NIESR Monthly GDP Tracker

GDP Remains Subdued Ahead of Tomorrow's MPC Meeting

Paula Bejarano Carbo

13th December 2023

"Today's ONS figures indicate that monthly GDP fell by 0.3 per cent in October following growth of 0.2 per cent in September, driven by falls in output in the services, production and construction sectors. Looking at the bigger picture, GDP remained flat in the three months to October relative to the previous three-month period as increases in services were offset by falls in output in the production and construction sectors. These data suggest that economic activity is subdued and may be taken as a sign at tomorrow's MPC meeting that no further monetary tightening is needed, despite yesterday's labour market data remaining rather strong."

Paula Bejarano Carbo

Associate Economist, NIESR

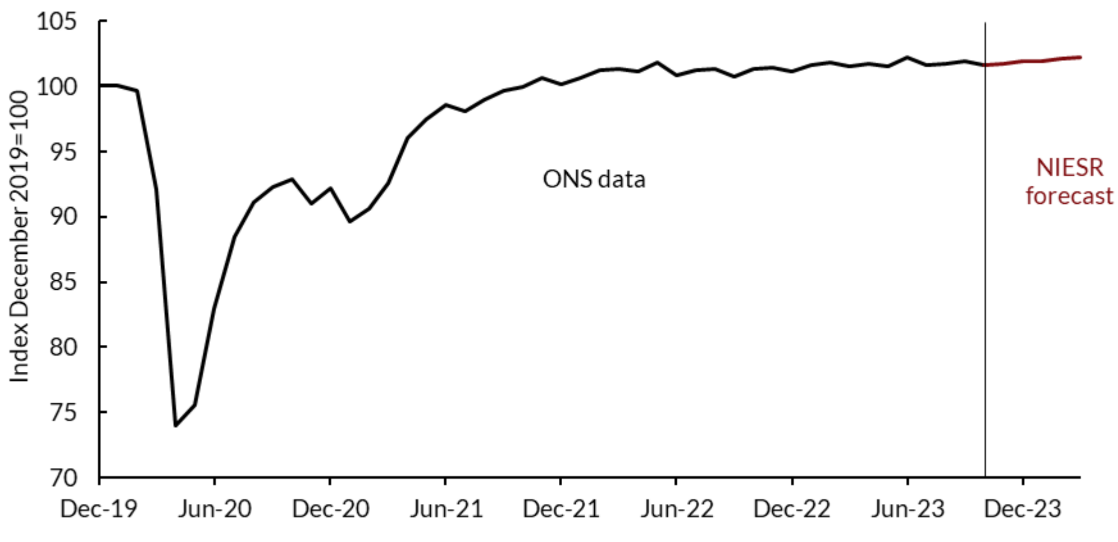
Main points

- Monthly GDP contracted by 0.3 per cent in October, lower than our previous forecast of a 0.1 per cent contraction, and following growth of 0.2 per cent in September. This monthly figure was mainly driven by decreased services output, particularly in information and communication activity, but was exacerbated by declines in production and construction output as well.

- GDP remained flat in the three months to October 2023 relative to the previous three-month period, lower than our previous forecast of a 0.1 per cent growth. This was generated by a 0.1 per cent expansion in the services sector being offset by 0.7 per cent and 0.3 per cent declines in output in the production and construction sectors, respectively. Higher-frequency data indicate that, while holiday season services spending may continue to keep the economy afloat in the fourth quarter of this year, declining manufacturing and construction activity could weigh on the economy.

- We now forecast GDP to remain flat in the fourth quarter of this year. Our early forecast for the first quarter of 2024 expects GDP to grow by 0.3 per cent, driven by the services sector. These forecasts remain broadly consistent with the longer-term trend of low, but stable economic growth in the United Kingdom.

