

23 January 2009

Coverage
United Kingdom

Theme
The Economy

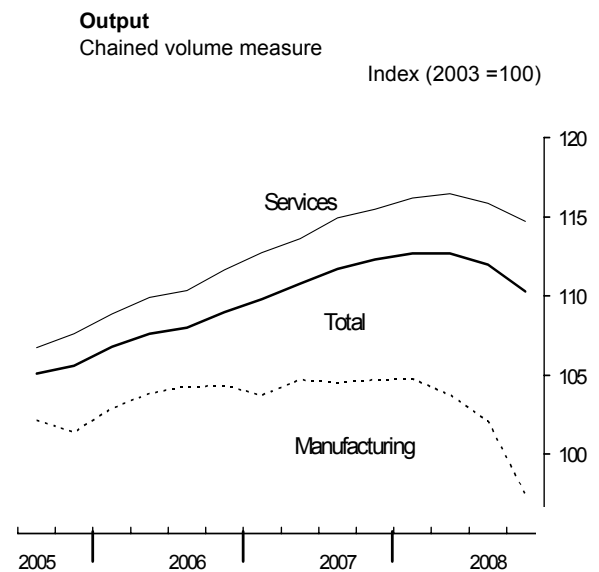


Gross domestic product Preliminary estimate – 4th quarter 2008

The preliminary estimate shows that the chained volume measure of gross domestic product (GDP) decreased by 1.5 per cent in the fourth quarter of 2008 compared with the previous quarter. The slowdown was the result of both reduced services and production activity.

The volume of output in the production industries is estimated to have decreased by 3.9 per cent this quarter. Manufacturing output decreased by 4.6 per cent. Mining and quarrying decreased by 1.6 per cent and Electricity, gas and water supply decreased by 0.2 per cent.

Output of the service industries is estimated to have decreased by 1.0 per cent.



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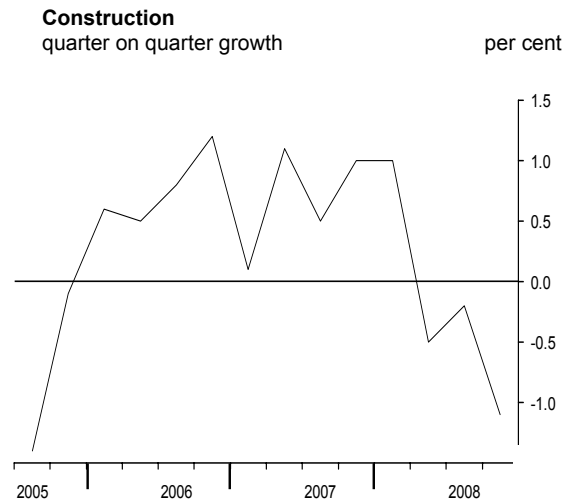
25 February 2009

GDP at market prices

		Chained volume indices 2003=100	GDP	Manufacturing	Total Production Industries	Total Services
		Seasonally adjusted	Percentage change: latest quarter on previous quarter			
2006	Q3	108.0	0.5	0.4	0.3	0.4
	Q4	109.0	0.9	0.0	-0.3	1.2
	Q1	109.8	0.8	-0.6	-0.1	1.0
	Q2	110.8	0.9	0.9	0.8	0.8
2007	Q3	111.7	0.8	-0.2	-0.1	1.1
	Q4	112.3	0.6	0.2	0.4	0.5
	Q1	112.7	0.4	0.1	-0.6	0.6
	Q2	112.7	0.0	-1.0	-0.9	0.2
2008	Q3	112.0	-0.6	-1.6	-1.4	-0.5
	Q4	110.3	-1.5	-4.6	-3.9	-1.0

Construction

Output within construction decreased by 1.1 per cent compared with a decrease of 0.2 per cent in the previous quarter. It should be noted that the output survey results used to compile more complete estimates are not available at this stage and the preliminary results are based on a smaller survey of changes in the balance of activity in the sector.



Distribution, hotels and restaurants

Output within distribution, hotels and restaurants decreased by 2.4 per cent compared with a decrease of 2.1 per cent in the previous quarter. Wholesaling and motor trades made the largest contribution to the reduction in the level of output.

