

NIESR Monthly GDP Tracker

Holiday Season Spending Likely Kept Economy Afloat in Q4

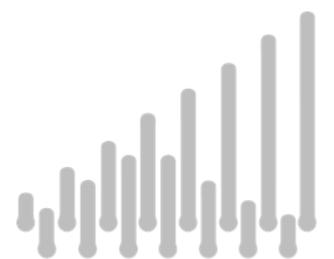
Paula Bejarano Carbo

12th January 2024

"Today's ONS data indicate that monthly GDP grew by 0.3% in November, following a contraction of 0.3% in October, driven by growth in the services and production sectors. Though this may seem positive, GDP is estimated to have fallen by 0.2% in the three months to November compared with the previous three-month period, due to contractions in manufacturing and construction outputs, as well as failure to sustain growth in the services sector. These three-monthly data, which are less volatile than the monthly figures, suggest that the bigger picture remains one of sluggish growth. This is consistent with the recent ONS quarterly national accounts revisions to GDP estimates, which revised the growth figures for 2023Q2 and 2023Q3 downwards from 0.2% and no growth, respectively, to no growth and -0.1%."

Paula Bejarano Carbo

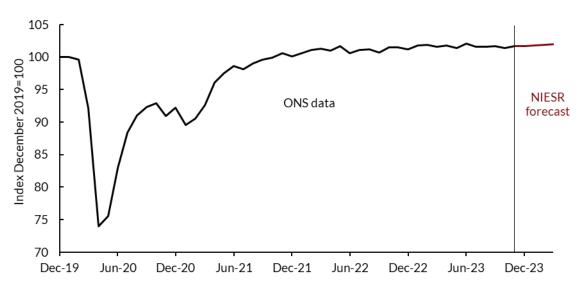
Economist, NIESR



Main points

- Monthly GDP grew by 0.3 per cent in November, following a contraction of 0.3 per cent in October. This monthly figure was mainly driven by growing output in the services sectors, which rebounded after performing poorly in October and production sectors, which have been contracting since July.
- GDP contracted by 0.2 per cent in the three months to November 2023 relative to the
 previous three-month period, lower than our previous forecast of a 0.1 per cent
 contraction. This was generated by contractions in the production and construction
 sectors, and flatlining growth in the services sector. Higher-frequency data indicate that,
 while holiday season services spending may have kept the economy afloat in the fourth
 quarter of this year, declining manufacturing and construction activity could have
 weighed on economic activity.
- The recent quarterly national accounts (QNA) revisions to GDP estimates indicate that GDP remained flat in 2023Q2, revised down from a first estimate of 0.2% growth, and contracted by 0.1% in 2023Q3, revised down from a first estimate of no growth. 2023Q1 remains unrevised (at 0.3% growth). These figures suggest that GDP was more subdued over the course of 2023 than previously thought.
- We estimate that GDP flatlined in the fourth quarter of 2023, and forecast GDP to grow by 0.2 per cent in the first quarter of 2024. These forecasts remain broadly consistent with the longer-term trend of low, but stable economic growth in the United Kingdom (Figure 1).





Economic setting

In our <u>previous GDP tracker</u>, published in December, we observed that GDP contracted by 0.3 per cent in October relative to September, and remained flat in the three months to October relative to the previous quarter. In line with this profile of subdued economic activity, we forecast GDP to remain flat in the fourth quarter of this year.

The ONS published quarterly national accounts (QNA) data for the third quarter of 2023 on 22 December. Most notably, the QNA data included revised GDP estimates for 2023Q2 and 2023Q3, where these were revised downward from first estimates of 0.2% and no growth, respectively, to no growth and -0.1%. Both revisions were driven by output in the services sector being weaker than first estimates indicated. In fact, in the third quarter of 2023, it is estimated that consumer-facing services fell by 1.0 per cent, representing the largest decline in this component of services since the first quarter of 2021, when the UK entered its second national lockdown. That said, the QNA estimates also indicated that the household saving ratio was 10.1 per cent in Q3, rising from 9.5 per cent in Q2 (and above the pre-pandemic historical average of 8.3 per cent). Additionally, real households' disposable income is estimated to have grown by 0.4 per cent in Q3, as wage growth began to outpace inflation consistently for the first time in two years. These figures suggest that households may enter 2024 feeling more resilient than 2023, and consumer spending may become an important upside risk to GDP forecasts.

