

Article

# Effects of the coronavirus (COVID-19) pandemic on "high-contact" industries

Insights into the impacts of the coronavirus (COVID-19) pandemic on industries dependent on in-person contact. Using business turnover estimates from HM Revenue and Customs Value Added Tax (VAT) data, our analysis finds wide-ranging impacts "between" and "within" high-contact service industries.

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# 1 . Main points

- The coronavirus (COVID-19) pandemic has led to wide-ranging impacts on business turnover between and within "high-contact" industries - wholesale and retail; transportation and storage; accommodation and food services; arts, entertainment and recreation; and other services.
- The wholesale and retail industry had the smallest fall in turnover following the national lockdowns, although "within" effects show that non-essential retail stores were more adversely affected, while outdoor stores performed relatively stronger.
- The largest falls in turnover in the first half of 2020 in the accommodation and food services industry were for the beverage-serving sub-industry and the hotels and similar accommodation sub-industry, while there has been stronger performance for holiday and other short-stay accommodation, camping grounds, recreational vehicle parks, and other accommodation throughout the coronavirus pandemic.
- In the arts, entertainment, and recreation industry, the largest falls in turnover were for amusement and recreational activities, gambling and betting activities, and creative arts and entertainment activities; however, the within-industry effects imply a change in preference towards outdoor activities over indoor activities.

## 2 . Introduction

The coronavirus (COVID-19) pandemic has had wide-ranging industry-level impacts through 2020 and 2021. The largest have typically been for ["high-contact" service industries](#) - wholesale and retail; transportation and storage; accommodation and food services; arts, entertainment and recreation; and other services. These "high-contact" industries are more reliant on physical interaction and so have been more adversely affected by the coronavirus restrictions that were in place. We consider "low-contact" industries to be all other industries that are less dependent on in-person contact.

Figures 1 and 2 show the level of output produced by these "high-contact" and "low-contact" industries. There was a relatively larger peak-to-trough decline in output produced by the "high-contact" industries - a 37% fall compared with a 17% fall for "low-contact" industries - although there has also been more of a rebound in "high-contact" industries since restrictions were lifted in mid-2021. Similarly, there was a larger impact on employment in these "high-contact" industries, with a 7.6% peak-to-trough decline in payrolled employees compared with 1.7% for the "low-contact" industries. Furthermore, there has typically been a higher level of furloughing in "high-contact" industries, particularly in periods with higher levels of COVID-19 restrictions.

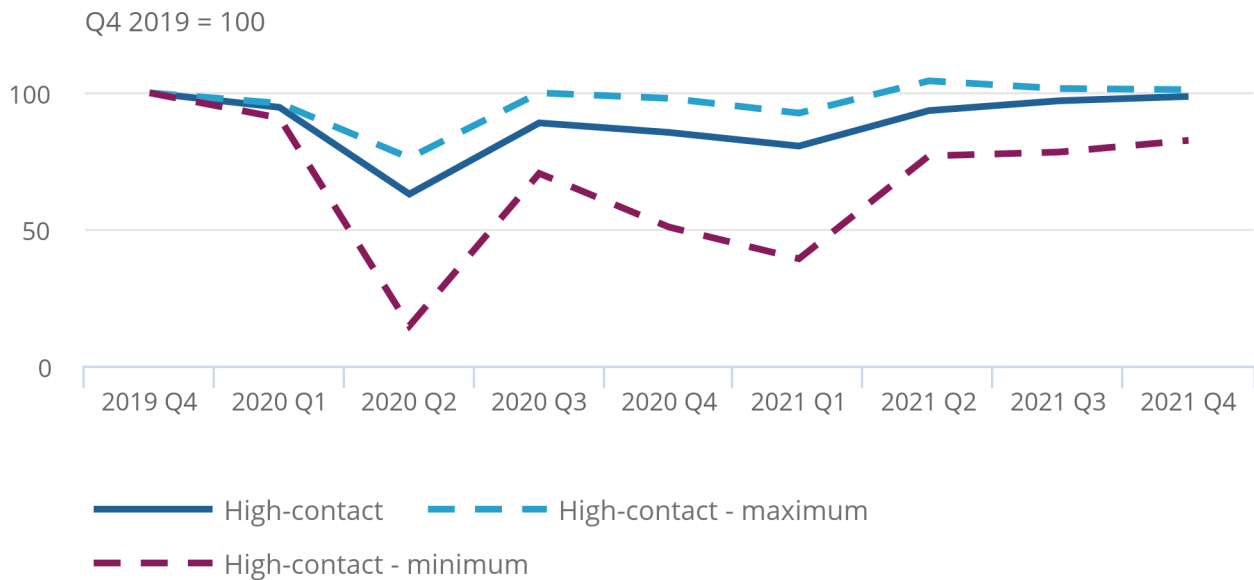
Figure 1 also shows that there have been wide-ranging effects between these "high-contact" industries. Accommodation and food services, and the arts, entertainment and recreation industries had the largest falls in business turnover in periods of lockdown restrictions. Wholesale and retail businesses experienced the smallest decrease in business turnover and were the quickest to recover to their pre-coronavirus pandemic levels.

