

Novus Capital Markets Research

GDP – why can't we forecast it?

27 January 2011

This week's blog asks why, in the light not just of this week's GDP data, the UK forecasters cannot forecast GDP even one quarter ahead. The answer lies partly in the paucity and the volatility of the construction data and partly in a huge underestimate of the winter weather. To help remedy this, the ONS should publish an official estimate of monthly GDP. While some of the December losses will not be made good, most obviously in the hotels & restaurant trade, other areas, such as construction where the snow put activity on hold, should rebound. Overall the arithmetic of the Q4 data suggests that output in Q1 should be up on Q4.

- **Three strikes and you're out:** for the third successive quarter UK forecasters have completely failed to predict the preliminary GDP data. The absolute error over the three forecasts is 0.6pp against an average absolute change in GDP of 0.8%. In Q4 forecasters were caught out by a downward revision to service sector output in October and the big losses in construction, transport and hotels & restaurants brought about by December's severe weather.
- **Arithmetic points against second successive decline:** on my estimates UK GDP fell 1.7% in the severe weather of January 2010 and rebounded by 1.6% in February and 2% in March. In December I estimate a drop of 1.9%, a similar order of magnitude to last year. Even though we will not get as big a rebound as a year ago (since some pre-Christmas spending will have been lost permanently), a smaller rebound is required (of the order of 1% or slightly more in January) to get Q1 into positive territory. This should be doable though there is not a great margin for error.

Novus Capital Markets Ltd, 29/30 Cornhill, London EC3V 3NF

www.novus-cap.com

Economist: Geoffrey Dicks (+44 (0) 20 7107 1878)

Institutional Sales: Peter Bartlett, Neill Flack (+44 (0) 20 7107 1888)

Novus Capital Markets Ltd is authorised and regulated by the Financial Services Authority. Member of London Stock Exchange plc. Please see analyst certification and important disclosures at the end of this report.

This week's blog asks why, in the light not just of this week's GDP data, the UK forecasters cannot forecast GDP even one quarter ahead. The answer lies partly in the paucity and the volatility of the construction data and partly in a huge underestimate of the winter weather. To help remedy this, the ONS should publish their estimate of monthly GDP. While some of the December losses will not be made good, most obviously in the hotels & restaurant trade, other areas, such as construction where the snow severely affected output, should rebound. Overall the arithmetic of the Q4 data suggest that output in Q1 should be up on Q4.

UK GDP – why can't we forecast even one quarter ahead?

This week's GDP number was a shocker. Output fell 0.5% in the fourth quarter of 2010, only different in sign from the consensus forecast of a 0.5% increase. No forecaster got close (the range was 0.2-0.7%); no forecaster foresaw a drop in output. The MPC's (early-) November forecast was 0.6%; the OBR's (late-) November forecast was 0.5%; NIESR's (mid-January) forecast, which includes a full sector breakdown (for an annual charge of £1200), was 0.5%.

This is not new. It was in fact the third successive quarter that the ONS preliminary estimate has caught the forecasters on the hop (Table 1). In 10q2 the consensus was looking for a 0.6% increase; the preliminary estimate was 1.1%. Similarly in 10q3, 0.4% was expected against a preliminary estimate of 0.8% (revised to 0.7%). On each occasion the big mistake was an underestimate of construction which the ONS originally estimated to have risen 6.6% in Q2 and 4% in Q3.

Table 1: GDP – ONS data vs forecast

% q/q	10q2	10q3	10q4
ONS preliminary estimate	1.1	0.8	-0.5
Consensus forecast	0.6	0.4	0.5
ONS latest data	1.1	0.7	

Source: ONS, Bloomberg

Ahead of the preliminary estimate, the ONS has released two (of the three) months industrial production (IP) data and one month for the service sector (IS). IP accounts for 17.2% of GDP and IS for 75.8%. There are no monthly data for agriculture, forestry and fishing (which hardly matters since the

sector is less than 1% of GDP). For the construction sector (6.3%) there are some monthly data from the ONS which are incorporated into a seasonally adjusted monthly series produced by eurostat. (These are slightly different, but close to the ONS data.) In terms, therefore of the GDP data, City forecasters are basing their forecasters on a little under 40% of the full sample (two thirds of 17.2% and one third of 75.8%) plus guestimates based on the eurostat construction data and monthly surveys such as the various PMIs.

The ONS preliminary estimate is able to incorporate an extra month's data for IS (which is released at the same time as GDP) and any revisions to IS in previous months. Their normal procedure is then to project forward the third month from the first two months, incorporating any early returns that they have for the third month. For 10q4, knowing that the weather was likely to have had a significant impact on output in December, the ONS made a greater effort by chasing up the data particularly in areas likely to be affected by the adverse weather, for example construction, hotels & restaurants and transport. They also examined what happened in January 2010 when there was also severe weather disruption.

