100)**

2006 = 100	All Services				Distribution – Wholesale and Retail				Hotels & Restaurants				Transport, Storage & Communication				Business Services & Finance				Other Services			
	G - O				G				H				I				J & K				M,N & O			
	Index	Quarter Change (%)	Annual Change (%)	Rolling Annual Change (%)	Index	Quarter Change (%)	Annual Change (%)	Rolling Annual Change (%)	Index	Quarter Change (%)	Annual Change (%)	Rolling Annual Change (%)	Index	Quarter Change (%)	Annual Change (%)	Rolling Annual Change (%)	Index	Quarter Change (%)	Annual Change (%)	Rolling Annual Change (%)	Index	Quarter Change (%)	Annual Change (%)	Rolling Annual Change (%)
Weights ^{*2}	1000				263.4				54.7				68.8				451.5				161.5			
2004 Q1	86.0	0.4	6.8	4.8	92.7	0.1	7.0	2.5	89.2	-2.9	-1.1	-4.1	86.3	-1.7	0.8	1.8	82.5	1.8	5.9	4.6	86.3	-0.6	13.5	10.8
Q2	87.4	1.7	5.3	5.5	91.6	-1.2	2.8	3.3	91.4	2.4	-2.7	-3.5	89.7	4.0	5.5	3.4	85.9	4.1	8.0	4.5	83.9	-2.9	5.2	9.4
Q3	88.0	0.6	4.6	5.9	91.5	-0.1	0.7	4.3	90.0	-1.5	0.4	-0.7	91.2	1.7	2.3	3.1	84.1	-2.1	6.6	4.5	83.3	-0.7	8.6	9.5
Q4	93.1	5.8	8.7	6.3	95.6	4.5	3.1	3.4	95.9	6.6	4.4	0.3	91.7	0.6	4.4	3.3	92.4	9.9	14.1	4.3	93.3	12.1	7.4	8.6
2005 Q1	95.1	2.2	10.7	7.3	94.4	-1.2	1.8	2.1	99.2	3.4	11.2	3.3	90.4	-1.4	4.8	4.2	98.7	6.7	19.6	4.1	92.0	-1.4	6.6	6.9
Q2	93.8	-1.4	7.3	7.8	96.0	1.6	4.8	2.6	94.9	-4.4	3.9	5.0	95.6	5.7	6.6	4.5	95.9	-2.8	11.6	4.3	85.5	-7.2	1.9	6.1
Q3	92.4	-1.5	5.0	7.9	97.5	1.6	6.6	4.1	99.5	4.9	10.5	7.5	96.3	0.7	5.5	5.3	85.5	-10.8	1.7	4.6	91.4	6.9	9.7	6.4
Q4	94.7	2.5	1.7	6.1	98.3	0.8	2.8	4.0	105.7	6.3	10.2	8.9	94.1	-2.3	2.5	4.8	88.8	3.8	-4.0	5.1	101.4	11.0	8.6	6.7
2006 Q1	96.9	2.3	1.8	3.9	99.3	1.0	5.2	4.8	97.7	-7.6	-1.6	5.6	97.6	3.7	7.9	5.6	97.1	9.4	-1.6	6.2	95.2	-6.1	3.5	5.9
Q2	98.9	2.1	5.4	3.4	99.1	-0.2	3.2	4.4	99.2	1.6	4.5	5.8	98.3	0.8	2.8	4.6	96.3	-0.8	0.5	6.8	106.9	12.2	25.1	11.5
Q3	102.5	3.7	10.9	4.9	100.3	1.2	2.9	3.5	109.4	10.3	10.0	5.8	101.7	3.5	5.7	4.7	102.9	6.9	20.4	7.1	97.4	-8.9	6.6	10.7
Q4	102.0	-0.5	7.8	6.4	101.4	1.1	3.2	3.6	92.5	-15.5	-12.5	-0.1	102.4	0.6	8.9	6.3	103.7	0.7	16.8	7.0	100.5	3.2	-0.9	8.0
2007 Q1	98.7	-3.3	1.9	6.4	102.4	1.0	3.1	3.1	101.6	9.8	4.0	1.2	101.2	-1.1	3.7	5.2	98.7	-4.7	1.7	6.3	94.0	-6.5	-1.4	6.8
Q2	102.0	3.4	3.2	5.9	102.4	0.0	3.3	3.1	104.7	3.1	5.5	1.5	107.5	6.3	9.4	6.9	105.2	6.5	9.2	5.8	91.4	-2.8	-14.5	-3.0
Q3	101.6	-0.4	-0.8	2.9	101.3	-1.0	1.0	2.6	106.7	1.9	-2.5	-1.6	107.3	-0.2	5.5	6.8	98.3	-6.6	-4.6	5.7	103.2	13.0	6.0	-3.0
Q4	98.8	-2.8	-3.1	0.2	99.1	-2.2	-2.3	1.3	100.1	-6.2	8.2	3.6	106.9	-0.4	4.4	5.8	94.2	-4.1	-9.1	5.6	103.5	0.3	3.0	-2.0