**Figure 1: “High-contact” industries experienced a greater fall in output and took longer to recover to pre-coronavirus pandemic levels relative to all other industries**

UK, gross value added (GVA), Quarter 4 2019 to Quarter 4 2021

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UK, gross value added (GVA), Quarter 4 2019 to Quarter 4 2021



Source: Office for National Statistics – Quarterly National Accounts

Notes:

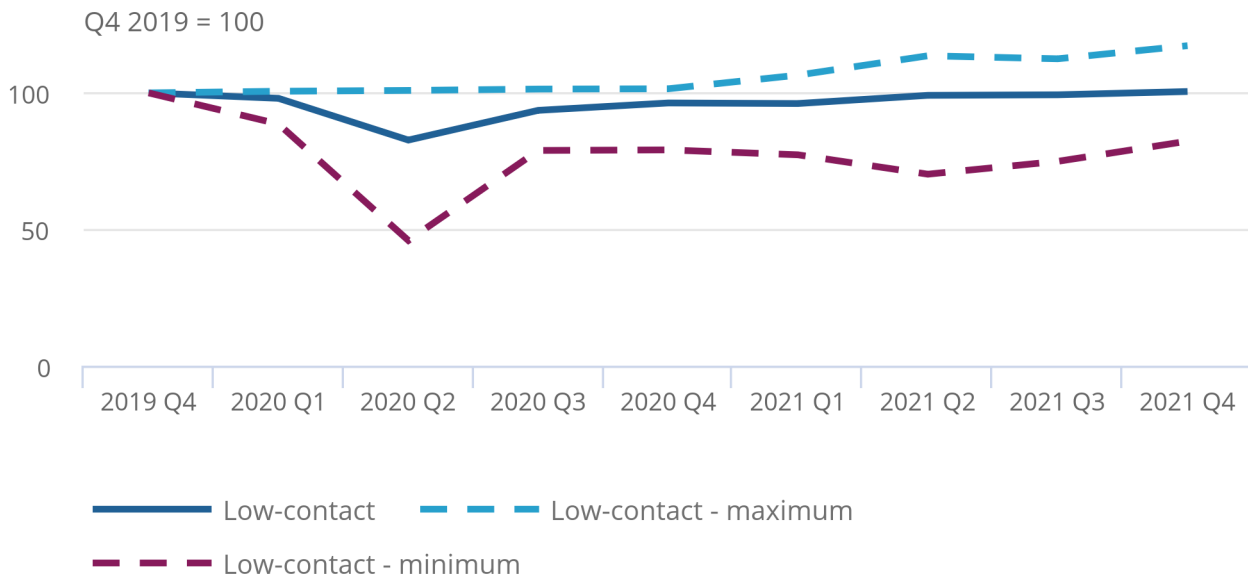
1. Q1 refers to Quarter 1 (Jan to Mar), Q2 refers to Quarter 2 (Apr to June), Q3 refers to Quarter 3 (July to Sept) and Q4 refers to Quarter 4 (Oct to Dec).
2. Index is referenced to Quarter 4 (Oct to Dec) 2019.
3. “High-contact” industries refer to the wholesale and retail; transportation and storage; accommodation and food services; arts, entertainment and recreation; and other services industries.
4. The maximum and minimum refer to the range of relative turnover levels for the five high-contact industries.

**Figure 2: "Low-contact" industries experienced a smaller fall in output and recovered faster to pre-coronavirus pandemic levels relative to "high-contact" industries**

UK, gross value added (GVA), Quarter 4 2019 to Quarter 4 2021

Figure 2: "Low-contact" industries experienced a smaller fall in output and recovered faster to pre-coronavirus pandemic levels relative to "high-contact" industries

UK, gross value added (GVA), Quarter 4 2019 to Quarter 4 2021



Source: Office for National Statistics – Quarterly National Accounts

Notes:

1. Q1 refers to Quarter 1 (Jan to Mar), Q2 refers to Quarter 2 (Apr to June), Q3 refers to Quarter 3 (July to Sept) and Q4 refers to Quarter 4 (Oct to Dec).
2. Index is referenced to Quarter 4 (Oct to Dec) 2019.
3. "Low-contact" industries refer to all industries except "high-contact".
4. The maximum and minimum refer to the range of relative turnover levels for low level contact industries.

Much of the focus has been on these between-industry effects - that is, at the level of these five "high-contact" industries only (Figure 1). However, we are interested in exploring any impacts at the sub-industry level so we can see if there have been any within-industry effects in these five "high-contact" industries. This will offer further insight into how businesses and consumers might have adapted over the last two years.

Our new findings are based on current price turnover estimates in Value Added Tax (VAT) returns provided by Her Majesty's Revenue and Customs (HMRC). These VAT-based estimates of turnover are not seasonally adjusted, and they might be subject to revisions at a later stage. The effects of the coronavirus pandemic on the provision of [non-market output](#) are not included here, given we focus on VAT-based estimates of turnover. The percentage changes are based on aggregates calculated following Office for National Statistics (ONS) processing of VAT data, which includes estimation for non-response.

