

UK Gross Domestic Product

Services provides the key to survey and GDP divergence in Q3

Key findings

- **PMI data point to strengthening growth in October, with Q3's 0.4% fall in GDP likely to be revised up.**
- **The largest divergence between PMI and official data is in the measurement of service sector growth.**

PMI data signal strongest growth for over two years in October

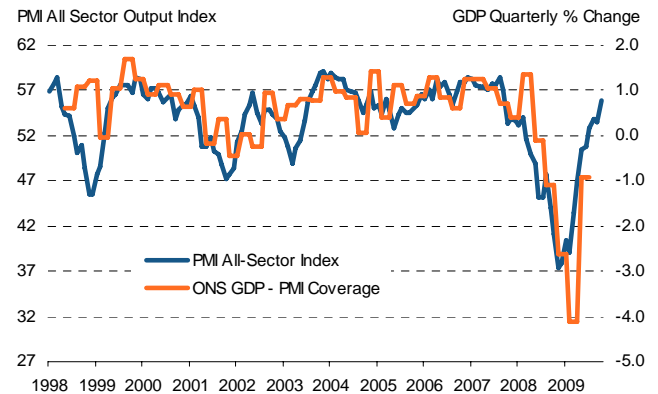
The GDP-weighted combination of the Output Indices from the three UK PMI surveys, which are conducted by Markit on behalf of CIPS, showed an increase in output for the sixth successive month in October. Moreover, the rate of growth accelerated to the fastest for over two years. The PMI 'All Sector' Output Index rose from 53.5 in September to 55.9, its highest reading since September 2007.

The further improvement in the PMI surveys suggests a strengthening of economic growth at the start of the fourth quarter. A linear regression of the all-sector Output Index against historical GDP data suggests that the current level of the index is consistent with GDP growing at a quarterly rate of approximately 0.5%.

However, PMI data have been more upbeat than official GDP figures throughout the financial crisis, in particular when signalling an end to the recession in Q3. PMI data were consistent with a 0.4% quarter-on-quarter increase in GDP, but the Office for National Statistics (ONS) estimated GDP to have contracted by 0.4% on the same measure.

Even when stripping out those parts of the economy not covered by the PMIs – notably government spending, retail, wholesale and agriculture – it is clear that a wide disparity persists:

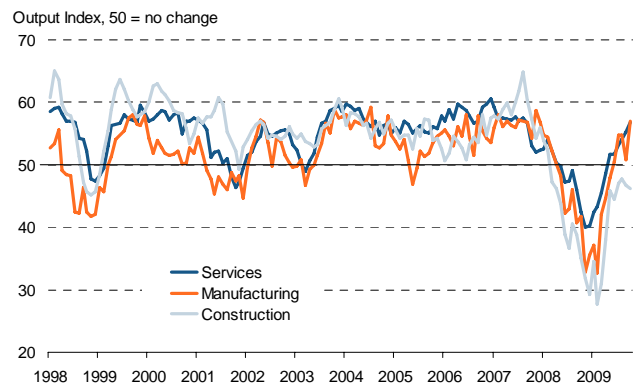
PMI and GDP compared*



*GDP data at this level of detail are only available up to Q2

To explain the divergence between PMI and GDP data, it is necessary to look at the three main components of the 'All Sector' PMI:

PMI Output Index by sector

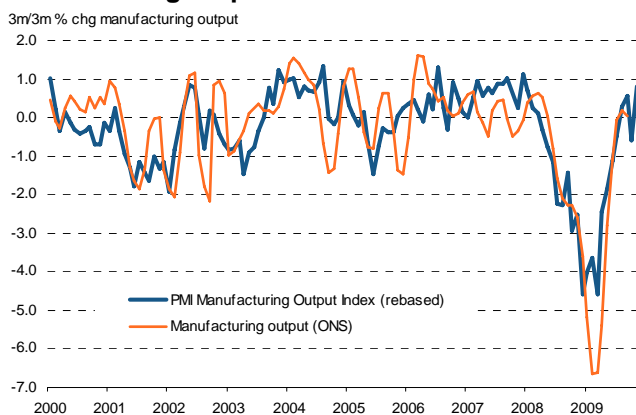


- **The service sector**, covering almost 40% of GDP according to the PMI definition, expanded at the fastest rate since August 2007 in October, marking a sixth consecutive month of expansion.
- **Manufacturing**, accounting for 13% of GDP, expanded at the steepest pace since November 2007, with output rising for the fifth month running.
- The sector hardest hit by the financial crisis has been **construction** (representing 6% of GDP), where activity fell for the twentieth consecutive month in October. Moreover, the rate at which activity fell quickened to the fastest for four months.