Figure 1 - UK Monthly GDP



Economic setting

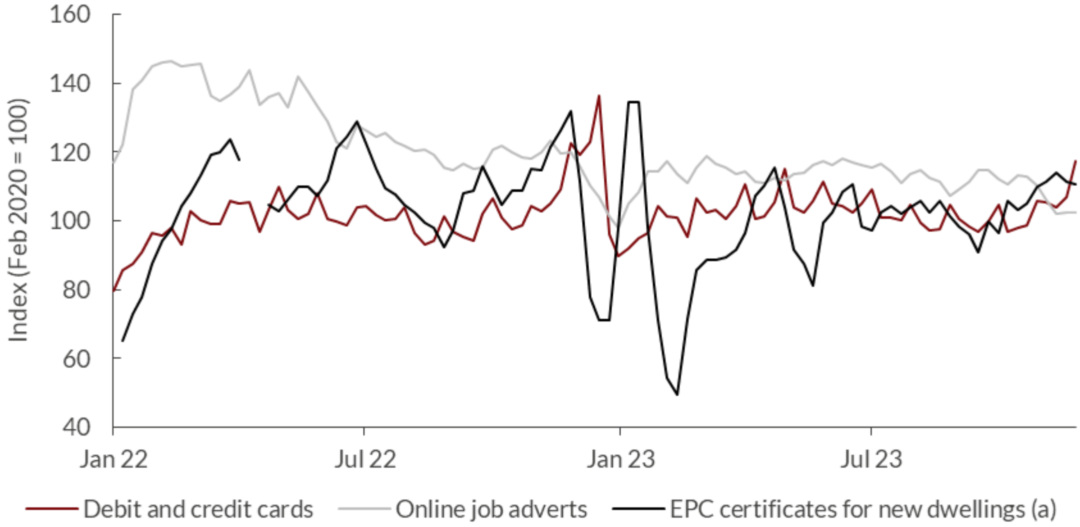
In our previous GDP tracker, published in November, we observed that GDP grew by 0.2 per cent in September relative to August, but remained flat relative to the previous three-month period. These three-month-on-three-month data imply that economic growth remains sluggish. In line with this profile, we forecast GDP to grow by 0.1 per cent in the fourth quarter of this year.

Today's data suggest that monthly GDP contracted by 0.3 per cent in October, driven by decreased services output and exacerbated by declines in production and construction output as well. Looking at the broader picture, GDP remained flat in the three months to October 2023 relative to the previous three-month period, as increases in services were offset by falls in output in the production and construction sectors.

To further contextualise our forecast, 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, as is expected in the run-up to Christmas, at the same time as the services PMI registered a move from contraction to expansion. It is notable that credit and debit card spending has remained close to pre-pandemic levels throughout 2023 - despite the cost-of-living crisis and uncertain economic outlook, supporting our view that high consumer spending kept the economy throughout 2023. Taken together, these early indicators suggest that holiday season spending may continue to support economic activity despite signs that manufacturing and construction activity may weigh down on the economy.

Yesterday's ONS data indicate that the annual growth rate of average weekly earnings, including bonuses, was 7.2 per cent in the three months to October, and 7.3 per cent if we exclude bonuses. Though these figures are lower than those recorded in the second and third quarters of this year, high wage growth may result in inflation becoming more persistent (i.e. falling more gradually). Though this may be a worry at tomorrow's MPC meeting, today's subdued GDP data may be taken as a sign that no further monetary tightening is needed and that BoE may start cutting interest rates earlier than previously expected, conditional on future inflationary developments.

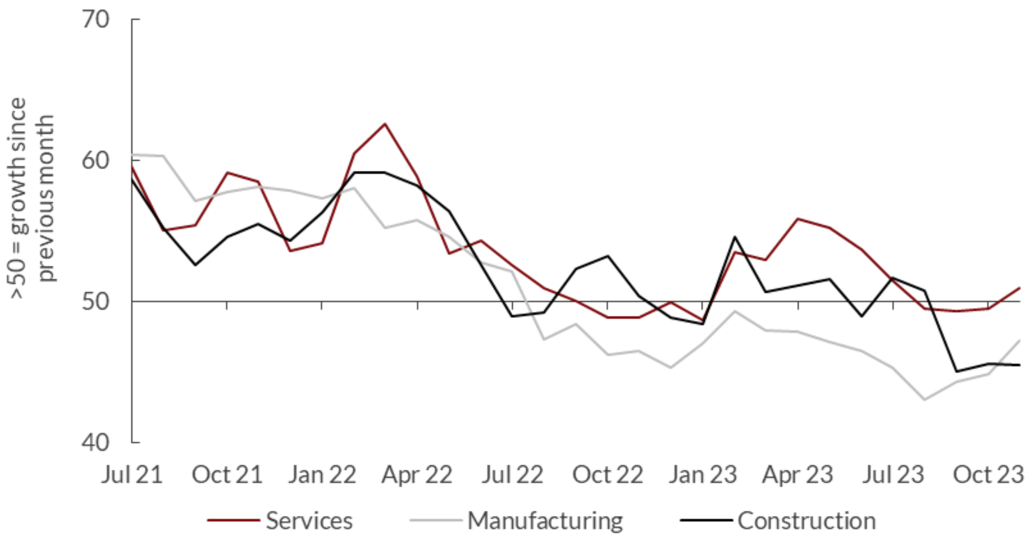
Figure 2 – Spending and hiring indicators (weekly indices)



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 October were worse than we were expecting in November, contracting by 0.3 per cent rather than our forecast of 0.1 per cent contraction. GDP remained flat in three months to October, also lower than our previous forecast of 0.1 per cent growth.