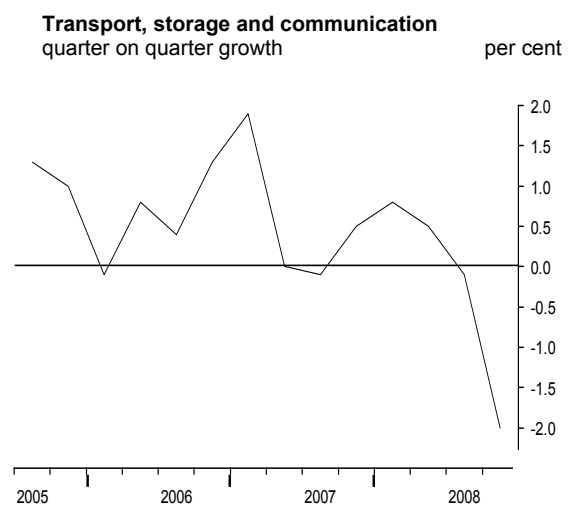
This sector made the largest contribution to the reduction in the level of services output.



Transport, storage and communication

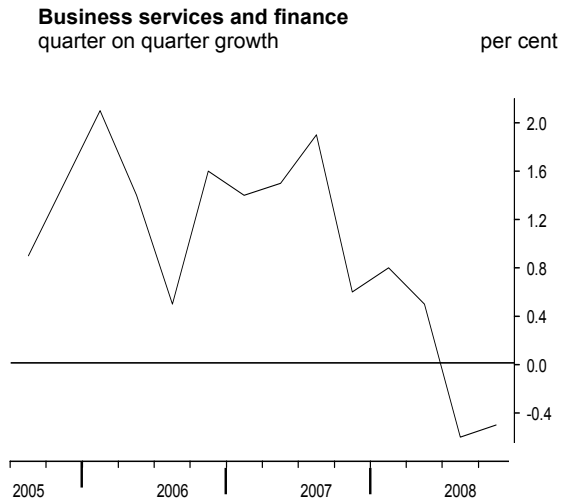
Output within transport, storage and communication decreased by 2.0 per cent compared with a decrease of 0.1 per cent in the previous quarter. Land transport and transport support made the largest contribution to the decrease in output.

This sector contributed to the increased rate of reduction in services output.



Business services and finance

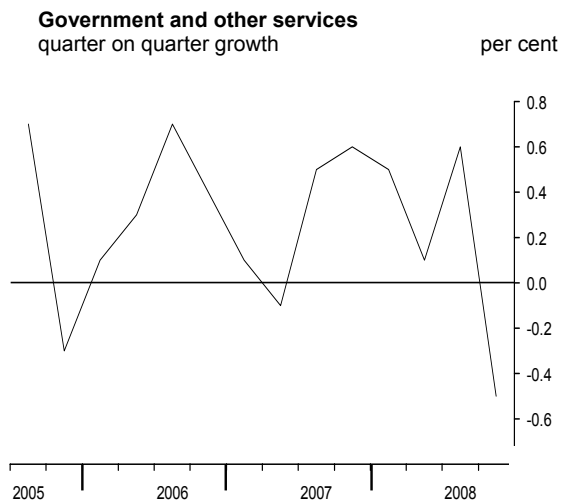
Output of business services and finance decreased by 0.5 per cent, compared with a decrease of 0.6 per cent in the previous quarter. Other business services made the largest contribution to the reduction in output. This was partly offset by increased growth in computing.



Government and other services

Output growth of government and other services decreased by 0.5 per cent, compared with an increase of 0.6 in the previous quarter. Weaker recreation and sewage and refuse made the largest contribution to the decline.

This sector contributed most to the increased rate of reduction in services output.



BACKGROUND NOTES

Release policy

1. This release includes information available up to 20 January 2009.

Estimates of UK output, income and expenditure will be published on 25 February 2009. A full set of quarterly national accounts will be published on 27 March 2009. The preliminary estimate of GDP for the first quarter of 2009 will be published on 24 April 2009.

Data sources

- 2.. This Preliminary estimate for gross domestic product is based on the estimate of the index of output of the production industries for the first two months of the quarter, as published on 9 January 2009, together with limited information on the output of the rest of the economy. Deflated turnover from the Monthly Inquiry into the Distribution and Service Sector (MIDSS) is used to estimate around half of the service sector. MIDSS estimates are available for the first two months of the quarter for the Preliminary estimate of GDP, and an estimate based on early responses to the monthly survey is used for the third month. Some components of this First Release, particularly within the service sector and construction, include a large proportion of estimation. At this stage, the industry detail is subject to revision, as is the total GDP growth estimate, as more information becomes available.
3. Quarterly construction output survey results for 2008Q4 are not available at this stage. This early construction estimate is based on an Activity Balance model. Other information used to inform the estimate includes monthly new construction orders for the first two months of the quarter and an estimate from the Northern Ireland Statistics and Research Agency. As the quarterly construction output survey results become available they may lead to revisions to the estimate of growth in construction output.

