Article

Coronavirus and the impact on output in the UK economy: December 2020

Analysis of monthly growth for the production, services and construction industries in the UK economy between November and December 2020, highlighting the impact from the coronavirus (COVID-19) pandemic.

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1. Main points

- Monthly gross domestic product (GDP) increased by 1.2% during December 2020 but remained 6.3% below February 2020 levels.

- In December 2020, services grew by 1.7% following the easing of restrictions in many parts of the UK early in the month, while construction fell by 2.9%; production and manufacturing growth was more subdued at 0.2% and 0.3% respectively.

- Quarter 4 (Oct to Dec) 2020 saw a rise of 1.0% in GDP following a rise of 16.1% in Quarter 3 (July to Sept) 2020; however, GDP in Quarter 4 2020 was 6.6% below Quarter 4 2019 levels.

- In Quarter 4 2020, there were rises from each of the main components, with services at 0.6%, production at 1.8% and construction at 4.6%.

- In 2020, headline GDP declined by 9.9%, which is more than twice the fall in 2009.

2. The UK economy during the coronavirus (COVID-19) pandemic

Monthly gross domestic product (GDP) in December 2020 was 6.3% below the level of February 2020, having increased by 1.2% compared with November 2020.

Services activity increased in the first half of December 2020 following the relaxation of business restrictions, which had negatively affected November 2020. However, restrictions were tightened again later in December 2020. This impacted growth at industry level and respondent evidence suggested this was most significant in some services industries. However, manufacturing grew more slowly and construction industries saw a widespread fall\(^1\) (Figure 1).

For more details, please see GDP monthly estimate, UK: December 2020.
Figure 1: The rise in services led to an increase in output in December 2020, as construction fell and manufacturing growth was subdued

Monthly gross domestic product and components index, seasonally adjusted, UK, January 2019 to December 2020

The output of:

- services industries remained 6.9% below the level of February 2020, growing by 1.7% in the latest month
- production industries remained 3.6% below their February 2020 level, growing by 0.2% in the latest month
- manufacturing has declined by 3.4% since February 2020, growing by 0.3% during November 2020
- the construction industry has declined by 3.4% since February 2020, falling by 2.9% in the latest month

Services

Services grew in December 2020 by 1.7%, a partial bounce back from the 3.1% fall seen in November 2020.
The percentage of businesses reporting zero turnover in our survey during December 2020 was 7.9%, an improvement on the 8.1% reported in November 2020 but higher than the pre-pandemic level of 6.1% during February 2020. Although experiences across service industries differed. The most notable improvement in companies with zero turnover saw hair and beauty, within personal services, falling from 24.4% to 5.5% of companies, while motor trades and employment agencies also reported more activity. In contrast, there were increases in businesses reporting no turnover for hotels and accommodation and pubs.

The strong growths from the accommodation and food service activities, wholesale, retail and motor trades, and other service activities were supported by the data from our Business Impact of Coronavirus (COVID-19) Survey (BICS), which showed that during wave 20 (14 December to 23 December 2020), 10.3%, 11.5% and 42.5% of businesses respectively restarted trading within the last two weeks.

In December 2020, services output was 6.9% below its February 2020 level, with 12 of the 51 services industries having surpassed their level of output compared with February 2020. This was led by postal and courier services. In contrast, six services industries remained below 50% of their February 2020 level, with air transport and travel agents performing the weakest.
Figure 2: Twelve services industries have surpassed their February 2020 level

Services industries, monthly growth, seasonally adjusted, UK, December 2020 compared with February 2020

Source: Office for National Statistics – Index of Services

Manufacturing

Manufacturing recorded its eighth consecutive monthly growth, although this was its weakest since May 2020. Strength was widespread but boosted by chemicals production.
Manufacturing output was 3.4% weaker than the February 2020 level. In December 2020, 20 of the 44 manufacturing industries surpassed their level of output in February 2020, led by other chemicals. Four industries failed to reach 80% of their February 2020 level of output, with aircraft maintenance performing the weakest.