Figure 4 – UK GDP growth (3 months on previous 3 months, per cent

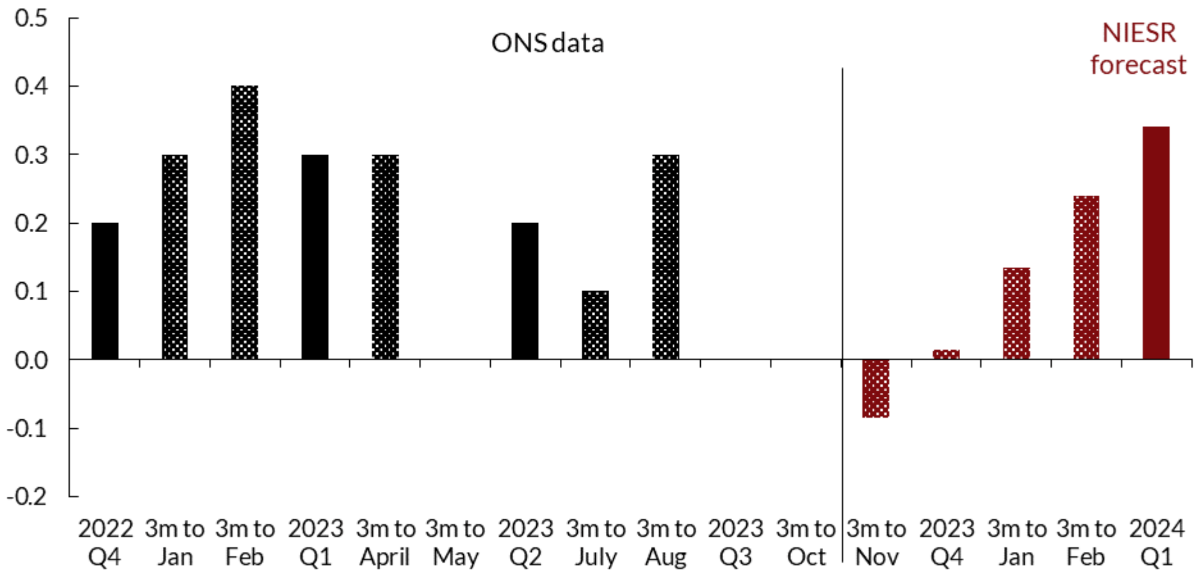


Figure 5 shows a heat map of the data surprises across sectors in the monthly data, relative to last month's GDP Tracker, highlighting the sectors where the surprises are large relative to the volatility of the output data.

Figure 5 – Surprises in monthly data

	11/22	12/22	01/23	02/23	03/23	04/23	05/23	06/23	07/23	08/23	09/23	10/23
Business services and finance	0.1	0.5	-0.1	-0.3	0.0	-0.1	-0.5	-0.2	-0.3	0.1	-0.1	-0.2
Government	0.0	-1.0	0.4	0.0	0.0	-0.1	0.3	0.0	-0.3	-0.2	-0.1	0.1
Distribution , Hotels and Restaurants	0.3	0.1	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
Manufacturing	0.1	0.1	0.1	0.1	0.3	-0.1	0.0	0.7	-1.0	-0.3	-0.2	-0.4
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
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
Water Supply, Sewerage, Waste Management	-0.2	0.2	0.1	-0.8	2.0	-0.1	-1.1	0.9	-0.4	-1.1	-0.5	1.1
Construction	0.0	0.3	-0.4	0.6	-0.5	-0.1	-0.1	0.4	-0.1	-0.4	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