Today's data suggest that monthly GDP grew by 0.3 per cent in November, driven by output in the services and production sectors. While the services sector rebounded from a poor performance in October, the production sectors, particularly manufacturing, have been contracting since July. Looking at the broader picture, GDP contracted by 0.2 per cent in the three months to November 2023 relative to the previous three-month period, resulting from contractions in the production and construction sectors, and flatlining growth in the services sector.

To further contextualise the near-term outlook for GDP, figure 2 compares spending and hiring indicators to pre-pandemic levels, while figure 3 records recent trends in PMIs. High frequency credit and debit card spending indicators began their seasonal uptick in November, peaking on 22 December, as is expected in the run-up to Christmas. At the same time, the services PMI registered a move from contraction to expansion and grew significantly in December. The S&P Global/CIPS UK Composite PMI – which combines comparable services and manufacturing indices – increased from 50.7 in November to 52.1 in December. It is encouraging that overall, private sector output showed signs of expansion at the end of a year marked by subdued growth. Taken together, these early indicators suggest that holiday season spending may have strongly supported economic activity in the fourth quarter of 2023, despite signs that manufacturing and construction activity may have weighed down on the economy.

160
140
120
100
80
60
Jul 22
Jan 23
Jul 23

Debit and credit cards
Online job adverts

EPC certificates for new dwellings (a)

Figure 2 - Spending and hiring indicators (weekly indices)

Notes: (a) England and Wales. Debit and credit cards (CHAPS based): Index February 2020 = 100, a backward looking seven-day rolling average, non-seasonally adjusted, nominal prices. Job adverts: Index February 2020 = 100, weekly average. EPC certificates: Index February 2020 = 100, four-week rolling average, adjusted for timing of holidays.

Source: ONS, BoE, Adzuna, MHCLG, NIESR.

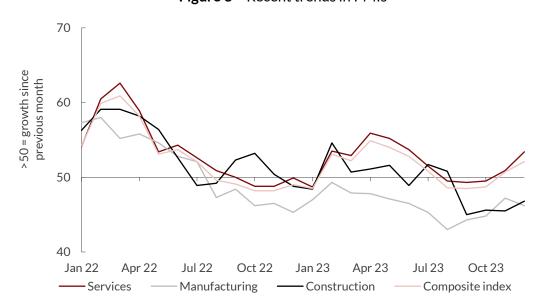


Figure 3 - Recent trends in PMIs

Sources: Refinitiv Datastream, S&P

News in latest ONS data

The monthly GDP data for November were better than we were expecting in December, growing by 0.3 per cent rather than our forecast of 0.1 per cent growth. GDP contracted by 0.2 per cent in the three months to November, lower than our previous forecast of a 0.1 per cent contraction.

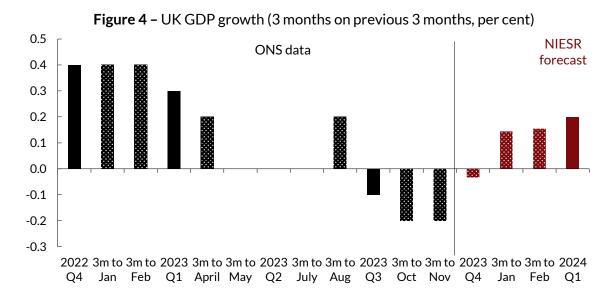


Figure 5 shows a heat map of the data surprises across sectors in the monthly data, relative to last month's GDP Tracker, highlighting the sectors where the surprises are large relative to the volatility of the output data.