*1 The change in the rolling annual average measures the change in the average of the latest four quarters against the same four quarters one year previous.

*2 The regional GVA weights relate to 2008.

**Table 2 continued – Northern Ireland Index of Services – Quarterly, Annual and Rolling Annual average^{*1} changes by sector
Seasonally Adjusted (2006 = 100)**

2006 = 100	All Services				Distribution – Wholesale and Retail				Hotels & Restaurants				Transport, Storage & Communication				Business Services & Finance				Other Services			
	G - O				G				H				I				J & K				M,N & O			
	Index	Quarter Change (%)	Annual Change (%)	Rolling Annual ⁺ Change (%)	Index	Quarter Change (%)	Annual Change (%)	Rolling Annual ⁺ Change (%)	Index	Quarter Change (%)	Annual Change (%)	Rolling Annual ⁺ Change (%)	Index	Quarter Change (%)	Annual Change (%)	Rolling Annual ⁺ Change (%)	Index	Quarter Change (%)	Annual Change (%)	Rolling Annual ⁺ Change (%)	Index	Quarter Change (%)	Annual Change (%)	Rolling Annual ⁺ Change (%)
Weights ^{*2}	1000				263.4				54.7				68.8				451.5				161.5			
2008 Q1	98.0	-0.8	-0.7	-0.4	99.1	0.0	-3.3	-0.3	107.1	7.1	5.5	3.9	105.2	-1.6	4.0	5.8	95.1	0.9	-3.7	5.4	102.2	-1.3	8.8	0.4
Q2	97.2	-0.8	-4.7	-2.4	97.5	-1.5	-4.7	-2.3	108.0	0.8	3.2	3.4	112.8	7.2	4.9	4.7	91.9	-3.4	-12.6	4.9	103.6	1.4	13.4	7.6
Q3	95.7	-1.6	-5.9	-3.6	94.5	-3.2	-6.8	-4.3	107.4	-0.6	0.6	4.2	112.8	-0.1	5.1	4.6	89.3	-2.8	-9.1	3.4	100.6	-2.9	-2.5	5.4
Q4	94.2	-1.5	-4.7	-4.0	92.7	-1.9	-6.5	-5.3	113.0	5.3	13.0	5.5	110.0	-2.5	2.8	4.2	85.9	-3.9	-8.9	2.0	102.7	2.1	-0.8	4.3
2009 Q1	93.7	-0.6	-4.4	-4.9	91.9	-0.8	-7.2	-6.3	101.9	-9.8	-4.9	2.8	107.9	-1.9	2.5	3.8	87.9	2.4	-7.6	-0.1	107.9	5.1	5.6	3.6
Q2	90.8	-3.0	-6.6	-5.4	93.4	1.6	-4.2	-6.2	101.7	-0.2	-5.8	0.5	108.9	1.0	-3.5	1.7	80.4	-8.6	-12.5	-2.3	109.1	1.1	5.3	1.9
Q3	90.4	-0.5	-5.5	-5.3	95.4	2.1	1.0	-4.3	101.5	-0.2	-5.5	-1.0	107.3	-1.5	-4.9	-0.9	76.1	-5.2	-14.7	-3.9	110.1	0.9	9.4	4.8
Q4	90.7	0.3	-3.8	-5.1	97.7	2.4	5.5	-1.4	102.3	0.8	-9.5	-6.5	110.1	2.6	0.1	-1.5	74.6	-2.1	-13.1	-4.8	108.3	-1.6	5.5	6.4
2010 Q1	90.8	0.1	-3.1	-4.8	97.6	-0.2	6.1	2.0	106.9	4.5	4.9	-4.2	110.7	0.6	2.6	-1.5	77.8	4.4	-11.4	-4.2	108.7	0.4	0.8	5.2
Q2	90.5	-0.3	-0.3	-3.2	95.0	-2.6	1.7	3.6	111.0	3.9	9.2	-0.6	117.0	5.8	7.5	1.3	76.9	-1.2	-4.3	-2.5	109.2	0.4	0.1	3.8
Q3	88.6	-2.2	-2.0	-2.3	93.0	-2.1	-2.5	2.7	109.3	-1.5	7.7	2.7	116.2	-0.7	8.3	4.6	71.6	-6.9	-6.0	-0.2	110.2	0.9	0.1	1.6
Q4	87.0	-1.8	-4.0	-2.3	88.1	-5.3	-9.8	-1.2	111.2	1.8	8.7	7.6	113.9	-2.0	3.5	5.5	70.6	-1.3	-5.3	1.2	109.9	-0.2	1.5	0.6
2011 Q1	85.8	-1.4	-5.5	-2.9	87.3	-1.0	-10.6	-5.4	110.3	-0.9	3.2	7.1	111.1	-2.5	0.4	4.9	72.9	3.1	-6.4	1.7	108.9	-1.0	0.1	0.5