Ahead of Tuesday's data we knew that IP had fallen 0.2% in October and risen 0.4% in November. Another 0.4% in December would have given a Q4 rise of 0.7% (Table 2). In the event the ONS reported a 0.9% q/q rise, which implies an increase in December of as much as 0.9%. Within IP manufacturing rose around 0.5% in December with bigger increases implied for mining & quarrying (of the order of 3%) and electricity, gas & water (EGW, around 1½%), both of which were boosted by rising demand to combat the winter weather. Overall the increase in IP was above consensus forecasts.

Table 2: Output data

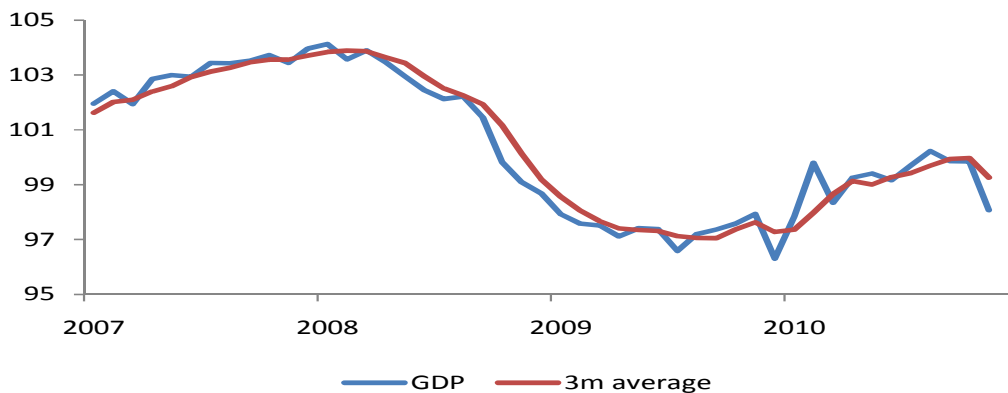
2006 = 100, % m/m	10q3	10q4	Oct	Nov	Dec
IP	89.4	90.1	-0.1	0.4	<i>0.9</i>
IS	102.4	101.9	-0.6	0.0	<i>-0.9</i>
Construction	100.0	96.7	1.7	-1.4	<i>-12.3</i>
GDP	99.7	99.2	-0.4	0.0	<i>-1.9</i>

Source: ONS, Eurostat, *italics are Novus calculations*

It was a different story for IS. The October data were revised down from -0.4% m/m to -0.6% and November was estimated to be flat on October. Already Oct-Nov combined was flat on Q3. On top of that the Q4 estimate of -0.5% implies a drop of around 1½% in December with particularly big declines in distribution, hotels & restaurants (-2.7%) and business services & finance (-1.3%). It was even worse for construction which fell 3.3% in Q4. On the basis of the eurostat data I estimate that construction output rose 1.7% in October but fell 1.4% in November and a massive 12% in December.

The ONS does not produce monthly estimates of GDP (it should) – so other institutions, such as the National Institute, and City economists do. My estimates, which are based on the monthly IP, IS and construction data, show GDP falling 0.4% in October, flat in November and, on the basis of the ONS Q4 estimate, down 1.9% in December. This is a similar decline to January’s 1.7% (Chart 1).

Chart 1: Monthly GDP (2006 = 100)



Source: ONS, Novus estimates

To summarise, and to answer my original question, the UK GDP forecasters have been caught out by:

1. Much bigger than expected increases in construction activity (Q2, Q3 data)
2. Downward revisions to IS data (Q4)
3. The effect of December’s weather especially on the construction, transport and restaurant & hotels sectors (where the January 2010 data might have provided a stronger lead).

What happens next?

A year ago, on my estimates, GDP fell 1.7% in January but bounced back strongly in February (1.6%) and March combined (2%). Will something similar happen this year? The answer is that in some sectors such as construction there is almost certain to be a strong bounce. Activity, which was forcibly put on hold in the snow, will resume in January (one obvious area is public investment spending which was only £3.2bn in Dec10 compared with £8.1bn in Dec09). But in other areas, most obviously hotels & restaurants, spending that was going to happen in the run-up to Christmas may not now happen at all. (An exception is my Christmas drinks/curry with former colleagues, which was due to happen on 20 December and which has been re-scheduled for 10 February – though that might not add a lot to Q1 GDP.)