01/23 02/23 03/23 04/23 05/23 07/23 08/23 11/22 12/22 06/23 09/23 10/23 11/23 0.5 Business services and finance 0.1 -0.1 -0.3 0.0 -0.1 -0.5-0.2 -0.3 0.1 -0.1 -0.2 -0.1 -1.0 0.3 Government 0.0 0.4 0.0 0.0 -0.1 0.0 -0.3 -0.2 -0.1 0.1 0.1 Distribution, Hotels and Restaurants 0.2 0.3 0.1 0.2 -0.2 0.2 -0.1 0.2 -0.2 0.1 0.1 0.0 Transport, Storage and Communication 0.0 -0.3 0.3 -0.2 -0.2 0.0 0.0 0.2 -0.7 0.0 -0.1 -0.3 0.2 0.1 0.1 0.1 0.3 0.0 0.7 -0.4 0.1 Manufacturing 0.1 -0.1 -0.3 -0.2 Electricity -0.7 0.4 0.1 -0.4 1.0 0.3 -0.2 0.2 -0.6 -0.8 0.2 -1.0 -0.6 Extraction 0.7 -0.7 -0.6 0.2 -0.8 -0.3 -0.1 -0.5 0.4 0.7 0.1 0.3 0.3 Water Supply, Sewerage, Waste -0.2 0.2 0.1 -0.8 -0.1 0.9 -0.4 -0.5 1.1 -0.4 Construction 0.0 0.6 -0.1 -0.1 0.4 -0.1 0.0 0.0 Agriculture 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 below expectation above expectation 0 1

Figure 5 - Surprises in monthly data

Note: Cells show forecast errors as a fraction of the standard deviation of errors for each series.

For more information on our forecast estimates relative to ONS data, please see the 'Health Warning' section below.

Sectoral detail

We estimate that GDP remained flat in the fourth quarter of this year. As seen in Figure 6 below, we expect growth in the services sector to be offset by declining output in the production and construction sectors. Our early forecast for the first quarter of 2024 sees the services sector generating growth, though being partially offset by the seasonally-expected contraction in construction.

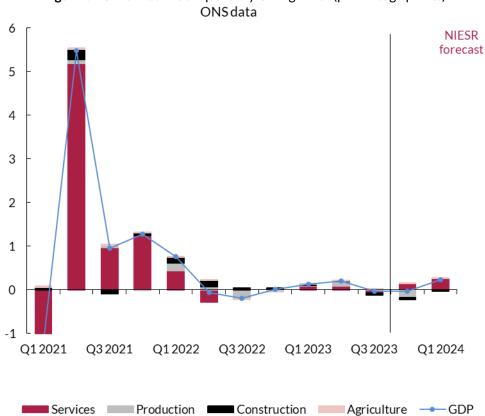


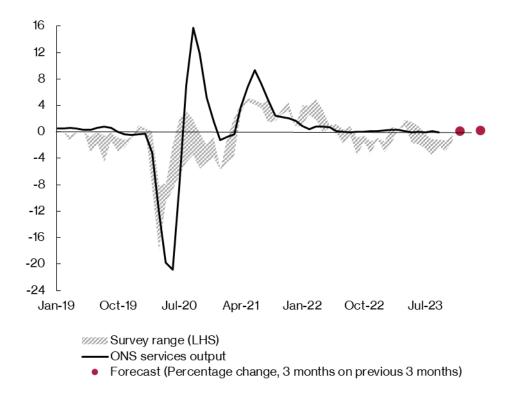
Figure 6 - Contributions to quarterly GDP growth (percentage points)

Services (80 per cent of GDP)

The survey balances point to improved activity in the services sector in the fourth quarter of 2023, as shown by the survey indicators in figures 3 and 7. The S&P Global/CIPS UK Services PMI reported a balance of 53.4 in December, rising from 50.9 in November. Survey respondents cited increased demand in this sector, including higher-than-expected consumer spending on leisure and hospitality, and increased appetite for technology and financial services.

