

## Monthly Services Index

May 2012 (Provisional)

April 2012 (Final)

**Monthly Services Index**  
(Base Year 2009 = 100)

	<b>Value Index</b>	<b>Monthly % Changes</b>	<b>Annual % Changes</b>
<b>May 2011</b>	99.2	1.7%	6.5%
<b>April 2012</b>	101.5	-0.4%	4.1%
<b>May 2012</b>	107.1	5.5%	8.0%

### Monthly Services Index increased 5.5% in May 2012

The seasonally adjusted monthly services value index increased by 5.5% in May 2012 when compared with April 2012 and there was an annual increase of 8.0%. The contribution of each sector to these changes in the overall, seasonally adjusted, Monthly Services Index are outlined in graphs on page 6.

Information and Communication (+12.1%), Business Services (+6.3%), Wholesale and Retail Trade (+4.5%), Other Services (+2.3%) and Accommodation and Food Service Activities (+0.3%) showed month on month increases in May 2012. Transportation and Storage showed a monthly decrease of 1.4%.

Information and Communication (+20.0%), Transportation and Storage (+8.7%), Wholesale and Retail Trade (+8.3%), Other Services (+0.8%) and Business Services (+0.2%) showed year on year increases in May 2012 when compared with May 2011. Accommodation and Food Service Activities showed an annual decrease of 2.5%.

Unadjusted figures for the monthly services value index are available on the CSO website, [www.cso.ie](http://www.cso.ie).

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**Table 1 Seasonally adjusted indices for the non-financial traded services sector<sup>1</sup>**  
**Base Year: 2009=100**

Period	Total Monthly Services		
	Index	% change on previous period	Annual % change
2009	100.1		
2010	96.2		-3.9
2011	98.7		2.6
2011 1st quarter	97.8	0.5	1.9
2nd quarter	98.7	0.9	3.4
3rd quarter	98.8	0.0	2.7
4th quarter	99.6	0.8	2.3
2012 1st quarter	101.4	1.8	3.7
2010 November	98.2	1.8	1.2
December	97.6	-0.6	0.0
2011 January	98.1	0.5	3.1
February	96.7	-1.4	0.9
March	98.7	2.1	1.6
April	97.5	-1.2	1.9
May	99.2	1.7	6.5
June	99.5	0.3	2.0
July	98.0	-1.5	1.7
August	99.8	1.8	4.6
September	98.6	-1.2	1.9
October	97.9	-0.7	1.6
November	100.6	2.7	2.5
December	100.3	-0.3	2.8
2012 January	100.5	0.2	2.5
February	101.8	1.3	5.3
March	101.9	0.2	3.2
April	101.5	-0.4	4.1
May <sup>2</sup>	107.1	5.5	8.0

<sup>1</sup> Based on Seasonal Patterns up to May 2012

<sup>2</sup> Provisional Value Indices based on early returns from respondents

**Table 2(a) Seasonally adjusted indices by sector<sup>1</sup>**

**Base Year: 2009=100**

		Wholesale and retail trade; repair of motor vehicles and motorcycles			Wholesale trade <sup>3</sup>		
Period		Index	% change		Index	% change	
			on previous period	Annual % change		on previous period	Annual % change
2009		100.1			100.2		
2010		102.0		1.9	105.2		5.0
2011		105.2		3.1	112.0		6.5
2011	1st quarter	104.8	1.6	5.3	110.7	1.6	10.7
	2nd quarter	103.4	-1.3	1.0	108.1	-2.3	2.8
	3rd quarter	104.2	0.7	1.3	111.2	2.8	4.3
	4th quarter	108.3	4.0	4.9	118.1	6.2	8.5
2012	1st quarter	108.2	-0.1	3.3	118.6	0.4	7.2
2010	November	103.9	-0.3	8.3	109.1	0.2	15.0
	December	101.6	-2.2	4.1	108.7	-0.4	11.9
2011	January	105.1	3.5	9.7	113.1	4.1	15.9
	February	104.7	-0.3	5.3	108.7	-4.0	12.8
	March	104.6	-0.2	1.2	110.2	1.4	3.9
	April	103.8	-0.7	1.6	108.7	-1.3	5.3
	May	103.0	-0.7	1.3	107.6	-1.0	3.8
	June	103.5	0.4	0.2	108.1	0.5	-0.6
	July	102.9	-0.5	0.4	108.1	0.0	2.0
	August	103.9	0.9	1.6	111.2	2.8	5.8
	September	105.7	1.8	1.7	114.3	2.7	5.1
	October	105.6	-0.2	1.4	114.8	0.5	5.4
	November	110.8	4.9	6.6	120.1	4.7	10.1
	December	108.5	-2.0	6.9	119.5	-0.5	10.0
2012	January	107.3	-1.1	2.1	118.7	-0.7	4.9
	February	108.8	1.4	3.9	119.5	0.7	10.0
	March	108.6	-0.2	3.8	117.7	-1.5	6.8
	April	106.8	-1.6	2.9	116.4	-1.1	7.1
	May <sup>2</sup>	111.6	4.5	8.3	125.3	7.6	16.4