← below expectation   above expectation →

-3   -1   0   1   2

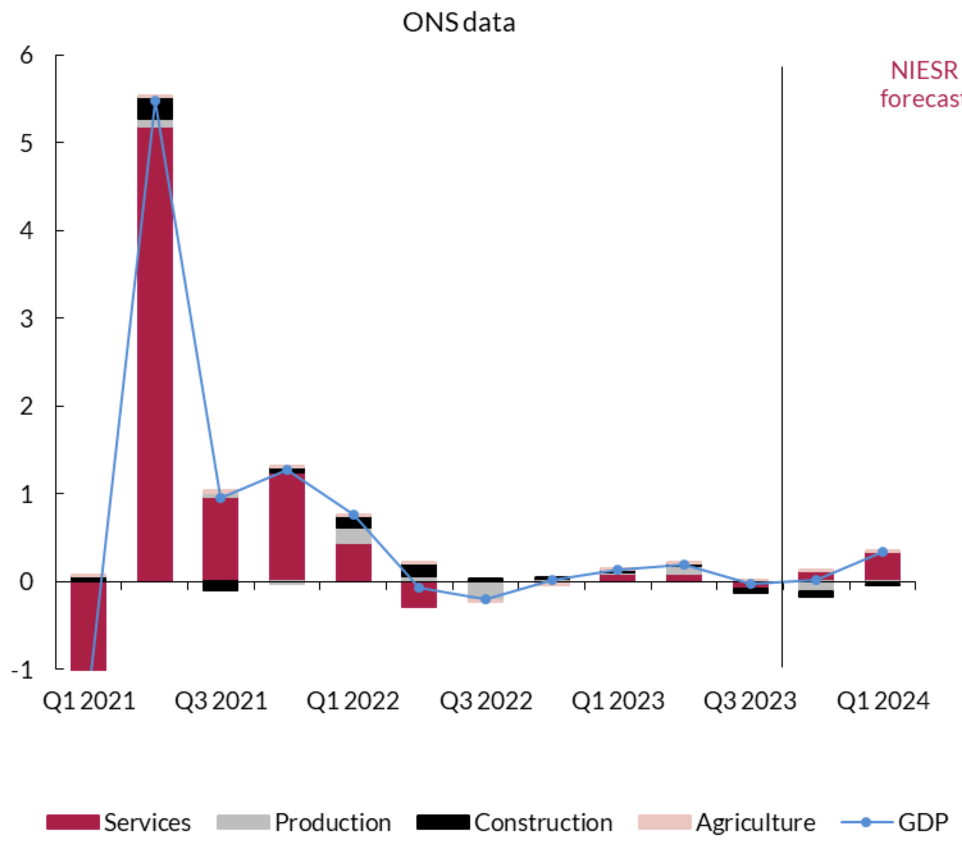
Note: Cells show forecast errors as a fraction of the standard deviation of errors for each series.

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

Sectoral detail

We forecast GDP to remain 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 at the start of next year.

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

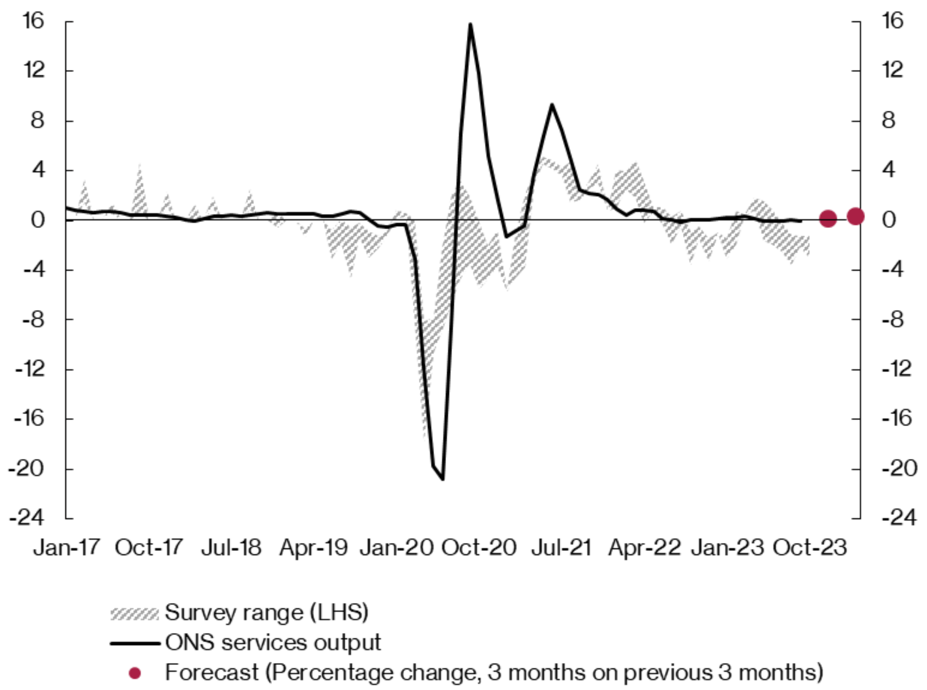


Services (80 per cent of GDP)

The survey balances point to weak business activity in the services sector, as shown by the survey indicators in figures 3 and 7. The S&P Global/CIPS UK Services PMI reported a balance of 50.9 in November, rising from 49.5 in October and crossing the neutral 50 mark - which indicates increasing output in this sector. Survey respondents cited increased demand in this sector, including export demand, though client spending continued to be lower than expected. That said, business optimism remained high among survey respondents, possibly since service sector firms will likely face a big boost in activity in the run-up to Christmas.