Basic quality information for the GDP First Release

Summary quality report

4. A summary Quality Report for this First Release can now be found on the National Statistics website at:

<http://www.statistics.gov.uk/cci/article.asp?ID=1180>

Key quality issues

5. *Common pitfalls in interpreting series:* Expectations of accuracy and reliability in early estimates are often too high. Revisions are an inevitable consequence of the trade off between timeliness and accuracy. Early estimates are based on incomplete data.

Very few statistical revisions arise as a result of 'errors' in the popular sense of the word. All estimates, by definition, are subject to statistical 'error' but in this context the word refers to the uncertainty inherent in any process or calculation that uses sampling, estimation or modelling. Most revisions reflect either the adoption of new statistical techniques, or the

incorporation of new information which allows the statistical error of previous estimates to be reduced. Only rarely are there avoidable 'errors' such as human or system failures, and such mistakes are made quite clear when they do occur.

Reliability

6. Estimates for the most recent quarters are provisional and, as usual, are subject to revision in the light of updated source information. ONS currently provides analysis of past revisions in the GDP and other First Releases which present time series. Details can be found at:

<http://www.statistics.gov.uk/cci/article.asp?ID=793>

ONS has a webpage dedicated to revisions to economic statistics which brings together ONS work on revisions analysis, linking to articles, analysis and key documentation from the Statistics Commission's report on revisions. The webpage can be found at:

http://www.statistics.gov.uk/about_ns/economic_revisions.asp

7. Revisions to data provide one indication of the reliability of key indicators. Tables 1 and 2 show summary information on the size and direction of the revisions which have been made to data covering a five year period. A statistical test has been applied to the average revision to find out if it is statistically significantly different from zero. The result of the test is that the average revision is not statistically different from zero. The data used are consistent with that used in more detailed analysis that have been published in *Economic Trends*. The most recent article was published on the National Statistics website on 11 December 2006 and can be found at:

<http://www/statistics.gov.uk/cci/article.asp?ID=1694>

8. Table 1 below shows the revisions between the early estimates of GVA. The analysis of revisions between month 1 and month 2 uses month 2 estimates published from February 2004 (2003q4) to November 2008 (2008q3). The analysis of revisions between month 2 and month 3 uses month 3 estimates published from March 2004 (2003q4) to December 2008 (2008q3).

Table 1: Revisions to early estimates of GVA growth

Revisions to GVA growth	GVA Growth in the latest period (per cent)	Revisions between early estimates of GVA growth (quarterly, CVM)	
		Average over the last five years	Average over the last five years without regard to sign (average absolute revision)
Between M1 and M2	-1.5	-0.02	0.03
Between M2 and M3	-1.5	-0.02	0.04

Table 2 below shows the revisions to GVA growth between the estimate published three months after the end of the quarter and the equivalent estimate three years later. The analysis uses month 3 estimates first published from Mar 2001 (2000q4) to Dec 2005 (2005q3).

Table 2: Revisions to month 3 estimates of GVA growth

	Value in latest period (per cent)	Revisions between first publication and estimates three years later	
		Average over the last five years	Average over the last five years without regard to sign (average absolute revision)
GVA growth (quarterly, CVM)	-1.5	0.10	0.20

Spreadsheets giving revisions triangles (real time databases) of estimates from 1992 to date, and the calculations behind the averages in both tables is available on the National Statistics website at:

<http://www.statistics.gov.uk/statbase/Product.asp?vlnk=13560>

Revisions triangles for the main components of gross value added by industry are also available at the link above.

An article by E George and D Obuwa 'National Accounts' Revisions Analyses: A summary to April 2005' is available on the National Statistics website at :

<http://www.statistics.gov.uk/cci/article.asp?ID=1140>

This article presents a summary of revisions analyses published up to April 2005 in ONS First Releases, including some more detailed analysis of revisions to GDP.

Deflation

9. The UK National Accounts are compiled as annually weighted and chained estimates of volume measures.

Seasonal adjustment

10. Index numbers in this First Release are all seasonally adjusted. This aids interpretation by removing annually recurring fluctuations, for example due to holidays or other regular seasonal patterns.

This release aims to provide the best measure of growth compared to the previous quarter. However longer-term seasonal patterns for earlier quarters have not yet been reassessed in light of the latest data set.