<sup>1</sup> Based on Seasonal Patterns up to May 2012

<sup>2</sup> Provisional Value Indices based on early returns from respondents

<sup>3</sup> Wholesale trade is a sub-component of Wholesale and retail trade; repair of motor vehicles and motorcycles

**Table 2(b) Seasonally adjusted indices by sector<sup>1</sup>**

**Base Year: 2009=100**

Period	Information and Communication			Business Services			
	Index	% change		Index	% change		
		on previous period	Annual % change		on previous period	Annual % change	
2009	100.2			100.0			
2010	99.1		-1.1	94.4		-5.7	
2011	99.9		0.9	100.9		6.9	
2011	1st quarter	96.4	-4.5	-2.1	100.5	0.8	7.6
	2nd quarter	100.5	4.2	2.8	102.5	2.0	12.3
	3rd quarter	99.5	-1.0	0.4	101.6	-0.9	9.1
	4th quarter	103.3	3.8	2.4	99.0	-2.5	-0.7
2012	1st quarter	109.5	5.9	13.5	98.4	-0.6	-2.0
2010	November	98.2	1.4	-1.2	106.2	11.0	12.3
	December	107.7	9.7	8.8	97.4	-8.3	2.0
2011	January	97.7	-9.3	-3.5	100.5	3.2	8.2
	February	95.0	-2.7	0.6	96.1	-4.4	1.5
	March	96.6	1.7	-3.1	104.8	9.0	13.2
	April	99.0	2.5	1.2	99.0	-5.5	6.3
	May	100.8	1.9	11.2	104.6	5.6	16.9
	June	101.7	0.9	-2.9	103.9	-0.7	13.8
	July	96.5	-5.1	-6.0	101.9	-1.9	13.7
	August	104.2	7.9	8.7	101.3	-0.5	7.6
	September	97.8	-6.1	-1.1	101.5	0.2	6.2
	October	100.2	2.5	3.5	98.4	-3.0	2.9
	November	104.3	4.1	6.2	98.4	0.0	-7.3
	December	105.5	1.1	-2.1	100.2	1.8	2.9
2012	January	108.5	2.9	11.1	98.9	-1.3	-1.6
	February	110.3	1.7	16.1	98.5	-0.4	2.4
	March	109.6	-0.7	13.4	97.9	-0.5	-6.6
	April	108.0	-1.4	9.1	98.6	0.7	-0.5
	May <sup>2</sup>	121.0	12.1	20.0	104.8	6.3	0.2