These VAT-based estimates provide the scope for more granular insights at the industry level - in particular, we look at the three-digit industry level. Given that these are based on VAT turnover only, we would recommend focusing more on the relative impacts that are shown at this level to understand these within-industry effects, rather than focusing on absolute levels.

### 3 . Wholesale and retail trade

Wholesale and retail businesses have been the least adversely affected among the "high-contact" industries, experiencing the smallest initial fall in turnover of 26% in the first half of 2020 relative to pre-coronavirus pandemic levels (Figure 3). However, Figure 3 shows there are wide-ranging impacts on the sub-industries within wholesale and retail, partly reflecting that some of these industries feature essential retail while others are considered non-essential and were subject to coronavirus restrictions. Furthermore, some of the retail sub-industries were able to benefit from the shift to online shopping.

Retail sales of information and communication equipment in specialised stores (negative 55%) and retail sales of other goods in specialised stores (negative 44%) were the sub-industries that saw the largest falls in the first half of 2020. These sub-industries are considered non-essential - for example, they include the retail sales of television and video games, and watches and jewellery. In contrast, retail sales in non-specialised stores had the smallest fall in business turnover of 7% in the first two quarters of 2020, which includes essential food stores, and were protected from requirements to close during the first national lockdown.

Retail trade, not in store, stalls or markets was the only retail sub-industry that had a rise in business turnover through the first lockdown. It remained above its pre-coronavirus pandemic levels in Quarter 3 (July to Sept) 2021. This industry benefitted from [record online sales](#) during the coronavirus pandemic as consumers shifted from in-store purchases to online shopping and businesses responded to higher demand by raising their online and delivery operational capacities.

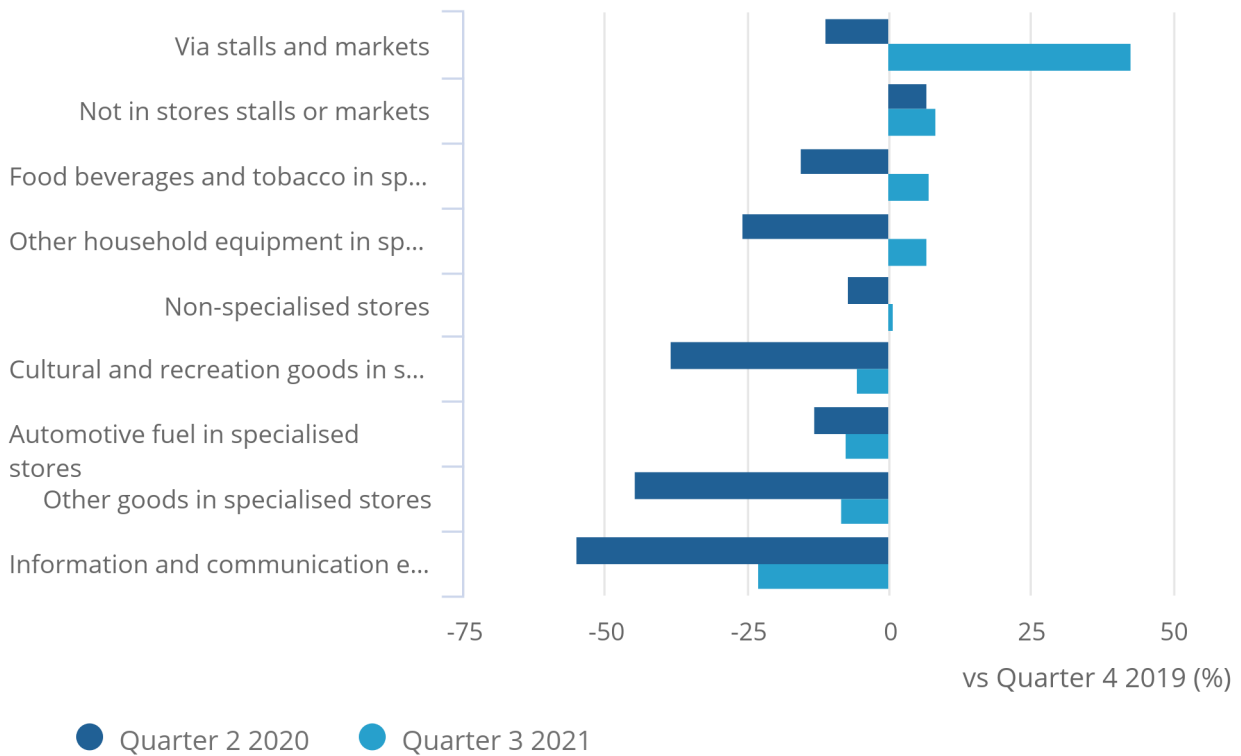
There was a large pickup in business turnover for the retail sales via stalls and markets sub-industry, which was at 43% above its pre-coronavirus pandemic level in Quarter 3 2021. This could reflect the public's preference for outdoor retailing as a way to avoid transmission of the coronavirus. In Quarter 2 (Apr to June) 2020, [just under 4 in 10 adults said they felt safe leaving their home](#) because of the coronavirus outbreak. By Quarter 3 2021, this had risen to more than half of adults reporting that they felt comfortable leaving their home.