Figure 3: Just over half of the manufacturing industries remained below their February 2020 level

Source: Office for National Statistics – Index of Production
Notes for UK economy during the coronavirus (COVID-19) pandemic

1. Services comprise 79.0% of the UK economy, while production (including manufacturing) and construction comprise 13.9% and 6.4% respectively.

3. Services industries

The output of services industries grew by 1.7% during December 2020 and was 6.9% below the level of February 2020.

Of the 14 sub-sectors, 11 saw growth during December 2020 (Figure 4). This was led by accommodation and food service activities, wholesale, retail and motor trades, and other service activities, and accounted for over half the growth in services. These three sectors also largely contributed to the decline in November 2020 as a result of the different lockdown measures in place across parts of the UK.
Figure 4: The easing of business restrictions during December 2020 led to widespread growth across services

Services sectors, contribution to growth, seasonally adjusted, UK, December 2020

Source: Office for National Statistics – Index of Services

Notes:
1. Parts might not sum to total because of rounding.
Wholesale and retail trade: repair of motor vehicles

Retail grew by 0.3% during December 2020 (see Retail sales, Great Britain: December 2020), with output 2.7% above February 2020 levels for the industry.

Motor trades grew by 12.3% in December 2020, with output 9.0% below February 2020 levels. Much of the growth can be attributed to a return to "normal" trading practices in car showrooms after click and collect style trading throughout November 2020. We have also received some anecdotal evidence of strength from imports ahead of the end of the EU Exit transition period.

Wholesale (excluding motor vehicles) fell by 1.0% during December 2020 and remained 3.5% below February 2020 levels.

Accommodation and food and beverage services

This sector grew by 25.2% in December 2020, following a fall of 44.5% in November 2020. This resulted in output in the latest month being 55.6% weaker than the February 2020 level.

Food and beverage services, which includes restaurants, cafes, takeaways, pubs, canteens and catering, grew by 27.2% in December 2020 (Figure 5). This followed a fall of 40.1% during November 2020. There was a rise in returns reporting no activity for this month, increasing to 15.6% in December 2020, from 11.3% in November 2020. Despite this, restaurants and pubs that chose to remain open reported strong growth. However, the industry was 48.0% below its February 2020 level in December 2020.
Figure 5: Food and beverage service activities displayed a partial bounce-back following a strong decline during November 2020

Index of food and beverage service activities, seasonally adjusted, UK, January 2019 to December 2020

Hotels and accommodation similarly increased by 17.0% during December 2020, led by stronger growth from hotels, compared with camping and caravan sites and other accommodation. Hotels and accommodation was 73.3% below its February 2020 level.

Other service activities

The other service activities sector saw growth of 18.0% in December 2020, driven by an increase in other personal service activities of 36.9%. This was led by hair and beauty. This strength is largely driven by a bounce back from the low level seen in November 2020, as a result of business restrictions being lifted in many parts of the UK.

Repair of computers and personal and household goods fell by 5.8%, while activities of membership organisations saw growth of 0.3% in December 2020.

In December 2020, the other services sector was 19.5% below February 2020 levels.
Human health and social work activities

Human health and social work activities grew by 2.4% in December 2020 because of an increase of 3.2% in human health. This was driven by a significant increase in testing and tracing activity while other health volumes were flat, leaving human health activities 0.1% below February 2020 levels. This was because of revisions from data suppliers to earlier periods, including from the impact of testing and tracing. For further detail on testing and tracing, please read the section "Consumption of government goods and services" within our GDP first quarterly estimate, UK: October to December 2020.

This sector was level with February 2020 levels.

Transportation and storage

The transportation and storage sector saw a growth of 3.1% in December 2020, with output 9.7% below February 2020 levels.

The growth in this sector was led by postal and courier activities, with growth of 5.8%. Warehousing and support activities for transportation also had a strong month, with 2.5% growth (Figure 6). Strength across both industries was because of a continued expansion in online sales.

Growth also came from air transport, which rose by 33.7% in December 2020, from a very low base. The output level of air transport in December 2020 was 89.3% below its February 2020 level.