Altogether, we forecast UK service-sector activity to grow by 0.2 per cent in the fourth quarter of 2023 and 0.4 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 a slight decrease from 45.6 in October to 45.5 in November, marking the third consecutive month this balance registers below the neutral 50. While commercial building declined only at a soft pace (index at 48.1), decreasing activity in residential house building (index at 39.2), generated by the effect of high interest rates) continues to weigh down on this sector.

Our forecast for the fourth quarter of 2023 expects this trend to continue, with a contraction of 0.7 per cent relative to the third quarter and growth flatlining in the first quarter of 2024.

Production (14 per cent of GDP)

We forecast production sector output to contract by 0.8 and 0.2 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

The S&P Global/CIPS UK manufacturing PMI increased encouragingly to 47.2 in November from 44.8 in October, though representing the 16th 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).

Our forecast for the fourth quarter of 2023 sees output contracting by 1.1 per cent in this sector. We expect this contraction to ease to 0.3 per cent in the first quarter of 2024.

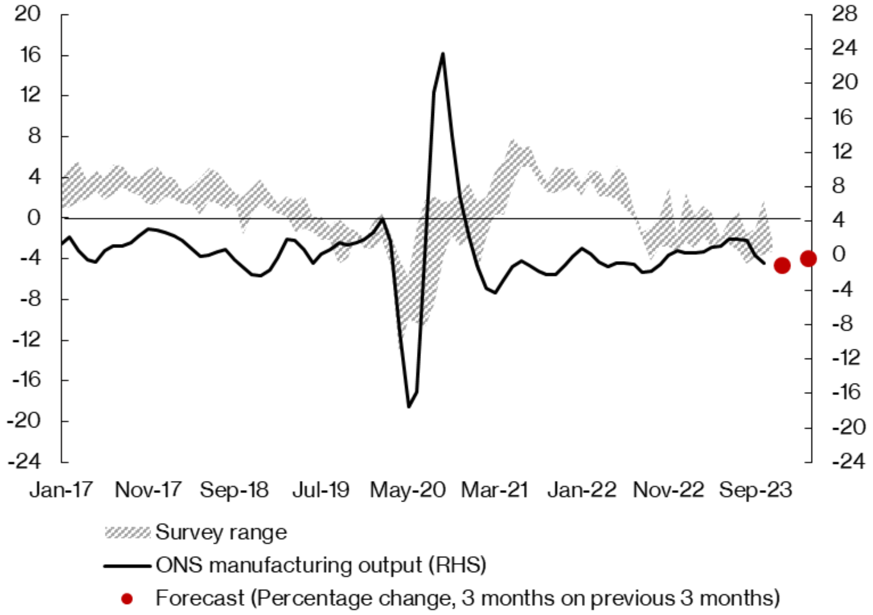
The S&P Global/CIPS UK Composite PMI – which combines comparable services and manufacturing indices – increased from 48.7 in October to 50.7 in November. It is encouraging that overall, private sector output showed signs of expansion in November.

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 grew by 1.2 per cent in the three months to October. Given Prime Minister Rishi Sunak's announcement on 31 July that the government will issue hundreds of new oil and gas licenses in the North Sea in Autumn and the re-iteration of this policy plan in the King's speech, we might expect to see further growth in this sector in the coming months. While this may boost GDP in the short-run, it is important to remember that the long-run costs of further fossil fuel extraction – not just in terms of GDP but also in terms of environmental and human costs- are not being accounted for.

That said, our forecast for mining and quarrying relies on historical data; as a result, we forecast a contraction of 1.1 per cent in this sector in the fourth quarter of this year and 0.3 per cent in the first quarter of 2024 due to seasonal factors (such as the impact of weather on extraction).

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.