**Figure 3: The retail industry saw a shift from in-store purchases to online and outdoor shopping from the beginning of the coronavirus pandemic**

Percentage change in business turnover for retail sub-industries, Quarter 2 2020 compared with Quarter 4 2019; and Quarter 3 2021 compared with Quarter 4 2019, UK

Figure 3: The retail industry saw a shift from in-store purchases to online and outdoor shopping from the beginning of the coronavirus pandemic

Percentage change in business turnover for retail sub-industries, Quarter 2 2020 compared with Quarter 4 2019; and Quarter 3 2021 compared with Quarter 4 2019, UK



Source: Her Majesty’s Revenue and Customs (HMRC)

Notes:

1. This shows the percentage change in VAT-recorded business turnover relative to Quarter 4 (Oct to Dec) 2019.
2. Online-only retail sales are included in "not in stores, stalls or markets".



## 4 . Transportation and storage

Figure 4 shows that there have been large differences in the impact on business turnover within the transport industry. There was a 78% decline in turnover for the passenger air transport sub-industry in the first half of 2020, which was the sharpest fall across the industry. This was because of [international mobility restrictions](#), which were introduced to reduce the transmission of the coronavirus and only permitted essential travel. There were similar large falls in business turnover for inland passenger water transport, passenger rail transport, and sea and coastal passenger water transport. These were all affected by coronavirus restrictions reflecting the "stay at home" advice that restricted travel for personal and work reasons.

Although there has been some easing in coronavirus restrictions on travel over time, the [Google mobility reports](#) show that, in Quarter 3 (July to Sept) 2021, visitors to public transport hubs were still below their pre-coronavirus pandemic levels. Passenger air transport, sea and coastal passenger water transport, and passenger rail transport all had business turnover that was more than 40% below their pre-coronavirus pandemic levels in Quarter 3 2021 (Figure 4). This partial recovery in passenger transport activity is likely to reflect continuing caution by some members of the public, along with a reduction in work-related commuting because of the [increased take-up of remote and hybrid working](#).

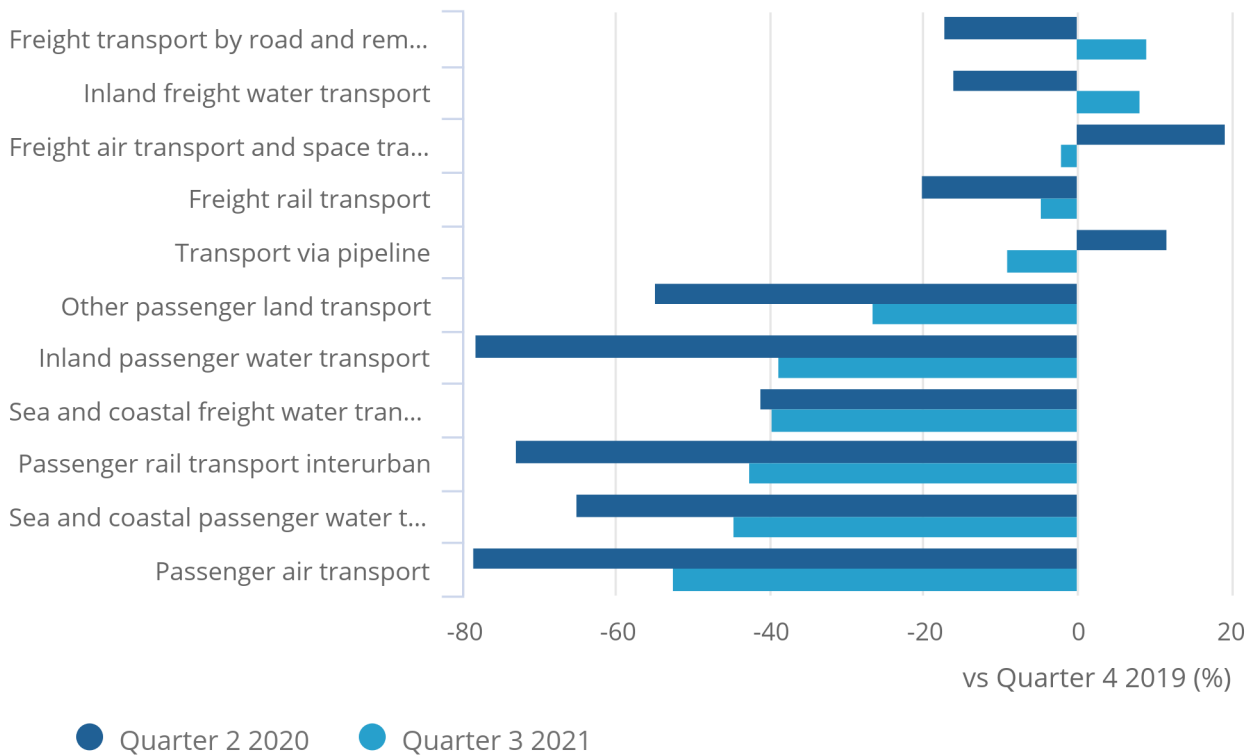
In contrast, commercial serving transport sub-industries were less adversely affected by the coronavirus pandemic, which might reflect the more essential nature of these travel services. Freight transport by road and removal services, and inland freight water transport, saw the smallest falls in turnover. By Quarter 3 2021, these sub-industries had recovered to above their pre-coronavirus pandemic levels. Freight transport by road and removal services had business turnover 9% above its pre-coronavirus pandemic levels while inland freight water transport was 8% above. These sub-industries may have also seen large price rises charged for their services because of higher costs of complying with COVID-19 procedures, although any impact on higher turnover levels would not necessarily reflect increasing profits.