Water transport fell by 3.4% in December 2020, particularly because of reduced activity in the final week of the month. This growth is estimated based upon the Office for National Statistics (ONS) faster indicators data, in advance of our usual data source and is subject to revision in the coming months.
Arts, entertainment and recreation

This sector saw growth of 6.7% in December 2020 and was 28.7% below its February 2020 level. Strength was led by sports activities and amusement and recreation activities, which grew by 15.6% in December 2020. Within this industry, growth was driven by elite sport, supported by growth from the easing of business restrictions in other parts of this industry.

Creative, arts and entertainment activities saw growth of 6.6%. This industry was now 60.7% below its February 2020 level. The decline in this industry over the past year can largely be attributed to declines in performing arts and operations of arts facilities, while the creative sub-industry, including authors and artists, has remained comparatively stable.

Professional, scientific and technical activities

The largest contribution to growth in this sector came from scientific research and development, which grew by 5.7% in December 2020; this industry was now 7.8% above its February 2020 level. While some of the growth in this industry may be attributed to increased research and development because of the coronavirus, the majority was still related to research and development in other areas of healthcare.
Legal activities continued to show strong growth with an increase of 1.2% in December 2020, following a growth of 2.0% in November 2020. This may be linked to strong levels of housing completions during December 2020.

Advertising and market research grew by 1.8% in December 2020, with growth attributed to a bounce back in spending from the retail sector in the lead up to the Christmas period.

**Other notable growth**

Employment activities grew by 2.3% in December 2020. While evidence suggested weakness from employment agencies in general, strong growth from specific industries such as retail, warehousing and courier services boosted this industry during December 2020.

Education fell by 1.0% in December 2020; this decline was related to a decrease in attendance compared with November 2020 as well as a decline from universities. This sector was 7.2% below February 2020 levels.

**4. Production industries**

Production output increased during December 2020 by 0.2%, with positive contributions from manufacturing, electricity and gas, and water and waste, partially offset by a negative contribution from mining and quarrying (Figure 7).

Production output during December 2020 continued to be affected by the coronavirus (COVID-19) pandemic, and it was 3.6% below the level of February 2020, the last full month of “normal” operating conditions.
Production output increased for the eighth consecutive period, primarily because of continued growth from manufacturing since April 2020.

Figure 8 shows that as the first lockdown restrictions were eased, the manufacturing sector started to recover and displayed stronger than usual growth during May, June and July 2020. In contrast, the recovery during August to December 2020 continued at a slower pace, despite a comparatively limited number of lockdown restrictions impacting manufacturing output.

Additionally, there has been a strong decline in mining and quarrying output since June 2020, which placed a drag on growth in production and contributed in part to a slowdown in the recovery over recent periods.
Manufacturing output grew during December 2020 by 0.3%, with 8 of the 13 sub-sectors displaying upward contributions. This was led by a strong upward contribution from chemicals and chemical products (Figure 9). In contrast, lower demand for alcoholic beverages from the hospitality sector was responsible for a strong negative contribution from food products, beverages and tobacco. This placed a drag on manufacturing growth during December 2020.

Despite being the eighth consecutive monthly growth since April 2020, manufacturing output was 3.4% below the level of February 2020.
Figure 9: Widespread strength across manufacturing was led by chemicals and chemical products

Manufacturing subsectors, contributions to growth, seasonally adjusted, UK, December 2020

Source: Office for National Statistics – Index of Production

Notes:
1. Parts may not sum because of rounding.
When analysing growth across manufacturing for current price seasonally adjusted export and domestic turnover, there was a stronger decline in export turnover compared with domestic turnover during March 2020. This was mainly because of the significant worldwide impact on supply chains. This was followed by varied rates of recovery from May to July 2020, following the re-opening of UK and worldwide supply chains amid the easing of lockdown restrictions (Figure 10).

During December 2020, export strength continued but there was a stronger pick-up in growth in domestic business. This followed stronger export growth during November 2020, when we received some anecdotal evidence that some businesses had been stockpiling, in advance of the UK’s transition period with the European Union (EU) ending on 31 December 2020, although this evidence was not widespread.