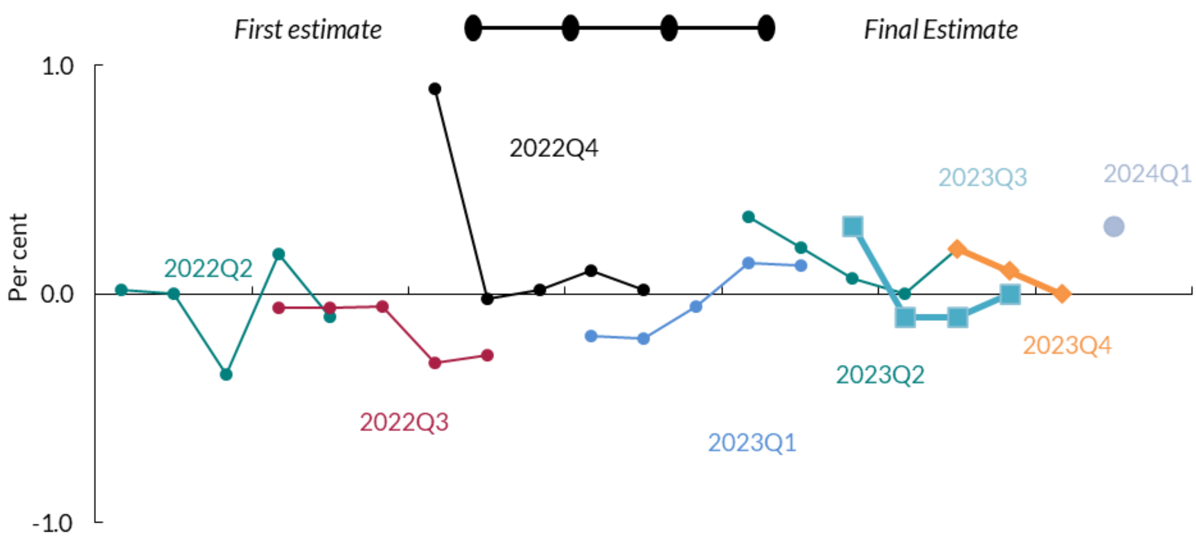
Table 1 - Summary Table of GDP growth (2019=100)