**Figure 4: Personal transport was largely affected by domestic and international mobility constraints, while business transport experienced minimal impacts**

Percentage change in business turnover for transport sub-industries, Quarter 2 2020 compared with Quarter 4 2019; and Quarter 3 2021 compared with Quarter 4 2019, UK

Figure 4: Personal transport was largely affected by domestic and international mobility constraints, while business transport experienced minimal impacts

Percentage change in business turnover for transport sub-industries, Quarter 2 2020 compared with Quarter 4 2019; and Quarter 3 2021 compared with Quarter 4 2019, UK



Source: Her Majesty’s Revenue and Customs (HMRC)

Notes:

1. This shows the percentage change in VAT-recorded business turnover relative to Quarter 4 (Oct to Dec) 2019.

## 5 . Accommodation and food services

Among all the "high-contact" industries, the accommodation and food services industry had the largest initial fall in turnover. Figure 5 shows that all sub-industries had a contraction of more than 50% in business turnover, although the speed of their recovery has varied. The largest fall in turnover was for the beverage-serving sub-industry (92%) and the hotels and similar accommodation sub-industry (86%). Following the easing of restrictions, there was a sharp rebound in their turnover. By Quarter 3 2021, turnover for the beverage-serving sub-industry was 5% above its pre-coronavirus pandemic levels, while the hotels and similar accommodation sub-industry had almost recovered. During the coronavirus pandemic, the hotels and similar accommodation sub-industry were particularly affected by falls in foreign tourists to the UK. For example, [overseas residents](#) made 398,000 visits to the UK in Quarter 2 (Apr to June) 2020; this was 96% fewer than Quarter 2 2019. This is also evident in Quarter 3 2020.

In contrast, there has been stronger performance for other sub-industries such as the holiday and other short-stay accommodation, camping grounds, recreational vehicle parks, and other accommodation groups. This indicates a shift in consumers' holiday and leisure preferences, reflected in the switch from international to [domestic holidays](#) (so called staycations), which led to the rise of self-catered domestic holiday and other short-stay accommodations.

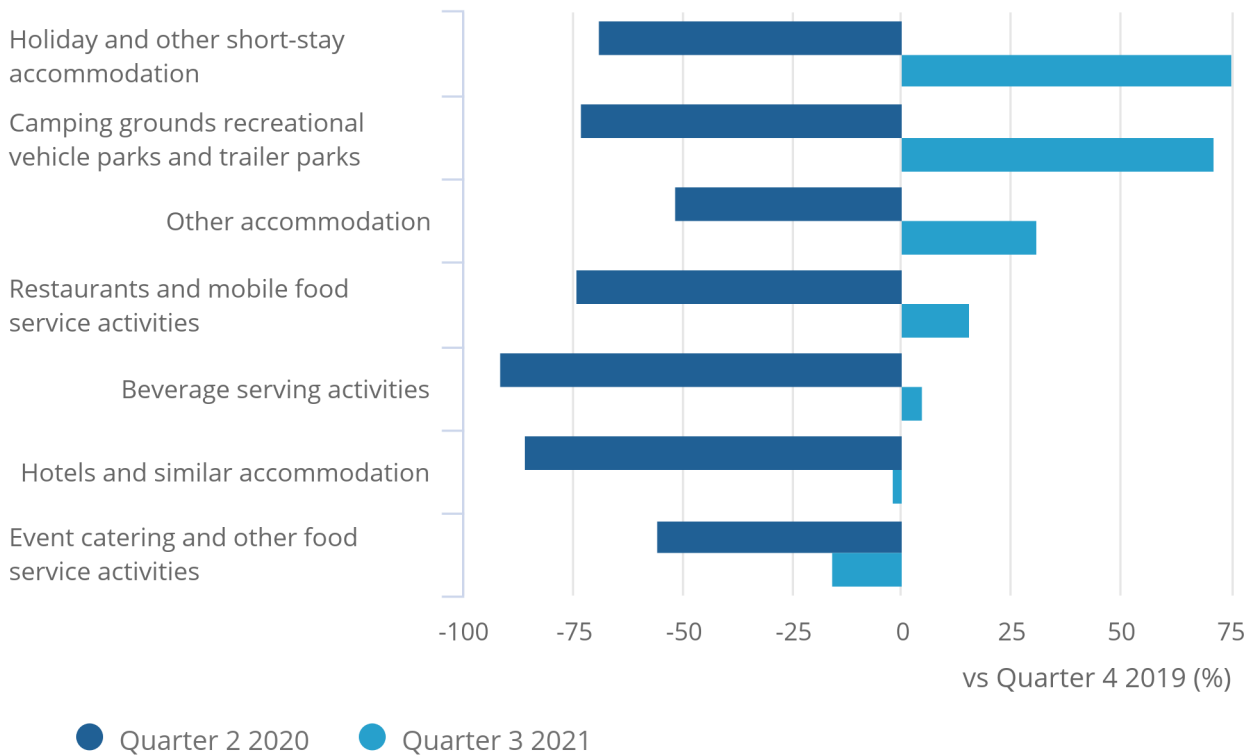
Turnover for the restaurants and mobile food services sub-industry is now 16% above its pre-coronavirus pandemic levels, recovering from being 74% below in Quarter 2 2020. Businesses adapted to coronavirus restrictions so that they could continue to trade. Some of these business adaptations include restaurants making changes to dining areas to allow for social distancing and moving to take-away and home deliveries.