Figure 10: Export and domestic monthly growth remained broadly similar throughout the pandemic

Source: Office for National Statistics – Index of Production

Given the continued impact of the pandemic across production and manufacturing, we have highlighted the most interesting anecdotal evidence, both positive and negative, on sub-sector and industry-level growth during December 2020, with focus also given to the recovery to February 2020 levels

Food products

The food products industries were 2.2% weaker in December 2020 than in February 2020, with the other food products category (this includes sugar, tea and coffee processing, manufacture of prepared meals, condiments and seasonings) the hardest hit.
December 2020 saw output rise by 0.2% compared with November 2020, with negligible contributions to growth across all industries. The subdued nature of the growth across the sector is because of a variance in demand for food products, with upward contributions from meat and meat products, dairy products, and other food products. This was partially offset by downward contributions from bakery and farinaceous products, and grain mill products, and starches and other starch products.

Some businesses facing the hospitality sector have been negatively impacted as a result of tightened restrictions for services such as bars and restaurants across the UK.

**Alcoholic beverages and soft drinks**

There was a fall of 11.2% for this industry during December 2020. We received responder-led evidence that decreased output from both the alcoholic beverages and soft drinks industries was reflective of the continued downturn in demand from the hospitality sector, with tightened restrictions across the UK during the latter part of December 2020. This followed the strong decline during November 2020 because of the closure of hospitality across England.

Output was 27.1% weaker in December 2020 than in February 2020. Beyond the significant impact of the early months of the pandemic, when UK and worldwide supply chains were impacted, the longer-term decline is mainly distillery focused. Domestic sales for distillers performed strongly during 2019 but remained comparatively depressed during 2020 because of lower than usual demand from the hospitality sector. Additionally, there has been some pressure on exports because of higher tariffs imposed by the US, introduced in October 2019.

Figure 11 highlights the impact that reduced domestic demand and increased tariffs had on distillers. As restrictions were eased and supply chains reopened, export sales stabilised but remained weaker than the majority of 2019.
Figure 11: The longer-term decline for distillers was mainly because of reduced domestic demand and higher tariffs introduced by the United States in October 2019

Index of distillers, export and domestic sales, current price, seasonally adjusted, UK, January 2019 to December 2020

Source: Office for National Statistics – Index of Production

Notes:

1. Be mindful of a break in the side axis when interpreting this chart.

Wood and wood products except furniture

Following notable growth over recent months, the wood and wood products except furniture industry fell by 4.2% during December 2020, following a very high November 2020. The monthly decline may also be linked to the fall in construction output during December 2020.

Output was 6.4% above its February 2020 level, primarily because of increased demand from the construction sector amid the ongoing recovery and evidence of increased demand for DIY products as people spent more time making home improvements.

Chemicals and chemical products

The chemicals and chemical products sector displayed the strongest monthly growth since March 2020 and has strengthened to 14.5% above February 2020 levels.
Output rose by 5.5% during December 2020, led by a strong contribution from the other chemical products industry, which rose by 22.0%. Strength here came from activities associated with coronavirus (COVID-19) testing.

**Basic pharmaceutical products**

The monthly rise of 0.2% highlights the volatile nature of growth in the basic pharmaceutical products industry, following a fall of 2.5% during November 2020. Because of the volatility in monthly growth, output during December 2020 was only 0.2% above its February 2020 level.

**Transport equipment**

Sector-level growth of 0.9% during December 2020 continued the recovery of transport equipment, but this should be noted in the context of output being 10.8% weaker than in February 2020.

Monthly strength was by an export-led rise from motor vehicles, trailers and semi-trailers. This industry displayed a rise of 0.7% and resulted in output at 4.4% above the February 2020 level. Additionally, the index is at its highest level since October 2019. However, this industry had declined prior to the pandemic, with output during December 2020 at 3.6% below the most recent peak in June 2019 (Figure 12).