Altogether, we estimate UK service-sector activity to have grown by 0.2 per cent in the fourth quarter of 2023 and forecast growth of 0.3 per cent in the first quarter of 2024.

Figure 7 - ONS service sector growth (3 months on previous 3 months, per cent) compared with swathe of business survey balances (standardised)



Note: The shaded swathe shows the highest and lowest values each month of a range of business survey balances that have been standardised so that they have the same mean and standard deviation as the quarterly growth of the ONS series. Source: ONS, CBI, Markit, Bank of England Agents, EC, NIESR calculations.

Construction (6 per cent of GDP)

The S&P Global/CIPS UK Construction PMI survey registered an increase from 45.5 in November to 46.8 in December, marking the fourth consecutive month this balance registers below the neutral 50 (indicating contracting output). While commercial building declined only at a soft pace (index at 47.6), decreasing activity in residential house building (index at 41.1), generated by the effect of high interest rates continues to weigh down on this sector.

We estimate that in the fourth quarter of 2023, growth in this sector contracted by 0.5 per cent relative to the third quarter. We forecast growth to flatline in the first quarter of 2024.

Production (14 per cent of GDP)

We forecast production sector output to contract by 1.3 and 0.1 per cent in the fourth quarter of 2023 and first quarter of 2024, respectively, though output in this sector is volatile and difficult to predict with accuracy on a quarterly basis. The production sector comprises manufacturing; mining and quarrying (which includes oil and gas extraction); electricity, gas, steam and air conditioning; and water supply and sewerage. The largest of these sectors are manufacturing, accounting for 10 per cent of GDP, and mining and quarrying, accounting for 1 per cent of GDP.

Manufacturing

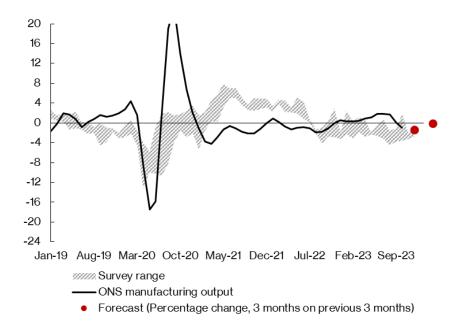
After having risen slightly to 47.2 in November, the S&P Global/CIPS UK manufacturing PMI fell down to 46.2 in December, representing the 17th consecutive month this sector has contracted. This sustained decline has been driven by a continuing combination of weak domestic and export demand, tight financial conditions, eroding consumer confidence, and a preference for reduced inventory holdings (as a cashflow-improving measure).

We estimate that output contracted by 1.4 per cent in this sector in 2023Q4. We expect this contraction to ease to 0.1 per cent in the first quarter of 2024.

Mining and quarrying

Mining and quarrying (extraction) is a small but erratic component of industrial production that can have an influence on overall GDP growth. Mining and quarrying contracted by 1.8 per cent in the three months to November. We estimate this sub-sector contracted by 2.0 per cent in Q4, though forecast a milder contraction by 0. Per cent in the first quarter of 2024.

Figure 8 - ONS manufacturing sector growth (3 months on previous 3 months, per cent) compared with swathe of business survey balances (standardised)



Note: The shaded swathe shows the highest and lowest values each month of a range of business survey balances that have been standardised so that they have the same mean and standard deviation as the quarterly growth of the ONS series.

Source: ONS, CBI, Markit, Bank of England Agents, EC, NIESR calculations.

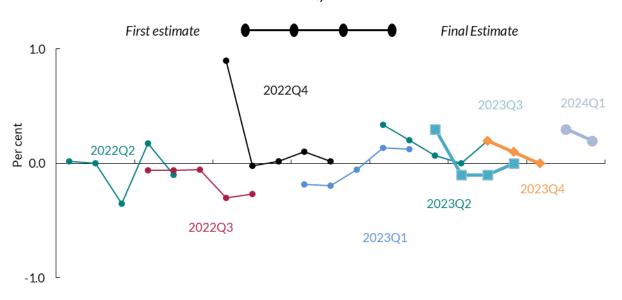
Table 1 - Summary Table of GDP growth (2019=100)