**Figure 5: There has been a shift towards holiday accommodations in camping, trailer parks and other short-stay accommodations over the course of the coronavirus pandemic**

Percentage change in business turnover for accommodation and food service sub-industries, Quarter 2 2020 compared with Quarter 4 2019; and Quarter 3 2021 compared with Quarter 4 2019, UK

Figure 5: There has been a shift towards holiday accommodations in camping, trailer parks and other short-stay accommodations over the course of the coronavirus pandemic

Percentage change in business turnover for accommodation and food service sub-industries, Quarter 2 2020 compared with Quarter 4 2019; and Quarter 3 2021 compared with Quarter 4 2019, UK



Source: Her Majesty’s Revenue and Customs (HMRC)

Notes:

1. This shows the percentage change in VAT-recorded business turnover relative to Quarter 4 (Oct to Dec) 2019.

## 6 . Arts, entertainment and recreation

There is a sharp contrast in the performance of sub-industries within the arts, entertainment, and recreation industry (Figure 6). The largest falls in turnover were experienced by amusement and recreational activities (72%), gambling and betting activities (70%), and creative arts and entertainment activities (64%). However, there have also been vast differences in recovery of business turnover to pre-coronavirus pandemic levels between the sub-industries, which possibly indicates a preference towards outdoor activities over indoor activities.

For instance, the amusement and recreation activities sub-industry, which includes botanical gardens and nature reserves, saw a strong recovery with turnover 66% above its pre-coronavirus pandemic levels in Quarter 3 (July to Sept) 2021. This in part reflects people's preferences towards outdoor activities and socialising to reduce the risk of coronavirus transmission. According to the [Opinions and Lifestyle Survey](#), 37% visited a park or local green space in Quarter 3 2021, rising from 23% a year earlier. Gambling and betting activities also experienced a recovery to pre-coronavirus pandemic levels following the lifting of the suspension of professional sports.

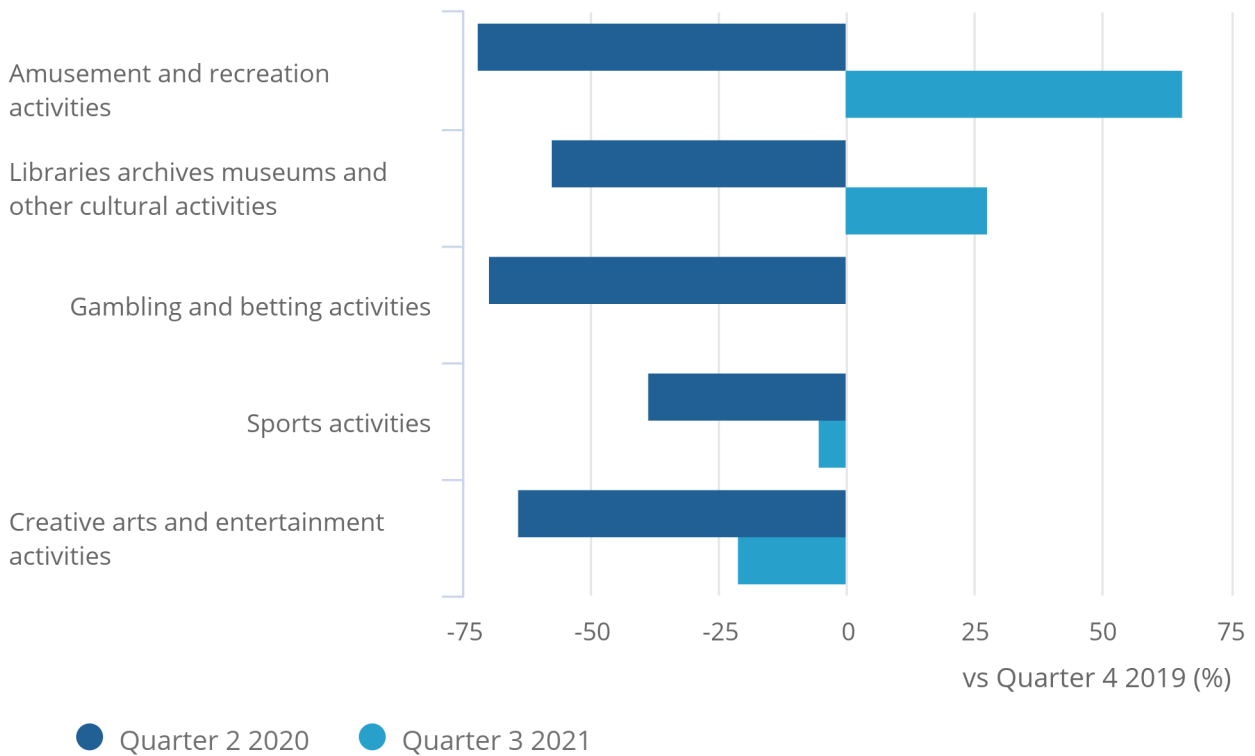
Creative arts and entertainment, and sports activities, continue to remain below their pre-coronavirus pandemic levels. The creative arts and entertainment sub-industry, which includes indoor facilities such as cinemas and theatres, might have seen reluctance from people to take up these services because of cautious behaviour to avoid the risk of coronavirus transmission and a preference towards outdoor activities. We do not have pre-coronavirus pandemic comparisons, but the [Opinions and Lifestyle Survey](#) found that only 4% of adults visited cinemas or theatres in Quarter 3 2021, following the easing of restrictions - this had slightly increased to 9% by Quarter 1 (Jan to Mar) 2022. It is also possible that this reflected a shift towards online streaming. As evidenced in the Business Insights and Conditions Survey, some entertainment facilities such as theatres are likely to have also been affected by [staff shortages](#) because of self-isolation. For example, the proportion of the workforce in the industry on sick leave because of self-isolation increased to 3% by Quarter 4 (Oct to Dec) 2021.