2019=100	GDP index	Index of Services	*Index of Services - Components* Business services and finance	Government and other services	Distribution, Hotels and Restaurants	Transport, Storage and Communications	Index of Production	*Index of Production - Components* Manufacturing	Electricity, gas, steam and air conditioning	Mining and Quarrying	Water Supply, Sewerage and Waste Management	Index of Construction	Agriculture
Latest weights	1000	796	338	220	134	103	135	102	15	6	13	62	7
Sep-22	101.5	102.9	104.0	101.1	99.1	107.8	93.7	99.0	62.8	74.4	105.4	104.5	85.7
Oct-22	102.1	103.6	104.5	101.5	100.7	108.5	94.0	100.1	61.5	72.5	103.7	105.2	85.7
Nov-22	102.2	103.7	104.5	101.7	100.7	108.9	93.9	99.5	61.6	74.5	105.3	105.5	85.5
Dec-22	101.9	103.1	104.7	100.2	100.0	108.2	93.9	99.7	63.9	68.8	105.7	106.3	85.5
Jan-23	102.4	104.0	104.8	101.6	101.0	110.2	93.9	100.0	62.9	66.8	106.1	104.4	85.5
Feb-23	102.6	104.0	105.0	101.6	100.8	109.8	93.8	100.0	61.9	68.4	104.9	107.1	85.6
Mar-23	102.3	103.5	104.7	101.8	99.5	108.1	94.5	100.7	63.4	66.4	106.4	106.9	85.6
Apr-23	102.5	103.8	104.7	101.5	100.8	109.3	94.7	101.3	63.0	66.4	105.1	106.1	85.6
May-23	102.3	103.7	104.2	102.2	100.3	109.3	94.2	101.1	61.2	66.7	103.3	105.8	85.6
Jun-23	103.0	104.0	104.2	102.6	101.2	110.2	96.6	103.9	63.1	66.0	105.6	107.5	85.6
Jul-23	102.4	103.5	104.2	101.9	100.5	108.4	95.5	102.6	63.0	65.9	104.1	107.0	85.7
Aug-23	102.5	103.8	104.4	102.0	101.0	109.1	95.0	101.9	62.7	68.0	102.9	104.7	85.8
Sep-23	102.7	104.0	104.5	102.7	100.8	109.2	95.1	102.0	62.4	66.4	104.4	104.7	85.9
Oct-23	102.4	103.8	104.4	102.7	100.8	108.0	94.3	100.9	61.3	66.6	106.1	104.7	85.9
Nov-23	102.5	103.9	104.7	102.8	100.7	108.8	94.4	101.1	62.7	66.4	105.7	104.7	85.9
Dec-23	102.7	104.1	105.0	103.0	100.8	109.0	94.5	101.3	62.7	65.9	105.8	104.7	85.8
Jan-24	102.8	104.2	105.2	103.0	100.8	109.1	94.3	100.9	62.7	66.0	106.0	104.7	85.9
Feb-24	102.9	104.4	105.4	103.0	100.8	109.6	94.2	100.8	62.7	66.0	106.2	104.7	85.9
Mar-24	103.0	104.5	105.7	103.0	100.8	110.0	94.2	100.7	62.7	65.9	106.3	104.7	86.0
	Percentage change, 3 months on previous 3 months												
Sep-22	-0.2	0.1	0.3	-0.1	-1.4	1.2	-1.8	-1.8	-1.4	-2.9	-1.9	0.6	0.0
Oct-22	-0.2	0.0	0.0	0.2	-1.2	0.9	-1.5	-1.1	-1.3	-7.2	-1.3	0.7	-0.4
Nov-22	0.0	0.1	-0.1	0.8	-1.0	0.3	-0.5	0.0	-0.9	-4.7	-1.3	1.2	-0.7
Dec-22	0.2	0.2	0.2	0.2	0.0	0.1	0.0	0.6	-0.3	-5.9	-0.6	1.3	-0.6
Jan-23	0.3	0.2	0.3	0.0	0.3	0.5	0.1	0.4	1.1	-4.9	0.7	0.6	-0.4
Feb-23	0.4	0.3	0.5	-0.3	0.4	0.9	0.0	0.4	1.5	-7.9	0.7	0.8	-0.1
Mar-23	0.4	0.4	0.3	0.5	0.0	0.8	0.1	0.5	0.6	-6.6	0.9	0.4	0.0
Apr-23	0.3	0.2	0.1	0.5	-0.2	0.0	0.5	0.9	-0.1	-4.2	-0.2	1.2	0.1
May-23	0.1	0.0	-0.3	0.7	-0.4	-0.5	0.6	1.1	-0.6	-2.2	-0.6	0.3	0.1
Jun-23	0.2	0.0	-0.4	0.4	0.3	0.2	1.2	1.9	-0.5	-1.2	-1.1	0.3	0.0
Jul-23	0.1	0.0	-0.6	0.6	0.3	0.2	1.2	1.9	-0.5	-1.3	-1.1	0.1	0.0
Aug-23	0.3	0.1	-0.3	0.3	0.7	0.3	1.3	1.7	0.6	0.2	-0.7	0.1	0.1
Sep-23	-0.1	-0.1	0.0	0.1	0.0	-0.6	0.0	0.1	0.4	0.6	-0.8	-0.9	0.2
Oct-23	0.0	0.1	0.2	0.2	0.2	-0.5	-0.7	-0.9	-0.5	1.2	0.1	-1.9	0.3
Nov-23	-0.1	0.1	0.3	0.6	-0.1	-0.5	-1.2	-1.4	-1.3	-0.3	1.1	-1.6	0.2
Dec-23	0.0	0.2	0.3	0.6	0.0	-0.3	-0.8	-1.1	-0.8	-0.7	2.0	-0.7	0.1
Jan-24	0.1	0.2	0.5	0.4	-0.1	0.2	-0.4	-0.5	0.9	-1.4	1.3	0.0	0.0