<sup>1</sup> Based on Seasonal Patterns up to May 2012

<sup>2</sup> Provisional Value Indices based on early returns from respondents

**Table 2(c) Seasonally adjusted indices by sector<sup>1</sup>**

**Base Year: 2009=100**

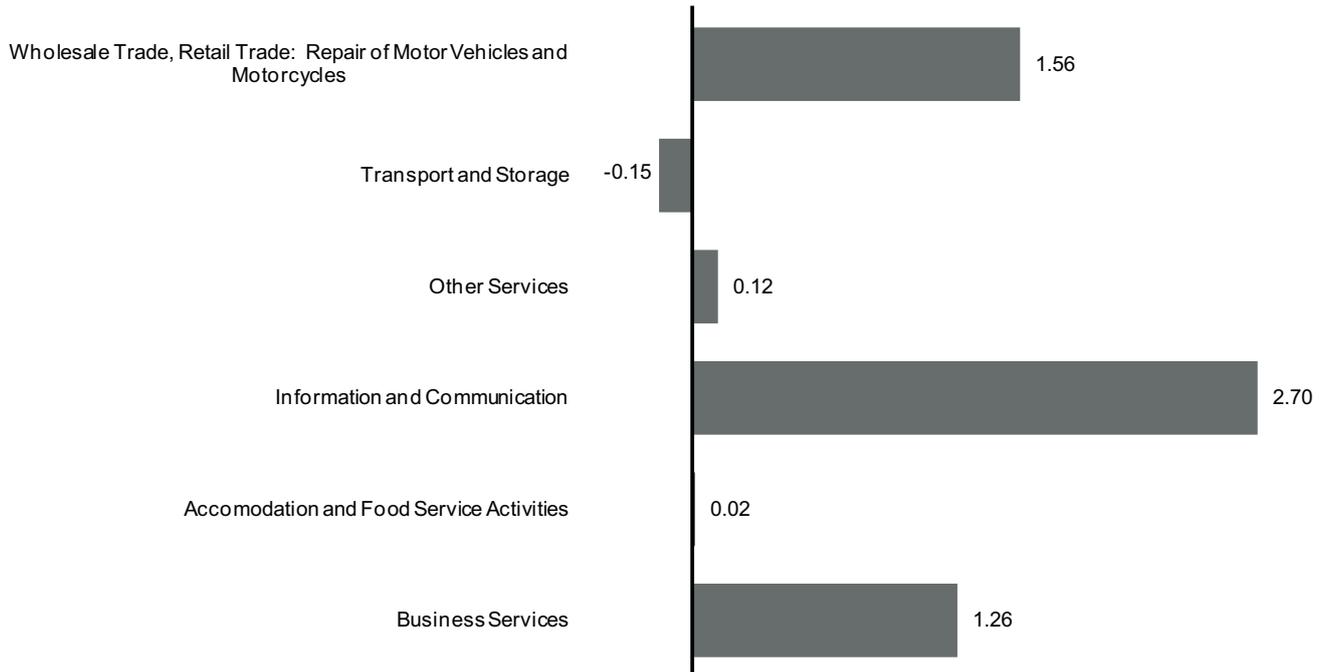
Period	Transportation and Storage			Accommodation and food service activities			Other Services <sup>3</sup>			
	Index	% change		Index	% change		Index	% change		
		on previous period	Annual % change		on previous period	Annual % change		on previous period	Annual % change	
2009	100.5			100.5			99.9			
2010	92.6		-7.8	90.4		-10.0	78.4		-21.6	
2011	96.9		4.6	89.3		-1.2	71.9		-8.2	
2011	1st quarter	95.0	4.2	1.9	90.5	0.1	-0.4	74.2	5.5	-17.4
	2nd quarter	96.5	1.6	4.7	90.5	-0.1	0.7	73.0	-1.6	-8.0
	3rd quarter	99.9	3.5	6.2	89.7	-0.9	-1.1	71.7	-1.8	-3.0
	4th quarter	96.2	-3.7	5.5	86.6	-3.4	-4.3	68.7	-4.2	-2.2
2012	1st quarter	100.8	4.8	6.1	86.7	0.1	-4.2	71.1	3.5	-4.1
2010	November	89.9	-3.3	-8.3	89.8	-2.9	-8.0	70.1	-1.2	-29.7
	December	90.6	0.8	-7.6	89.1	-0.7	-5.9	69.9	-0.2	-31.4
2011	January	93.2	2.9	2.8	90.6	1.7	0.7	75.1	7.5	-18.6
	February	96.0	3.1	0.5	91.5	1.0	0.8	72.4	-3.6	-20.7
	March	95.7	-0.3	2.6	89.4	-2.4	-2.5	75.0	3.6	-12.6
	April	93.5	-2.3	3.6	90.9	1.7	2.1	73.0	-2.7	-11.1
	May	96.7	3.5	4.5	90.5	-0.4	1.2	73.7	1.1	-2.4
	June	99.3	2.7	6.0	90.1	-0.4	-1.0	72.4	-1.8	-10.1
	July	100.5	1.2	7.2	90.3	0.2	0.3	72.7	0.4	-7.4
	August	100.4	-0.1	6.7	90.2	0.0	0.0	72.9	0.2	-0.7
	September	98.8	-1.6	4.7	88.5	-1.9	-3.5	69.6	-4.4	-0.5
	October	96.9	-1.9	4.3	85.9	-2.9	-7.1	67.9	-2.5	-4.3
	November	95.6	-1.4	6.4	87.0	1.3	-3.1	70.3	3.6	0.3
	December	96.0	0.4	6.0	86.8	-0.2	-2.6	68.1	-3.2	-2.7
2012	January	97.2	1.2	4.3	87.3	0.6	-3.6	69.3	1.9	-7.7
	February	99.6	2.5	3.7	84.8	-2.9	-7.4	74.6	7.6	3.1
	March	105.7	6.1	10.4	88.1	3.9	-1.5	69.5	-6.9	-7.4
	April	106.6	0.9	14.0	87.9	-0.1	-3.2	72.7	4.6	-0.4
	May <sup>2</sup>	105.2	-1.4	8.7	88.2	0.3	-2.5	74.4	2.3	0.8