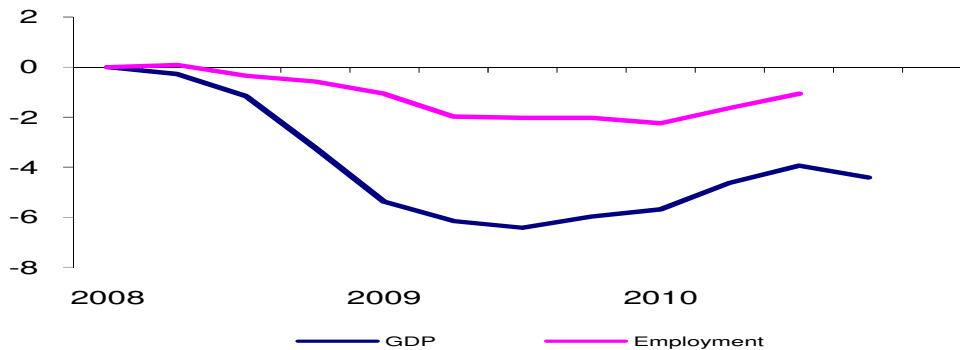
On my estimate GDP in December was down 1.9% on November and the index number (98.0) was 1.2% below the (Q4 average (99.2)). To get into positive territory for Q1 requires a rebound of around 1.2% in January (approx two-thirds of the December decline) followed by more modest growth in Feb-Mar. On the basis of what happened a year ago, and even allowing for some permanent losses, that should be doable. Unless the reaction of the consumer to the January VAT hike is very pronounced, then just on the arithmetic of the monthly numbers, a second quarter of negative growth seems unlikely.

An alternative explanation

There is an alternative explanation – that the ONS gets the data wrong. (That does not let the forecasters off the hook, since they are trying to forecast what the ONS number will be.) The reason for doubting the ONS is the path of output and employment over the last three years of recession and recovery.

According to the ONS, GDP peaked in 2008q1. It then fell for six successive quarters, a cumulative peak-to-trough fall of 6.4% (Chart 2). In the recovery which began in 2009q4 output rose 2.7% in the first year before falling back in the latest quarter. Employment peaked a quarter later than GDP at 29.5m in 08q2 and fell steadily over the next seven quarters, bottoming out at 28.8m in 10q1, a peak-to-trough fall of 2.3%. Employment rose back up to 29.2m over the next two quarters, an increase of 360k or 1.2%. Over the last two months employment has fallen 100k to 29.1m. The implication of the ONS data is that productivity fell sharply in the recession (a peak-to-trough decline of 4.7%, about 2pp of which has been recouped in the recovery.)

Chart 2: GDP and Employment, 2008q1 = 100



Source: ONS, Novus

These data stand in sharp contrast to previous recessions when employment fell far more than output. In the recessions of the 1980s and 1990s employment suffered a peak-to-trough decline of 6% against 4.6% and 2.5% for GDP. The data are also at odds with the recent US experience where employment has fallen more than output (and productivity has held up).

The obvious question is why, if output fell so much, did employment hold up relatively well? The answer would appear to be that moderation in wages and part-time working kept the employment headcount up. But, if that is the case, why was it that, when the recovery started, employment also picked up? Was there not a productivity backlog that could have been utilised before taking on extra workers? The obvious way of resolving these questions is that GDP did not fall nearly as much as the ONS tells us. And if they got that wrong, might they not also be getting the path of output wrong on a quarterly basis?

Disclaimer

The information in this report has been prepared by Novus Capital Markets Ltd. (NCM). Materials available herein have no regard to the specific business objectives, financial situation or particular needs of any specific recipient. The research is published for information purposes and is not to be construed as a solicitation or an offer to buy or sell any securities or related financial instruments.

The opinions, estimates and projections in this report reflect the current judgment and express views of the author as at the date of the report. They do not necessarily reflect the opinions of NCM and are subject to change without notice.

Unless specifically stated otherwise, all price information is indicative only. No representation or warranty, either expressed or implied, is provided in relation to the accuracy, completeness or reliability of the materials, nor are they a complete statement of the securities, markets or development referred to herein. The material should not be regarded by recipients as a substitute for the exercise of their own judgment.

The financial instruments discussed in this report may not be suitable for all investors. Investors must make their own investment decisions using their own independent advisors as appropriate. The value of, and the income produced by, financial instruments may fluctuate, so that investors may get back less than they invested. A change in the exchange rate may adversely affect the value of, or the income derived from, financial instruments. Past performance does not guarantee future performance.

The analyst(s) responsible for covering the securities in this report receive compensation based upon, among other factors, the overall profitability of NCM which may, from time to time, perform corporate finance or other services for, or solicit corporate finance or other business from any company mentioned in this report.

NCM, its directors, employees and agents accept no liability whatsoever for any loss or damage of any kind arising out of the use of all or part of these materials. No part of this document may be reproduced in any manner without the written permission of NCM. The information in this report is provided with the understanding that NCM is not acting in a fiduciary capacity.

Certain laws and regulations impose liabilities which cannot be disclaimed. This disclaimer shall in no way constitute a waiver or limitation of any rights a person may have under such laws and/or regulations. NCM is authorised and regulated by the Financial Services Authority.

Copyright © 2011 Novus Capital Markets, all rights reserved. Additional information is available upon request.

Novus Capital Markets Limited, 29-30 Cornhill, London. EC3V 3NF.

Tel: +44 (020) 7107 1850 Fax: +44 (020) 7107 1851. Website: www.novus-cap.com