	Index of Services - Components				Index of Production - Components								
2019=100		Index of	Business	Government		Transport, Storage	Index of	Inc	Electricity,		Water Supply,	Index of	
20.0 .00	GDP index	Services	services and finance	and other services	Hotels and Restaurants	and Communications	Production	Manufacturing	gas, steam and air conditioning	Mining and Quarrying	Sewerage and Waste Management	Construction	Agriculture
Latest weights	1000	796	338	220	134	103	135	102	15	6	13	62	7
Nov-22	102.3	103.7	104.7	101.8	100.7	108.5	94.0	99.6	61.9	74.5	105.8	105.5	85.5
Dec-22	102.0	103.1	104.9	100.2	99.9	107.7	94.1	100.0	63.8	68.8	105.6	106.3	85.5
Jan-23	102.6	104.1	104.9	101.6	100.8	110.9	94.0	100.2	63.6	65.3	105.8	104.4	85.5
Feb-23 Mar-23	102.7 102.4	104.1 103.6	105.3 105.0	101.7 102.0	100.5 98.9	109.8 108.5	93.9 94.6	100.1 100.7	62.6 64.5	68.4 66.3	104.2 106.1	107.1 106.9	85.6 85.6
Apr-23	102.4	103.8	104.9	101.9	100.1	109.3	94.0	101.3	63.6	66.4	104.5	106.9	85.6
May-23	102.2	103.7	104.5	102.3	99.6	109.1	93.9	100.8	60.7	66.6	102.3	105.8	85.6
Jun-23	102.9	103.9	104.3	102.7	100.3	109.7	96.4	104.0	61.8	65.7	104.1	107.5	85.6
Jul-23	102.4	103.5	104.3	102.3	99.9	107.9	95.4	102.7	62.2	65.7	102.8	107.0	85.7
Aug-23	102.4	103.6	104.3	102.4	100.0	108.3	95.0 94.9	102.1	62.7	67.8	101.8	105.3	85.8
Sep-23 Oct-23	102.5 102.2	103.6 103.5	104.3 104.2	103.0 102.8	99.6 99.7	108.1 107.5	94.9	101.7 100.4	64.8 61.8	65.6 64.6	102.8 103.6	105.3 105.3	85.9 85.9
Nov-23	102.5	103.9	104.3	103.2	100.1	108.8	93.9	100.8	62.0	65.4	102.5	105.3	86.0
Dec-23	102.5	103.9	104.6	103.3	100.0	108.9	93.9	101.0	62.4	65.0	102.9	105.3	86.1
Jan-24	102.5	104.0	104.7	103.3	100.1	109.1	93.7	100.6	62.7	64.7	103.2	105.3	86.3
Feb-24 Mar-24	102.6 102.7	104.1 104.2	104.8 105.0	103.4 103.4	100.1 100.1	109.4 109.6	93.7 93.7	100.7 100.6	62.6 62.5	64.8 64.8	103.3 103.4	105.3 105.3	86.4 86.4
