

# NIESR

## Monthly GDP Tracker

GDP grows in July but outlook remains one of recession

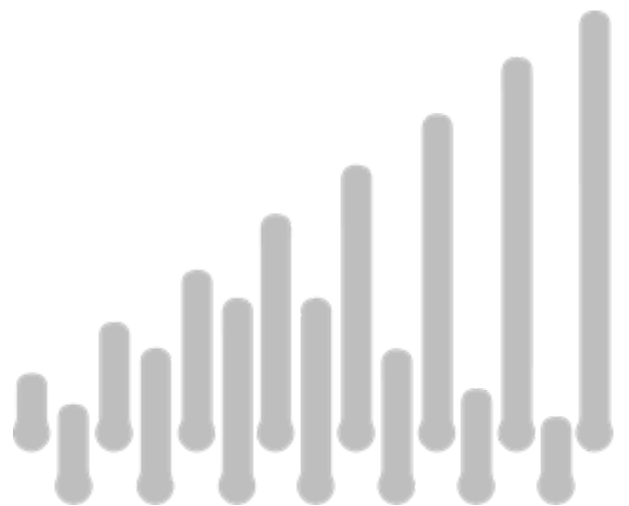
Paula Bejarano Carbo, Patricia Sanchez Juanino and Stephen Millard

12<sup>th</sup> September 2022

*“GDP grew by 0.2 per cent in July following the large fall of 0.6 per cent in June. This was stronger than we had expected and was driven by a rise in services, particularly consumer-facing services, with production and construction continuing to fall. That said, GDP in the three months to July was flat relative to the previous three months and we think the UK economy remains in recession.”*

**Stephen Millard**

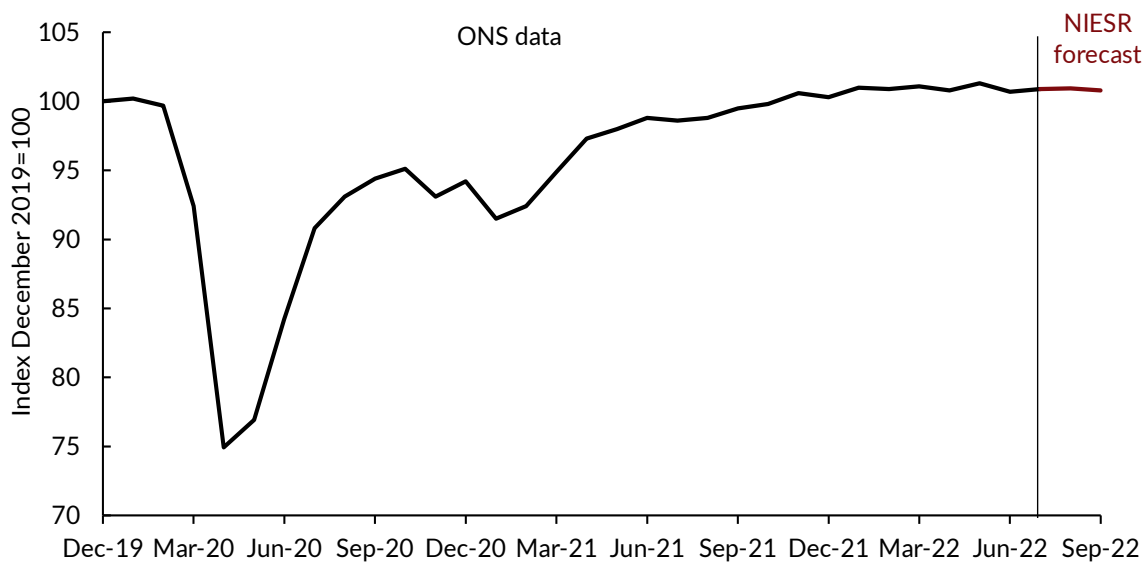
Deputy Director for Macroeconomic Modelling and Forecasting, NIESR



## Main points

- GDP grew by 0.2 per cent in July, contrary to our forecast last month of no growth, with consumer-facing services displaying stronger performance than expected despite overall decreased consumer confidence resulting from inflationary pressures and uncertainty.
- While August PMI surveys noted a slight expansion in the UK services sector, the headline business activity balance has fallen close to the neutral 50; globally, a contraction in business activity was noted for the first time since June 2020.
- Manufacturing and construction PMIs have both recorded declines below the neutral 50, with the former reaching a 27-month low.
- We still expect the UK economy to contract by 0.1 per cent in the third quarter, with growth slowing as inflation maintains its drag on consumer demand and confidence.