*The Society of Motor Manufacturers and Traders (SMMT)* reported that during December 2020, the total number of cars manufactured were only marginally below December 2019. However, year-to-date output for 2020 was 29.3% weaker compared with 2019.
Figure 12: Despite a recovery to pre-pandemic levels, output for motor vehicles remained 3.6% below the most recent peak in June 2019

Index of motor vehicles, trailers and semi-trailers, seasonally adjusted, UK, January 2019 to December 2020

Source: Office for National Statistics – Index of Production

The air, spacecraft and related machinery industry rose by 0.8% during December 2020, but output was 37.4% weaker than in February 2020. As a result of the widely reported negative impact on global civil aviation, manufacturers facing this sector have been severely affected. Continued uncertainty over worldwide travel and quarantine restrictions has impacted passenger numbers throughout the pandemic.

Mining and quarrying

Sector-level growth fell by 0.9% during December 2020, driven by a fall of 0.7% from oil and gas extraction. Note that this estimate is provisional based on lower than usual response, so may be subject to revision.

The decline in oil and gas extraction over recent periods is because of a slump in oil prices earlier in the pandemic, amid tightened restrictions impacting on demand. This has resulted in output at 13.8% below its February 2020 level (Figure 13).
Figure 13: A fall in oil prices has led to a recent decline for oil and gas extraction output

Index of oil and gas extraction, seasonally adjusted, UK, January 2019 to December 2020

Source: Office for National Statistics – Index of Production

Notes:

1. Be mindful of a break in the side axis when interpreting this chart.

5. Construction

Monthly construction output decreased by 2.9% in December 2020 compared with November 2020, falling to £13,516 million. This was because of falls of 3.8% in new work and 1.5% in repair and maintenance. This is the first decline in monthly growth since April 2020 when it fell by a record 40.7% and took the level of construction output to the lowest level since August 2020 when it was £13,181 million.

6. The UK economy during the coronavirus (COVID-19) pandemic: 2020

Headline gross domestic product (GDP) declined by 9.9% in 2020. This is a balanced estimate of the output, expenditure and income approaches to the measurement of GDP. At this point in the maturity of the national accounts for 2020, the differences between the three approaches have yet to be consolidated. The following analysis is based entirely upon the output approach to GDP in 2020 and will be open to revision.
GDP measured by the output approach declined by 9.1% in 2020 following growth of 1.4% in 2019. The fall in 2020 was more than twice the next largest fall of 4.0% in 2009, driven by significantly weaker growth from services (Figure 14).

**Figure 14: The fall in GDP output during 2020 was more than twice the fall during 2009 mainly because of weaker services output**

Main components of gross domestic product, annual growth, seasonally adjusted, UK, 2020 compared with 2009

Production, manufacturing and construction experienced similar falls in 2009 and 2020. Production fell by 7.8% in 2009 and 8.6% in 2020, while manufacturing fell by 8.6% in 2009 and 9.9% in 2020. While construction performed better in 2020, falling by 12.5% compared with a 13.2% decrease in 2009.

Within manufacturing, when comparing the growth rates in 2009 and 2020, chemicals showed the largest improvement. The industry moved from a decline of 12.8% in 2009 to a rise of 2.7% in 2020 (Figure 15).
Figure 15: Chemicals and chemical products displayed the largest improvement in performance during 2020 compared with 2009

Index of manufacturing (IoM) and main sectors, annual growth, seasonally adjusted, UK, 2020 compared with 2009

However, services performed significantly worse, falling by 8.9% compared with a 2.5% decrease in 2009. Only the public administration sector experienced growth in 2020 compared with 5 of the 14 sectors increasing in 2009. Accommodation and food services performed worst, when comparing the growth rates between 2009 and 2020, declining by 5.7% and 44.0% respectively (Figure 16).
Services fell by 8.9% in 2020 after rising by 1.8% in 2019. This was the first fall since a 2.5% decline in 2009.
Accommodation and food services was hardest hit, falling by 44.0%. This was led by food and beverage services. Our Monthly Business Survey (MBS) showed a fall in turnover of 52.3% in pubs and 44.9% in canteens and catering, while restaurants and take-aways proved more resilient against the effects of the pandemic, declining by 35.3%.