Feb-24	0.2	0.3	0.6	0.2	0.0	0.6	-0.3	-0.3	1.0	-0.7	0.6	0.0	0.0
Mar-24	0.3	0.4	0.7	0.2	0.0	0.9	-0.2	-0.3	0.8	-0.5	0.3	0.0	0.1
	Percentage change, month on same month in previous year												
Sep-22	1.1	1.3	1.9	2.0	-5.8	7.2	-2.3	-3.0	4.7	-7.2	1.2	6.8	0.0
Oct-22	1.4	1.4	2.6	0.0	-2.8	5.6	-1.2	-1.1	5.1	-6.2	-3.0	7.9	-1.2
Nov-22	0.8	1.0	1.7	-0.9	-1.5	5.2	-2.8	-3.6	0.5	0.8	-1.1	6.2	-0.3
Dec-22	1.0	1.1	1.9	-2.3	2.0	4.8	-3.0	-3.4	0.9	-6.1	-0.6	6.1	0.7
Jan-23	1.0	1.4	2.3	-0.6	0.4	3.6	-2.6	-2.1	-2.3	-13.5	-0.8	3.2	0.6
Feb-23	0.6	0.7	2.1	-1.1	-1.5	2.1	-2.5	-1.8	-3.9	-11.3	-1.8	5.8	0.0
Mar-23	0.2	0.1	1.5	-1.3	-2.2	1.4	-1.5	-0.9	0.3	-14.7	-0.5	3.5	-0.3
Apr-23	0.6	0.7	1.2	0.4	-1.9	2.5	-1.3	0.3	-1.4	-16.1	-3.4	2.9	-0.3
May-23	-0.3	0.0	-0.4	0.5	-1.5	1.4	-2.1	-0.6	-3.5	-16.2	-2.7	0.3	-0.6
Jun-23	1.4	1.1	0.1	2.4	0.0	3.2	1.8	3.8	0.5	-14.8	-1.9	4.6	-0.7
Jul-23	0.4	0.1	-0.2	1.1	-0.8	0.3	1.1	3.1	0.6	-18.5	-1.1	2.8	-0.7
Aug-23	0.4	0.2	-0.3	1.2	0.1	-0.2	1.5	2.9	1.0	-8.1	-2.7	0.1	-0.5
Sep-23	1.2	1.1	0.5	1.6	1.7	1.3	1.5	3.0	-0.6	-10.8	-0.9	0.2	0.2
Oct-23	0.3	0.2	-0.1	1.2	0.1	-0.5	0.3	0.8	-0.3	-8.1	2.3	-0.5	0.2
Nov-23	0.3	0.2	0.2	1.1	0.0	-0.1	0.5	1.6	1.7	-10.9	0.4	-0.7	0.4
Dec-23	0.8	1.0	0.3	2.7	0.8	0.7	0.7	1.6	-1.8	-4.2	0.0	-1.5	0.4
Jan-24	0.4	0.2	0.4	1.3	-0.2	-1.0	0.4	0.9	-0.2	-1.3	-0.1	0.3	0.4
Feb-24	0.3	0.4	0.4	1.4	0.0	-0.2	0.5	0.8	1.4	-3.5	1.2	-2.2	0.4
Mar-24	0.7	1.0	0.9	1.2	1.3	1.7	-0.4	0.0	-1.1	-0.7	0.0	-2.0	0.5
	Percentage change, month on previous month												
Sep-22	-0.6	-0.7	-0.7	0.3	-1.8	-1.4	0.1	0.0	1.1	0.5	-0.4	-0.1	-0.6
Oct-22	0.6	0.7	0.5	0.4	1.6	0.6	0.3	1.1	-2.1	-2.6	-1.6	0.7	0.0
Nov-22	0.1	0.1	0.0	0.2	0.0	0.4	-0.1	-0.6	0.2	2.8	1.5	0.2	-0.2
Dec-22	-0.3	-0.6	0.2	-1.5	-0.7	-0.6	0.0	0.2	3.7	-7.7	0.4	0.8	0.0
Jan-23	0.5	0.9	0.1	1.4	1.0	1.8	0.0	0.3	-1.6	-2.9	0.4	-1.8	0.0
Feb-23	0.2	0.0	0.2	0.0	-0.2	-0.4	-0.1	0.0	-1.6	2.4	-1.1	2.6	0.1
Mar-23	-0.3	-0.5	-0.3	0.2	-1.3	-1.5	0.7	0.7	2.4	-2.9	1.4	-0.2	0.0
Apr-23	0.2	0.3	0.0	-0.3	1.3	1.1	0.2	0.6	-0.6	0.0	-1.2	-0.7	0.0
May-23	-0.2	-0.1	-0.5	0.7	-0.5	0.0	-0.5	-0.2	-2.9	0.5	-1.7	-0.3	0.0
Jun-23	0.7	0.3	0.0	0.4	0.9	0.8	2.5	2.8	3.1	-1.0	2.2	1.6	0.0
Jul-23	-0.6	-0.5	0.0	-0.7	-0.7	-1.6	-1.1	-1.3	-0.2	-0.2	-1.4	-0.5	0.1
Aug-23	0.1	0.3	0.2	0.1	0.5	0.6	-0.5	-0.7	-0.5	3.2	-1.2	-2.1	0.1
Sep-23	0.2	0.2	0.1	0.7	-0.2	0.1	0.1	0.1	-0.5	-2.4	1.5	0.0	0.1
Oct-23	-0.3	-0.2	-0.1	0.0	0.0	-1.1	-0.8	-1.1	-1.8	0.3	1.6	0.0	0.0
Nov-23	0.1	0.1	0.3	0.1	-0.1	0.7	0.1	0.2	2.2	-0.4	-0.4	0.0	0.0
Dec-23	0.2	0.2	0.2	0.2	0.0	0.2	0.2	0.2	0.1	-0.6	0.1	0.0	0.0
Jan-24	0.1	0.1	0.2	0.0	0.0	0.1	-0.2	-0.4	0.0	0.0	0.3	0.0	0.0
Feb-24	0.1	0.2	0.2	0.0	0.0	0.5	-0.1	-0.1	0.0	0.1	0.1	0.0	0.1
Mar-24	0.1	0.1	0.2	0.0	0.0	0.3	-0.1	-0.1	-0.1	-0.1	0.1	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 November GDP Tracker.

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

	GDP	Index of Services	Index of Production	Manufacturing	Mining and Quarrying	Index of Construction
Forecast	0.1	0.2	-0.5	-0.6	0.7	-1.9
Outturn	0.0	0.1	-0.7	-0.9	1.2	-1.9

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
2020Q1	-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	
2021Q1			-3.8		
Average absolute error				0.22	0.08

Notes for Editors:

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