Further Information

11. The complete run of data in the tables of this First Release are also available to view and download in other electronic formats free of charge using the ONS **Time Series Data service**. Users can download the complete release in a choice of zipped formats, or view and download their own selections of individual series. The Time Series Data service can be accessed at <http://www.statistics.gov.uk/timeseries>.

Advanced access

12. Details of the policy governing the release of new data are available from the press office. Also available is the list of names of those given pre-publication access to the contents of this release.

Code of practice

13. **National Statistics** are produced to high professional standards set out in the United Kingdom Statistics Authority's Code of Practice. They undergo regular quality assurance reviews to ensure that they meet customer needs. They are produced free from political interference. © Crown Copyright 2009.

Gross Domestic Product by Gross Value Added¹ chained volume measures of industry output at basic prices

2003 = 100

Analysis by categories of output³

	Production						Service industries						Gross domestic product at market prices ^{4 5}	Gross value added excluding oil & gas
	Agriculture, hunting, forestry and fishing	Mining & quarrying inc oil & gas extraction	Manu- facturing	Electricity gas and water supply	Total	Construction	Distribution hotels and catering; repairs	Transport, storage and commun- ication	Business services and finance	Government and other services	Total			
2003 Weights²	10	21	143	16	180	59	148	75	299	229	752	1000	981	
Index numbers														
	GDQA					GDQB	GDQE	GDQH	GDQN	GDQU	GDQS	YBEZ	JUNT	
2004	99.8	92.1	102.2	101.0	100.9	103.4	103.6	103.7	104.6	101.0	103.2	102.8	102.9	
2005	105.1	84.2	102.0	100.7	99.8	104.5	104.9	108.3	109.6	102.3	106.3	104.9	105.3	
2006	107.9	78.0	103.8	100.1	100.5	105.5	108.3	111.0	116.1	103.4	110.2	107.8	108.6	
2007	103.2	76.7	104.4	101.2	100.9	108.5	111.7	114.7	122.6	104.6	114.2	111.1	111.9	
2008	103.5	72.0	102.0	101.4	98.4	110.2	110.9	115.9	125.6	106.1	115.8	111.9	112.8	
2005 Q1	103.4	87.0	102.1	100.7	100.2	104.6	104.5	107.2	107.5	101.6	105.1	104.0	104.4	
Q2	105.4	86.2	102.4	101.3	100.4	105.4	104.5	107.4	109.1	102.1	105.9	104.7	105.1	
Q3	105.4	82.2	102.2	100.2	99.7	104.0	104.7	108.8	110.2	102.8	106.7	105.1	105.6	
Q4	105.9	81.6	101.4	100.6	99.0	103.9	106.0	109.9	111.8	102.5	107.6	105.6	106.2	
2006 Q1	108.7	82.6	102.9	103.7	100.6	104.4	107.4	109.7	114.2	102.7	108.9	106.8	107.5	
Q2	106.8	77.3	103.8	99.7	100.4	104.9	108.2	110.6	115.8	103.0	109.9	107.6	108.3	
Q3	108.9	77.1	104.3	99.3	100.6	105.8	108.0	111.1	116.4	103.7	110.4	108.0	108.8	
Q4	107.3	75.1	104.3	97.9	100.3	107.0	109.4	112.5	118.2	104.2	111.6	109.0	109.8	
2007 Q1	103.9	76.5	103.8	99.6	100.2	107.1	110.5	114.6	119.9	104.3	112.7	109.8	110.6	
Q2	103.5	77.4	104.7	99.7	101.0	108.3	111.2	114.6	121.7	104.2	113.6	110.8	111.5	