*1 The change in the rolling annual average measures the change in the average of the latest four quarters against the same four quarters one year previous.

*2 The regional GVA weights relate to 2008.

Background Notes

4

Background

Following demand from economic decision makers and commentators for a better short-term measure of the performance of the service sector in Northern Ireland, the experimental Index of Services (IOS) was first published in Northern Ireland on 18 May 2005. It is published quarterly and is designed to provide a general measure of changes in the output of the private sector service industries in Northern Ireland. (This is defined as Standard Industrial Classification (SIC) 2003 sections G to O.) In 2008 these industries accounted for 65% of regional Gross Value Added (GVA). See link to Regional GVA information <http://www.statistics.gov.uk/statbase/Product.asp?vlnk=14650>

Index Numbers

An index number 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, with one number in that series chosen to be the 'base' (usually expressed as 100) and other numbers being measured relative to that base. Index numbers have the advantage that they allow different types of data to be combined on a consistent basis, e.g. deflated current price data with volume data. The aim of the Index of Services is to provide a reliable indicator of short-term changes in the output of the service sector. Index numbers are a very good way of communicating this message. For example, the Index of Services Q1, 2011 value of 85.8 means that the level of output then was 14.2% lower than in 2006 which had a base year value of 100. The NI IOS is a Laspeyres volume index. The UK economic accounts are based on the European System of Accounts (ESA), which in turn is based on the UN System of Accounts (SNA). The ESA-preferred type of output indicator is one that measures deflated gross output (or turnover) for an industry. These use an approximate price change estimator to remove the effects of inflation. For this reason we, and the ONS, use a Laspeyres volume index (as opposed to Paasche, Lowe or Fisher indices). The ONS paper, link following, on the Methodology of the Monthly Index of Services (Annex A: Mathematical Formulation of the Index of Services) gives a good explanation of Index numbers theory. <http://www.ons.gov.uk/about-statistics/user-guidance/ios-methodology/index.html>

Index Sample

The IOS sample contains around 1,500 companies and the response rate is around 80%. The sample of service industries is selected directly from the Inter Departmental Business Register (IDBR), by stratifying companies by industry and company size. The sample consists of a census of dominant companies and a Neyman stratified random sample of the remaining companies. The census element consists of all companies employing 100 or more employees and those employing 0 to 99 employees and having a turnover of £20 million or more. It is desirable to include these low employment high turnover companies in the sample in order to provide a more comprehensive picture of the overall economy.