Figure 1 - UK GDP



## Economic setting

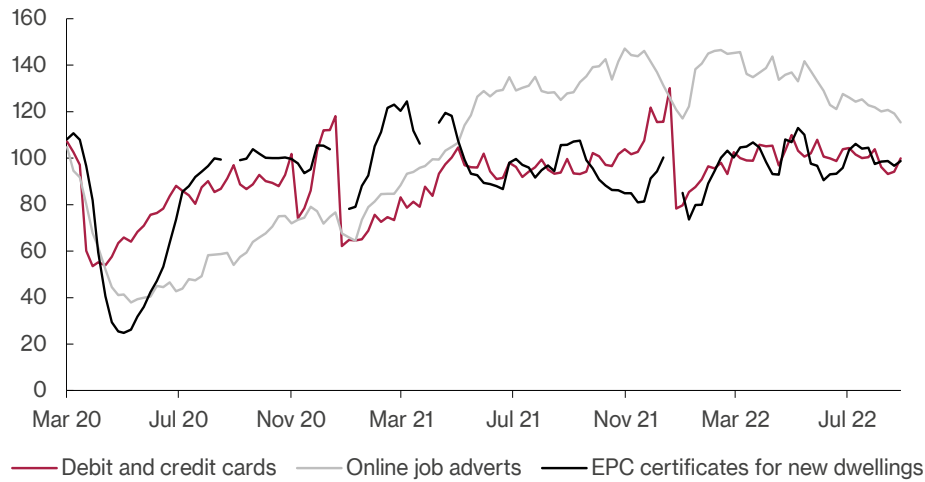
In the [NIESR Summer UK Economic Outlook](#) published on 2nd August, we outlined that the UK economy is likely to enter recession in the third quarter of 2022 and remain there until the first quarter of 2023, with our forecast for year-on-year GDP growth at 3.5 per cent in 2022 and 0.5 per cent in 2023. As outlined in the [NIESR August GDP Tracker](#), it now appears that the UK economy entered a recession in the second quarter of 2022.

In response to the recent announcement by Ofgem regarding household gas and electricity prices, on 8<sup>th</sup> September the new Prime Minister announced a freezing of the energy price cap such that the cost of a standard variable dual-fuel tariff will rise to £2,500 for the typical household from October of this year but will stay at that rate until 2024. As a result, we now expect CPI inflation to peak at a little over 11 per cent in the first quarter of 2023, returning to around 5 per cent a year later and not returning to the Bank of England's 2% target until towards the end of 2024. The fall in inflation from the second quarter of 2023 onwards results from a slowing in energy price inflation, a tightening in monetary policy and falls in real incomes leading to falling demand.

Over the past few months, the defining features for UK households and businesses have been the high and continuously rising inflation, caused first by supply chain disruptions in the recovery from Covid-19 in 2021 and by higher energy and food prices which have followed Russia's invasion of Ukraine in February 2022. The rapid rise in inflation, especially in energy prices, has led to a cost-of-living crisis felt across the country, with consumer confidence falling sharply. This falling consumer confidence translated into a fall in household consumption of 0.2 per cent in the second quarter of 2022.

High frequency indicators suggest that vacancies are gradually decreasing, though August figures remain 17% higher than that recorded in February 2020. At the same time, average weekly card spending in July was close to the average recorded in February 2020. (See Figure 2.)

Figure 2 – Spending and hiring indicators (weekly indices)



Notes: (a) England and Wales. Debit and credit cards (CHAPS-based): 100 = February 2020, percentage change on a backward looking seven-day rolling average, non-seasonally adjusted, nominal prices. Job adverts: change from the same week in 2019. EPC certificates: change from the same week in 2019/2020, four-week rolling average, adjusted for timing of holidays.

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

### News in latest ONS data

The monthly GDP data for July were stronger than we had forecast in August, GDP increasing by 0.2 per cent month-on-month, rather than staying flat. However, GDP remains flat on a rolling three-month basis (see Figure 3).