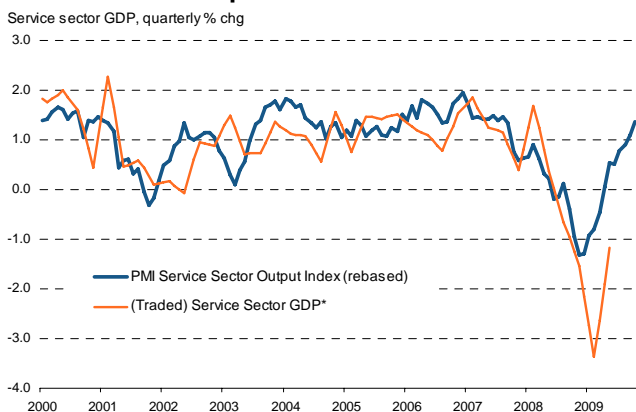
Linear regression analysis helps to provide an estimate of what the PMI numbers are consistent with in terms of official (ONS) quarterly growth rates for these sectors. This analysis shows that the PMIs understated the degree of contraction experienced at the height of the recession but, in the cases of manufacturing and construction, the PMIs have come into line with official growth rates in Q2 and Q3.

The greatest disparity during the recession has been in the service sector. The ONS itself stresses particular caution in interpreting its recent growth figures for the services economy, to the extent that it has not yet published any detailed figures for service sector growth for the whole of Q3. Moreover, the ONS monthly index of services sector output (which at the time of writing is available only up to August and therefore does not allow for a full picture of Q3 growth) is based on data for 24% of the sub-sectors of the services economy that are described as 'experimental'.

Manufacturing output

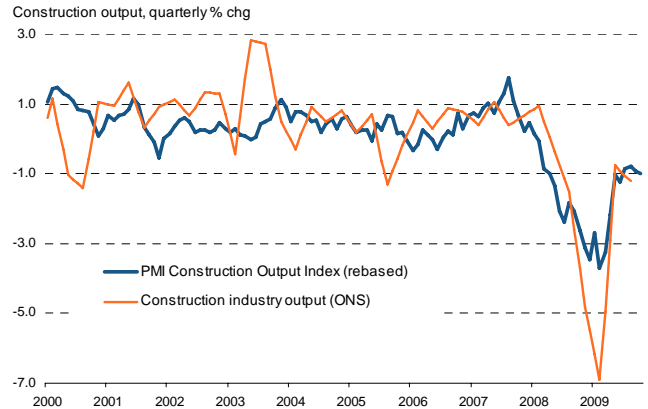


Service sector output



* covers financial intermediation; business-to-business services; consumer services; travel, transport & communication; hotels, restaurants & catering.

Construction industry output



GDP data revisions

It must be stressed that the 0.4% contraction of GDP in Q3 is only the ONS's first 'initial' estimate. The ONS publishes various estimates of GDP, known as 'vintages', which include an initial estimate within one month of the end of each quarter and a 'final' estimate within three months (see appendix for further information). Revisions occur as the ONS collects more data, adjusts more accurately for inflation, corrects any compilation or reporting errors and refines weighting, seasonal adjustments and other statistical procedures.