<sup>1</sup> Based on Seasonal Patterns up to May 2012

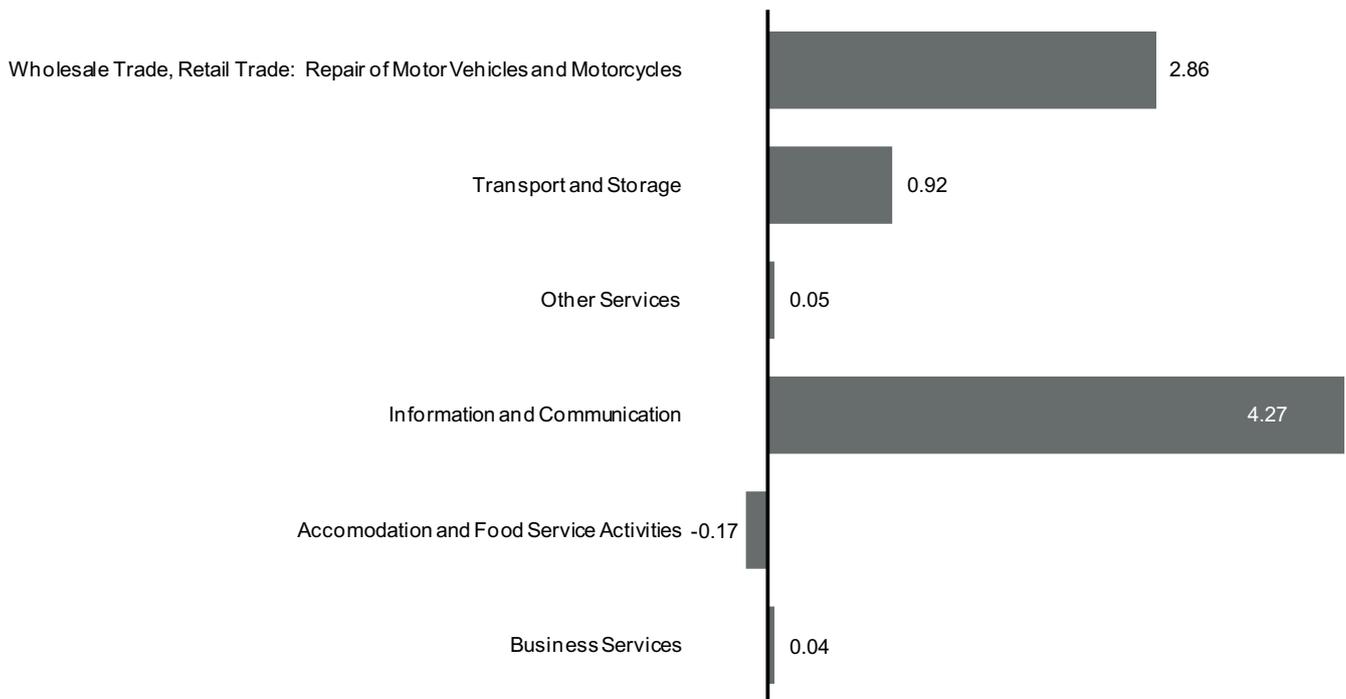
<sup>2</sup> Provisional Value Indices based on early returns from respondents

<sup>3</sup> See background notes

**Contributions to MSI Seasonally Adjusted Monthly services Index  
Month on Month Change of 5.5% - May 2012**



**Contributions to MSI Seasonally Adjusted Monthly Services Index  
Year on Year Change of 8.0% - May 2012**



## Background Notes

**Introduction** The monthly services value index monitors trends in output at current prices of enterprises in the non-financial traded services sector. This is the first step in the development of a Services Production Index that measures gross value added changes at constant prices, i.e. a volume index.