Q3	102.4	76.7	104.5	101.4	101.0	108.8	112.5	114.5	124.0	104.7	114.9	111.7	112.4	
Q4	103.2	76.3	104.7	104.1	101.3	109.9	112.6	115.2	124.7	105.3	115.5	112.3	113.0	
2008 Q1	103.1	72.7	104.8	102.0	100.8	111.0	113.0	116.1	125.7	105.8	116.2	112.7	113.6	
Q2	103.9	72.7	103.7	101.6	99.9	110.4	112.7	116.7	126.3	106.0	116.5	112.7	113.6	
Q3	103.5	71.9	102.1	101.0	98.4	110.2	110.3	116.5	125.5	106.6	115.9	112.0	112.8	
Q4	103.7	70.7	97.4	100.8	94.6	109.0	107.7	114.3	124.9	106.1	114.7	110.3	111.1	
Preliminary estimate														
2008 Q4	103.7	70.7	97.4	100.8	94.6	109.0	107.7	114.3	124.9	106.1	114.7	110.3	111.1	
Percentage changes: annual and latest quarter on previous quarter														
	GDQV					GDQW	GDQZ	GDRC	GDRI	GDRP	GDRN	IHYP	JUNW	
2004	-0.2	-7.9	2.2	1.0	0.9	3.4	3.6	3.7	4.6	1.0	3.2	2.8	2.9	
2005	5.3	-8.5	-0.2	-0.3	-1.1	1.0	1.2	4.4	4.8	1.2	3.0	2.1	2.3	
2006	2.7	-7.4	1.8	-0.5	0.7	1.0	3.2	2.4	5.9	1.1	3.6	2.8	3.1	
2007	-4.3	-1.6	0.6	1.1	0.4	2.8	3.1	3.4	5.5	1.2	3.6	3.0	3.0	
2008	0.3	-6.2	-2.3	0.1	-2.5	1.5	-0.7	1.0	2.5	1.4	1.4	0.7	0.8	
2005 Q1	3.0	-2.7	-0.3	1.3	-0.4	0.1	0.2	1.1	1.0	0.4	0.7	IHYQ	JUNU	
Q2	1.9	-1.0	0.3	0.7	0.2	0.8	-0.1	0.2	1.5	0.5	0.8	0.4	0.5	
Q3	-	-4.6	-0.2	-1.1	-0.7	-1.4	0.2	1.3	0.9	0.7	0.8	0.6	0.7	
Q4	0.5	-0.8	-0.8	0.3	-0.7	-0.1	1.2	1.0	1.5	-0.3	0.9	0.4	0.5	
2006 Q1	2.6	1.2	1.5	3.1	1.6	0.6	1.3	-0.1	2.1	0.1	1.2	1.1	1.2	
Q2	-1.8	-6.4	0.9	-3.8	-0.2	0.5	0.8	0.8	1.4	0.3	0.9	0.7	0.8	
Q3	2.0	-0.3	0.4	-0.5	0.3	0.8	-0.2	0.4	0.5	0.7	0.4	0.5	0.4	
Q4	-1.5	-2.6	-	-1.4	-0.3	1.2	1.3	1.3	1.6	0.4	1.2	0.9	0.9	
2007 Q1	-3.2	2.0	-0.6	1.7	-0.1	0.1	0.9	1.9	1.4	0.1	1.0	0.8	0.8	
Q2	-0.4	1.1	0.9	0.1	0.8	1.1	0.7	-	1.5	-0.1	0.8	0.9	0.8	
Q3	-1.1	-0.9	-0.2	1.7	-0.1	0.5	1.1	-0.1	1.9	0.5	1.1	0.8	0.9	
Q4	0.8	-0.5	0.2	2.6	0.4	1.0	0.1	0.5	0.6	0.6	0.5	0.6	0.5	
2008 Q1	-0.2	-4.8	0.1	-2.1	-0.6	1.0	0.4	0.8	0.8	0.5	0.6	0.4	0.5	
Q2	0.9	-	-1.0	-0.3	-0.9	-0.5	-0.3	0.5	0.5	0.1	0.2	-	-	
Q3	-0.4	-1.1	-1.6	-0.6	-1.4	-0.2	-2.1	-0.1	-0.6	0.6	-0.5	-0.6	-0.6	
Q4	0.1	-1.6	-4.6	-0.2	-3.9	-1.1	-2.4	-2.0	-0.5	-0.5	-1.0	-1.5	-1.5	
Preliminary estimate														
2008 Q4	0.1	-1.6	-4.6	-0.2	-3.9	-1.1	-2.4	-2.0	-0.5	-0.5	-1.0	-1.5	-1.5	
Percentage changes: latest quarter on corresponding quarter of previous year														
2008 Q4	GDRQ					GDRR	GDRU	GDRX	GDSG	GDSK	GDSI	IHYR	JUNV	
2008 Q4	0.4	-7.3	-7.0	-3.2	-6.7	-0.8	-4.3	-0.8	0.1	0.7	-0.7	-1.8	-1.7	

1 Estimates are not accurate to the last digit shown.

2 Weights may not sum to the totals due to rounding.

3 Components of output are valued at basic prices, which excludes taxes less subsidies on products, whereas GDP is valued at market prices.

4 Includes an implicit statistical discrepancy compared with the sum of the previous columns, because the GDP aggregate takes account of other information based on income and expenditure.

5 In this, the preliminary estimate of GDP, series YBEZ (GDP chained volume indices) appears alongside GVA industry components as output is the sole contributor to GDP change for the latest quarter at this stage.