**Figure 17:** Despite weakness from all three component industries, restaurants and take-away activity proved more resilient against the effects of the pandemic

Food and beverage services component industries, Monthly Business Survey (MBS) turnover, non-seasonally adjusted, UK, 2014 to 2020

In addition, hotels and other accommodation fell significantly with our MBS. Hotels fell by 64.1% and other accommodation, including cottages and campsites, fell by 29.7%, supported by comparatively strong demand for “staycations”.

Administrative and support services decreased by 17.9%, led by a 73.9% fall in travel agents, which has fallen for three years in a row. Employment agencies fell by 14.7% and rental and leasing fell by 13.7%. Within the latter, our survey records that household goods fell by 29.5% and vehicles fell by 15.2%, while industrial rental and leasing only declined by 3.0%.

Education declined by 12.2%, as closures significantly impacted attendance at primary and secondary level. Our survey of activity for tertiary and adult education recorded a small 0.7% decline.

Wholesale, retail and motor trades fell by 6.7%, led by a 20.7% decline in motor trades. Wholesale fell by 6.5%, with our survey showing the largest fall in fuels, while household goods increased by 4.9%. The fall of 2.2% in retail was the first fall since a small contraction of 0.2% in 2011.
Transport and storage fell by 16.9%, led by air transport and land transport. Air transport declined by a significant 74.0%, following a fall of 3.8% in 2019. While land transport fell by 16.1%, with our survey recording a 30.1% fall in passenger transport and a 2.9% fall in freight. There were similar large falls in rail transport and sea transport but in contrast, postal and courier increased by 5.2% because of the increase in online activity.

Human health and social work declined by 8.2%, primarily because of a 11.3% fall in human health. In contrast, social care was less severely impacted, with social work without accommodation falling by 1.8% and residential care decreasing by 1.5%.

Information and communication declined by 7.8%, led by film and television falling by 22.8%. Our survey highlights a significant 65.0% fall in projection during 2020, while in contrast music publishing increased by 2.3%. However, the most significant impacts were because of a lack of production in Quarter 2 (Apr to June) 2020 and delayed film releases, for example, hindering distribution growth. Information services fell by 19.6%, primarily because of business restructuring in January 2020 and publishing declined by 12.1%.

Arts, entertainment and recreation saw a 21.6% decrease. This was led by a 47.6% fall in creative arts and declines of 26.3% in sport and amusements and 26.7% in cultural activities. Gambling proved more resilient, falling by 5.2%.

Public administration experienced growth of 2.1% during 2020, the only sector to do so. The sector recorded no growth between 2010 and 2017 before increases of 0.7% in 2018 and 2.1% in 2019.

Professional services declined by 5.2%, an improvement on the 7.2% fall in 2009. This was because of growth of 12.1% from research and development because of increased activity in health, with the primary focus being non-COVID-19 related, although COVID-19 activity has also contributed. In addition, vets only fell by 1.2%, while legal, accountancy and architects out-performed sector growth. Accountancy growth was solely because of large businesses.

Elsewhere there were significant falls of 41.1% in households as employers and 28.7% in other personal services. The latter was because of significant falls in hair and beauty and washing and dry-cleaning, while funeral directors sadly grew. In contrast, estate agents grew by 3.5% in 2020, partly because of changes in Stamp Duty.

Production

Production fell by 8.6%, a similar decrease to the 7.8% experienced in 2009. This is the second annual fall in a row following a decline of 1.2% in 2019. All of the main components declined.

Manufacturing is the most dominant part of production and fell by 9.9% in 2020, compared with a similar 8.6% fall in 2009. This is the second annual fall for manufacturing after a contraction of 1.8% in 2019.

Transport led the decline, falling by 24.1%. Within this motor vehicle production contributed the most, falling by 25.6% in its third annual fall in a row, with our survey showing similar falls of 26.8% in domestic and 23.8% in export turnover. The decrease in 2020 is similar to the 29.4% fall in 2009. Aircraft production fell for the third year in a row by 26.6% because of a lack of demand from civil aviation. It has performed significantly worse than recorded in 2009, when it rose by 6.9%.