Percentage change, 3 months on previous 3 months													
Nov-22	0.3	0.3	0.2	1.0	-0.7	0.5	-0.5	0.0	-1.3	-4.2	-1.5	1.2	-0.7
Dec-22	0.4	0.4	0.5	0.4	0.1	0.1	0.0	0.6	-1.0	-5.7	-0.8	1.3	-0.5
Jan-23 Feb-23	0.4 0.4	0.3 0.4	0.4 0.5	0.0	0.2 0.2	0.9 1.3	0.0 0.0	0.3 0.5	0.6	-5.3 -8.7	0.3 0.0	0.6 0.8	-0.4 -0.1
Mar-23	0.4	0.4	0.3	-0.4 0.5	-0.4	1.4	0.0	0.5	1.4 1.7	-6.7 -7.3	0.0	0.8	0.0
Apr-23	0.3	0.2	0.2	0.7	-0.6	0.2	0.4	0.8	0.7	-3.6	-0.8	1.2	0.1
May-23	0.0	-0.1	-0.2	0.9	-0.9	-0.5	0.4	0.8	-0.6	-1.6	-0.9	0.3	0.1
Jun-23	0.0	-0.1	-0.5	0.5	-0.1	-0.3	0.9	1.7	-2.4	-0.7	-1.6	0.3	0.0
Jul-23 Aug-23	-0.1 0.2	-0.1 0.0	-0.7 -0.5	0.6 0.4	0.1 0.5	-0.3 -0.3	0.9 1.3	1.8 2.0	-3.1 -1.1	-1.5 -0.1	-1.8 -1.3	0.1 0.3	0.0 0.1
Sep-23	-0.1	-0.2	-0.3	0.4	-0.2	-0.3 -1.2	0.1	0.1	1.9	0.2	-1.3	-0.5	0.1
Oct-23	-0.1	-0.1	-0.1	0.3	-0.2	-0.9	-0.7	-1.1	2.5	0.0	-0.3	-1.3	0.3
Nov-23	-0.2	0.0	0.0	0.5	-0.3	-0.5	-1.5	-1.9	1.0	-1.8	0.1	-1.2	0.3
Dec-23	0.0	0.2	0.1	0.5	0.1	0.3	-1.3	-1.4	-1.8	-2.0	0.5	-0.5	0.3
Jan-24 Feb-24	0.1 0.2	0.3 0.3	0.2 0.4	0.5 0.3	0.3	0.9 0.9	-0.7 -0.4	-0.6 -0.2	-1.1 -0.5	-1.4 -0.6	0.1 0.1	0.0	0.3 0.4
Mar-24	0.2	0.3	0.5	0.3	0.2	0.9	-0.1	-0.1	0.9	-0.4	0.3	0.0	0.4
ı	Percentage cha	nge, month on s	ame month in pre	evious year		,	1				ı		
Nov-22	0.9	1.0	1.8	-0.8	-1.5	4.8	-2.7	-3.5	1.0	0.8	-0.7	6.2	-0.3
Dec-22 Jan-23	1.1 1.2	1.1 1.6	2.1 2.3	-2.3 -0.5	1.9 0.3	4.4 4.4	-2.8 -2.5	-3.1 -2.0	0.8 -1.2	-6.1 -14.9	-0.7 -0.8	6.1 3.2	0.7 0.6
Feb-23	0.8	0.9	2.3	-0.9	-1.7	2.3	-2.3	-2.0 -1.7	-2.9	-14.9	-0.6	5.8	0.0
Mar-23	0.3	0.3	1.7	-1.1	-2.8	2.0	-1.3	-0.7	1.7	-14.5	-0.4	3.5	-0.3
Apr-23	0.8	0.8	1.5	0.8	-2.4	3.0	-1.0	0.6	-0.9	-15.8	-3.4	2.9	-0.3
May-23	-0.3 1.5	0.1	-0.1	0.6 2.5	-2.1	1.9 3.5	-2.1 1.5	-0.5	-4.0	-15.9 -15.0	-3.8	0.3	-0.6 -0.7