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

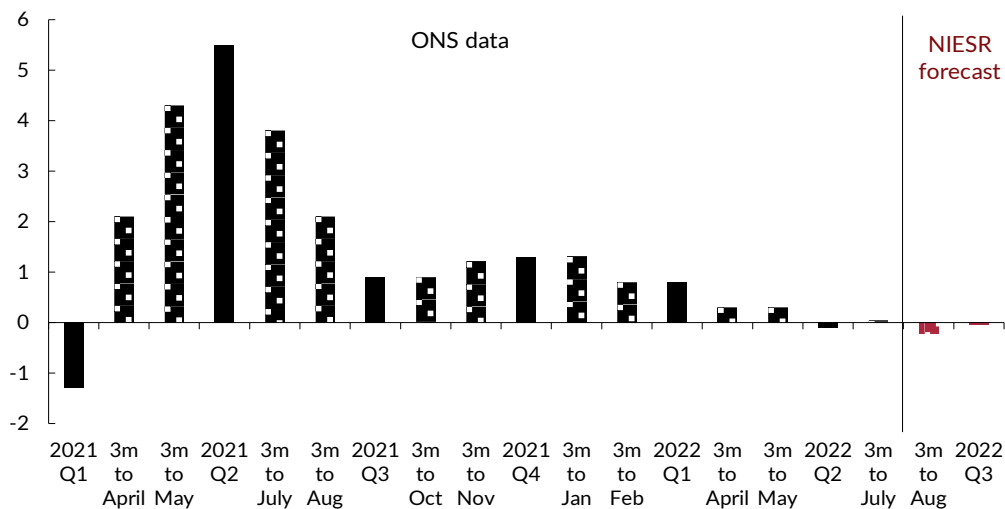


Figure 4 shows how our short-term forecasts for recent quarters have changed as new information has become available.

**Figure 4 - Evolution of the NIESR quarterly GDP forecast (3 months on previous 3 months, per cent)**

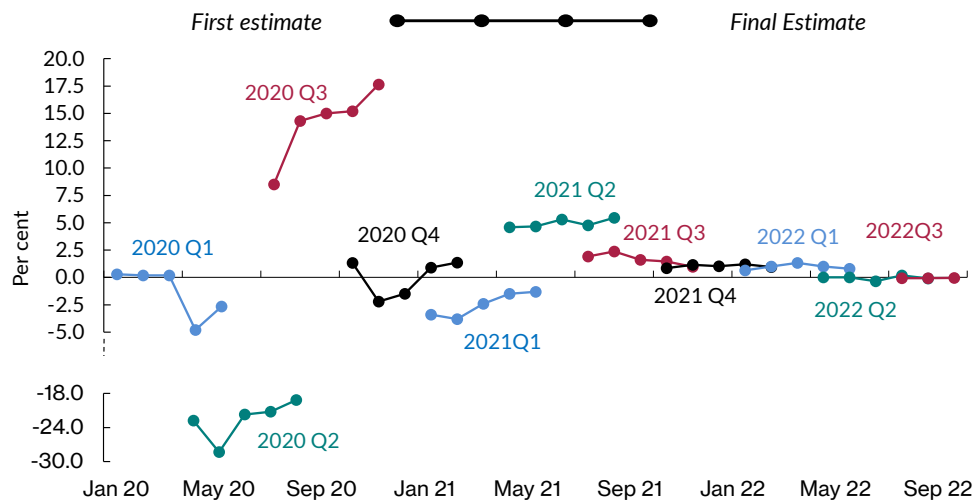
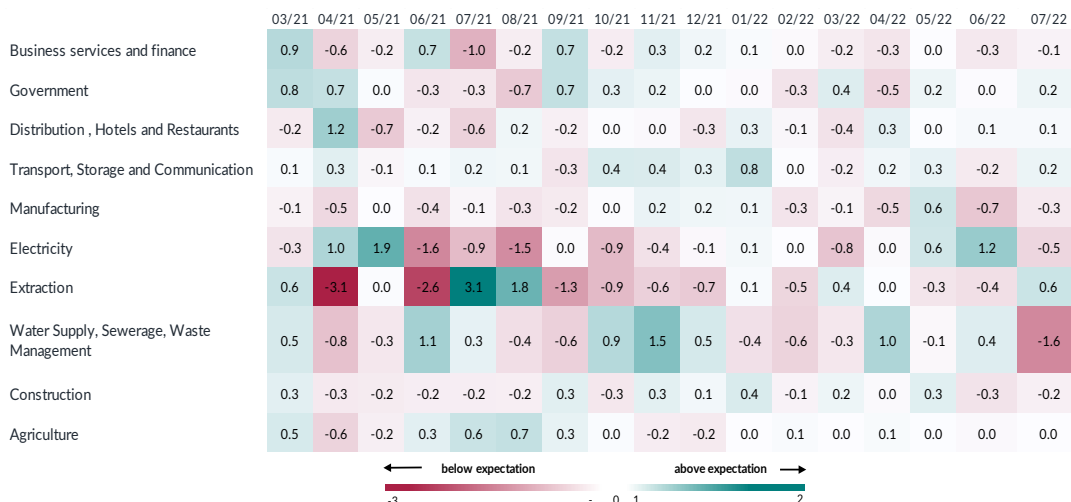