Other manufacturing and repair decreased by 11.8% following a 4.0% fall in 2019. The largest contributor was a 31.0% fall in furniture, the first decline since 2012. Other repair decreased by 7.1% and other manufacturing fell by 6.8%, even though the latter was boosted by medical equipment. Additionally, repair and maintenance of aircraft experienced a significant decline of 16.5% because of a lack of demand from civil aviation.
Metals decreased by 9.5%, primarily because of a 9.9% fall in fabricated metal products, where domestic demand fell by 8.8% and export demand fell by 13.8%. Other metal products also experienced a large 17.1% fall, while basic metals and ammunition fared comparatively better, with falls of 4.2% and 5.4% respectively.

Food, drink and tobacco saw a fall of 5.7%, largely because of a 20.3% fall in alcohol production as business restrictions affected demand. There were further significant falls of 4.6% in other food production and 6.4% in soft drinks, while dairy products grew by 4.4% on the back of increased domestic demand.

Wood, paper and printing fell by 10.1%, led by printing, which declined by 17.9% with similarly large decreases in export and domestic demand. Wood products decreased by 5.9%, boosted by a strong end to the year as DIY demand increased while construction recovered. Paper only fell by 3.4% as demand for toilet rolls during the first lockdown and packaging throughout much of the year, as online sales surged, increased demand.

Rubber, plastics and non-metallic minerals decreased by 9.1%, mainly because of an 8.2% fall in rubber and plastics. Our survey reported a fall of 15.3% in demand for rubber, while plastics declined by a lesser 7.1%. The latter saw a recovery in construction demand at the end of the year and benefitted from demand for personal protective equipment (PPE). The non-metallic mineral industries experienced large falls but have recovered strongly in the latter half of the year.

Textiles, leather and clothing decreased by 14.6% in 2020, the 10th fall in a row. In recent years this has been driven by clothing declines, with textiles and leather demonstrating steady growth. However, the falls in 2020 were widespread although textiles comparatively outperformed with a 4.3% decline. Our survey shows that textiles exports shrank by 20.8% while domestic turnover only fell by 1.3%, suggesting that domestic demand for personal protective equipment has offset some of the pressures seen elsewhere across manufacturing.

Machinery and equipment fell by 20.1% in 2020 following a 7.5% fall in 2019. There were declines across the industry in 2020 but our survey reported that agricultural and forestry machinery was the most resilient, falling by 12.1%.

Computers, electronic and optical goods fell by 7.3%, primarily because of a 7.2% fall in exports with domestic demand flat. Large falls in optical and measuring instruments including watches and clocks were balanced by small increases in communication equipment and computers.

Electrical engineering fell by 11.8%, the seventh fall in eight years.

Petroleum refining decreased by 19.1% in 2020 following significant maintenance and a lack of demand. This compares with a 5.8% fall in 2009 but there have been additional large decreases since, with 2012 falling by 10.5% and 2014 falling by 8.7% because of the closure of refining capacity.

In contrast, two manufacturing sub-sectors recorded growth. Pharmaceuticals increased by 13.6% following growth of 6.5% in 2019. It was boosted by significant demand during the first phase of the pandemic when domestic demand grew faster than exports. Our survey reports domestic demand growing 19.2% compared with 2019 while export grew by 12.4%.

Chemicals increased by 2.7%, led by an 11.5% growth in soaps and detergents with domestic demand boosted by the pandemic. In addition, other chemicals grew by 12.6% with our survey showing a 23.4% increase in domestic demand because of COVID-19 testing. While petrochemicals fell by 14.6% because of a 41.3% fall in domestic demand.
Mining and quarrying decreased by 9.5%, following a 0.9% fall in 2019. This compares with a similar 10.6% fall seen in 2009. This was dominated by a significant 9.3% fall in oil and gas extraction where demand in the first half of 2020 before the February 2020 level of output was reached in June 2020, boosted by low maintenance levels. Since that point output has fallen steadily, led by lack of demand and impacted by low oil prices through much of the year before their recent recovery. These developments have also led mining support services to fall by 14.2%. Other mining and quarrying performed comparatively stronger during 2020, declining by 5.3% but recovering to pre-pandemic levels because of increased demand from construction.