Jun-23 Jul-23	0.5	1.2 0.3	0.3 0.1	1.7	-0.7 -1.1	-0.4	1.0	3.9 3.4	-3.0 -1.7	-19.0	-3.7 -3.1	4.6 2.8	-0.7
Aug-23	0.4	0.2	-0.3	1.6	-0.8	-0.2	1.1	2.6	0.0	-7.1	-4.2	0.7	-0.3
Sep-23	1.0	0.8	0.3	1.9	0.4	0.6	1.2	2.6		-12.2	-2.8	0.8	0.2
Oct-23	-0.1	-0.2	-0.6	1.1	-1.1	-0.7	-0.5 -0.1	0.2	-0.2	-10.9	-0.5	0.1	0.2
Nov-23 Dec-23	0.2 0.5	0.2 0.8	-0.4 -0.3	1.4	-0.6 0.1	0.3 1.1	-0.1	1.2	0.2 -2.2	-12.2 -5.5	-3.1 -2.6	-0.2 -1.0	0.6 0.8
Jan-24	-0.1	-0.1	-0.2	1.7	-0.7	-1.6	-0.2	0.4	-1.3	-0.9	-2.5	0.9	0.9
Feb-24 Mar-24	-0.1 0.3	0.0 0.6	-0.5 0.0	1.7 1.4	-0.4 1.2	-0.4 1.1	-0.2 -0.9	0.6 -0.1	0.0 -3.1	-5.3 -2.3	-0.9 -2.5	-1.7 -1.5	0.9
a 2-1				1.4	1.2	1.1	-0.9	-0.1	-0.1	-2.3	-2.5	-1.5	1.0
Na 00	Percentage cha	1				اء ۽			0.0		امر		اء
Nov-22 Dec-22	0.0 -0.3	0.0 -0.6	-0.1 0.2	0.1 -1.6	-0.1 -0.8	0.2 -0.7	-0.2 0.1	-0.6 0.4	0.0 3.1	2.8 -7.7	1.6 -0.2	0.2 0.8	-0.2 0.0
Jan-23	0.6	1.0	0.2	1.4	0.9	3.0	-0.1	0.4	-0.3	-7.7	0.2	-1.8	0.0
Feb-23	0.1	0.0	0.4	0.1	-0.3	-1.0	-0.1	-0.1	-1.6	4.7	-1.5	2.6	0.1
Mar-23	-0.3	-0.5	-0.3	0.3	-1.6	-1.2	0.7	0.6	3.0	-3.1	1.8	-0.2	0.0
Apr-23	0.2 -0.4	0.2 -0.1	-0.1 -0.4	-0.1 0.4	1.2 -0.5	0.7 -0.2	0.1 -0.8	0.6 -0.5	-1.4 -4.6	0.2 0.3	-1.5 -2.1	-0.7 -0.3	0.0
May-23 Jun-23	-0.4	-0.1 0.2	-0.4	0.4	-0.5 0.7	-0.2 0.5	-0.8 2.7	-0.5 3.2	-4.6 1.8	-1.4	-2.1 1.8	-0.3 1.6	0.0
Jul-23	-0.5	-0.4	0.0	-0.4	-0.4	-1.6	-1.0	-1.3	0.6	0.0	-1.2	-0.5	0.1
Aug-23	0.0	0.1	0.0	0.1	0.1	0.4	-0.4	-0.6	0.8	3.2	-1.0	-1.6	0.1
Sep-23	0.1	0.0	0.0	0.6	-0.4	-0.2	-0.1	-0.4	3.3	-3.2	1.0	0.0	0.1
Oct-23 Nov-23	-0.3 0.3	-0.1 0.4	-0.1 0.1	-0.2 0.4	0.1 0.4	-0.6 1.2	-1.3 0.2	-1.3 0.4	-4.6 0.3	-1.5 1.2	0.8 -1.1	0.0 0.0	0.0 0.1
Dec-23	0.0	0.0	0.1	0.4	-0.1	0.1	0.0	0.4		-0.6	0.4	0.0	0.1
Jan-24	0.0	0.1	0.1	0.0	0.1	0.2	-0.2	-0.4	0.6	-0.5	0.3	0.0	0.2
Feb-24	0.1	0.1	0.1	0.1	0.0	0.2	0.0	0.1	-0.2	0.1	0.1	0.0	0.1
Mar-24	0.1	0.1	0.2	0.0	0.0	0.3	0.0	0.0	-0.1	0.1	0.2	0.0	0.1