Figure 5 shows a heat map of the data surprises across sectors in the monthly data, relative to last month's GDP Tracker, highlighting the sectors where the surprises are large relative to the volatility of the output data. This month, there were positive surprises in the extraction, government, transport, and distribution and hotel sectors, with negative surprises in the water, electricity, manufacturing, construction and business services sectors.

**Figure 5 - Surprises in monthly data**



Note: Cells show forecast errors as a fraction of the standard deviation of errors for each series. Green cells are greater than expected, red cells are less than expected.

Table 1 shows the growth in each sector for the three months to July, compared with the previous three months, against the forecast for each in our August GDP Tracker.

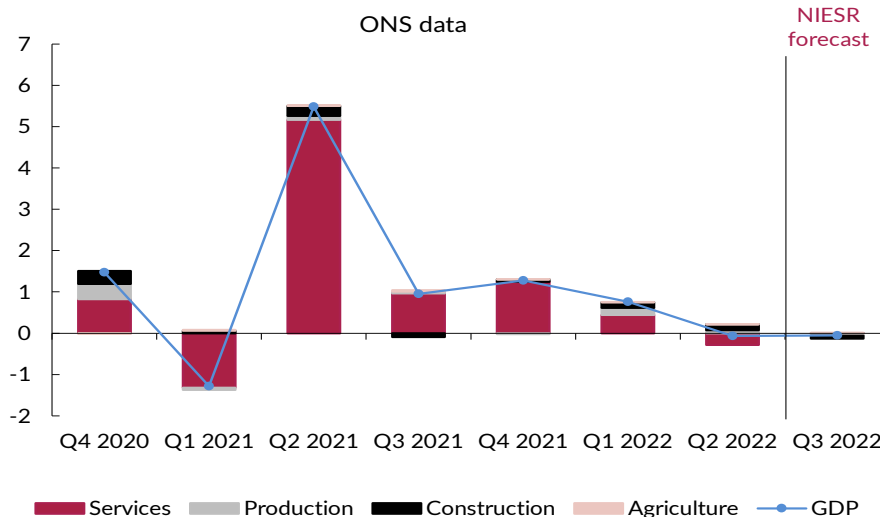
**Table 1 – 3-month-on-3-month growth to July**

	GDP	Index of Services	Index of Production	Manufacturing	Mining and Quarrying	Index of Construction
Forecast	0.0	-0.4	0.9	0.5	-0.6	1.6
Outturn	0.0	-0.3	0.6	0.3	0.7	1.4

### Sectoral detail

We forecast GDP to contract by 0.1 per cent in the third quarter of 2022, in line with the 0.1 per cent contraction we observed in the second quarter.