Electricity and gas fell by 4.5%, with falls of 10.0% in gas and 3.0% in electricity as demand declined during 2020.

Water, sewage and waste fell by 1.7% compared with a fall of 8.9% in 2009. This was led by a 5.3% decline in waste as the lack of industrial and commercial activity affected waste tonnage through the pandemic. In addition, sewage fell by 3.3% and water grew by 3.4%.

Construction

Total construction output decreased by 12.5% in 2020 compared with 2019. This is the first annual fall in output since 2012 when it fell 7.2%, and the largest since 2009 when it fell by a record 13.2%. While 2009 was the largest fall in percentage terms since annual records began in 1997, the fall in the level of output in 2020 was larger at £21,493 million in comparison with £19,673 million in 2009.

The annual fall in 2020 was because of decreases in both new work, and repair and maintenance, which fell by 15.2% and 7.5% respectively, both of which were also the largest falls since 2009.

7. Data sources and quality

The Monthly Business Survey (MBS) is the primary data source for 75% of production industries and 50% of services industries. This is an online questionnaire where businesses are asked to provide their turnover and, if they are within manufacturing, export turnover.

Survey response

Response by turnover for services industries in December 2020 was 75.2%, down on the 81.3% achieved in December 2019 (see Historical MBS (services) response rates).

Response by turnover for production industries was 73.5% in December 2020, down on the 80.2% achieved in December 2019 (see MBS (production) response rates).

The response by turnover for the construction industries for December 2020 was 68.7% (see the Construction output in Great Britain: December 2020 release). This is partially because data collection for the MBS for construction and allied trades has been transitioning to an online questionnaire since April 2020.

Other data sources

Other data are primarily sourced from the Office for National Statistics (ONS) (for example, government expenditure, household expenditure and financial corporations expenditure) but also other bodies such as the Department for Transport, the Civil Aviation Authority and the Department for Business, Energy and Industrial Strategy. These account for 50% of services industries and 25% of production industries. We are also able to gain information from these data providers regarding monthly changes in their data.
We also use the fortnightly Business Impact of Coronavirus (COVID-19) Survey (BICS) as part of our quality assurance and validation process.

8. Related links

**GDP monthly estimate, UK: December 2020**
Bulletin | Released 12 February 2021
Gross domestic product (GDP) measures the value of goods and services produced in the UK. It estimates the size of and growth in the economy and includes the Index of Production, Index of Services and construction output in Great Britain.

**Coronavirus and the latest indicators for the UK economy and society: 11 February 2021**
Bulletin | Released 11 February 2021
Early experimental data on the impact of the coronavirus (COVID-19) on the UK economy and society. These faster indicators are created using rapid response surveys, novel data sources and experimental methods.

**International comparisons of GDP during the coronavirus (COVID-19) pandemic**
Article | Released 1 February 2021
The coronavirus (COVID-19) pandemic has led to record declines in gross domestic product (GDP) in advanced economies in 2020. International comparisons show that the UK has experienced the largest contraction in volume GDP amongst the G7 countries. However, international comparisons have also been complicated by how National Statistical Institutes (NSIs) record non-market output.

**Coronavirus (COVID-19) roundup**
Article | Updated as and when data become available
Catch up on the latest data and analysis related to the coronavirus pandemic and its impact on our economy and society.

**Coronavirus (COVID-19) latest data and analysis**
Web page | Updated as and when data become available
Latest data and analysis on the coronavirus in the UK and its effect on the economy and society.

**Coronavirus and the effects on UK GDP**
Article | Released 6 May 2020
How the global coronavirus pandemic and the wider containment efforts are expected to impact on UK GDP as well as some of the challenges that National Statistical Institutes are likely to face.

**Meeting the challenge of measuring the economy through the coronavirus pandemic**
Blog | Released 6 May 2020
The new challenges we face in terms of data collection during the coronavirus pandemic.