The ONS claims that GDP data only undergo minor revisions between initial and 'final' data releases:

*"...over the last five years, the average absolute revision (that is, without regard to the plus or minus sign) has been only 0.03 percentage points between the first estimate and the one a month later, and 0.08 percentage points between that estimate and the third estimate a month thereafter."*¹

However, revisions to historical data still occur years after the reference quarter. Moreover, the scale of revisions in later 'vintages' can be substantial. Crucially, this is especially true for those quarters that the ONS had originally estimated to be particularly weak:

- At the height of the Long-Term Capital Management (LTCM) crisis, the ONS initially estimated that GDP

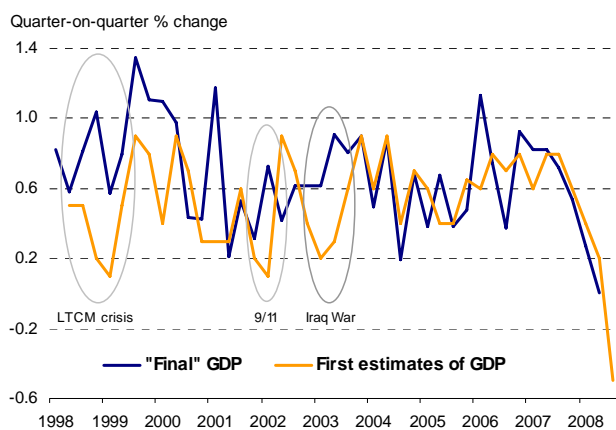
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http://www.bbc.co.uk/blogs/thereporters/stephanieflanders/2009/10/first_draft_of_uk_economic_his.html

rose by just 0.2% in Q4 1998 – the weakest quarterly expansion for nearly six years. Even worse news was to follow with the ‘final’ data release, published two months later, which re-estimated the expansion at just 0.1%. However, the ONS has since revised up its estimate of growth in this quarter to an above-trend rate of 1.1%.

- In the first quarter of 2002, the ONS initially estimated that GDP growth slumped to 0.1% as business and consumer confidence suffered in the aftermath of the 9/11 terror attacks. This figure was confirmed by the release of ‘final’ data two months later. However, growth for that quarter is presently estimated at an above-trend 0.8%.
- In the second quarter of 2003, during the Iraq War, the ONS initially reported that GDP rose by just 0.3%. It now estimates that growth was three times stronger, at 0.9%.

Chart 1: Recent revisions to official GDP data



The most well-known incident of GDP revision is perhaps that of the late 1980s which, according to the UK finance minister at the time (who later described the data as a “work of fiction”)², led to disastrous economic policy decisions. The first release of GDP figures for the first quarter of 1986 showed an annual growth rate of 0.75%, which led to overly loose monetary policy. The data were subsequently revised several times in future years to show a robust expansion in excess of 2%. However, the revisions came too late to prevent overheating and a boom-bust cycle in which UK interest rates peaked at 15%.

² *The View from No.11, Nigel Lawson, 1992.*

The correlation between the first ONS estimates of GDP and its latest estimates for the period 1993 to late-2007 (the latest period for which ‘final’ data would be considered to be available) is just 0.20, suggesting that these early estimates provide little insight into what is actually happening to the economy in real time.

Is the UK growing?

The caution which the ONS encourages in the use of its service sector data in particular must therefore be considered when interpreting the recent GDP data, especially in the light of the discrepancies against services PMI data.

Nonetheless, it may be the case that GDP data for Q3 never fully come into line with the message currently conveyed by the PMIs, or that it takes several years for revisions to occur, by which time the debate will have moved on. However, the track record of revisions to GDP and the lessons from history with regard to policy-makers’ reliance on early GDP estimates must be remembered.

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APPENDIX

Background to ONS GDP releases

In the United Kingdom, the Office for National Statistics publishes three estimates of GDP:

First release: The first estimate of GDP is published around 24 days after the end of each quarter. This estimate is based mainly on the output measure of GDP, or GDP(O), which is derived from production data available for the first two months of the quarter and partial information for the third month from all main sectors of the economy.

Second release: In the following month, the ONS revises this first estimate of GDP(O), improving on the first estimate principally by including more complete output data. Some early information on income and expenditure measures of GDP are also published in this release, but the headline GDP numbers continue to be based principally on GDP(O).

Third release: A further estimate is then published in the third month after the end of the quarter. This is known as the “final” estimate. The key difference between this and earlier releases is usually that the output measure published in the second month is adjusted in order to reconcile the figure with the other (income and expenditure) methods of calculating GDP, which until this time were not fully available.

Blue Book: Even these “final” data tend to be revised in future months, often due to methodological issues such as rebasing and the inclusion of information from annual data sources. These data are published in the Blue Book. In fact, even years after the Blue Book is published, GDP data are still subject to revision.

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