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

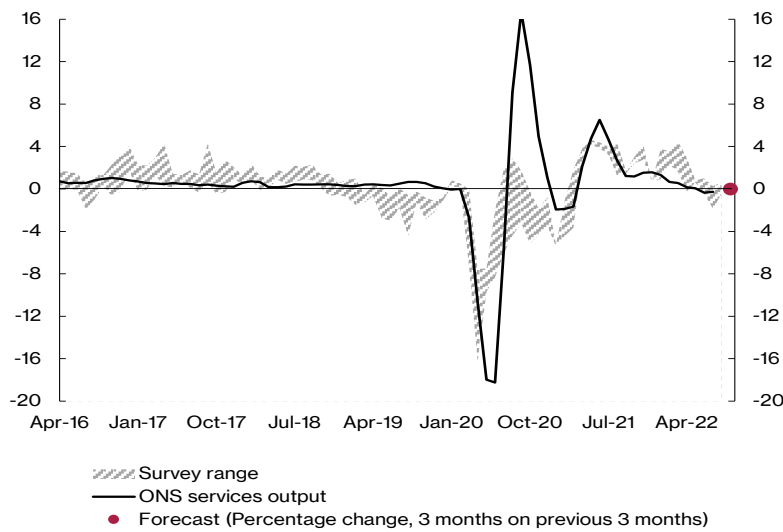


### Services (80 per cent of GDP)

The survey balances point to flat to falling services in August, as shown by the swathe of survey indicators in figure 7. The S&P Global/CIPS UK services PMI fell from 52.1 in July to 49.6 in August, lower than the 'no change' mark of 50 while the headline business activity balance registered 50.9 in August, down from 52.6 in July. Internationally, the JPMorgan Global Services Business Activity Index fell to 49.2 in August, signalling a contraction in world output of services for the first time since June 2020. Rising energy prices are leading to continued pressure on costs in the services sector and confidence remains subdued by historical standards.

Based on recent developments we expect service sector activity to remain unchanged in the third quarter of 2022 relative to the second quarter.

**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.

### Production (14 per cent of GDP)

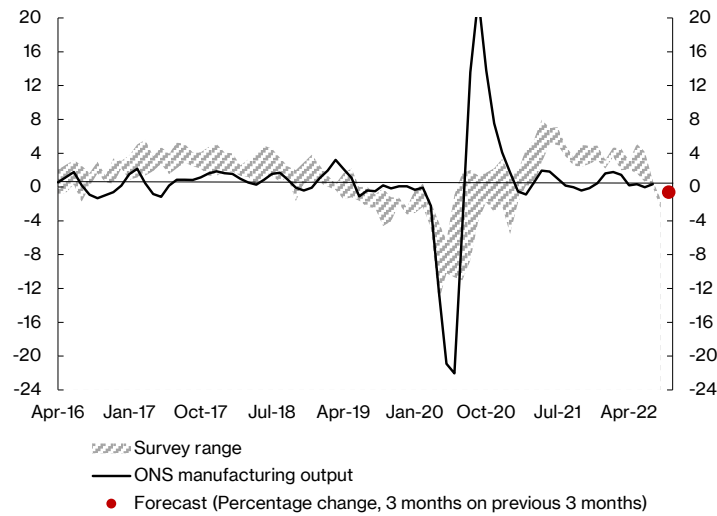
We forecast that production sector output will fall by 0.4 per cent in the third quarter, though output in this sector is volatile and difficult to predict with accuracy on a quarterly basis. The production sector comprises manufacturing; mining and quarrying; electricity gas, steam and air conditioning; water supply and sewerage; and oil and gas extraction. The largest of these sectors is manufacturing, accounting for 10 per cent of GDP.

### Manufacturing (10 per cent of GDP)

The S&P Global /CIPS UK manufacturing PMI for August fell to 47.3, a 27-month low, from 52.1 in July and 52.8 in June. The JPMorgan Global Manufacturing Output PMI also fell to 50.3 in August, a 26-month low, from 51.1 in July. The United States, the Euro Area, Japan and the United Kingdom all saw contractions in manufacturing output.

Our forecast for the third quarter of 2022 is for manufacturing output to fall by 0.6 per cent (Figure 8).

**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.

### Mining and quarrying (1 per cent of GDP)

Mining and quarrying (extraction) is a small but erratic component of industrial production that can have an influence on overall GDP growth. We forecast a rise of 1.2 per cent in the third quarter of 2022.

### Construction (6 per cent of GDP)

The S&P Global/CIPS construction PMI survey registered a small rise to 49.2 in August, from 48.9 in July, but is still signalling the second month of a contraction in construction activity. As in July, civil engineering activity declined sharply, while commercial activity also declined. Housing activity increase slightly, the first increase in three months.

We expect construction output to fall by 1.1 per cent in the third quarter of 2022.





## 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.

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.

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.

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 (%)**

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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