**Figure 6: Creative, arts and entertainment activities are still below pre-coronavirus pandemic levels, which might reflect some reluctance to attend indoor venues**

Percentage change in business turnover for arts, entertainment and recreation service sub-industries, Quarter 2 2020 compared with Quarter 4 2019; and Quarter 3 2021 compared with Quarter 4 2019, UK

Figure 6: Creative, arts and entertainment activities are still below pre-coronavirus pandemic levels, which might reflect some reluctance to attend indoor venues

Percentage change in business turnover for arts, entertainment and recreation service sub-industries, Quarter 2 2020 compared with Quarter 4 2019; and Quarter 3 2021 compared with Quarter 4 2019, UK



Source: Her Majesty’s Revenue and Customs (HMRC)

Notes:

1. This shows the percentage change in VAT-recorded business turnover relative to Quarter 4 (Oct to Dec) 2019.

## 7 . Other services

In Quarter 3 (July to Sept) 2021, business turnover for almost all other service sub-industries remained below pre-coronavirus pandemic levels (Figure 7). The largest initial decline was for other personal service activities (39%), which relies on face-to-face contact. For example, this includes services such as hairdressing, which had a fall in business revenue of 83% in Quarter 2 (Apr to June) 2020. By Quarter 3 2021, business turnover for other personal service activities had partially recovered to being 10% below its pre-coronavirus pandemic levels.

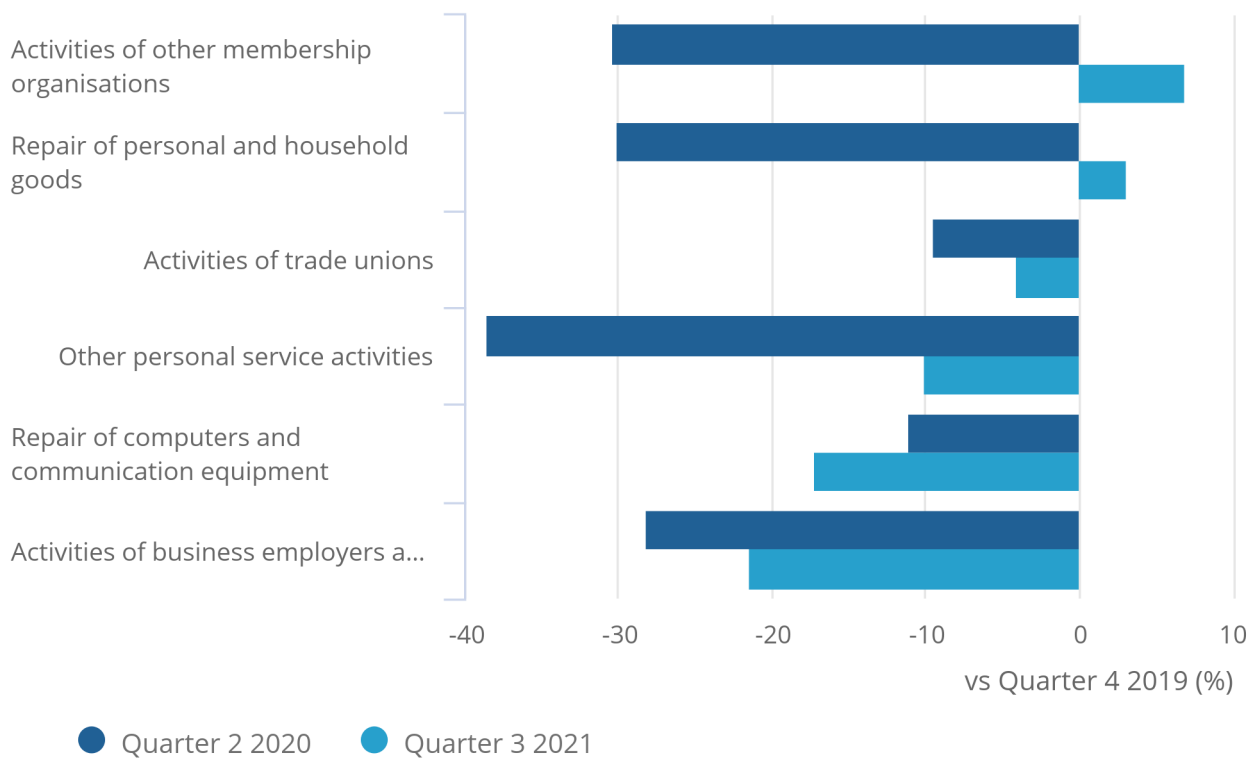
The repairs of personal and household goods, such as kitchen appliances, home furnishings and garden equipment, increased with the rise of home relocation and home improvements throughout the coronavirus pandemic. In addition, repair of electronics and office furnishings (within the repair of personal and household goods sub-industry) was boosted by the rise of working-from-home activities and online teaching because of school, college, and university closures. Prior to the coronavirus pandemic, [around 5%](#) of the UK workforce reported mainly working from home in 2019. In Quarter 2 2020, just over [a quarter of adults \(30%\)](#) worked exclusively at home, remaining at this level until Quarter 2 2021.