**Sample covered** The sample size is approximately 2,100 enterprises. The sample comprises a census of all enterprises with an annual turnover value of more than €20.0M or enterprises with more than 100 persons engaged. The remainder of the target population is stratified using 2 digit Statistical Classification of Economic Activities in the European Community i.e. NACE Rev. 2, classifications. Each of these 2-digit NACE sectors are further subdivided into strata based on turnover. A simple random sample is then drawn from each stratum. Retail and Motor Trade figures are taken from the separate Retail Sales Index sample of approximately 1,400 enterprises.

The response rates for the provisional results are typically 49% in terms of the enterprises surveyed which represents 70% of the value of total turnover. The corresponding figures for the final results are 59% and 88% respectively. These response rates are based on averages for the 6 month period ending March 2012.

**Methodology** The business activity classifications used in this Statistical release are based on the Statistical Classification of Economic Activities in the European Community i.e. NACE Rev. 2. For further information on the NACE Rev. 2 classification of services activity, visit the CSO website (<http://www.cso.ie/px/u/NACECoder/NACEItems/searchnace.asp>).

The index system is structured on the non-financial traded services sector covered in the 2009 Annual Services Inquiry (ASI). This overall sector is broken down into 8\* separate sectors:

- Wholesale and Retail Trade\* ; Repair of Motor Vehicles and Motorcycles (NACE 45-47)
- Transport and Storage (NACE 49-53)
- Accommodation and Food Activities (NACE 55,56\*)
- Information and Communication (NACE 58-63)
- Business Services (NACE 69-75 and NACE 78-82)
- Other Business Services
  - NACE 66 Activities auxiliary to financial services and insurance activities
  - NACE 68 Real estate activities
  - NACE 77 Rental and leasing activities
  - NACE 90-93 Arts, Entertainment and Recreation
  - NACE 95 Repair of computers and personal and household goods
  - NACE 96 Other personal service activities

Each of these sectors is then broken down into three distinct cells based on both turnover and employment. Gross value added (GVA) baseweights are obtained from the ASI 2009 for each of these cells. Using a matched sample approach these baseweights are then updated each calendar month. A change in reported turnover is used as a proxy for a change in GVA to update the baseweights. The returned turnover figures for some enterprises are adjusted when enterprises' turnover is atypical of the GVA - turnover ratio within a sector. \*The changes for the Retail, Motor and Bars components are obtained from the Retail Sales Inquiry. In the calculation of the index Retail Trade and Motor Trade are treated as separate sectors. A Wholesale index is also published monthly.

**Seasonal Adjustment** Seasonal adjustment for each of the sectors is conducted using a direct seasonal adjustment approach. However, the overall MSI is estimated using the indirect approach, i.e. the MSI is derived by adding the weighted seasonally adjusted sub-components. The main reason for adopting the indirect approach to estimate the MSI is to improve the additivity of the MSI figures, i.e. monthly and annual changes in the MSI can be attributed directly to each of its sub-components. Seasonal adjustment models are developed for each series based on unadjusted data spanning from January 2009 to the current period. Seasonal factors are updated each month.

The adjustments are completed by applying the X-12-ARIMA model, developed by the U.S. Census Bureau to the unadjusted data. The ARIMA option in X12ARIMA is used to forecast and backcast the series in order to have enough data to run the seasonal adjustment, as currently we have less than 5 years of data. Due to the lack of a sufficiently long series the series are not adjusted for Easter and Trading effects. However seasonal estimates take into account other factors that may impact on the quality of the seasonal adjustment, i.e. outliers, temporary changes and level shifts.

For additional information on the use of X-12-ARIMA see (Findley, D.F., B.C. Monsell, W.R. Bell, M.C. Otto, and B. Chen (1998), "New Capabilities and Methods of the X-12-Arima Seasonal Adjustment Program", *Journal of Business & Economic Statistics*, 16, pp. 127-177.)