Data collection, validation and Index calculation

The survey forms are issued quarterly, immediately after the period to which they relate. For example, forms are issued in October asking for information relating to July to September. Companies are asked to provide their turnover for the previous quarter. Data validation is carried out ensuring that data fall within the expected limits, contacting the company where appropriate for clarification.

For company non-returns, the data are imputed using a methodology that takes account of previous returned data and also the performance of similar sized businesses engaged in the same activities. More specifically, the imputed data are calculated using all returned turnover in the quarter for each 2 digit SIC/

employment size band and also the associated employment in each category. This enables a full series of turnover per employee ratios to be created for each 2 digit SIC/ employee size band.

The ratio is then factored up dependent on the number of employees in the non-responding company to generate a total turnover for imputation.

The employees figures used are taken where possible from the NI Quarterly Employment Survey (QES) and are matched with IOS by IDBR Reporting Unit reference. If no employee figure is available from the QES then the selected IDBR employee figure is used instead.

Because of the nature of the business, data from certain industries are particularly volatile. This volatility may be due to noise (sampling error, etc.) or signal (economic events), and whether the signal relates to the right period. Real estate, renting and business activity (SIC 70) is currently the most volatile of the entire two digit SIC series that make up the index. We currently apply a smoothing technique to the data to reduce the short-term volatility in the data. This is carried out to ensure that changes in volatile data do not disproportionately affect the value of the overall Index. We currently use exponential smoothing as it gives greater significance to the most recent values (as opposed to a simple moving average of the most recent n values, which gives equal weight to all data). However, following advice from a Quality Improvement Fund project we intend to review the SIC70 sector to see if it is still necessary to smooth the results.

The overall Index of Services is calculated by weighting together industry level indices that describe the activity of an industry sector using the Standard Industrial Classification. This is done using relative shares of regional GVA on an annual basis. The annual weights from regional GVA are more up to date and their use is in line with recommendations from the Office for National Statistics (ONS).

The Northern Ireland Index of Services is annually chain-linked (Chain-linking involves the linking of growth estimates between different time periods in order to produce a continuous time series) using private sector GVA estimates derived from regional accounts using the fourth quarter of the preceding year as the link period. Inaccuracies caused by the assumption of a stable relationship between GVA and turnover are reduced using this methodology. When annual weights are used the assumption only has to be maintained from one year to the next year. A paper on annual chain-linking from ONS is available at http://www.statistics.gov.uk/articles/economic_trends/ET_May_Annual_Chain_Linking.pdf

Deflation

All series, unless otherwise quoted, are measured at constant market price. Deflators (based on the Services Producer Prices indices) adjust the value series to take out the effect of price change to give the volume series.

Seasonal Adjustment

The index numbers in this statistical bulletin are all seasonally adjusted. This aids interpretation by removing annually recurring fluctuations, for example due to holidays or other regular seasonal patterns. From Quarter 2 2010 we have moved from using X-11 ARIMA to X-12 ARIMA as our seasonal adjustment package. A comparison of results using both X-11 and X-12 shows that the underlying trend has remained the same. The following is a link to detailed documentation on X-12 ARIMA http://www.statistics.gov.uk/about/data/methodology/general_methodology/downloads/BlackBook.pdf

Quality reporting

One indicator of the reliability of the figures in this bulletin can be obtained by monitoring the size of revisions. The table below is based on the revisions between the first estimate and the estimate three years later. This is provided for the most recent five year period for which we have data. Please note that these indicators only report summary measures for revisions. The revised data may, themselves, be subject to sampling and other sources of error. More detail on this can be found in the summary quality report (see next section).

The table below presents a summary of the differences between the first estimates (of quarterly growth) published between 2003 Q2 and 2008 Q1 and the estimates published three years later.