## Figure 7: Other services activities were affected by the necessity of face-to-face contact with consumers

Percentage change in business turnover for other service sub-industries, Quarter 2 2020 compared with Quarter 4 2019; and Quarter 3 2021 compared with Quarter 4 2019, UK

### Figure 7: Other services activities were affected by the necessity of face-to-face contact with consumers

Percentage change in business turnover for other service sub-industries, Quarter 2 2020 compared with Quarter 4 2019; and Quarter 3 2021 compared with Quarter 4 2019, UK



Source: Her Majesty's Revenue and Customs (HMRC)

#### Notes:

1. This shows the percentage change in VAT-recorded business turnover relative to Quarter 4 (Oct to Dec) 2019.

## 8 . Glossary

### Gross value added (GVA)

This is the value generated by any unit engaged in production and the contributions of individual sectors or industries to gross domestic product (GDP).



## "High-contact" industries

These are industries that are more reliant on physical interaction. These include:

- wholesale and retail
- transportation and storage
- accommodation and food services
- arts, entertainment and recreation
- other services

## "Low-contact" industries

These are industries that are less dependent on in-person contact. These include:

- agriculture
- mining and quarrying
- manufacturing
- electricity, gas, steam and air conditioning supply
- water supply
- sewerage, waste management and remediation activities
- construction
- information and communication
- financial and insurance activities
- real estate activities
- professional, scientific and technical activities
- administrative and support service activities
- public administration and defence
- compulsory social security
- education
- human health and social work activities
- activities of households as employers

## 9 . Data sources and quality

## Her Majesty's Revenue and Customs (HMRC) Value Added Tax (VAT) turnover data

This article draws on the latest lower level HMRC VAT turnover data between October 2019 and September 2021. These VAT-based estimates of turnover are not seasonally adjusted, and they can be subject to revisions at a later stage. Traders must register for VAT with HMRC when their VAT taxable turnover over the previous 12 months exceeds the registration threshold, which is currently set to £85,000, or if they expect their VAT taxable turnover to exceed this limit over the next 30 days. To process VAT data, the Office for National Statistics (ONS) uses a statistical processing platform (SPPV), which transforms the administrative dataset to a level that is consistent with our business surveys. More information on the quality, strengths, and limitations can be found in [our VAT turnover data in National Accounts: background and methodology](#) release.

## 10 . Future developments

Our analysis focuses on the impact of the coronavirus (COVID-19) pandemic on "high-contact" service industries, which are most reliant on physical interaction. Based on more granular Value Added Tax (VAT) turnover estimates, our findings show that there have been large variations in the performance of businesses between and within these "high-contact" industries.

We have focused on the demand effects from the response to coronavirus restrictions over this time, though it is also possible that there might have been some labour supply effects. These findings provide new insights into how businesses and consumers have adapted over the course of the coronavirus pandemic, and they have captured some of the nuances of how the coronavirus pandemic has affected the economy. We will continue to see how the distribution of these industry-level effects might persist into the future.

## 11 . Related links

### [Coronavirus \(COVID-19\)](#)

Web page | Updated as and when data are available

Our latest data and analysis on the impact of coronavirus (COVID-19) on the UK economy and population. This is the hub for all coronavirus-related publications, including the fortnightly Business Insights and Conditions Survey (BICS).

### [GDP quarterly national accounts, UK](#)

Bulletin | Released 31 March 2022

Revised quarterly estimate of gross domestic product (GDP) for the UK. Uses additional data to provide a more precise indication of economic growth than the first estimate.

### [VAT turnover implementation into national accounts: December 2017 update](#)

Article | Released 22 December 2017

Provides information on the impact of using Value Added Tax returns within the UK National Accounts.