Health warning

The NIESR GDP Tracker provides a rolling monthly forecast for GDP growth. Our first estimate of growth for any particular quarter starts in the first month of that quarter and is then updated each month until the first official release in the second month of the following quarter. So, for example, our first estimate of growth in the first quarter of 2020 was published in January and then updated four times (in February, March, April, and May) before the ONS published its first estimate for the first quarter of 2020 in May 2020. In other words, we publish four estimates of GDP for any particular quarter before the official release and change them as new evidence becomes available. Figure 9 shows how our short-term forecasts for recent quarters have changed as new information has become available.

Figure 9 - Evolution of the NIESR quarterly GDP forecast (3 months on previous 3 months, per cent)



NIESR's short-term predictions of monthly GDP growth are based on bottom-up analysis of recent trends in the monthly sub-components of GDP. These predictions are constructed by aggregating statistical model forecasts of ten sub-components of GDP. The statistical models that have been developed make use of past trends in the data as well as survey evidence to build short-term predictions of the sub-components of monthly GDP. These provide a statistically-based guide to current trends based on the latest available data. Each month these predictions are updated as new ONS data and new surveys become available. Table 2 shows the growth in each sector for the three months to October, compared with the previous three months, against the forecast for each in our December GDP Tracker.

Table 2 - 3-month-on-3-month growth to November (per cent)

	GDP	Index of Services	Index of Production		0 '	Index of Construction
Forecast	-0.1	0.1	-1.2	-1.4	-0.3	-1.6
Outturn	-0.2	0.0	-1.5	-1.9	-1.8	-1.2

It is important to stress that the timelier NIESR guide to quarterly GDP growth is less reliable than the subsequent ONS data releases as its data content is lower, particularly for estimates of the current quarter which in some months will be based only on forecasts rather than hard data. To mitigate this issue, NIESR provides a guide to average errors based on past performance. NIESR also provides clear guidance on how the latest news has caused its estimates of GDP growth in the current and preceding quarter to change and thereby quantify how the short-term outlook is being affected by recent data releases (see, e.g., Figure 5).

As the bottom-up methodology for producing estimates of GDP growth for the current and preceding quarters is still relatively new, we do not yet have a long track record of estimates produced by this approach. To check how our methodology would work in real time we went back to late 2016 to produce judgement-free forecasts of GDP growth in future months based on the monthly data series available for the components in November 2016 (this was the earliest vintage then available on the ONS website) and in each subsequent three months. These are shown in Table 3, which has been updated to include estimates since we started producing the GDP Tracker in July 2018. We calculate the forecast quarter-on-quarter growth rates for the current quarter and compare these to the ONS first estimates of quarterly growth. The average absolute error for the quarters considered was 0.22 percentage points. The largest error was for the second quarter of 2020 when our GDP tracker in May pointed to growth of 22.8 per cent, 2.4 percentage points lower than the ONS first estimate of GDP growth.

Table 3 - Forecast Error Analysis: Quarterly GDP growth (per cent)

Quarter	ONS first estimate	ONS latest estimate	NIESR nowcast*	Error in NIESR nowcast**	ONS latest – first
2016Q4	0.6	0.7	0.7	-0.1	0.1
2017Q1	0.3	0.6	0.6	-0.3	0.3
2017Q2	0.3	0.3	0.4	-0.1	0.0
2017Q3	0.4	0.3	0.4	0.0	-0.1
2017Q4	0.5	0.4	0.4	0.1	-0.1
2018Q1	0.1	0.0	0.5	-0.4	-0.1
2018Q2	0.4	0.5	0.0	0.4	0.1
2018Q3	0.6	0.6	0.5	0.1	0.0
2018Q4	0.2	0.2	0.4	-0.2	0.0
2019Q1	0.5	0.6	0.2	0.3	0.1
2019Q2	-0.2	-0.2	0.3	-0.5	0.0
2019Q3	0.3	0.4	0.2	0.1	0.1
2019Q4	0.0	0	0.2	-0.2	0.0
2020QI	-2.0	-2.1	0.2	-2.2	-0.1
2020Q2	-20.4	-20.4	-22.8	2.4	0.0
2020Q3	15.5	16.1	15.0	0.5	0.6
2020Q4	1.0		-2.2	3.2	
2021QI			-3.8		
Average absolute error				0.22	0.08

Notes for Editors:

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