	Value in latest period 2011 Q1 - percent	Revision between first publication and estimates three years later	
		Average over 20 Quarters (2003 Q2 to 2008 Q1)	Average over 20 Quarters without regard to sign (average absolute revision)
Index of Services quarter on quarter growth rate	-1.4	0.1	2.4

A spreadsheet giving revisions triangles of estimates for all quarters from 2001 Q2 through to the current quarter, and the calculations behind the averages in the above table are available at <http://www.detini.gov.uk/deti-stats-index/stats-surveys/stats-ios/revisions-to-ios.htm>

A statistical test has been applied to the average revisions to find out if they are statistically different from zero. No such differences have been found.

A spreadsheet providing measures of the revisions to all the data in this statistical bulletin is available at <http://www.detini.gov.uk/deti-stats-index/stats-surveys/stats-ios/revisions-to-ios.htm>

Summary Quality Report

A summary quality report for this publication can be found on the IOS Quality and Revisions page of the website at <http://www.detini.gov.uk/deti-stats-index/stats-surveys/stats-ios/revisions-to-ios.htm>

Status Of Figures In Current Bulletin

All figures are published to one decimal place. Figures for annual averages and percentage changes over the previous quarter and year are based on unrounded figures and may not agree with the published constituent parts.

Results, particularly for the latest quarter, are provisional and are subject to revision as more up to date information becomes available.

Significant revisions to previous quarters' figures are highlighted in the main text of the bulletin.

The index has been produced using X-12 ARIMA seasonal adjustment from the Quarter 2 2010 bulletin.

In line with ONS, the base year was changed from 2005 = 100 to 2006 = 100 for the first time in the Quarter 2 2010 bulletin.

Comparisons between the Index of Services and the Annual Business Inquiry (ABI) may not necessarily match because of definitional and coverage differences. For example the Index of Services covers the dominant business activity and the ABI covers workplace activity.

On 6 September 2010 the IOS became a statutory survey. As a result, the survey forms issued for the period July to September 2010 were the first collected under statute and the change increased overall response rates from around 63% to approximately 80%. The January 2011 bulletin was the first to publish such data.

Planned Future Revisions

The IOS revisions policy can be found at <http://www.detini.gov.uk/deti-stats-index/stats-surveys/stats-ios/revisions-to-ios.htm>

See National Statistics section

From Q2 2011 the IOS sample will be on an SIC 2007 basis.

In line with ONS, the base year of the Index is scheduled to be changed from 2006 = 100 to 2008 = 100 for the first time in the Quarter 2 2011 bulletin. Department of Finance and Personnel
Northern Ireland Index of Services report published on 13th July 2011 Page 12

IOS results from Q2 2011 will be based on a new sample of approximately 1,900 companies. The sample will consist of a census of dominant companies and a Neyman stratified random sample of the remaining companies. The census element consists of all companies employing 100 or more employees and those employing 0 to 99 employees and having a turnover of £20 million or more. It is desirable to include these low employment high turnover companies in the sample in order to provide a more comprehensive picture of the overall economy.

Publications Policy

All DETI statistical publications are available to download free of charge from the website <http://www.detini.gov.uk/deti-stats-index.htm>

The IOS bulletin is available at <http://www.detini.gov.uk/deti-stats-index/stats-surveys/stats-ios.htm>

The tables from the current publication, which includes all the data from the start of the series in 2002, are available in Excel format to download free of charge from the IOS website at <http://www.detini.gov.uk/deti-stats-index/stats-surveys/stats-ios.htm>

The IOS is published on the same day as the Index of Production in January, April, July and October of each year.

The DETI statistics publication schedule is available at <http://www.detini.gov.uk/deti-stats-index.htm>

The list of people given pre-release access to this publication is available at <http://www.detini.gov.uk/deti-stats-index/stats-national-statistics.htm>

National Statistics

The IOS is currently an experimental statistical series. However, the UK Statistics Authority published its Assessment Report of the Northern Ireland Index of Production and Index of Services on 6 January 2011. Subject to meeting three requirements by April 2011, the Index of Services will be accredited as a National Statistic. The report can be accessed at

<http://www.statisticsauthority.gov.uk/assessment/assessment/assessment-reports/index.html>

Next Publication

The next bulletin will be published on 12th October 2011.

FOR FURTHER INFORMATION

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